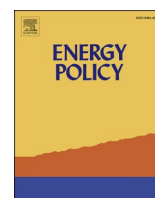


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## Go South! Southern dimension of the V4 states' energy policy strategies – An assessment of viability and prospects

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### ABSTRACT

The energy policy of The Visegrad Group states (V4: Poland, Czechia, Slovakia and Hungary) is being challenged by, among many other factors, dependence on the import of energy resources, increasing environmental pressure, insufficient and disappointing process of energy policy Europeanisation. Therefore, all V4 states are seeking new energy policy solutions and directions, which is seen as a condition for both economic and political development. This paper provides a conceptualisation of the geopolitical dimensions of energy policy strategy, empirically focusing on its Southern direction. Firstly, it aims to identify and analyse the key areas of strategic thinking about energy security in the Visegrad states. Secondly, it attempts to answer the question of place and importance of the Southern Dimension (SD) in V4 energy policy strategies. In other words, it investigates whether the V4 states energy security can be improved by deepening energy cooperation with partners from southern regions, in particular with the MENA region. The hypothesis to be verified by this study states that the more hawkish V4 states' energy security strategies are, the greater their preference for the liberalisation of the international energy market. The article follows the qualitative approach and relies on the case study methodology.

### 1. Introduction

The paper provides an overview of the current place and importance of the concept of a comprehensive geopolitical diversification of energy strategies in the Visegrad Group (V4) states.<sup>1</sup> The conceptualisation of the objectives and directions of V4's energy policy strategies is influenced by a number of internal and external factors. Just to mention a few: dependence on energy resources import, efficiency of critical domestic energy infrastructure, growing environmental concerns and

attitudes towards the process of the Europeanisation of energy policy at the EU level.<sup>2</sup> Furthermore, after years of growth led by foreign direct investments (FDI) and the availability of a cheap but relatively skilled labour force, V4 countries face a middle-income trap.<sup>3</sup> According to A. Nölke and A. Vliegthart, all of these issues led to the emergence of a specific variant of capitalism in the V4 states which the authors called 'Dependent Market Economies' (DME).<sup>4</sup> To move beyond their semi-periphery economic and political status, they have been attempting to pursue more complex and comprehensive, but also more assertive,

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<sup>1</sup> The two-letter abbreviations of states' names will be used hereafter: Czechia – CZ, Hungary – HU, Slovakia – SK, Poland – PL.

<sup>2</sup> Europeanisation of the energy policy (similarly to other EU public policies) is a process which starts with the construction, diffusion and institutionalisation of formal and informal rules, procedures, policy paradigms, styles, 'ways of doing things' defined and consolidated in the EU policy process and then incorporated in the logic of domestic (national and subnational) discourse, political structures and public policies' (Bulmer and Radaelli, 2004, pp. 3–4). However, it is not limited to adaptation and incorporation of formal rules. It also encompasses the transformation and internalisation of political visions, which are then translated into legally binding decisions and strategic initiatives. It is therefore a multi-stage and multidimensional, processual phenomenon (Dyduch, 2015, p. 213).

<sup>3</sup> It is defined as a sharp deceleration of a country's economic growth upon reaching a per capita income of around 15,000\$ (Agénor and Canuto, 2015, pp. 642–644).

<sup>4</sup> Authors describe DMEs as economies of Central and Eastern Europe (CEE) that "have comparative advantages in the assembly and production of relatively complex and durable consumer goods. These comparative advantages are based on institutional complementarities between skilled, but cheap, labor; the transfer of technological innovations within transnational enterprises; and the provision of capital via foreign direct investment" (Nölke and Vliegthart, 2009, p. 672).

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international policies where national interest is perceived as a core element of both political and economic strategies. Yet it is interesting that this new conceptual vision of national development strategy is not aimed at the creation of a closed economy, isolated from foreign threats. Analysis of how public policies' goals are operationalised suggests the liberal character of this vision and preference for the international free trade mechanisms. (see Table 1, Figs. 1 and 2)

V4 states have recently expressed their individual concerns and preferences regarding the prospects of national and regional energy security more openly. This has been exemplified by active support for nuclear energy development (mostly by HU, CZ, SK), criticism of the EU's far-reaching environmental policies (PL, CZ), and export diversification projects going beyond the EU's framework of strategic planning. Each of the V4 states individually (but also all of them collectively, as the Visegrad Group) tries to develop strategies and searches for solutions which can improve their national and regional energy security and minimise the negative aspects of 'international interdependence'.

Thus, regardless of further exploration of Western, Eastern and even Northern dimensions of V4 states' energy strategies, which have been already elaborated on in the literature (Deák, 2011; Minárik, 2014; Racz, 2014; Tarnawski, 2015; Tichý, 2019), the fourth, Southern Dimension (SD) has emerged as an important element of the V4's strategic landscape. As the CEO of PGNiG, a major gas company in the Central and Eastern Europe (CEE),<sup>5</sup> has pointed out recently: "We want to be the company at the crossroads of North-South and East-West, we need something to the South." (Reuters, 2019).

Academic literature provides a decent description of market actors' (especially at the local and state level) involvement in the implementation of national policies, including the energy policy. At the same time, the academic debate on the geopolitical dimensions of energy security strategies focuses on the primacy of politically-driven considerations (Krane and Medlock, 2018; Tagliapietra, 2017; Sherwood, 2015; Pronińska, 2007). Even if the economic factors shaping inter-state rivalry are acknowledged, they are perceived as subordinate to high politics. The decision-making processes in foreign policy (including its energy aspect) are often presented as centralised, consolidated and opposed to the free trade principles in the international dimension. On the one hand, we partially agree with this standpoint and recognise the primacy of political factors over economic ones (Waltz, 1999). On the other hand, we claim that increasing the level of politicisation and states' involvement in formulating economic public policies (e.g. energy policy) may result in the strengthening of liberalisation tendencies, particularly in terms of international trade cooperation. Developing countries pursuing their national interests may choose to support free trade rather than protect their internal markets. Although some authors (e.g. Isaacs and Molnar, 2017; Krampf, 2018a, 2018b) have already started to elaborate on these tendencies, we maintain that current developments and the evolution of global energy markets may lead to decentralisation of the global energy system (particularly its trading component).

The intention of the authors is to provide both theoretical and

**Table 1**  
Import dependence of natural gas (2017).

Country	Czechia	Hungary	Poland	Slovakia
Dependence percentage <sup>a</sup>	102%	96%	78%	106%

Source: European Commission (2019b).

<sup>a</sup> The numbers present import rate as a share of natural gas consumption so it can rise above 100%.

<sup>5</sup> The term is used in the paper in its most narrow sense – as a region consisting only V4 countries.

empirical contribution to the academic discourse in this field, highlighting how liberalisation of global energy markets matters to less developed and less competitive players, represented here by the V4 states. We will focus on their struggle for geographical diversification of external energy policies and international cooperation as a manifestation of this tendency. The theoretical basis for this study is provided by the assumptions of the hawkish<sup>6</sup> (nationalist) neoliberalism (Krampf, 2018b) and its juxtaposition with findings and conclusions from the ongoing debate on 'variants of capitalism' (e.g. Nölke and Vliegenthart, 2009; Gertz and Kharas, 2019).

Thus, the analysis of the SD offered here serves as an empirical arena for testing states' preferences regarding their external energy policy strategy. This study is an attempt at identifying and investigating states' preferences for international energy market liberalisation (especially the trading system) as an instrument to strengthen their own energy security, facilitate domestic energy market transition and thereby improve their position in relation to other actors.

The paper is structured as follows: the first part contains the operationalisation of key terms and provides a theoretical framework for the investigation. The second part contains an empirical analysis of the V4 countries energy strategies' Southern Dimension. It is divided into two subsections, dealing with diversification and infrastructure, respectively.

## 2. Methodological framework

### 2.1. Theoretical and methodological remarks

A preliminary, critical analysis of V4 states' official strategic documents (SIEA, 2008; MoND HU, 2012; MoE SK, 2014; MoIaT CZ, 2014a; 2014b; MoE PL, 2018) indicates a growing importance of the 'national interest'. Special attention is given to the struggle with international political and economic dependence and its significance for security concerns. Therefore, our attention was directed at theoretical concepts that elaborate on the phenomenon of a liberal turn among neoconservative, nationalist political elites. One of them, formulated quite recently, by A. Krampf, present what it terms as a hawkish (nationalist) neoliberalism (2018a; 2018b). The author expounds Israel's economic strategy, where market-oriented public policies are introduced in order to promote or pursue national interest. He then explains the evolving nature of that state's economic strategy which is being increasingly politicised. Since this particular concept is based, and has been developed, on the Israeli case study, it needs adjustment and reframing, so as to better serve the analysis of the V4 states' energy policy. Thus, 'nationalist neoliberalism' has been juxtaposed with findings and conclusions from the ongoing debate on 'variants of capitalism'.

The theoretical concept which can be constructed upon Krampf's observations should address the links between the neoliberal approach to governance in the area of states' public policies (e.g. foreign, economic and energy policy) with the hawkish national security position. Furthermore, it should explain a purposeful use of market-oriented practices as a tool to advance one's own position in the course of international rivalry, both economic and political. This in turn makes us take into consideration the influence of geopolitical circumstances on states' strategy regarding the international interdependence, which refers to the nature of contemporary international relations and can be investigated by studying international trade, capital flows and mobility of labour. Some scholars believed that international interdependence can promote peaceful coexistence (Keohane and Nye, 1977) and enable

<sup>6</sup> The definition of the term 'hawkish' applied in this paper moves beyond its traditional understanding of being 'militant', 'warlike', 'unpeaceful'. It reflects security-oriented positions on public affairs, with emphasis on national security objectives to be pursued in a highly competitive international environment. A hawkish approach prioritises national security over socio-economic issues.

faster institutionalisation of multilateralism. This may be true during periods of prosperity, but in times of crises and shrinking resources, interdependence can be a source of threat or even ‘economic political extortion’ perpetrated by one state on another. Moreover, as Waltz noted: “because governments have become more active in economic affairs at home and abroad interdependence has become less of an autonomous force in international politics” (1999, p. 698). In other words, states may want to utilise other actors’ dependence to pursue their own political interest. Thus ‘dependence’, understood as a variation of ‘interdependence’, may seriously limit states’ multidimensional development. International pressure imposed by one actor on others may become a serious threat to national sovereignty and can lead to adopting a more radical form of neoliberal economics. This causality has been observed not only in Israel but also in CEE, at least in the cases of some public policies – e.g. energy policies (see for example [Binhack and Tichy, 2012](#)). The liberal turn among several countries has mainly been a reaction to the economic and political crisis of the EU, but Russian neo-imperial policy ([Bohle and Greskovits, 2007](#)) has also facilitated it. Consequently, the primary goal of hawkish governments is to deal with the challenge of unfavourable international dependence (economic and political).

The application of the hawkish neoliberalism concept to the analysis of the V4 states’ energy strategies highlights the need to identify main areas of strategic thinking as well as key mechanisms of responding to national security threats and overcoming obstacles to national development. The literature cites several of these areas and mechanisms: diversification of foreign and economic policy directions, preference for goal-oriented, pragmatic international cooperation rather than establishing value-oriented international multilateral-alliances, introducing legal and institutional measures that support the development of a sturdy and competitive market and entrepreneurship ecosystem, along with strengthening the ability to influence market players and, finally, investment in strategic infrastructure and technological innovation to advance one’s own international competitiveness ([Krampf, 2018a; 2019b](#)). Strengthening of the domestic economy, followed by reinforcement of a given state’s international political standing is seen as a precondition for enhancing national security and improving national welfare. This is manifested in projects aimed at limiting the capabilities of external actors to affect national security and the decision-making process. Minimising the dependence on others and maximising states’ political and economic benefits from international cooperation (possibly also interdependence) has become a core conceptual element of strategic thinking in the V4 countries, at least declaratively.

The neoliberal trends in the Visegrad states’ preferences regarding national energy strategies are to some extent parts of their grand strategies to transform their economic model of development. This is particularly interesting if one acknowledges the relatively limited competitive advantages enjoyed by V4 states, especially in the international energy market. The V4 model can be characterized by a fundamental dependence of domestic economies on foreign ‘inflows’, complemented by a limited innovation capacity. However, at least until the economic crisis in the EU, the above-mentioned Dependent Market Economies variant of capitalism has been pursued by the V4 states steadily and fairly successfully ([Nölke and Vliegthart, 2009](#), p. 693). The crisis has become a turning point and catalyst for the transition towards a development model ([Havlik and Iwasaki, 2017](#)) that reduces the level of unfavourable international dependence. Case studies of V4 states will enable an examination of causal mechanisms and interactions between the examined energy security strategies ([Bennett and Elman, 2008](#)). They reveal how energy policies are operationalised. Moreover, they will provide enough observable evidence and an explanatory leverage to come up with certain general conclusions. The empirical analysis utilises the process tracing method which involves an in-depth examination of a sequence of events that occur over time. A review of the existing literature allowed us to tentatively assume there is a substantial positive conjunction between the hawkish perception of

national energy security objectives and attitudes towards the liberalisation of the energy market (with particular importance given to the international dimension of trade). The process tracing method was applied in order to explore actors’ preferences, expectations and strategies, as well as structural conditions that affect their implementation ([Beach, 2017](#)). In theory, it allows researchers to trace causal process ([Brady et al., 2004](#), p. 12), it describes how the independent variable (in this case: the hawkish-nationalist approach) leads to a certain value of the dependent variable (preference for market liberalisation). The primary goal of this research is to verify the hypothesis which states that the more hawkish V4 countries’ energy security strategies are, the greater their preference for the liberalisation of the international energy market. Verification of the research questions *via* the case study approach will be conducted on the basis of two kinds of sources and data. First of all, the research has been informed by an extensive analysis of secondary sources (literature, expert reports, working papers and contemporary media sources etc.) and secondly, institutional documents related to the energy policy processes linked to the case studies, with special focus of the geopolitical dimension of the strategies.

## 2.2. Conceptualisation of the geopolitical dimensions of Visegrad states’ energy strategies

The geopolitical understanding and explanation of states’ strategic thinking about energy security and energy policy is nothing new in the academic discourse, where attention is given to the geostrategic relationship between importers and exporters of energy sources ([Krane and Medlock, 2018](#)), as well as to the international relations’ complexity stemming from “broader economic, geopolitical and ideological calculation” ([Pronińska, 2007](#), p. 215). Thus, it should be interpreted in the light of the international interdependence phenomenon, where both the strategy for the creation of transnational critical energy infrastructure and the strategic choices made by alliances and cross-border cooperation bodies on all levels (sub-regional: within V4, regional: EU, inter-regional: Europe and its Southern Neighbourhood, and global) remain highly relevant.

The conceptualisation of geopolitical dimensions of states’ energy strategy as an analytical category requires defining its geographic and thematic scope. Still, an analytical delimitation of the term should be rather contractual, or even flexible, so as to allow for the dynamic nature of the states’ public policy strategy conceptualisation process. In the case of the V4, we define the Southern Dimension as covering the Middle East and North Africa (MENA).<sup>7</sup> This reflects the existing or emerging interest in cooperation with the Gulf countries (Qatar, Iran, United Arab Emirates, Saudi Arabia) as well as Eastern Mediterranean countries (Israel, Egypt). It also highlights the increased cooperation of Cyprus and Greece with the Middle East.

Investigation of the Southern direction in V4 states’ energy policy strategies requires a look at the key areas of strategic thinking about energy security. The analysis of primary sources ([SIEA, 2008; MoND HU, 2012; MoE SK, 2014; MolaT CZ, 2014a; 2014b; MoE PL, 2018](#)) helped us identify general, strategic goals of the V4 states in the field of energy. The first one is diversification, followed by the pursuit of access to innovative technologies that would enable and foster energy transition in the V4. The second area we have identified is the development of a wider regional and inter-regional energy infrastructure. In the next, empirical, part of the paper, we will try to assess how significant the SD of the V4 states’ energy strategies is for achieving these major goals.

<sup>7</sup> Algeria, Bahrain, Egypt, Iran, Iraq, Israel, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syria, UAE, Tunisia, Yemen, UAE.

### 3. Analysis of empirical findings and discussion

#### 3.1. Diversification

The diversification strategies of the V4 countries attempt to change both the energy mix (increasing the share of nuclear fuel, renewables and natural gas) and the group of supplier countries. The energy mixes of the respective V4 states are different, but share some important characteristics (Fig. 1).

The common trait of all four countries' energy mixes (total primary energy supply) is a lower share of renewables and biofuels compared to the entire European Union, and the EU15 in particular. Importantly, unlike in the European Union as a whole, in the V4 countries renewables and biofuels comprise mainly solid biofuels and renewable waste. This, along with the strict environmental policies adopted by the Union, makes the Visegrad Group more inclined to search for alternatives to the current energy sources and energy-supplying countries.

Another distinctive trait of the V4 economies is a relatively high level of dependence on Russia as a supplier of gas and oil. None of them have significant domestic oil reserves. Even though both Poland and Hungary have domestic gas reserves and production, these cover only a fraction of their present and projected demand. Due to of historical circumstances, most of the imported natural gas and oil in V4 comes from one source – Russia (Table 1). The V4 countries' attitudes towards Russian import differ, with Poland putting the greatest emphasis on its reduction (Klaczyński, 2018, pp. 9–11). At the same time, the strategies of all four member states (MoND HU, 2012; MoE SK, 2014; MoE PL, 2018; MoIaT CZ, 2014b) include calls for the diversification of supplies. Once

interpreted through the lens of the hawkish neoliberalism, such a direction opens up a deeper understanding of motivations behind governments' strategic thinking.

Diversification, understood as importing energy sources from different countries, includes diversifying geopolitical dimensions of V4 states, which this paper elaborates on. Diversification is treated as a priority in CEE, particularly with regard to the gas market, as it is seen as being most politicised. As some experts claim (Diallo et al., 2018), natural gas will increase its share in the energy mix of V4 countries and will function as a bridge towards a decarbonised economy. It is cleaner than coal and enables balancing the electrical grid (unlike nuclear and renewable sources). The region imports most of its gas from the Russian company Gazprom, although the scope of dependence on the Eastern partner differs. Czechia buys its gas mainly on the spot market and the other V4 member states have long-term contracts with Gazprom. The 2009 gas crisis was a wake-up call for the region and increased the pressure for import diversification. The anxieties were further strengthened by the construction and expansion of the Nord Stream pipeline. MENA remains the region with one of the highest productions of hydrocarbon sources that traditionally provided Europe with relatively cheap energy (because of geographical proximity, among others) (Dyduch et al., 2018). Indeed, all V4 members include this region in their diversification strategies.

Official Polish documents, especially political declarations, present energy security as inseparable from geographical diversification of the sources (Poland imports 78% of its gas demand, primarily from Russia) (MoE PL, 2018, p. 4). In 2022, its contract with Gazprom expires and Poland has the ambition to entirely, or almost entirely, substitute

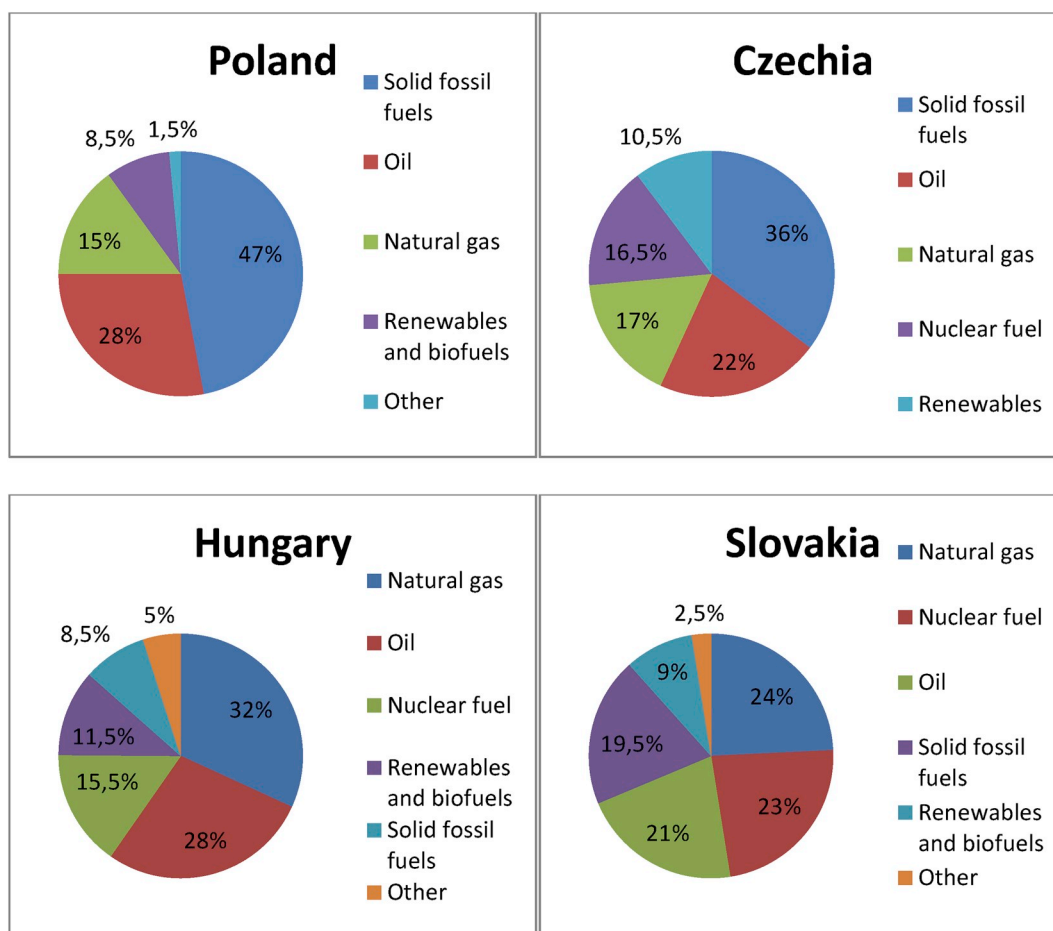


Fig. 1. V4 countries total primary energy supply (2017). Source: own compilation based on European Commission (2019b).



Russian gas with an alternative source of import. It is the only V4 country planning to achieve gas independence from Russia in such a short period of time. It is a particularly challenging goal, since demand for gas is forecasted to grow in the coming years (MoE PL, 2018, p. 10). Czech strategy repeatedly underlines a growing rivalry on the global energy markets and states that such a trend creates the need for greater diversification. It envisages an increase in the natural gas share in the energy mix up to 22% by 2045 (MoIaT CZ, 2014a, p. 21). Hungary foresees an increase in gas consumption in the following years and then its lowering it in the period from 2025 to 2030. At the same time, its domestic production will decline, boosting import demand (HU, 2018, pp.79–81). Only the Slovak government plans to limit the use of natural gas (MoE SK, 2014, p. 19).

Polish government has three more years to pursue its intention to find viable trade partners that can substitute Russia, but it is already possible to list some contracts and prospective cooperation with MENA countries. Upon opening the LNG terminal in Świnoujście in 2016, Poland began to import LNG. One of the first contractors was the main exporter in this sector – Qatar. Currently, the imports are based on a long term contract with the world's premier LNG company, Qatargas. The deal foresees that between 2020 and 2034 the company will provide Poland with 2.7 billion cubic meters (bcm) of natural gas per year – an amount which will cover almost 20% of the domestic demand for that resource (PGNiG, 2019). The state-controlled Polish Oil and Gas Company (PGNiG) has investigated the opportunities for cooperation with other Middle Eastern states. For years it has explored and extracted small amounts of gas in Pakistan. There were also unsuccessful attempts at the extraction of Libyan gas in the Murzuq Basin which were thwarted by the security situation in that country. In January 2019 PGNiG signed a contract that enables the company to extract hydrocarbons in the Emirate of Ras Al Khaimah in the United Arab Emirates. It is politically less risky, but geologically more demanding, as the obvious options for drilling in this state have been already exhausted (BiznesAlert, 2019a).

Other V4 states also considered importing gas from MENA, but the viability of this endeavour is curbed by the lack of necessary infrastructure (see below). Czechia aims to continue buying natural gas on European spot markets, since it is left without domestic sources of this fuel. It is also interested in Caspian gas. Hungarian energy strategy takes note of the opportunity to buy gas from non-Russian sources after gaining access to the Polish and Croatian LNG terminals as well as constructing a gas corridor to Italy. At this moment, though, it is too early to judge if the new deals will include resources from MENA (HU, 2018, pp. 28–29). Slovakia also sees new infrastructural projects as an opportunity for increased gas imports from the Middle East (IEA, 2018, p. 49).

New prospects for imports from MENA may arise with the development of gas fields in the Eastern Mediterranean area. Cyprus, Israel and Egypt are planning to increase natural gas production in the near future and the reserves in this area are estimated to be 3,45 trillion cubic meters (Ruble 2017). Until now, lack of infrastructure, coupled with domestic circumstances in Egypt and Israel, have prevented the increase in energy exports from this region but this will probably change in the coming years. The countries in the region created The Eastern Mediterranean Gas Forum to facilitate the development and trade in natural gas either via pipelines or by sea (Johnson, 2019). Visegrad states have good relations with both Egypt and Israel and in the medium term can become beneficiaries of the growing energy production in the East Mediterranean. During the Egypt-V4 and Israel-V4 meetings in 2017, the parties agreed on strengthening energy cooperation, citing gas as the main point of interest (Visegrad Group 2017a, 2017b). The largest Polish state gas company openly expressed its interest in importing Israeli gas (BiznesAlert, 2019b). Furthermore, in the light of the future increase in interconnectivity of V4's gas systems, V4 states have recently openly supported the liberalisation of the European gas market (Ćwiek-Karpowicz and Kałan, 2013; CEEP, 2018), as such a move would reduce their dependence on Russia and increase the effectiveness of their

foreign policy toward this state.

Another hydrocarbon fuel, oil, is much more accessible than natural gas. As a result, being dependent on its imports from Russia isn't presented in the public debate as a major security threat (as opposed to gas dependence). It is also easier to diversify its supply. In recent years Poland has decreased the share of Russian oil in its energy mix. The new sources of imports are Iraq and Saudi Arabia. Polish energy strategy envisages a rise in the imports by sea (MoE PL, 2018, p. 25) which would also enable an increase in the deliveries from MENA. Czechia and Hungary have also decreased their dependence on Russian oil (by 13 and 30 percentage points in the last 10 years, respectively), although Russia remained their largest supplier (55% and 67%, respectively). The new oil import comes mainly from Kazakhstan and Azerbaijan, but also from MENA. In 2015 Iraq became the third, and in the following years the second, biggest exporter of oil to Hungary. Shipments from Libya, albeit less significant, have also begun (European Commission, 2019a; Mroczek, 2019). Only Slovakia retained its import structure. It imports virtually all of its oil demand via the "Friendship" pipeline, mainly from Russia and Azerbaijan. The trade is based on a 15-year supply agreement signed in 2014.

V4 states vocally supported the nuclear deal with Iran in the belief that it could facilitate their diversification strategies and substantially reduce dependence on Russia. After signing the Joint Comprehensive Plan of Action (JCPOA, 2015), negotiations between the V4 and Iran were initiated. The V4 saw certain economic benefits in normalising its ties with Tehran. Czechia, Slovakia and Hungary, for instance, were interested in cooperating on the development of nuclear energy technology (FARS News Agency, 2017a; 2017b; cf. Dudlák 2018, pp. 470–473). All three countries have nuclear power reactors (CZ: 6, SK: 4 + 2 under construction, HU: 4) and wish to further increase the share of nuclear power in their energy mixes. Meanwhile, Poland began purchasing Iranian oil and crude oil (the first two shipments arrived in Gdańsk in 2018) (Money.pl, 2018). At that time all V4 governments believed that viable ties with Iran would increase their energy security. They have also concluded agreements on R&D cooperation and trade with Tehran (Jafariyeh, 2018; Visegrad Group 2017c). Ultimately, the decision of the USA to withdraw from JCPOA and the pressure put on the V4 not to cooperate with Iran effectively froze their energy relations.

Nonetheless, the future export of hydrocarbon fuels from the Persian Gulf via pipelines remains an open question. Before the Syrian civil war, Turkey and Qatar negotiated the construction of a new pipeline for transfers to Europe. Syria's territory would be of utmost importance in this regard. Political instability has curbed any significant infrastructural investments for years, but we cannot rule out the return of the Syrian state as a partner in the Middle Eastern energy projects in the future. Another wildcard is the future role of Tehran. Many European countries count on increased imports from Iran (Virág, 2018). The EU is working on a special-purpose vehicle (SPV) for trade with Iran that would bypass American sanctions, but the prospects for its effectiveness are not clear. Regardless, V4 states' search for new directions of importing raw materials and the eager use of subsequent political 'openings' are a proof of their determination in the implementation of diversification strategy aimed at reducing unfavourable international economic and political dependence.

The Europeanisation of the energy policy and liberalisation of the European energy market might facilitate the above-mentioned endeavours. The Third Energy Package (TEP)<sup>8</sup> adopted in 2009, along with the subsequent plan of an Energy Union presented by the European Commission in 2015 (European Commission 2015, 2019c) and the recent Gas Market Directive (European Parliament and the Council, 2019) from 2019, constitute gradual but substantial steps toward a more integrated

<sup>8</sup> Basic information on the Third Energy Package can be found on the official European Commission website: [http://europa.eu/rapid/press-release\\_MEMO-11-125\\_en.htm?locale=en](http://europa.eu/rapid/press-release_MEMO-11-125_en.htm?locale=en).

European energy market. For V4 governments, they constitute important parts of their respective national energy strategies which clearly support the pursuit of a greater energy integration within the EU: firstly, they entrust the EU with a greater role in securing the energy systems of its member states and, secondly, they use further Europeanisation and liberalisation of the energy market as a core tenet. In this case, greater internationalisation of the energy policy and adopting free-market mechanisms might be a tool to pursue national interests.

Liberalisation of the international energy market, backed by infrastructural projects connecting European gas systems, would enable countries dependent on Russian supply to diversify their energy mixes (Gawlikowska-Fyk, 2017; Mišík, 2016). Thus, they attempt to protect their interests by pursuing more neoliberal policies that liberalise market relations rather than the ownership (states remain dominant owners of energy sector entities). For instance, Poland considers the liberalisation of the European market as a method to achieve the status of the 'regional gas trade centre' (MoE PL, 2018, pp. 4–7). CEE states' preference for the liberalisation of international energy trade should be interpreted also as a part of the ongoing competition between the member states (rather than between the market players) within the EU. This is particularly true when one looks at the tensions and critical disputes among CEE (in particular Poland) and Western (in particular Germany) states (Dyduch, 2015, p. 205).

It must be noted, however, that other V4 states' stance on energy and gas market liberalisation is nuanced. Although V4 members signed a joint declaration supporting the Energy Union in December 2015, their positions on the issue are far from identical. Broadly speaking, the region supports the idea, but each government has a different vision of the Energy Union's form and scope. Yet still, current realities related to the existing energy infrastructure and the influence of the Russian supplier make them focus on more restricted and local projects that secure the supply of energy sources in the short and medium term. This can explain a lack of strong opposition to Nord Stream from Prague and Budapest and the support of the latter for the South Stream concept (Klaczyński, 2018, pp. 15–16; Mišík, 2016).

An interesting potential correlation may occur: some efforts to reduce the dependence on imports from one supplier may weaken the SD of energy strategies (and in fact, all other import directions). One has to remember that the strategies of all V4 countries envision improved energy efficiency and enhanced domestic production (especially from renewable sources). They call for constant efforts to develop domestic gas fields, both conventional and unconventional (shale gas, methane from coal mines). Oil and petroleum products are supposed to be partially replaced by alternative fuels (e.g. biofuels). The demand for oil and gas might also be decreased by the implementation of electromobility plans which are supported especially by Poland and Hungary. All these can be seen as an expression of ambitions to become less dependent. However, substantial technological innovations are required to implement these plans.

V4 states struggle with barriers and obstacles to their own economic development typical of DMEs. They understand the importance of technological innovativeness which is seen as a means to diversify both energy production technologies and the energy-mix itself. Therefore, it is perceived as a key element of development strategies. This awareness is already followed by a number of initiatives aimed at optimising the pursuit of strategic goals. While seeking new innovative solutions, V4 states have often looked southward, particularly towards Israel. The already existing and relatively well-established Israeli-Visegrad cooperation in this field is being implemented both on the bilateral and multilateral level. Indeed, one can point out some important achievements in this regard, including: the creation of two working groups (one focused on innovation and the other on security) (HPoFV4, 2017) and the signing of the Memorandum of Understanding on Training Cooperation in the Field of Innovation between the State of Israel and the International Visegrad Fund (HPoFV4, 2018) which envisions short-term, intense training programmes on best practices in the Israeli innovation

ecosystem for selected entrepreneurs from V4 states. All of the aforementioned undertakings somehow reflect all parties' intentions, expressed during the summit of the V4 and Israel prime ministers in July 2017 (MFA IL, 2017). It can be said that the Visegrad Group is interested in extensive technology transfer, while the Israelis search for recipients of comprehensive technological solutions. Nevertheless, considering the current stage of innovative sectors' development in the V4 and Israel, the parties seem to have complementary needs and expectations and therefore seem to fit each other as partners.

In the past few years, Visegrad states' quest for innovativeness has resulted in an increasing number of initiatives and arrangements implemented with Israeli partners. Just to mention two examples: the binational grant programmes offered jointly by V4 states and Israeli authorities to private sector industrial or R&D entities, and the Israeli – V4 partnership on technological accelerators. The Czech and Polish cooperation with Israel's Technion within the framework of international innovation accelerators might be particularly relevant. Two interesting and pioneering endeavours in this regard are worth mentioning: a Polish coal-mining company (JSW- Innowacje) joined the Technion Drive Accelerator programme (JSW, 2018) and the Czech-Israeli Partnership Accelerator was initiated in 2019 (EEB-CZ, 2019). In both cases, a great emphasis is put on environmental considerations the energy industry currently faces.

Israeli-V4 R&D cooperation projects are designed as relatively limited initiatives (in terms of participants' number and budget) (SKILL, 2019; NRDIO, 2019). Nonetheless, they occur across the V4 with a certain regularity and display a progressive trend of searching and establishing R&D cooperation, in addition to what is offered at the EU level. This specific diversification attempt should be seen in the broader perspective of European economic and political interdependence and competition among the EU member states.

Process tracing method used to analyse V4 countries' energy strategies and behaviour in the international area unveiled a casual mechanism that links a stronger focus on national interest in the foreign policy with advocating economic liberalisation of the international markets. Both diversification policies and endeavours to develop innovation cooperation with Israel suggest that V4 countries' attempt to reach out to their foreign partners is rooted in the national strategies prioritizing security over the mere socio-economic issues.

### 3.2. Infrastructure

The key element of the diversification strategy is the development of infrastructure, the backbone of the national and regional energy security system. Most of the present infrastructure in V4 countries was built during the Cold War. Its main purpose was to secure supplies from the USSR and provide it with a transit corridor to Western Europe. History has continued to be the main factor shaping the region's current energy policies, perpetuating economic and political dependence on Russia. The infrastructural framework serves to maintain the existing structure of geopolitical dimensions in energy strategies. Any attempt to diversify energy source supplies requires robust investments in this field. The V4 governments have long struggled to reshape this framework and adapt it to the new political and economic reality. Making the SD of energy strategies more prominent and imports from MENA states more viable is also at stake.

The most significant gas project in this regard is the so-called North-South Corridor (NSC) (Slobodian, 2016, p. 18–19; Uściak, 2018, p. 46). Its two major dimensions are: 1. integrating the gas systems of the CEE and 2. enabling LNG imports through the terminals of the Baltic and Adriatic seas. It could be the way for the region to gain access to the global gas market and be able to import natural gas from MENA (Szóke, 2018, p. 60).

The greatest emphasis on rerouting the gas flows in the V4 can be observed in Poland's policy. It is aimed not only at diversifying fuel imports to Poland but also at providing alternative sources for other

states in the region (MoE PL, 2018, pp. 21–24). The natural gas transmission system operator in Poland – Gaz-System – intends to interconnect the gas systems in the region and use access to the Baltic Sea as a gateway for pumping the fuel to neighbouring states (the Northern Gate concept). It has already finalised a few projects, such as expanding gas connections with Germany (Lasów, Malinów), Czechia (Cieszyn) and building the Świnoujście LNG terminal. The plan proposed by Gaz-System (2019) lists future investments: interconnectors with Slovakia and Lithuania, a Czechia-Poland gas pipeline, increasing the Świnoujście LNG terminal's capacity to 7.5 bln m<sup>3</sup>/year and developing the Polish domestic gas pipeline network so as to pump more gas from the North to the Western, Eastern and Southern border of Poland. Another project envisaged in Gaz-System's plans, which would enable more imports from MENA, is introducing a Floating Storage Regasification Unit (FSRU) in the Bay of Gdańsk. According to recent plans, it might start operating in the years 2024–29, but the feasibility of this project is still contested.

The southern “gateway” of the NSC is to take the form of a FSRU situated on the Croatian island of Krk. Disputes between Hungary and Croatia, as well as doubts over economic feasibility, have delayed work on this project (Szóke, 2018, p. 60), but according to the latest announcement of the Croatian government (from January 2019) it should be completed in 2021. Its capacity is planned to be over 2.5 bcm of gas per year. The main foreign market for this LNG will be Hungary, but it may also supply the Czech and Slovakian economies (LNG Croatia, 2017).

The three inland V4 states concentrate their infrastructural efforts on increasing interconnectivity between their gas systems (and expanding storage capability) which would also give them access to MENA energy sources. Hungary has invested in new interconnectors to their neighbours. It extended the capacity of the HAG pipeline to Austria in 2016 and constructed a two-way pipeline to Slovakia. Currently, there are two priority infrastructural projects. The first is upgrading the capacity of interconnection with Romania which would open access to this country's domestic reserves and future imports from the Black Sea. The second is increasing gas import capabilities from Croatia, which is necessary for the viability of the Krk terminal project. It may be achieved by direct pipeline or transit through Slovenian territory, the latter being the shortest route to connect with the planned terminal on Krk (Diallo et al., 2018, p. 66; Tarnawski, 2015, pp. 136–137). Another project, Eastring, is implemented jointly by Hungary, Slovakia, Romania and Bulgaria. The planned pipeline would connect Southern Europe with V4 gas systems. In the future it might supply them with Caspian and Middle Eastern natural gas. Eastring is supposed to ultimately have a capacity of up to 40 bcm per year (IEA, 2018, p. 49), but the first commercial transfers are planned for 2025. Slovakia operates interconnectors with Czechia, Hungary and Ukraine and currently supports (in addition to the Eastring project) building up the capacity to import gas from Poland. Its strategy also puts emphasis on the integration of the CEE markets and NSC project (IEA, 2018, pp. 46–47; MoE SK, 2014). The Czech Republic bases the security of its gas energy on connections with the German system, primarily through the OPAL pipeline (Slobodian, 2016, p. 17, 23–24), but also strives for increasing connectivity with other neighbours. It is building the STORK II interconnector with Poland and the BACI interconnector with Austria (Diallo et al., 2018, p. 40).

Russia's position on the V4 countries' oil market is even stronger than on the gas market, but as previously mentioned, it is less politicised. Poland has plans for diversifying oil imports, although ending Moscow's domination in this regard is not possible in the short term. The two main projects aimed at diversifying oil imports envision the increase of the Gdańsk oil terminal's storage capacity (2020) and the construction of the second line of the Pomerania Oil Pipeline (2025) which transports crude oil from Gdańsk to the refinery in Płock (MoE PL, 2018, pp. 25–26).

Almost all of Czechia's oil demand is satisfied by imports which mostly come from Russia. At the same time, the country has the

capability to import oil from MENA by the IKL pipeline which connects Czechia with the Transalpine (TAL) pipeline leading to the Trieste oil terminal in Italy. Prague's strategic priority is to retain two functional routes for the transportation of oil (eastern and western). In order to increase the capacity of the western route, it plans to boost the capacity of the TAL oil pipeline and the connection to the NATO Central European Pipeline System (MoIaT CZ, 2014b, pp. 54–55).

Although Slovakia treats Russia as a primary source of cheap, reasonable quality oil, its strategy also prioritises diversification. Currently, the country has the possibility to broaden the range of its oil sources via connection to the Adria pipeline (which links the Croatian port of Omišalj with a Hungarian refinery). It gives access to imports from MENA, but Bratislava is aware of the fact that the shipping tariffs on Croatian territory are approximately 2–3 times higher than the EU standard levels. The strategy aims at developing import capacity by building an interconnector with Austria. The construction of the Bratislava – Schwechat (BSP) pipeline would allow the Slovnaft refinery to be supplied with reverse flow oil from the TAL pipeline and the oil terminal in Trieste (IEA, 2018, pp. 32–33; MoE SK, 2014, pp. 23–24). While the development of the BSP pipeline is part of Slovakia's energy strategy, it has been a protracted process. These two routes are supposed to protect Slovakia from geopolitically driven disruptions of supply from Russia. The Adria pipeline has already enabled imports from Libya, Iraq, Syria and Algeria. Middle Eastern, Caspian and North African sources of oil are cited as the most important element of diversification. Iran is perceived by the Slovakian government as a very important source of energy sources, yet a hazardous one due to the international situation. To counter the risk, Bratislava's energy strategy proposes opening trade offices in Libya and Kuwait to obtain new import deals (SIEA, 2008, p. 32).

Additionally, the infrastructure necessary for increases in MENA imports includes the national projects of individual V4 states. Besides the aforementioned Gdańsk terminal and Pomerania Oil Pipeline investments, Poland plans to upgrade refineries and give them a greater capability to process products of various characteristics (MoE PL, 2018, pp. 25–26). Furthermore, all of the V4 countries also plan to develop their domestic gas and oil pipeline systems.

All of the V4 countries' energy strategies promote, albeit with different intensity, the integration of the energy markets in the CEE and the liberalisation of international energy markets. Connecting the Central European network with the Western one and creating a common market would enable V4 economies to use the fuels imported from MENA by other EU states (through pipelines and LNG terminals). If this goal proves out of reach, regional integration is the second-best option.<sup>9</sup> The key issue in this regard is the North-South Corridor which is supported by all members of V4. Naturally, Poland is the project's strongest advocate, as it sees itself as a future regional gas hub (connected with the gas systems of all neighbours, with increased storage capacities and access to international energy markets, including via the Baltic Sea). The EU is one of the main vehicles the V4 uses to pursue its goals. We have mentioned the issue of European energy market liberalisation through the Energy Union framework, but European funding for the infrastructural investments is also of utmost importance for the CEE (Fig. 2).

The current European Energy Security Strategy outlined by the European Commission recommends (2014, pp. 9–10) increasing the interconnection of the member states to 15% in 2030, almost double the 2014 level. Regulation on the Guidelines for trans-European energy networks, together with the Connecting Europe Facility (CEF), envision key projects that should be supported financially by the European

<sup>9</sup> Some experts interpret the push for greater integration in the CEE (like V4 and, recently, the Three Seas Initiative that comprises of the countries between the Adriatic, Black and Baltic seas) as a move to strengthen US and weaken German influence in the region and further divide European Union (cf. Rotaru 2018, pp. 11–12).



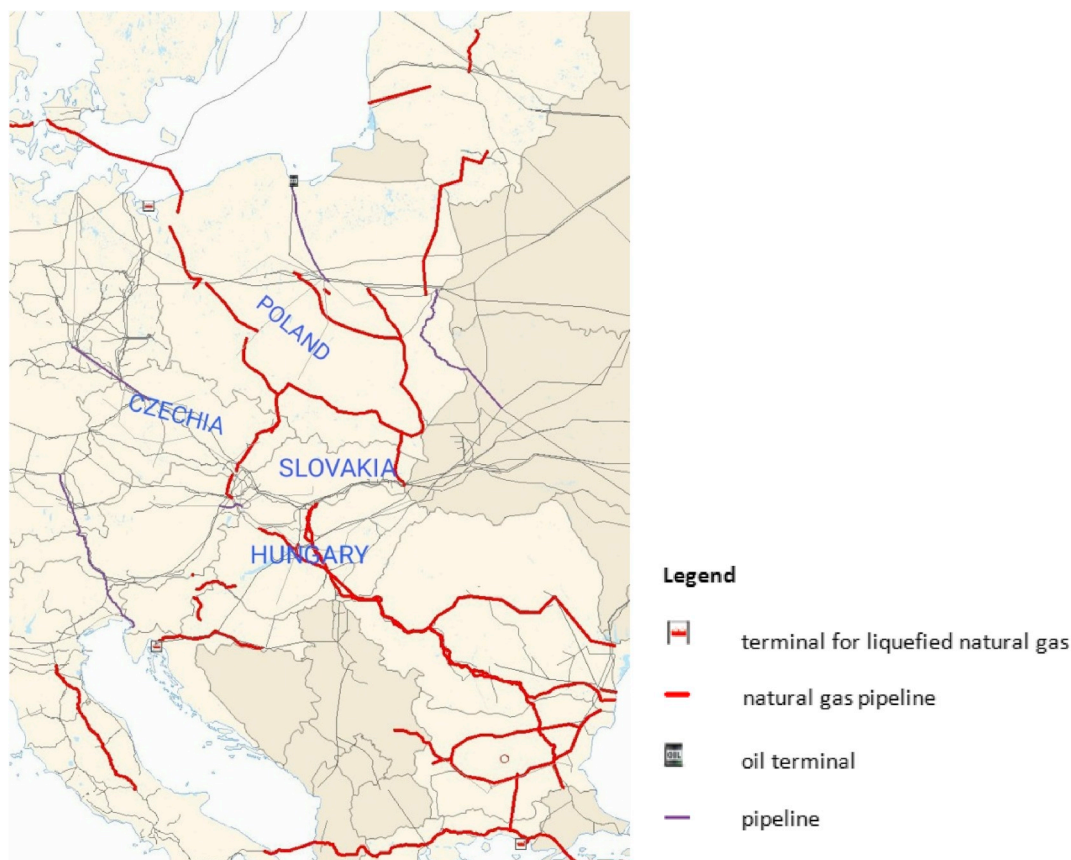


Fig. 2. Completed and ongoing energy projects of common interest supported by the European Union. Based on: [European Commission \(2019d\)](#).

Union. The majority of the so-called projects of common interest (PCI) list, including the above-mentioned interconnectors and the North-South gas corridor, comprises initiatives related to Central Europe (Diallo et al., 2018, p. 33; [European Commission, 2017b](#)). Over 30 Trans-European Networks for Energy (TEN-E) PCI's have been finalised by Spring 2019). The EU intends to make it 75 by 2022 ([European Commission, 2019c](#), p. 14). It seems natural that V4 countries see the Union as an important actor that can facilitate the pursuit of their strategic goals.

Another infrastructural project that may contribute to the SD in V4's energy policies is the Southern Gas Corridor (SGC), supported through CEF and PCIs. It is meant to link the Azeri Shah Deniz gas field with Southern Europe via Georgia and Turkey. The European part of the project is the Trans Adriatic Pipeline (TAP), which would run through Greece and Albania to reach Southern Italy, via the Adriatic Sea. If completed (Italy still has not decided to finalise the project), it would deliver 10 bcm of natural gas per year to Southern Europe. As a next step, V4 countries could connect their gas systems to the TAP. An integrated European gas system might also be supplied from the growing number of LNG terminals. The most significant ones for the Central European countries (Świnoujście, Krk) have already been outlined, but many other states (e.g. Italy, Germany, Greece, Romania and Estonia) plan or are already building new terminals. The capacity of the EU as a whole to import LNG will increase in the future – a fact that will probably strengthen trade ties with MENA producers. The EU is also backing the East-Med pipeline which is supposed to pump Israeli and Cypriot gas to Europe ([European Commission, 2017a](#)).

At the same time it should be mentioned that there is also friction between EU institutions and the V4 countries regarding energy security. The best example is Hungary which has pursued policies contrary to the EU guidelines. It cooperated closely with Russia in expanding the nuclear reactor near Paks, supported the South Stream pipeline, increased

state ownership in the energy sector and criticised the possibility of European institutions scrutinising energy deals concluded by member states (Isaacs and Molnar, 2017). Simultaneously, this stance positioned Budapest against the priorities of the Polish government. Another infrastructural project which has pitted the interests of the V4 states against each other was the BACI interconnector. It was criticised by Slovakia which claimed that it would be deprived of its transit country status for gas flows between the Czech Republic and Austria (Diallo et al., 2018, p. 41).

Expanding Europe's infrastructure for importing energy, improving the interconnection within the V4, as well as between the Visegrad states and Western Europe are prerequisites for greater liberalisation of energy markets and replacing Russia as a dominant exporter. CEE governments have recognized this situation and intensified their infrastructural investments in order to decrease energy dependence. At the same time, V4 countries' perceptions of priorities for the region are in many cases still divergent (Osička et al., 2018, pp. 194–195). In this way, international energy market liberalisation should be interpreted as a result of the more hawkish pursuit for the national security interests. Where the security interests of Visegrad Group members diverge, their liberalisation tendency is weakened.

#### 4. Conclusions and policy implications

In recent years, all of the V4 countries have taken significant steps to alter their geopolitical position – strengthen their security and engage more actively in Western alliances. Efforts to reduce their dependence on Russian energy resources provided an important manifestation of these assertive policies.

The V4 states' multifarious policy of diversification aims at strengthening their ability to influence the international system. Broader cooperation with the MENA region (Southern Dimension) – exemplified



by increased oil and gas imports, the prospect of future trade deals, involvement in the exploration of hydrocarbon sources and efforts to obtain technologies from Israel - is one element of their strategies.

Currently, the Southern Dimension is not a dominant element of the V4 countries' energy strategies. Resources from MENA constitute a small share of their energy mixes and energy imports. At the same time, the SD has a noticeable and growing impact on their energy security. Its significance stems also from the ephemeral, yet crucial psychological effect of knowing, or at least believing, that the SD constitutes a viable alternative. The most important bottleneck for advancing the Southern Dimension is inadequate infrastructure. Currently, there is no direct pipeline connection between major Middle Eastern gas and oil reservoirs and Central-Eastern Europe. Furthermore, the capacity of Polish oil and gas terminals is limited, whereas three of the V4 members are landlocked – a fact which necessitates further investment in connecting them to terminal countries. Nonetheless, the V4 countries have made a strong effort to develop their infrastructure which is the main reason for the growing importance of the SD in their strategies. The development of infrastructure is continuing, thus by extrapolating the aforementioned tendency, we argue that energy cooperation with the MENA region will develop. Another factor that may facilitate the trend is the expected decline of what [Proedrou \(2018\)](#) called “pipeline politics” – basing energy trade on long-term and inflexible deals which are not suited to the new situation in the gas market and instability in the interstate relations. Pipeline connections to the Middle East remain uncertain as the political instability of the region remains the major obstacle to broader cooperation. Furthermore, even if pursued, these investments would not be finalised over the next decade. V4 states plan to utilise new options, such as the LNG, FLNG and CNG as a substitute for pipeline contracts. LNG terminals in Świnoujście and Krk are the best examples of such an approach.

The developments in the energy strategy of the V4 countries support the thesis that they favour energy market liberalisation in order to strengthen their own energy security. Case study methodology, followed by process-tracing research has probed the theoretical causal mechanisms, framed in this study by the concept of a hawkish nationalist orientation in energy strategy, linking causes (perception of international interdependence) and outcomes (preference of energy market liberalisation). Monopolies distort market forces, allowing dominant actors to exploit their advantage over others. In this situation, the liberalisation of the energy markets in Europe strengthens the situation of the V4 countries by decreasing their dependence on one (or a very limited number of) suppliers. In this fashion, national interest defined in hawkish nationalist terms – being independent from other states – pulls them towards liberalisation. The main factor at play here is not economic, as Russian energy sources are relatively cheap and do not require significant infrastructural investments to be delivered. The underlying reason for the liberalisation drive is political at its core which confirms ‘hawkish neoliberalism’ assumptions, utilised in this paper. The most significant international energy market players are still states (or state-controlled players, like state-owned or co-owned companies) and their main aim is to serve the national interest.

The European Union's energy policy goals overlap to a great extent with the diversification and liberalisation objectives of the V4 countries (which is partly a result of their activity within the European institutions). Continuing in the neorealist perspective, common interest is the strongest predictor of cooperation and this can also be discerned in the examined case study. The EU provides funding for infrastructure, political support for the diversification efforts of member states and legal framework for unifying and liberalising their energy markets, which is considered a useful instrument of energy policy that can advance the national interests of V4 countries. At the same time, one can observe that this approach is not based on the general support for the supranationalisation of the European system of governance, which requires further transfers of competences from EU member states to the supranational EU institutions. Recent years have also brought

considerable tensions between CEE countries (especially Poland and Hungary) and EU institutions. Paradoxically, both support for the EU's Energy Union and conflicts with EU institutions on other political and cultural issues might be an expression of the same tendency to decrease political dependence. In the former case, from Russia, and in the latter case, from Western European countries.

The investigation has also found divergences between the V4 countries' energy strategies. The diversification projects are important for all of them, but the intensity of their efforts toward attaining this goal differs, with Poland being at the forefront. Polish policy is also most openly and strongly aimed not only at the diversification of energy supplies, but also at liberalisation of energy markets (and, consequently, reducing cooperation with Russia). This is not the case with the other V4 governments (vide Hungary's nuclear deals with the Russian Federation, Czechia's policy of retaining both eastern and western energy routes). These varied approaches indicate once more that the deep foundations of the V4 countries' policies are their national interests (partly shared and partly divergent). Firstly, Poland has access to the sea and aspires to become a hub that guarantees steady supplies to the entire region. Secondly, Poland's demographic and economic potential significantly exceeds that of the other V4 countries. Knowing that, Warsaw is more inclined towards an autonomous, assertive policy and wishes to act as a regional leader – a desire contested by other V4 governments. Thirdly, its relations with Moscow are strained, much more so than in the case of other V4 states, and this fact is evident in the energy sector. In part, this is due to Poland's ambitions. The rest of the Visegrad Group tries to balance its integration with the West and its continued cooperation with Russia. In other words, the findings of this research confirm that Polish energy policy is driven by the ‘energy prometheism’ concept ([Jakóbič, 2018](#))<sup>10</sup>, whereby Warsaw's approach is to assist other countries in their efforts to escape the grip of Russia's energy imperialism. The European Energy Union, investment in advanced energy infrastructure and development of trade cooperation with a relatively large number of trade partners, including those from MENA, are considered effective instruments of this economic ‘liberation’.

V4 countries' goal of energy supply diversification should be pursued continually. It is a manifestation of their increasingly active role in the international environment and an attempt to erase the remnants of Cold War-era dependence on USSR/Russia. A strategy towards such a goal should be diverse and include also the Southern Dimension, although it is unlikely to become a dominant policy direction in the near or medium term future. To increase its significance, V4 should seek reinforced presence in the MENA and support stabilization efforts that would enable greater energy cooperation with the volatile region. If the V4 countries coordinate their policy toward the region, they may be able to generate synergy. It seems that the concerted activities within the EU may be one of the directions to follow.

One of the major obstacles to the integration of the energy infrastructure cited by V4 countries' political establishment is a lack of clarity about the cost-benefits calculation of this project and the stability of supply and transit flows ([Osicka et al., 2018](#), pp. 193–194). Concentrating on the EU may be a way to address those issues. An organisation of the EU's scope can provide funds for infrastructural investments and shared legal-administrative framework that can increase predictability of energy cooperation. This could also trigger greater political cooperation between V4 countries in the EU, as long as their leaders are able to acknowledge their partners' interests and find a suitable compromise.

#### Declaration of competing interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence

<sup>10</sup> The author focuses on the Ukrainian case study, but we can broaden it to include the entire post-Communist part of Europe.

the work reported in this paper.

## References

- Agénor, P.-R., Canuto, O., 2015. Middle-income growth traps. *Res. Econ.* 69 (4), 641–660.
- Beach, D., 2017. *Process-Tracing Methods in Social Science*, OXFORD RESEARCH ENCYCLOPEDIA, POLITICS (oxfordre.com/politics). Oxford University Press.
- Bennett, A., Elman, C., 2008. Case study methods. In: Reus-Smit, Ch, Snidal, D. (Eds.), *The Oxford Handbook of International Relations*. Oxford University Press.
- Binhack, P., Tichy, L., 2012. Asymmetric interdependence in the Czech–Russian energy relations. *Energy Pol.* 45, 54–63.
- BiznesAlert, 2019a. Polish Briefing: PGNiG is changing its course in the Middle East, 4.02.2019. <http://biznesalert.com/pgnig-united-arab-emirates>. access 16.03.19.
- BiznesAlert, 2019b. PGNiG rozważa import gazu z Izraela, 26.04.2019. [http://biznesalert.pl/pgnig-rozwaza-import-gazu-z-izraela/?fbclid=IwAR3lmcz4zKWdKcPVaVnJ\\_uamJexXQcWJxsoW8guWVXlWQXsIIlRoh06lTtMYE](http://biznesalert.pl/pgnig-rozwaza-import-gazu-z-izraela/?fbclid=IwAR3lmcz4zKWdKcPVaVnJ_uamJexXQcWJxsoW8guWVXlWQXsIIlRoh06lTtMYE). access 27.05.19.
- Bohle, D., Greskovits, B., 2007. Neoliberalism, embedded neoliberalism and neocorporatism: towards transnational capitalism in central-eastern Europe. *W. Eur. Polit.* 30 (3), 443–466.
- Brady, H.E., Collier, D., Seawright, J., 2004. Refocusing the discussion of methodology. In: Brady, H., Collier, D. (Eds.), *Rethinking Social Inquiry: Diverse Tools, Shared Standards*. Rowman & Littlefield, Lanham, MD, pp. 3–21.
- Bulmer, S.J., Radaelli, C.M., 2004. The europeanization of national policy? *Queen's Papers on Europeanization* 1.
- Central Europe Energy Partners (CEEP), 2018. Central European day of energy 2018. CEEP Rep. 3 (54), 5.11.2018. <https://www.ceep.be/www/wp-content/uploads/2018/10/CEEP-Report-Q3-2018.pdf>. access 16.05.19.
- Croatia, L.N.G., 2017. LNG terminal Krk in Croatia. <https://www.lng.hr> access 23.03.19.
- Ćwiek-Karpowicz, J., Kalan, D. (Eds.), 2013. *North–South Gas Corridor: Geopolitical Breakthrough in Central Europe*. Report. The Polish Institute of International Affairs, Warsaw. [http://pism.pl/files/?id\\_plik=15698](http://pism.pl/files/?id_plik=15698). (Accessed 22 May 2019).
- Deák, A.G., 2011. Towards a new balance with Russia? Russian energy challenges and the west. In: Koranyi, D. (Ed.), *Transatlantic Energy Futures*. Center for Transatlantic Relations, Washington, pp. 249–269.
- Diallo, A., et al., 2018. 'Beyond gas' – energy security issues in the V4 after 2020. Final Synthesis Report. [www.amo.cz](http://www.amo.cz). access 15.03.19.
- Dudlák, T., 2018. After the sanctions: policy challenges in transition to a new political economy of the Iranian oil and gas sectors. *Energy Pol.* 121, 464–475.
- Dyduch, J., 2015. Europeanization of the energy policy within the European Union's system of governance (chapter 10). In: Stanek, P., Wach, K. (Eds.), *Europeanization Processes from the Meso-economic Perspective: Industries and Policies*. Cracow University of Economics, Kraków, pp. 193–219.
- Dyduch, J., Jarzabek, J., Skorek, A., 2018. The dependence of Gulf Countries on hydrocarbons export: a perspective of regional security complex theory. *Polityka i Społeczeństwo* 16 (3), 131–143.
- The Energy Efficient Buildings Platform (EEB-CZ), 2019. Apply for the Czech-Israeli partnership accelerator. <http://www.eebcz.eu/en/news-and-events/news/apply-for-the-czech-israeli-partnership-accelerator> access 27.05.19.
- European Commission, 2014. *European Energy Security Strategy*. COM (2014) 330 final. 28.5.2014.
- European Commission, 2015. *Energy Union Package, "A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy"*. COM (2015) 80 final. 25.02.2015.
- European Commission, 2017a. *Eastern Mediterranean Natural Gas Pipeline – Pre-Feed Studies*. Project of common interest 7.3.1. [https://ec.europa.eu/inea/sites/inea/files/7.3.1-0025-elcy-s-m-15\\_action\\_fiche\\_final\\_3.pdf](https://ec.europa.eu/inea/sites/inea/files/7.3.1-0025-elcy-s-m-15_action_fiche_final_3.pdf). (Accessed 22 March 2019).
- European Commission, 2017b. *Commission Delegated Regulation (EU) 2018/540*. 23.11.2017.
- European Commission, 2019a. *Volumes and prices for monthly and cumulative crude oil imports by reporting country (2013-2018)*. <https://ec.europa.eu/energy/en/data-analysis/eu-crude-oil-imports> access 22.03.19.
- European Commission, 2019b. *Energy dashboards: EU28 countries, 10.04.2019*. <https://ec.europa.eu/energy/en/data/energy-statistical-pocketbook>. access 14.05.19.
- European Commission, 2019c. *Fourth Report on the State of the Energy Union*. COM, Brussels (2019) 175 final. 9.04.2019.
- European Commission, 2019d. *Energy. Projects of common interest – interactive map*. [https://ec.europa.eu/energy/infrastructure/transparency-platform/map-viewer/map\\_in.html#&ui-state=dialog](https://ec.europa.eu/energy/infrastructure/transparency-platform/map-viewer/map_in.html#&ui-state=dialog) access 28.10.19.
- European Parliament, the Council, 2019. *Directive (EU) 2019/692 amending Directive 2009/73/EC concerning common rules for the internal market in natural gas*. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019L0692> access 27.05.19.
- FARS News Agency, 2017a. *Iran, Slovakia discuss N. cooperation*, 09.03.2017. <http://en.farsnews.com/newstext.aspx?nn=13951219000508>. access 27.05.19.
- FARS News Agency, 2017b. *Czech Republic to Open \$ 100 Mln Credit Line to Finance Trade with Iran*, 1.02.2017. <http://en.farsnews.com/newstext.aspx?nn=1395113001795>. access 27.05.19.
- Gawlikowska-Fyk, A., 2017. *Germany and Poland in the energy union: moving from controversies to shared interests?* *Eur. Energy. J.* 7 (2), 49–59.
- Gaz-System, 2019. *Krajowy Dziesięcioletni Plan Rozwoju System Przesyłowego. Wyciąg do konsultacji*. Warszawa. [http://www.gaz-system.pl/fileadmin/pliki/do\\_pobrania/KRAJOWY\\_DZIESIECIOLETNI\\_PLAN\\_ROZWOJU\\_SYSTEMU\\_PRZESYLOWEGO.pdf](http://www.gaz-system.pl/fileadmin/pliki/do_pobrania/KRAJOWY_DZIESIECIOLETNI_PLAN_ROZWOJU_SYSTEMU_PRZESYLOWEGO.pdf). access 27.05.19.
- Beyond neoliberalism. Insights from emerging markets. In: Gertz, G., Kharas, H. (Eds.), 2019. *Report. Global Economy and Development at Brookings*. <https://www.brookings.edu/multi-chapter-report/beyond-neoliberalism-insights-from-emerging-markets>. access 27.05.19.
- Havlík, P., Iwasaki, I. (Eds.), 2017. *Economics of European Crisis and Emerging Markets*. Palgrave Macmillan.
- Hungarian Presidency of the Visegrad Group (HPoV4), 2017. *First meeting of the V4+ Israel working group*, 13.12.2017. <http://v4.gov.hu/first-meeting-of-the-v4-israel-working-group-on-research-development-and-innovation-budapest-11-december-2017>. access 27.05.19.
- Hungarian Presidency of the Visegrad Group (HPoV4), 2018. *The V4 and Israel launching training program for innovative entrepreneurs*, 18.06.2018. <http://v4.gov.hu/the-v4-and-israel-launching-training-program-for-innovative-entrepreneurs>. access 27.05.19.
- Hungary (HU), 2018. *National energy and climate plan of Hungary (draft)*. [https://ec.europa.eu/energy/sites/ener/files/documents/ec\\_courtesy\\_translation\\_hu\\_necp.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/ec_courtesy_translation_hu_necp.pdf) access 15.05.19.
- International Energy Agency (IEA), 2018. *Energy policies of IEA countries: Slovak republic 2018 review*, 19.11.2018. <https://webstore.iea.org/energy-policies-of-iea-countries-slovak-republic-2018-review>. access 15.05.19.
- Isaacs, R., Molnar, A., 2017. *Island in the neoliberal stream: energy security and soft renationalisation in Hungary*. *J. Contemp. Eur. Stud.* 25 (1), 107–126.
- Jafariyeh, H.S., 2018. *Iran, Poland Have Potential to Benefit from Complementary Markets: Envoy*. *Tehran Times*, 25.05.2018. <http://www.tehrantimes.com/news/423923/Iran-Poland-have-potential-to-benefit-from-complementary-markets>. access 27.05.19.
- Jakóbk, W., 2018. *The concept of energy prometheism? The consequences of the Russian–Ukrainian gas crisis in 2018*. *Sprawy Międzynarodowe* 1, 303–319.
- Joint Comprehensive Plan of Action (JCPOA), 2015. *Vienna, 14 July 2015*. [http://eeas.europa.eu/archives/docs/statements-eeas/docs/iran\\_agreement/iran\\_joint-comprehensive-plan-of-action\\_en.pdf](http://eeas.europa.eu/archives/docs/statements-eeas/docs/iran_agreement/iran_joint-comprehensive-plan-of-action_en.pdf). access 27.05.19.
- Johnson, K., 2019. *Club med: Israel, Egypt, and others form new natural gas group*, 15.01.2019. <https://foreignpolicy.com>. access 27.05.19.
- JSW, S.A., 2018. *Start-upy i rozwój innowacyjnych technologii*, 21.03.2018. [https://www.jsw.pl/media/wydarzenia/artykul/?tx\\_news\\_pi1%5Bnews%5D=1812&tx\\_news\\_pi1%5Bcontroller%5D=News&tx\\_news\\_pi1%5Baction%5D=detail&Hash=23359aadaa7138b770bd5b2f76e9fa8e](https://www.jsw.pl/media/wydarzenia/artykul/?tx_news_pi1%5Bnews%5D=1812&tx_news_pi1%5Bcontroller%5D=News&tx_news_pi1%5Baction%5D=detail&Hash=23359aadaa7138b770bd5b2f76e9fa8e). access 27.05.19.
- Keohane, R., Nye, J., 1977. *Power of Interdependence*. World Politics in Transition. Little Brown, Boston.
- Krampf, A., 2018a. *The Israeli Path to Neoliberalism: the State, Continuity and Change*. Routledge, Milton Park, Abingdon, Oxon & New York, NY.
- Krampf, A., 2018b. *Israel's neoliberal turn and its national security paradigm*. *Pol. Politi. Sci. Yearbk.* 47 (2), 227–241.
- Krane, J., Medlock, K.B., 2018. *Geopolitical dimension of US oil security*. *Energy Pol.* 114 (C), 558–565.
- Klaczynski, R., 2018. *Petrol and natural gas market of the visegrád group countries 1993–2016: current state and prospects*. *Pol. Politi. Sci. Yearbk.* 47 (1), 7–19.
- Ministry of Foreign Affairs (MFA IL), 2017. *Joint statement on the occasion of the annual summit of the prime ministers of the Visegrad group and the prime minister of the state of Israel benjamin netanyahu*, 19.07.2017. <https://mfa.gov.il/MFA/PressRoom/Documents/Israel%20-%20Visegrad%20Group%20Joint%20Statement.pdf>. access 15.03.19.
- Minárik, M., 2014. *Energy cooperation in central Europe: interconnecting the Visegrad region occasional paper*. Energy charter secretariat Knowledge centre, 23.10.2014. [https://energycharter.org/fileadmin/DocumentsMedia/Occasional/Visegrad\\_Cooperation.pdf](https://energycharter.org/fileadmin/DocumentsMedia/Occasional/Visegrad_Cooperation.pdf). access 27.05.19.
- Mišík, M., 2016. *Energy Union and the Visegrad four countries: blurred unity?* *Int. Issue. Slovak. For. Pol. Affairs.* 25 (1–2), 68–80.
- Ministry of Energy of the Republic of Poland (MoE PL), 2018. *Polityka energetyczna Polski do 2040 roku (PEP2040)*. Projekt. <https://www.gov.pl/web/energia/polityka-energetyczna-polski-do-2040-r-zapraszamy-do-konsultacji1> access 27.05.19.
- Ministry of Economy of the Slovak Republic (MoE SK), 2014. *Energy policy of the Slovak republic*. New version. <https://www.mhrs.sk/uploads/files/47NgRIPQ.pdf>. access 15.03.19.
- Ministry of Industry and Trade of the Czech Republic (MoIaT CZ), 2014a. *Doplňující analytický materiál k návrhu aktualizace Státní energetické koncepce*. <https://www.mpo.cz> access 15.03.19.
- Ministry of Industry and Trade of the Czech Republic (MoIaT CZ), 2014b. *State energy policy of the Czech republic*. <https://www.mpo.cz> access 15.03.19.
- Ministry of National Development (MoND HU), 2012. *National energy strategy 2030*. <http://www.kormany.hu> access 16.03.19.
- Moneypl, 2018. *Ropa z Iranu dopłynęła do Polski. PKN Orlen odebrał największy tankowiec*, 13.04.2018. <https://www.money.pl/gospodarka/wiadomosci/artykul/ropa-z-iranu-doplynela-do-polski-pkn-orklen,147,0,2403219.html>. access 15.05.19.
- Mroczek, W., 2019. *Increase in the number of countries supplying oil to Poland*, 15.03.2019. <https://financialobserver.eu>. access 15.03.19.
- Nölke, A., Vliegthart, A., 2009. *Enlarging the varieties of capitalism. The emergence of dependent market economies in East central Europe*. *World Polit.* 61 (4), 670–702.
- National Research Development and Innovation Office (NRDIO), 2019. *Call for industrial research and development projects in Hungarian–Israeli cooperation, 2019-2.1.10-TÉT-IL*. <https://nkfih.gov.hu/english-2017/nrdi-fund/hungarian-israel-cooperation-2019-2.1.10-tet-il> access 27.05.19.
- Osička, et al., 2018. *Natural gas market integration in the Visegrad 4 region: an example to follow or to avoid?* *Energy Pol.* 112, 184–197.

- PGNiG, 2019. 2018 – kolejny rok mniejszego importu gazu z Rosji i większego importu LNG, 9.01.2019. <http://pgnig.pl>. access 16.03.19.
- Proedrou, F., 2018. Revisiting pipeline politics and diplomacy. From energy security to domestic politics explanations. *Probl. Post-Communism* 65 (6), 409–418.
- Pronińska, K., 2007. Energy and security: regional and global dimensions. In: SIPRI Yearbook, pp. 215–240, 2007.
- Racz, A., 2014. The Visegrad cooperation: central Europe divided over Russia. *Dans L'Eur. Form* 374 (4), 61–76.
- Reuters, 2019. Poland's PGNiG eyes gas from Israeli fields – CEO, 25.04.2019. <https://www.reuters.com/article/pgnig-israel/polands-pgnig-eyes-gas-from-israeli-field-s-ceo-idUSL5N2276Y7>. access 14.05.19.
- Ruble, I., 2017. European Union energy supply security: the benefits of natural gas imports from the Eastern Mediterranean. *Energy Pol.* 105, 341–353.
- Sherwood, D. (Ed.), 2015. The New Dimensions of Geopolitics, Triennium Work Reports 2012-2015. [https://www.ifri.org/sites/default/files/atoms/files/the\\_new\\_dimensions\\_of\\_geopolitics\\_tf3\\_igu\\_final\\_may\\_2015.pdf](https://www.ifri.org/sites/default/files/atoms/files/the_new_dimensions_of_geopolitics_tf3_igu_final_may_2015.pdf). access 27.05.19.
- Slovenská inovačná a energetická agentúra (SIEA), 2008. Stratégia energetickej bezpečnosti Slovenskej republiky. [https://www.siea.sk/materials/files/poradens-tvo/legislativa/strategia\\_eb/seb.pdf](https://www.siea.sk/materials/files/poradens-tvo/legislativa/strategia_eb/seb.pdf) access 15.03.19.
- Slovak-Israeli Scientific and Innovation Society (SKILL), 2019. Third Call for Proposals for joint industrial R&D projects. <http://skill-society.org/blog/third-call-for-proposals-for-joint-industrial-rd-projects> access 27.05.19.
- Slobodian, N., 2016. Single Gas Market and Energy Security in the Visegrad States: Models, Challenges, Perspectives. National Centre for Strategic Studies, Warsaw.
- Szöke, D., 2018. Energy and climate security. In: Szöke, D. (Ed.), *New Security Challenges from a Visegrad 4 Perspective*. Institute for Foreign Affairs and Trade, Budapest, pp. 55–66.
- Tagliapietra, S., 2017. Energy: a shaping factor for regional stability in the Eastern Mediterranean? [http://www.europarl.europa.eu/RegData/etudes/STUD/2017/578044/EXPO\\_STU\(2017\)578044\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2017/578044/EXPO_STU(2017)578044_EN.pdf) access 27.05.19.
- Tarnawski, M., 2015. Security of gas supply in the countries of the visegrad group. *Securitologia* 21 (1), 127–142.
- Tichý, L., 2019. *EU-Russia Energy Relations. A Discursive Approach*. Springer, Cham.
- Ušiak, J., 2018. Security related cooperation among the V4 States. *Polit. Cent. Eur.* 14 (2), 39–56.
- Virág, A., 2018. Energy strategies in the Syrian conflict. A Central and Eastern European perspective. *Soc. Econ.* 40 (1), 69–88.
- Visegrad Group, 2017a. Joint statement on the occasion of the summit of prime ministers of the Visegrad group and the president of the Arab republic of Egypt. Budapest. <http://www.visegradgroup.eu>. access 19.03.19.
- Visegrad Group, 2017b. Joint Statement on the Occasion of the Annual Summit of the Prime Ministers of the Visegrad Group and the Prime Minister of the State of Israel Benjamin Netanyahu. Budapest. <http://www.visegradgroup.eu>. access 19.03.19.
- Visegrad Group, 2017c. Hungary, Iran Sign Research Cooperation Agreement, 16.10.2017. <http://www.visegradgroup.eu/news/hungary-iran-sign>. access 27.05.19.
- Waltz, K., 1999. Globalisation and governance. *PS Political Sci. Polit.* 32 (4), 693–700.