POLICYSOLUTIONS

The Russian Presence in Key European Countries' Energy Market

Executive Summary

Our study on the Russian presence in the European energy market looks at a narrow but very relevant concern within the broader phenomenon of Russian activity in Europe: The Russian energy (both nuclear and gas/oil) investment activities between 2008 and 2015. The countries we looked at are the EU's 11 Central and Eastern European member states, as well as Austria, Finland, Germany and Greece. These covers the vast majority of countries with geographic proximity and/or intense economic ties to Russia.

In our overview chapter, we go into detail outlining the economic ties between the European Union and Russia in the area of energy, highlighting the problematic points and the trends of the last decade. We put emphasis on Russia's investments in nuclear energy as this part of Russia's energy investments is less researched than its expansion related to oil and gas. This is followed by individual reviews of Russian energy investment activities in each of the 15 EU member states investigated in the course of this study. Based on these individual reviews, our concluding chapter analyses the overall trends in the investment activities from the perspective of strategic political, economic and environmental issues.

While the motivation behind this research is obviously to illuminate the role that Russian energy investments play in the European Union, we did not set out with the goal of proving any particular point, and we suggest that an overly politicised and panicky reaction to Russian investments be at least as misguided as a complacent attitude towards the role of Russian influence in the EU. Our results and our analysis reflect what we hope is a generally balanced approach towards these questions.

However, based on the overview of Russia's presence in the energy market of some key European countries, it is clear that the significant dependence of the Central Eastern European region on Russian energy supplies is a major risk for the energy security of the EU. We see in most of the countries analysed in this report that if Russian energy imports were to cease, the economic and social impact on the region would be devastating to the extreme. It must also be pointed out, however, that the vast majority of this problem stems not only from a deliberate Russian strategy to further this dependency but also from a lack of natural energy resources, the slow speed at which the EU energy mix is restructured to give greater weight to renewables, as well as the price of diversifying the EU's energy import structure.

It also needs to be emphasised that the dependence is not at all one-sided, though arguably the EU, or at least its eastern half, depends more on Russia than vice versa. Nevertheless, on the whole the Russian economy also depends massively on energy exports to the EU, and Russia's newfound wealth, along with the social and political stability it has engendered,

stems to a very significant extent from European money paid in exchange for Russian energy exports. The Russian population has proved extraordinarily resilient in face of economic hardships, primarily manifest in the form of massive inflation, that resulted from the EU sanctions coupled with the drop in energy prices. In fact, hostility with the West has served to shore up public support for President Putin despite the obvious economic costs. Still, a scenario where Russia loses the vast majority of its energy export revenues is similarly unfathomable for Russia as the situation would be for the EU. This explains incidentally why even at the worst point in the tensions between Russia and the West energy trade continued, and why in the case of some countries the planned business deals that were temporarily put on hold resumed rather quickly as soon as tensions eased. The mutual dependence is too strong to sever ties over even a major disagreement, which the Ukraine issue certainly is. It is also crucial to point that energy trade also have some sort of stabilising factor in regional relations, since both parties can ill afford to let conflicts escalate to a point where these exports could not continue.

In reviewing the investment projects in the countries we looked at in researching the present study, it also important to point that on the whole Russian investment activity has not risen to a level which might give substantiate concerns that there is something akin to an "invasion" going on. After the financial crisis of 2008/2009 there was a dip in the Russian FDI stock in roughly half the countries investigated here, while Russian investments stagnated in most of the remaining countries. Nevertheless, after this brief break, Russian investments grew again in most of the region and in the entire EU, and had risen significantly by 2010. Yet the baseline was so low that in terms of total investment volume Russia is still a minor player in most European markets. In the last few months, the crisis over Ukraine has once again put a damper in the EU investment activities of Russian corporations, and this trend has been reinforced by the financial problems of major energy companies as a result of dropping oil and gas prices.

However, when reviewing the business outlook of Russian energy investments, it is key to point to out that while the European investment activity of Russian fossil energy producers may have suffered as a result of business setbacks and problems stemming from sanctions, overall there is not going to be a massive change in the volume of fossil fuels that the EU will import from Russia. Moreover, after some retrenchment in the immediate wake of the Ukraine crisis, there are indications that business ties with some EU countries are intensifying once again, which is especially relevant in the context of such wealthy and geographically fortuitously located economies as Germany and Austria. The biggest unknown in this equation is of course the price of gas. If prices are low, then that, too, can increase dependency: Renewables will become relatively more expensive, which may lead to the decision to take longer to reduce the EU's dependence on Russian gas and oil, with all the implicit environmental and strategic costs.

There is also a glimmer of hope for the state-owned nuclear energy cooperation Rosatom in Europe in the fact that several of the countries investigated here are either toying with the idea of increasing the role of nuclear energy or are actively engaged in the process. Even in these cases, however, the Russian partner also struggles with a level of suspicion that is difficult to overcome in the current environment, which may make offers by competitors more attractive. However, Rosatom may benefit from a growing authoritarian/anti-EU trend in some part of the European Union, especially if populist parties with close ties to Russia became more influential electorally. Growing authoritarianism in certain segments of the EU could prove beneficial because nuclear energy is generally not very popular in the public, which has vivid memories of Fukushima and even Chernobyl. A 2015 survey of Hungarians showed that 60% reject the Paks deal and 66% would prefer if renewables played a greater role in the energy mix, while only 15% would say the same for nuclear energy. Thus an overall trend of less debate and authoritarian decision-making could provide a breeding ground for governments to simply ignore public opinion on this matter, as they did in Hungary and potentially some Asian countries, too.

But even so, the big prices are not likely to be up for grab, as even under the new Law and Justice government Poland remains extremely wary of Russia, and France (with Front National and its links to Russia), for example, has neither need of Russian expertise nor credits. This leaves smaller markets such as the remaining Visegrad Four countries. In particular, some countries may be drawn to the appealing package of building their nuclear power plants with Russian credits, which places virtually the entire onus of implementing the gigantic and expensive project on the Russian party.

Even if the basic mood were – or will shift to become – more welcoming to nuclear energy, the EU would probably be well advised to guard against a massive incursion by Rosatom into the energy sectors of its member states, for both strategic and environmental reasons. At the theoretical level, nuclear energy can enhance energy independence, and this has in fact been an argument relentlessly emphasised by the Orbán government in Hungary. In reality, however, the situation is considerably more difficult. Since a country can only genuinely increase energy independent by using nuclear energy if it can produce its own nuclear fuel to operate the power plants *and* indefinitely store the spent nuclear fuel elements, in reality many countries that operate nuclear power plants are highly dependent on continuous external support to facilitate the operation of their plants. Experience has shown that a nuclear power plant built by Rosatom can only be safely operated by Russian engineers trained to this end, and if there is trouble, the Russian party needs to step in even if the everyday operation of the plant has been taken over by experts from the host country. This is a major source of additional (technological) dependence.

Moreover, one of the biggest benefits of Russian involvement in a nuclear power project in a partner country is the Russian offer of storing spent nuclear fuel, which is one of the

politically and environmentally most problematic aspects of using nuclear power. Yet any country that enters into an agreement with Rosatom in order to avail itself of the nuclear energy building services in the awareness that it will have to rely on these services for decades, must also be aware that energy independence thus attained is an illusion. Moreover, for some countries with volatile public finances Rosatom offers the possibility of financing projects on loan. Therefore, these countries are not only interlinked with Rosatom (and Russia) through their energy market, but they become financially dependent too.

Finally, with regard to strategic concerns it is worth pointing out that ultimately Russian investments in the EU serve the interest of selling more Russian products rather than cutting the EU off. In the case of a serious conflict with the EU, the Russian party would not be able to make much use of its vast gas storage capacities in Germany and Austria, which it acquired to distribute Russian gas. It is more likely that such investments will have a moderating effect on Russian policy, and in that respect a cessation of Russian investments might be a signal that is of greater concern.

Still, we have to refer to another potentially problematic dimension of Russian investments, namely their environmental impact. As we anticipated, during our research we found that the overwhelming majority of Russian energy investment projects has focused on oil, gas and related products and services. A minority also involved nuclear energy. Thus Russian energy investments are clearly geared towards the classic elements of the energy mix that the EU is trying to leave behind. They foster the market for those products that Russia boasts naturally (oil and gas) or where it has exportable expertise (nuclear energy). The investments in oil- and gas-related projects are most often a logical consequence of vertical integration. For example, it makes perfect sense that Lukoil, with a huge oil refinery in Bulgaria, would also have over 200 filling stations and a 26% market share in the petrol retail market.

However, when Russia uses its energy leverage to bully EU states or EU allies such as Ukraine, then its leverage stems primarily from energy dependence rather than Russian investment projects. Competition rules clearly need to be enforced and the EU's strategic interests should also be taken into consideration when assessing and potentially barring specific investment projects extending Russian influence in the EU, but the only way to reduce Russian influence is by increasing the pace of changing the EU's energy mix, reducing its dependence on fossil fuels and subsidising renewables. This would make strategic sense, environmental sense and, though it might be costly in the short term, it is likely also to make sense financially.

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1. Introduction

At the end of October 2015, the online edition of Germany's leading weekly magazine, *Der Spiegel* revisited the cover story of its March 2007 print edition. The retrospective, entitled *Russian Corporate Group Gazprom: Fall of a Giant,*[1] reviews the events and development's surrounding Russia's leading corporation since Spiegel asked eight years ago: "*Could [Gazprom] be the foundation for reclaiming [Russia's] lost status as a world power?*"[2]

For supporters of the Russian government and Gazprom in particular, the contrast between the tone of the 2007 and the 2015 articles is bound to be depressing: Gazprom has fallen from incredible heights to stunning lows. To be sure, Gazprom's "low" would be the envy of many company around the world, but compared to its 2007 self, the Gazprom of 2015 must itself surely feel a significant sense of loss. Moreover, as Spiegel notes, Gazprom's economic fortunes track those of its majority owner, the Russian state. If Gazprom is down, then so is Russia, in all likelihood, and vice versa.

As Europe was itself coming off a major economic boom period, with a commensurate thirst for energy, Russia was thriving in the period when Spiegel first devoted a cover story to Gazprom in 2007. The former superpower was finally overcoming the malaise that had shaped much of its first decade after casting off communism, and was rapidly expanding (or reasserting, depending on the country involved) its economic and political influence across Europe. This reached proportions that lead none other than Viktor Orbán, who is currently more friendly with Vladimir Putin than the largely sceptical EU, to warn presciently: "*Russia's expansion and resurgence constitute a very real challenge for the West. It is a threat and a challenge that reaches the European Union by way of Central Europe, and may even impact the military power of the alliance. Indeed, Putin's lapdogs have proliferated throughout Europe, and everyone is now beginning to understand how dangerous this has become.*"[3] Efforts at expanding Russian influence across the EU were emerging as an explosive topic in the second half of the 2000s, and investments by Russian companies were of course a key aspect of this phenomenon. Almost a decade later, it is time to ask how this issue has evolved in the intervening years.

1.1. The goals of the present study

Our study looks at a narrow but very relevant concern within the broader phenomenon of Russian activity in Europe: Our goal was to review Russian energy (both nuclear and gas/oil) investment activities between 2008 and 2015 in the area of energy in 15 countries of the

[1] http://www.spiegel.de/wirtschaft/unternehmen/gazprom-krise-jagd-auf-den-gas-giganten-a-1058731.html
[2] http://www.spiegel.de/spiegel/print/d-50746908.html
[3] http://www.miniszterelnok.hu/beszed/szent_mihalykor_az_a_pasztor_aki_elszamol

European Union. The countries we looked at are the EU's 11 Central and Eastern European member states (Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia), as well as Austria, Finland, Germany and Greece. These covers the vast majority of countries with geographic proximity and/or intense economic ties to Russia.

The goal of this overview is twofold. For one, we wished to ascertain how Russia's hold over the region has evolved during this time. Russian energy investment activities clearly involve highly relevant strategic elements. Major Russian corporations that invest abroad generally have either formal ties to the Russian government (i.e. state ownership or partial ownership) or strong informal ties (oligarchs associated to various extents with the Russian political elite), and their investment strategies often reflect the government's strategic preferences.[4]

Russia has often shown that it views the country's economic ties as part of its broader strategic arsenal, and correspondingly its partners have also come to look upon Russian investment activities and trade relations with Russia as factors in their overall strategic situations – and, in the context of EU countries, specifically as potential points of vulnerability. In particular, Russia's willingness to use its energy exports and the prices it charges individual partners as weapons to punish recalcitrant countries has driven home the point that strong economic ties imply a dependence on Russia that renders the partner country susceptible to Russian political pressure. The implication is that the more intense the economic ties, the higher the vulnerability to such pressure.

The use of hybrid warfare in destabilising Ukraine and other countries in the CIS region has highlighted the strategic dimension of this issue and the potential extreme manifestation of such dependence.[5] While the use of economic and other non-military "weapons" in conflicts is not novel, of course, there are indications that the concept of hybrid warfare plays an increasingly important role in Russia's strategic approach towards conflicts. And of course it makes sense that an approach to warfare that reduces the role of military engagements – while it places an emphasis on propaganda, economic pressure and cyber warfare – would become more relevant in an age when bloodletting is increasingly public and often unpopular, which often undermines the strategic goals of the fighting party. Thus in an era when defeating the enemy through killing will often run into domestic and/or international PR problems, doing so through non-violent and often invisible means will likely emerge either as a useful alternative or at least as a complementary mechanism. At the same time, this implies that countries' assessment of their security need to become attuned to this shift, and in particular they need to take into account vulnerabilities arising from economic interdependence. While economic interdependence is otherwise rightly considered a

[4] For further details, see for example Nina Poussenkova. The Global Expansion of Russia's Energy Giants. *Journal of International Affairs*, Spring/Summer 2010, Vol. 63, No. 2.
[5] András Rácz. Russia's Hybrid War in Ukraine: Where Else Could Moscow Do It? Forthcoming.

positive phenomenon that reduces the potential for conflict, it is precisely the bloodless and less conspicuous nature of economic warfare that may in certain situations serve to reduce the threshold for aggression. Yet when the threshold for conflict is reduced, the danger of escalation rises, and what seemed like a bloodless alternative to traditional fighting may spiral out of control and lead back to a scenario involving physical violence.

The conflict over Ukraine and the EU's current sanctions regime against Russia render the timeliness of this issue obvious, but it is even more complex than the question of strategic vulnerability alone suggests. Russian investments in Europe may also be highly relevant from an environmental perspective. Russia's economic ties with Europe predominantly revolve around energy exports from Russia, and these in turn centre on two fossil fuels: oil and gas. While this does not capture the entirety of the two regions' economic ties, trade in fossil energy makes up a vast chunk of their economic interactions, and all other areas of trade pale in comparison.

Moreover, when Russian energy companies invest in the EU, such investments are generally tied to the distribution of their own fossil products, or are at the very least connected to Russian areas of expertise, also including nuclear energy. Fossil fuels are of course inevitably part of the European energy mix, and the EU is still very far from phasing them out of the Member States' energy consumption. Nevertheless, reducing the role of fossil fuels and increasing the weight of renewables in the energy mix is a key EU policy objective, manifested in a wide variety of policy papers and actual legislation.[6] Thus in the introduction of its 2007 Communication entitled *Renewable Energy Road Map – Renewable energies in the 21st century: building a more sustainable future*, the European Commission stated that "*[t]he EU and the world are at a cross-roads concerning the future of energy. Climate change, increasing dependence on oil and other fossil fuels, growing imports, and rising energy costs are making our societies and economies vulnerable. These challenges call for a comprehensive and ambitious response. In the complex picture of energy policy, the renewable energy sector is the one energy sector which stands out in terms of ability to reduce greenhouse gas emissions and pollution, exploit local and decentralised energy sources, and stimulate world-class high-tech industries.*"[7] In its Renewable Energy Directive (2009/28/EC)[8] the EU went further still, actually laying down targets for increasing the share of renewables in the energy mix, setting "*mandatory national targets consistent with a 20% share of energy from renewable sources and a 10% share of energy from renewable sources in transport in Community energy consumption by 2020.*"[9]

The increasing role of renewables is primarily meant to come at the expense of fossil fuels, which makes sense, given the objective of curbing carbon dioxide emissions to reduce global warming. Russian energy investments, by contrast, whether they aim to strengthen Russia's

[6] Cf. http://www.smart-er.eu/content/eu-policy-energy-strategy-low-carbon-technology-and-buildings
[7] http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52006DC0848&from=EN
[8] http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32009L0028&from=EN
[9] Article 13. http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32009L0028

geo-strategic position or simply to further the interest of its energy companies, will very likely aim to increase or at least consolidate the role of fossil fuels. As we noted, Russian energy companies primarily invest in areas that further the distribution of their own products, that is oil and gas. Russian companies are also present in the market for nuclear energy, one of the areas where Russian expertise has also emerged as an "export product". However, an expanding role of nuclear energy is also very controversial, as in the wake of the Fukushima tragedy there is increasing pressure by the public and NGOs to reduce or even completely phase out the role of nuclear energy in the European energy supply. Moreover, several studies underline that the economic competitiveness of nuclear energy has been falling vis á vis the renewable energy,[10] therefore investment in new nuclear plants or the lifetime extension of old ones might be questionable from economic point of view too. In sum, a critical perspective on Russia's energy investments and other market activities must also investigate their impact on the EU's larger policy objectives of reducing the role of fossil fuels and carbon dioxide emissions, as well as public concerns about the safety of nuclear energy.

1.2. The plan of our study

To overview the Russian presence in key European countries' energy market, the paper will proceed as follows.

In our overview chapter, we will go into further detail outlining the economic ties between the European Union and Russia in the area of energy, highlighting the problematic points and the trends of the last decade. We will put emphasis on Russia's investments in nuclear energy as this part of Russia's energy investments is less researched than its expansion related to oil and gas.

This will be followed by individual reviews of Russian energy investment activities since 2008 in each of the 15 EU member states investigated in the course of this study. It is important to caution that while we performed a fairly wide-ranging review of Russian investment activities in the countries concerned, our review is not fully comprehensive. Due to certain difficulties in the research execution, including the dearth of news items on smaller transactions and the occasionally concealed nature of Russian investments, there are investment projects that were not covered in our research. Nevertheless, the information that we did manage to gather was sufficient both for providing us with a broad overview of the trends in Russian investment activities in individual countries, as well as the evolution of

[10] i.e.: Projected Costs of Generating Electricity. Organisation for Economic Co-operation and Development/International Energy Agency/Nuclear Energy Agency (2015): https://www.iea.org/Textbase/npsum/ElecCost2015SUM.pdf

such activities across the Central and Eastern Europe region of the EU and the other countries we looked at.

Based on these individual reviews, our concluding chapter will analyse the overall trends in the investment activities from the perspective of the strategic political, economic and environmental issues raised above. While the motivation behind this research is obviously to illuminate the role Russian energy investments play in the European Union, we did not set out with the goal of proving any particular point, and we suggest that an overly politicised and panicky reaction to Russian investments be at least as misguided as a complacent attitude towards the role of Russian influence in the EU. Our results and our analysis reflect what we hope is a generally balanced approach towards these questions.

2. Russia and the EU – Energy Trade and Investments amidst Political Tensions

2.1. The Gazprom story

To provide some context for our analysis of Russian energy investment activities in the EU, it may be worthwhile to start with some relevant details from the Spiegel analysis (mentioned in the previous chapter) on the earlier success and recent woes of Russia's gas giant Gazprom. Gazprom's extraordinary relevance for the EU stems from three sources. First – not in order of importance – is the sheer size of the company. Second is the fact that is by far the most active among Russian companies in terms of investments in the EU. Third, it is the only company thus far that may export gas out of Russia. While Gazprom's gas export monopoly is under siege as other Russian companies demand a share of the export market, during the period under analysis – as well as for the time being – Gazprom is *the* player when it comes to Russian gas imports in the EU. The analyst Nina Poussenkova described the centrality of Gazprom in the following words: "*Whereas oil companies are important players, the role of Gazprom in today's Russia is best described by an old cliché: 'what is good for Gazprom is good for Russia.' While in the 1990s Gazprom and the Kremlin resembled business partners who sometimes disagreed, in the 2000s Gazprom has become the Kremlin's faithful servant and dangerous sword, and the Kremlin has become Gazprom's protector.*"[11]

Let's look at some of the figures that led Spiegel to marvel at Gazprom's clout in 2007 – and some that led it to conclude that, at least for the time being, the company has declined precipitously since then. Until 2008, Gazprom's position was steadily improving. On the Financial Times's ranking of top companies globally, it came in 10th in 2006, 6th in 2007 and a stunning 4th[12] in 2008.[13] When it was at the peak of its clout, it was valued at around 370 billion US dollars, it was the top company in Europe in terms of market capitalisation and easily among the most valuable companies globally as well.[14] During this time Gazprom's "*top management set the goal of a market capitalisation of a trillion dollars; Gazprom was seeking to become the first company globally to break*" the 1,000 billion threshold.[15] Comparing company value to national GDPs, Gazprom would have ranked among the top 30 nations on earth. At the end of 2009, Polish analyst Agota Łoskot-Strachota wrote that Gazprom – a single

[11] Nina Poussenkova. The Global Expansion of Russia's Energy Giants. Journal of International Affairs, Spring/Summer 2010, Vol. 63, No. 2, p. 113.
[12] http://www.ft.com/intl/indepth/ft500
[13] Forbes composite ranking based on several categories (sales, profits, assets and market values) for 2008 had Gazprom in the eight spot in Europe and 19th globally. See http://www.forbes.com/lists/2008/18/biz_2000global08_The-Global-2000_Rank.html
[14] http://www.theguardian.com/world/2015/aug/07/gazprom-oil-company-share-price-collapse
[15] http://www.reuters.com/article/2013/06/28/us-russia-gazprom-dream-idUSBRE95R0XW20130628

company! – "*accounts for 20% of global production. It also occupies a dominant position on the Russian gas market, since it controls over 60% of domestic gas reserves (Russia has the world's largest gas deposits) and up to 85% of Russian gas production*".[16] At the time when Spiegel's report was published, Gazprom was planning a bombastic 77-floor headquarters in St. Petersburg, and top architectural firms around the world submitted plans; the building would have dwarfed everything the city had to offer in terms of size.

Though the plans have since been replaced by even more bombastic ones – and the originally selected British architects have been replaced by a Russian firm[17] –, almost a decade later, the actual realisation is still years off, with the world financial crisis and falling energy prices both taking their toll on Gazprom. The Russian gas giant had dropped out of FT's global top 10 by 2009, was in 83rd place in 2014 and is currently in the 170th spot – slightly ahead of the Canadian National Railway, as Spiegel maliciously noted. In Europe, it fell from the top spot to No. 44 in 2015.

Gazprom's 370 billion dollar in market value dropped to a low of 51 billion dollars in August 2015.[18] Still impressive by most standards, but less than 20% of its peak value and only about 5% of where it wished to be when it dreamed of being the first company ever to top a trillion. With the toxic mix of low energy prices and sanctions, profitability also fell massively, and in March 2015 CNN Money reported that the company's net profits had declined by a whopping 70% in 2014[19] (Fortune reported an 86% drop for the same period[20]). Long before Gazprom reached rock bottom, an analysis on Bloomberg noted that since the ambitious 1 trillion projection by Gazprom's CEO, "*no company among the world's top 5,000 has suffered a bigger collapse in market capitalization than Gazprom*".[21] A financial analyst labelled Gazprom a "*champion in value destruction.*"[22]

Though many of the company's current problems are Gazprom-specific, the gas giant is also the victim of several deleterious general trends in which all large Russian energy companies, and in fact Russia itself as an economic and political unit, have been caught up. As a result, Russia's other leading energy corporations Rosneft, Lukoil and Surgutneftegaz have recently also taken massive dives in the Financial Times rankings, though from far less auspicious spots. The reasons are of course varied, but they are a combination of tumbling oil prices – which have, with some delay, also manifested themselves in dropping gas prices – anaemic economic growth with a correspondingly lower demand for energy, warm winters and the

[16] Agata Łoskot-Strachota. Gazprom's expansion in the EU: co-operation or domination? Center for Eastern Studies, Warsaw, 2009, p. 2.
[17] http://www.building.co.uk/russian-firm-replaces-rmjm-on-gazprom-tower/5071223.article
[18] http://www.eurasianet.org/node/74501
[19] http://money.cnn.com/2015/03/31/investing/russia-gazprom-profit/
[20] http://fortune.com/global500/gazprom-26/
[21] http://www.bloomberg.com/news/articles/2014-04-03/gazprom-s-910-billion-gaffe-shows-putin-economy-waning
[22] ibid.

recent sanctions against Russia. While gas prices have suffered less than oil prices, Gazprom has been plagued by other problems as well. Spiegel notes that due to increasing domestic competition, the giant corporation has lost a third of its intra-Russia sales over the last decade – on top of a more modest, roughly 20% drop in exports since the peak value in 2007.[23] Lower prices coupled with lower volumes sold is a bad combination for corporate profits. However, an analysis in the Guardian identifies another reason behind Gazprom's current difficulties: "*Experts say Gazprom's main problem is that it continues to serve as Putin's favoured geopolitical weapon. [...] Most ominously for the company, the Putin administration still keeps pushing Gazprom to implement new projects that are important for the Kremlin but risky from a financial viewpoint.*"[24] One crucial area specifically mentioned are Gazprom's incessant and expensive pipeline plans – one of the most pre-eminent areas of actual and potential investments in the EU – which essentially aim to have an alternative route to anyone who happens to be the Kremlin's enemy du jour. Having an extensive network of pipelines would make it possible to circumvent any country that the Russian government is at odds with at any given moment, but of course it also necessitates creating gas transmission capabilities that exceed the volume of actual gas exports, otherwise there is nowhere to reroute the gas should a conflict erupt. As of 2013, Ukraine in particular was still the transit for half the Russian gas flowing from Russia to the EU (it had been 66% in 2008[25]), which illustrates the need – from the Russian perspective – to diversify transit routes.[26] This may be strategically beneficial for the Putin administration, but it is expensive for its leading energy company, as are many of the other prestige projects that the Kremlin has pushed Gazprom to deliver (the Guardian mentions Gazprom's role in the Sochi Winter Olympics, for instance).

2.2. Gazprom's nuclear sister: Rosatom

In many respects, Rosatom is the nuclear pendant of Russia's gas exporting behemoth Gazprom. Like the gas corporation, Rosatom enjoys a monopoly on exporting nuclear power equipment and services through its subsidiary Atomstroyexport.[27] Like Gazprom, Rosatom is the result of the transformation of a former Soviet-era government ministry into a business corporation. Characteristically for the intertwinements between the various arms of the Russian state-owned and semi-state industry, while a majority stake in nuclear exporter Atomstroyexport is held by Rosatom, a significant minority stake of 49.8% is owned by Gazprombank,[28] making it somewhat difficult to say where one company – or even industry – ends and the other begins. And maybe that's not even the point, for while there

[23] http://www.spiegel.de/wirtschaft/unternehmen/gazprom-krise-jagd-auf-den-gas-giganten-a-1058731.html
[24] http://www.theguardian.com/world/2015/aug/07/gazprom-oil-company-share-price-collapse
[25] Łoskot-Strachota, op. cit. 2009, p. 12.
[26] http://www.clingendaelenergy.com/files.cfm?event=files.download&ui=9C1DEEC1-5254-00CF-FD03186604989704
[27] http://www.nuclearpowerdaily.com/reports/Moscow_Dhaka_Sign_Contract_on_Construction_of_First_Bangladeshi_NPP_999.html
[28] http://bbj.hu/http://bbj.hu/finance/gazprom-funds-russias-nuclear-industry-expands-uranium-role_22911

may be certain differences between these companies, the feature that unites them – state control – may be the most important one.

The parallels between the two companies are also manifest in their size. Gazprom employs 404,000 employees (some 26,000 outside Russia),[29] while Rosatom, though slightly smaller, gave work to a massive 272,000 employees in 2014[30] (though in 2015 it "only" reported 255,000 employees,[31] which marks a considerable drop considering that previously it had held the 270,000 level stable at least since 2009-2010[32]). Their revenues are also similar, with Gazprom totalling roughly 14.4 billion USD in 2014 (a drop of 12% over 2013)[33] and Rosatom reporting 16.2 billion USD in 2015.[34]

Another key feature of Rosatom, which marks a major difference when compared to Gazprom, however, is that through its control over much of Russia's nuclear programme, the energy company also exercises control over a strictly military aspect of the Russian state. While it is true that gas is often used as a strategic instrument in Russia's relations with the world, it is an economic instrument, not a weapon in the narrow sense the word. In the case of nuclear energy, the connection to military use is much more direct, and, consequently, so is Rosatom's intertwinement with Russia's military arsenal.

Like Gazprom, Rosatom has also major ambitions in the international markets, and in its case, too, it is not always clear whether any given business ambition is driven by Russia's geo-strategic needs (or perceived needs) or actual business interests, that is a desire to generate profits. What is nevertheless apparent is that Rosatom wishes to expand the international role of Russian nuclear energy, and that in fact even its domestic activities are often geared towards expanding Russia's strategic position internationally. Former Russian prime minister and current Rosatom CEO Sergey Kiriyenko put the overall approach succinctly when he said that "[w]e want to power the world [with nuclear energy]".[35] In reviewing Rosatom's business policies, Reuters argued that "[u]nlike Germany, where public disillusionment after Fukushima has ushered in plans to exit nuclear power, Russia is aggressively building reactors not only at home but leading the charge abroad."[36] Depending on the observer's view of nuclear energy, the result is either impressive or scary: Reuters wrote that Rosatom [in 2013] was building 28, or nearly half, of the 68 reactors currently constructed worldwide, leaving competitors far behind. This includes nine reactors in Russia

[29] http://www.gazprom.com/careers/hr-policy/
[30] http://www.nti.org/facilities/915/
[31] http://database.globalreporting.org/companies/view/3081
[32] http://ar2010eng.rosatom.ru/wps/wcm/connect/rosatom/rosatomgoeng/stabledevelopment/HRmanage/characteristics/
[33] http://fortune.com/global500/gazprom-26/
[34] http://database.globalreporting.org/companies/view/3081
[35] http://thefederalist.com/2015/05/06/uranium-one-gives-russia-a-platform-to-distribute-nuclear-power/
[36] http://www.reuters.com/article/russia-nuclear-rosatom-idUSL5N0F90YK20130722

(though the construction of three of these nine was launched already under the Soviet regime, construction of the other six began in the last decade, which indeed points to a resurgence[37]), which are also meant to supplant Russia's own consumption of fossil fuels, more of which would then be available for exports. It is also worth noting, however, that Russia's mind-bogglingly ambitious 2008 objectives, which envisioned 42 new nuclear reactors by 2020, have since been significantly scaled down, as currently only a third of the original planned number, 14 are slated to be built by 2020.[38] While a detailed Greenpeace analysis offers a scathing critique of Rosatom's plans, noting that they are both dangerous and highly unrealistic in light of dropping global demand and Rosatom's general inability to finish work on time, it does nevertheless acknowledge that at least in some countries governments' appetite for nuclear energy appears to be on the rise, and this potentially provides a weighty counterpoint to the general trend of global nuclear decline.[39] The fact that such key emerging economies as the PRC and India, home to over a third of the world's population, place a greater emphasis on nuclear power might give nuclear energy at least part of the boost that Rosatom envisions.

Indeed, before the onset of the Ukraine crisis Rosatom was making headway internationally, and in 2013 Kiriyenko noted that in the previous two years the value of the companies foreign commissions had increased by 60% to 66.5 billion USD, and was on course to grow further.[40] Moreover, while the combination of the Ukraine crisis, the steep drop in oil prices and mild winters has clearly dealt a blow to the expansion of the fossil energy industry, with regard to nuclear energy the development is less clear-cut, not least because Rosatom's designated customers were in any case countries that are more tolerant or even sympathetic towards the aggressiveness exhibited by the Russian government towards its domestic and international foes. To wit, Rosatom's contract with Hungary to expand the eastern European country's nuclear reactor in Paks for a substantial 12.5 billion EUR is a sizeable chunk of money even compared to Rosatom's total international revenue, and it was concluded after Kiriyenko's announcement. Though there have also been some setbacks recently, such as the failure of Russian nuclear projects in Bulgaria and the Czech Republic, there have also been some spectacular successes, for example Rosatom's successful bid to build Finland's Hanhikivi reactor or the aforementioned Paks deal.

Generally speaking, it appears that the EU market in general, and especially those segments of the EU market that are committed to democracy and sensitive to the strategic problems resulting from Russian expansion into the EU, will become less susceptible to Rosatom's charms, but the company might make up for that decline with vigorous growth in emerging markets. If the attitude towards nuclear security is on the whole more relaxed in these

[37] http://www.worldnuclearreport.org/IMG/pdf/20130716msc-worldnuclearreport2013-lr-v4.pdf
[38] Ulrich, et al. Rosatom Risks - Exposing the troubled history of Russia's State Nuclear Corporation. Greenpeace, 2014, p. 25.
[39] Ibid.
[40] http://www.reuters.com/article/russia-nuclear-rosatom-idUSL5N0F90YK20130722

countries, then this development is more disconcerting than even a higher level of growth would be in the presence of Rosatom in more safety-attuned countries.

The way in which Rosatom seeks to capture markets abroad shows an unusual level of financial flexibility and aggressiveness, and this combination has yielded some impressive results. Thus the company offers a vast array of services and financing possibilities to render nuclear investments more attractive, essentially allowing potential clients a whole range of options from complementing their own nuclear plant construction with some services from Rosatom to leaving the entire project, including the operation of the plant, in the hands of the Russian company. Most importantly for some countries with volatile public finances (such as Hungary[41] or Bangladesh,[42] which have both made financial commitments to Rosatom that amount to roughly 8-10% of their respective annual GDP figures), Rosatom offers the possibility of financing projects on loan. Therefore, these countries are not only interlinked with Rosatom (and Russia) through their energy market, but they become financially dependent too.

In another financing model, Russia not only builds the nuclear reactor but also owns and operates it. This so-called Build-Own-Operate (BOO) model is the closest equivalent to regular investments when energy companies create subsidiaries in foreign markets, though of course the legal environment imposes considerably more significant constraints in the "nuclear" scenario. A key example for BOO in action was the Turkish Akkuyu project,[43] whose future hangs in the balance due to the recent conflicts between Russia and Turkey.[44] There is some speculation as to whether Russia may in fact welcome a pretext for backing out of the deal, as the investment would impose a significant strain on the country's already tense finances.

Crucially, Rosatom also offers solutions for the problems of nuclear fuel supply and the storage of spent fuels, which is a major environmental and public health issue that has vexed countries with nuclear capacities – and has probably stopped several from using nuclear energy in the first place.[45] Russia offers to deposit nuclear waste for these countries, which clearly increases the dependence of those countries that enter into such a contract, though at the same time it renders the use of nuclear energy possible for them. While Greenpeace raises legitimate doubts about the moral hazards of this approach,[46] the fact is that it has

[41] http://budapestbeacon.com/economics/hungarian-parliament-approves-eur-10-billion-russian-loan-for-paks/9109
[42] http://www.themoscowtimes.com/business/article/rosatom-to-build-bangladeshs-first-nuclear-power-plant/487015.html
[43] https://www.iaea.org/NuclearPower/Downloadable/Meetings/2014/2014-02-04-02-07-TM-INIG/Presentations/35_S7_Turkey_Camas.pdf
[44] http://thebulletin.org/end-moscow-ankara-nuclear-cooperation9059
[45] Ulrich, et al. Rosatom Risks - Exposing the troubled history of Russia's State Nuclear Corporation. Greenpeace, 2014.
[46] Ibid.

served Rosatom quite well, as its foreign investment portfolio has steadily expanded despite the economic problems in its home country.[47] Still, even though Rosatom performed solidly in the international markets, as recently as 2012 it was also a drag on the Russian budget (it paid roughly 2 billion euros in taxes and received almost 3 billion in funding[48]), though the public outlays for the nuclear energy corporation include subsidies for vast long-term investments that will presumably yield benefits later. Furthermore, the performance of Rosatom' non-market (i.e. political and creditor) functions are difficult to assess in a purely business-based evaluation framework.

2.3. The situation in Russia

As we noted above, many of Gazprom's (and, to a lesser extent, Rosatom's) current woes are mutually reinforced by Russia's own precarious economic situation, and in particular the government's decision to sacrifice economic benefits in the interest of furthering what it interprets as Russia's long-term strategic objectives. In particular, Russia's relations with Ukraine were in a constant flux, depending on shifts in successive Ukrainian government's policies towards Russia and the European Union; as the pro-western elite vied with the pro-Russian elites for control of Ukraine, Russia's attitude reflected their alternating success. Following the toppling of President Viktor Yanukovych in 2014 by extra-constitutional means, which many Russians regarded as a western-coordinated measure to compromise their country's strategic position in the region, the Putin government launched a massive campaign to undermine the new pro-western government of Ukraine, as well as the territorial integrity of its western neighbour. While this also manifested itself in another round of the recurring gas wars between the two countries, that is Russia raising gas prices and then cutting off gas supplies to Ukraine,[49] the conflict ran much deeper this time, of course, and the economic costs were much higher on both sides.

Russia was already struggling with the substantial blow inflicted by falling energy prices, and the economic impact was exacerbated by sanctions that the European Union and the US imposed in response to Russia's actions against the territorial integrity of Ukraine. Up until the crisis of 2008/2009, Russia's budget had been in an impressive surplus for years,[50] and the country built massive foreign currency reserves[51] while its foreign debt as a percentage of

[47] http://www.eco-business.com/press-releases/rosatom-foreign-order-portfolio-for-10-years-to-2015-exceed-us110bn/
[48] Ulrich, et al. Rosatom Risks - Exposing the troubled history of Russia's State Nuclear Corporation. Greenpeace, 2014, p. 13)
[49] http://www.bbc.com/news/world-europe-27871910
[50] http://www.tradingeconomics.com/russia/government-budget
[51] http://www.indexmundi.com/g/r.aspx?t=100&v=144&l=en

GDP ranks among the lowest in the developed world.[52] The crisis of 2008/2009, and the resulting depressed demand for energy, have compromised Russia's strong fiscal position. Though the country has recovered from the immediate impact of the crisis when it went from a 4% surplus in (already partly crisis-stricken) 2008 to an 8% deficit in 2009, and has recently boasted roughly balanced budgets with slight surpluses (0.8% in 2010) or slight deficits (0.5% in 2013 and 2014),[53] the deficit is projected to rise to about 4% again in 2015.[54]

The economic problems run deeper, however. In terms of GDP growth, the country recovered fairly quickly from the devastating impact of the 2008/2009 crisis, in no small part due to robust energy prices. Though per capita GDP in current prices fell from 11,600 USD in 2008 to 8,560 USD in 2009, a drop of almost 27%, it then steadily climbed afterwards, and with 14,460 USD in 2013 it even far exceeded pre-crisis levels.[55] The enormous dip in energy prices and the sanctions have dealt a blow to the boom that Russia has been experiencing since 2009, and the GDP per capita figure dropped suddenly to 12,700 in 2014 and is expected to drop further in 2015. Moreover, the World Bank does not expect the Russian economy to grow significantly before 2017,[56] and other projections tend to mesh with this negative outlook.[57]

Along with a decline in the fall of the Russian currency, the ruble, this has also resulted in a steep rise in inflation, which is around 15% despite the Russian central bank's manoeuvres to bring it closer to the inflation target of 4% by raising interest rates.[58] Though the Bank of Russia's strict monetary policy may help in curbing inflation, the high base rate is hardly conducive to economic growth and might further delay recovery.

The difficult economic situation, the sanctions and especially low energy prices are very likely to hamper Russian energy companies' mood for aggressive expansion by investment. Nor is there any indication that the Russian government would pursue a quick economic recovery at the price of political concessions.

In fact, in a display of global strategic ambitions reminiscent of Russia's status as a superpower during the Cold War, the Putin government has followed up its costly

[52] http://www.imf.org/external/pubs/ft/weo/2015/02/weodata/weorept.aspx?pr.x=23&pr.y=17&sy=2008&ey=2014&scsm=1&ssd=1&sort=country&ds=.&br=1&c=922&s=NGDPD%2CNGDPDPC%2CPPPPC%2CGGSB%2CGGSB_NPGDP%2CGGXWDG%2CGGXWDG_NGDP%2CBCA%2CBCA_NGDPD&grp=0&a=

[53] http://www.tradingeconomics.com/russia/government-budget

[54] http://www.wsj.com/articles/russias-budget-deficit-more-than-doubles-in-a-month-1426176589

[55] http://www.imf.org/external/pubs/ft/weo/2015/02/weodata/weorept.aspx?pr.x=23&pr.y=17&sy=2008&ey=2014&scsm=1&ssd=1&sort=country&ds=.&br=1&c=922&s=NGDPD%2CNGDPDPC%2CPPPPC%2CGGSB%2CGGSB_NPGDP%2CGGXWDG%2CGGXWDG_NGDP%2CBCA%2CBCA_NGDPD&grp=0&a=

[56] http://data.worldbank.org/country/russian-federation

[57] See for example the OECD's projection at http://www.oecd.org/eco/outlook/russian-federation-economic-forecast-summary.htm

[58] http://www.bloomberg.com/news/articles/2015-08-04/russia-inflation-faster-in-july-as-ruble-challenges-central-bank

engagement in Ukraine with another expensive and high risk intervention in Syria to prop up the flailing regime of its ally, the Syrian leader Bashar al-Assad. Expert estimates put the cost of Russian engagements in Syria at around 4 million USD a day, with the total estimated around 115 million since Russia began bombing Assad's enemies at the end of September 2015.[59]

Despite budget cutbacks and the price tags associated with its military engagements and its economic "war" with the West, the Russia government is intent on asserting the primacy of a certain notion of political/strategic interests over economic interests.[60] This has lead the government to assert that though cutbacks are necessary in light of Russia's current difficulties, these will definitely not impact the defence budget.[61] The share of official defence spending as a percentage of GDP has been continuously on the rise over the past few years, and has gone from an already significant 3.4% in 2008 to 4.5% in 2014, one of the highest percentages both among select major military players globally[62] and the world in general.[63] But analysts have argued that the official figures fail to capture the entirety of Russian defence spending, since many military expenditures occur through a so-called "black budget", which does not include an itemized list of expenditures and has "doubled since 2010 to 21 percent [of the budget] and now totals 3.2 trillion roubles ($60 billion)."[64] These secret funds have been used to "accelerate Russia's largest military build-up since the Cold War", argues an analysis by Andrey Biryukov for Bloomberg.[65]

While the recent aggressiveness of Russian foreign policy casts a dim light on these figures, we know very little about the actual objectives of this policy, and with regard to the key issue discussed in this paper, namely investments in Europe, we know still less about the place these occupy in the puzzle that is Russian foreign policy. It is difficult to see how a policy of economic expansion can go hand in hand with an increasing assertion of military power. For Russia to be able to flex its muscles by using the business investments of Russian corporations, there must be some level of ongoing economic relations. It is true, however, that despite tough talk by the West, economic relations are indeed vibrant, which highlights the dependence of both players on these economic interactions, without which considerable parts of Europe would be bereft of the energy to heat their houses and run their cars, while Russia's exports would collapse. It appears that for the time being, even the Putin

[59] http://www.cnbc.com/2015/10/21/this-is-how-much-russias-war-in-syria-costs.html
[60] The argument could be made that what is at issue in reality are Russia's long-term economic interests, under the assumption that these are inextricably intertwined with the assertion of its strategic interests. While it is possible that some in decision-making positions in Russia subscribe to this view, we do not see such a connection.
[61] http://www.reuters.com/article/2015/01/15/russia-crisis-budget-idUSL6N0US25520150115
[62] http://www.forbes.com/sites/niallmccarthy/2015/06/25/the-biggest-military-budgets-as-a-percentage-of-gdp-infographic-2/
[63] http://data.worldbank.org/indicator/MS.MIL.XPND.GD.ZS
[64] http://www.japantimes.co.jp/news/2015/06/03/world/putins-black-budget-hides-shift-toward-war-economy-defence-security-absorb-34-spending/
[65] http://www.bloomberg.com/news/articles/2015-06-02/putin-s-secret-budget-hides-shift-toward-war-economy

government's strong posturing is not enough to comprehensively undermine the economic ties between Russia and the EU.

2.4. Russia-EU energy trade

The most important reason behind the enduring stability is that the EU is extremely dependent on Russia as its primarily supplier of oil and gas – and of course Russia is extremely dependent on the EU as a source of cash. Though both sides are working to reduce this mutual dependence, this is a long-term project at best. In 2013, Russia supplied 39% of all natural gas imported by the EU, as well as 33% of the crude oil and 29% of solid fuel imports.[66] For natural gas, the average EU country obtained 65.2% of its gas import needs from outside the EU in 2013 and 67.3% in 2014, with only two countries, the Netherlands and Denmark being net exporters of gas.[67] More importantly, however, there is extreme variation in the levels of import dependence, and in particular dependence on Russia. The latter ranges from 100% or near 100% values for extra-EU imports in the north-eastern and south-eastern segments of the EU, that is the Baltics, Finland and Bulgaria, over high levels (50% or more) in Austria, Greece, Slovenia and the V4, moderate levels in Croatia, France, Germany, Italy, Luxemburg and Romania to near zero in the westernmost segments of the EU.

[66] Marco Siddi. The EU-Russia – Gas Relationship - New Projects, New Disputes? Finnish Institute Of International Affairs, Briefing Paper 183, October 2015, p. 2
[67] http://ec.europa.eu/eurostat/statistics-explained/index.php/Natural_gas_consumption_statistics

Table 1: Energy dependence in selected EU countries and the share of Russian energy in extra-EU imports[68]

	Energy dependence		Share of imports from Russia in total national extra-EU28 imports of the product	
	All products		Petroleum oils	Natural gas
Member State/Year	**2008**	**2013**	**2013**	**2013**
Austria	68.7%	62.3%	0-25%	75-100%
Bulgaria	51.7%	37.8%	75-100%	75-100%
Croatia	59.9%	52.3%	50-75%	0-25%
Czech Republic	28%	27.9%	75-100%	75-100%
Estonia	24.7%	11.9%	0-25%	75-100%
Finland	54.2%	48.7%	75-100%	75-100%
Germany	60.8%	62.7%	25-50%	25-50%
Greece	73.3%	62.1%	25-50%	50-75%
Hungary	63.2%	52.3%	75-100%	75-100%
Latvia	58.8%	55.9%	0-25%	75-100%
Lithuania	57.8%	78.3%	75-100%	75-100%
Poland	30.3%	25.8%	75-100%	75-100%
Romania	28%	18.6%	25-50%	75-100%
Slovakia	64.3%	59.6%	75-100%	75-100%
Slovenia	55.1%	47.1%	0-25%	75-100%
EU (28 countries)	**54.7%**	**53.2%**	**33%**	**41%**

In terms of monetary value, the oil trade is considerably more significant for both sides. In 2013 the EU's oil imports were valued at 295 billion euros, while natural gas and gas products amounted to 94 billion euros, less than a third of oil.[69] This division between oil and gas is also true from the Russian perspective. Over two-thirds (68%) of all Russian exports consist of oil, petroleum products and gas, with the total value amounting to 356

[68] Based on data from Eurostat. Original source of energy dependence data: http://ec.europa.eu/eurostat/tgm/table.do?tab=table&plugin=1&language=en&pcode=tsdcc310
Original source of data for Russian share in energy exports: http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Share_of_national_imports_of_petroleum_oils_and_natural_gas,_2013,_trade_in_value.png

[69] http://ec.europa.eu/eurostat/statistics-explained/index.php/Trade_in_energy_products

billion euros. Oil and petroleum products make up 54% of all Russian exports, while natural gas accounts for only 14%.[70]

Despite the higher value of oil imports, gas has emerged as the more intensely politicised issue. The reasons are manifold. For one, there is the key regional variation, that is the extremely high level of dependence on Russian gas in the eastern half of the EU, specifically the region that is investigated in this study. In combination with the lack of potential alternative sources of imports, this makes the entire region highly dependent on Russia, and the latter's willingness to use this dependence as an instrument of political pressure – coupled with Russia's frequent conflicts with transit countries, primarily Ukraine and Belarus – have shown over and over again that the need for Russian gas makes the affected region very vulnerable.

Moreover, while oil consumption is projected to fall as fuel efficiency standards increase, and recent developments are leading to greater diversity in the supply of oil, such a trend is not expected with regard to gas. Intra-EU gas production is projected to fall while Russia's role in international production and reserves is on the rise, resulting in the general trend of growing EU dependency on Russia for gas imports. An indication of Russia's relatively stronger position in the gas market is that while in 2013 it delivered 39% of the total volume of gas imported by the EU, it collected 41% of the total amount spent by EU countries on gas imports, while for oil the ratio was reversed, Russia collected 33% of the total revenue spent on oil in exchange for providing 34% of the EU's oil imports.[71]

In terms of the countries of origin for imports, there are significant differences between oil and gas. The most striking one is that gas imports are concentrated on three-four major countries of origin (Russia, Norway, Algeria and to a lesser extent Qatar), while there are eight oil exporting countries with a share of over 5% in the EU's oil imports (in declining order of importance as of 2013: Russia, Norway, Nigeria, Saudi-Arabia, Kazakhstan, Libya, Algeria and Azerbaijan). Russia is the single most important source for both oil and gas. In oil, its 34% of EU imports is far ahead of second-placed Norway, which supplied only 11% of the EU's import needs in 2013. Yet there is some potential for diversifying the EU's oil supplies, since thus far several major international exporters play a minor role in the EU's imports, and dropping international demand is likely to make wealthy Europe an attractive target for oil exporters. This is also manifest in the fact that Russia charges a little less for oil than the average supplier to the European market. Though with almost 40% Russia's share of EU gas imports is higher, there are two other major producers, Norway with 32% and Algeria with 14% of all EU imports.

[70] http://www.eia.gov/todayinenergy/detail.cfm?id=17231
[71] Unless indicated otherwise, all data in the paragraphs below is from: http://ec.europa.eu/eurostat/statistics-explained/index.php/Trade_in_energy_products

For quite a while after 2004, Russia's share of the EU's gas imports was declining, from a peak of 44.4% in 2004 to a low of 32% in 2011 and 2012, while Norway's and Qatar's share of gas imports rose steadily, from 24.2% (2004) to 31.3% (2012) and 1.4% (2004) to 10.9% (2011), respectively.[72] Yet there was a turn in 2013, with Russia's share rising by a whopping 7% from 32.3% to 39.3%, with both Qatar (-4.3%) and Norway (-1.5%) losing market shares as compared to their peak values.[73] What is worse from an EU perspective is that Norway's gas production is projected to fall massively, by up to 40% over the next decade,[74] while Russia holds over a quarter of the world's natural gas reserves[75] and is projected to be the top producer of gas for a long time.[76] A diversification of Europe's gas supply will therefore hinge on a highly volatile Middle East (in this respect the recent relaxation in the relations between Iran and the West as a result of the nuclear deal between Iran and the US could prove beneficial), or to a lesser extent on Central Asia, in countries where Russia wields major influence. This is a very different situation from the oil market, where reserves are considerably more diversified, and Russia in particular is nowhere near the same level of dominance in terms of reserves. One of the alternatives to reducing the EU's dependence on energy imports is the production of shale gas and shale oil,[77] as the US has done, but this would come at a significant environmental price.

Still, on the other side of the same ledger Russia's dependence on trade with Europe is also extreme. As of 2014, 72% of Russia's oil exports and 90% of its natural gas exports went to Europe (including non-EU Europe, but EU countries were dominant).[78] This has financed Russia's economic consolidation following the difficult first period of economic transition after the collapse of communism, and has fuelled both the resurgence of Russia as a political player in the international arena and the rise of many of its powerful oligarchs who are key allies of the Putin administration. An inconceivable scenario where Russian energy exports to the EU were to cease would also lead to a collapse of the Russian economy and state. Given the high demand for energy in a dynamically growing Asia, in the long run it may be easier for Russia to diversify its export markets than for the EU to do the same with its energy imports. Yet in the short run this is not a viable large scale alternative as it requires massive logistical investments and is, moreover, also highly volatile as the recent economic downturn in China shows.

So this is not a typical market situation where the "customer is always right", since at least in certain parts of the EU the supplier is a quasi natural monopolist. However, given the key role of the sales revenues in its wealth and even in the maintenance of its essential

[72] Siddi, 2015, op cit., p. 4
[73] Ibid.
[74] http://oilprice.com/Energy/Natural-Gas/Shrinking-Norwegian-Natural-Gas-Production-Puts-Europe-In-Dire-Situation.html
[75] https://www.cia.gov/library/publications/the-world-factbook/rankorder/2253rank.html
[76] EU-Russia Energy Roadmap
[77] http://www.welt.de/wirtschaft/energie/article135128934/Deutschland-ist-extrem-von-Russland-abhaengig.html
[78] http://www.eia.gov/beta/international/analysis.cfm?iso=RUS

operations, the supplier, Russia, is also highly dependent on the customers. And of course while this gives the supplier some leeway in terms of the price it can dictate, a substantial departure from international market prices would bring hitherto unviable import and/or production alternatives into play.

2.5. Russia's role as an investor

Russia's role as an investor in the EU was first highlighted in the boom years leading up to the crisis of 2008/2009, when the country was in the process of reasserting itself as a major regional power in Europe and Central Asia, expanding its sphere of influence especially in its immediate environs, the CIS, and to a lesser extent in Europe. This was the time when the current Hungarian prime minister and then-opposition leader Viktor Orbán uttered his famous warning of Russia, which was cited in the introduction.

Consequently, there was a pronounced interest by academics, energy market experts and security analysts on the subject, and many studies were published on Russian investments in Europe.[79] Though the tone was not alarmist – certainly not by the standards of Viktor Orbán's sinister warning – the authors did often make clear that investment decisions by Russian companies were usually a reflection of political directives by the Russian state as the given company's owner or part owner, or in the form of friendly advice given by political leaders to corporate CEOs. Thus Nina Poussenkova quoted an official document entitled the *Energy Strategy of Russia up to 2020* as saying: "*The goal of Russia's energy policy is to ensure [...] strengthening of its global economic positions.*"[80] Stefan Ehrstedt and Peeter Vahtra cited common concerns when they wrote in 2008 that "*[d]ue to increased state control over the energy sector in Russia and the rise of state-owned energy conglomerates, the international expansion of Russian energy companies carries an ever stronger polito-economic weight. Along with growing dependency on the Russian energy supplies, the expansion of Russian energy majors in Europe has been met with growing reservations in the host countries.*"[81] And in her discussion of Gazprom's investments in the EU, Agata Łoskot-Strachota referred to concerns about "Gazprom's expansion in Europe" because of "*the observed radicalisation of the rhetoric and*

[79] See for example Nina Poussenkova. The Global Expansion of Russia's Energy Giants. *Journal of International Affairs*, Spring/Summer 2010, Vol. 63, No. 2.; Stefan Ehrstedt & Peeter Vahtra. Russian energy investments in Europe. *Electronic Publications of the Pan-European Institute* 4/2008; Agata Łoskot-Strachota. Gazprom's expansion in the EU: co-operation or domination? Center for Eastern Studies, Warsaw, 2009; Alexei Kuznetsov. Russian Companies Expand Foreign Investments and Andreas Heinrich: Gazprom's Expansion Strategy in Europe and the Liberalization of EU Energy Markets in the *Russian Analytical Digest,* No. 34, February 2008; Stefan Meister: Russische Wirtschaftspolitik zwischen Staat und Markt. Deutsche Gesellschaft für Auswärtige Politik, September 2008.

[80] Poussenkova, 2010, op cit., p. 108.

[81] Stefan Ehrstedt & Peeter Vahtra, 2008, op. cit. p. 3.

actions of both the company itself and of the Russian authorities with regard to the gas sector broadly understood."[82]

Nevertheless, despite the major interest there were signs that the influence of Russian investments was overrated even before the financial crisis of 2008/2009 put a significant damper on the expansion mood of Russian corporations, not least because the energy markets seemed less promising than previously. The Hungarian analyst Csaba Weiner gathered data by the Russian Central Bank on FDI stock in the Central and Eastern region at the end of the years 2009 and 2010, and the results revealed that Russian companies played a minor role as investors in the region; Russian investments were low both as a percentage of total investment in the region *and* as a percentage of the total foreign investments of Russian companies. Thus Weiner notes that Hungary, the top investment target in the region during these two years with Russian investments slightly exceeding 2 billion USD, was still only 17th in the ranking of countries with Russian FDI stock (with 0.75% of all Russian foreign investments) in 2009, and ranked 19th in 2010 (0.6% of all Russian foreign investments).[83]

Table 2: Total stock of Russian FDI in selected countries, 2009, 2010 and 2013[84]

As of December 31, 2009			As of December 31, 2010			As of December 31, 2013		
Rank	Country	Value (M USD)	Rank	Country	Value (M USD)	Rank	Country	Value (M USD)
1.	Germany	7444	1.	Germany	6721	1.	Austria	25920
2.	Austria	6052	2.	Austria	5456	2.	Germany	9896
3.	Hungary	2266	3.	Hungary	2230	3.	Latvia	3062
4.	Bulgaria	1586	4.	Bulgaria	1884	4.	Bulgaria	2870
5.	Lithuania	1380	5.	Lithuania	1420	5.	Czech Republic	1842
6.	Czech Republic	1336	6.	Czech Republic	1192	6.	Lithuania	1411
7.	Finland	974	7.	Finland	1151	7.	Finland	1384
8.	Poland	596	8.	Greece	742	8.	Poland	618
9.	Estonia	589	9.	Poland	581	9.	Greece	571
10.	Latvia	535	10.	Latvia	473	10.	Estonia	412
11.	Greece	471	11.	Romania	258	11.	Croatia	399
12.	Croatia	206	12.	Croatia	226	12.	Hungary	316

[82] Łoskot-Strachota, 2009, op. cit., p. 1.
[83] Csaba Weiner. Inkább megy mint jön? Orosz közvetlen tőkeberuházások Magyarországon. [On the way out rather than on the way in? Russian foreign direct investments in Hungary] *Geopolitika a 21. században*, Vol. 3, No. 4, 2013, pp. 120-137.
[84] Our own ranking based on statistical data from the Russian Central Bank. For source of original data see: http://www.cbr.ru/eng/statistics/print.aspx?file=credit_statistics/dir-inv_out_country_e.htm&pid=svs&sid=ITM_586

13.	Romania	63	13.	Estonia	149	13.	Slovakia	117
14.	Slovakia	48	14.	Slovenia	59	14.	Slovenia	72
15.	Slovenia	14	15.	Slovakia	52	15.	Romania	36

These are not overwhelming figures by any standard, but they are especially striking when compared to western European investors, in particular Germany, and also in light of the historical ties between the countries of the region and Russia, especially the previous strong intertwinement between their economies under the COMECON regime (which at the same time also militated against welcoming Russian involvement in at least some of these countries). Even as there was considerable concern in Europe about the expansion of Russian corporations, in the Central and Eastern European region, despite its substantial dependence on Russian energy exports, it seemed instead that in many respects the decades of intense economic ties had been erased.

Still, these number need to be interpreted with a bit of caution. No matter how you slice and dice them, they still won't yield a major influence on the respective markets, but of course it is relevant whether these figures are concentrated in one particular sector – in our case energy is the relevant one – where they might conceivably be significant in terms of their impact. For example, Hungary's standout figures for Russian FDI stock in the years 2009 and 2010 stem from Surgutneftegas' purchase of a 21.2% stake in Hungary's national oil company MOL – this deal alone cost the Russian company 1.4 billion euros, that is almost two-thirds of total Russian FDI in Hungary.[85] And of course a 21% ownership stock in a major energy corporation such as MOL, which is actually a regional player in the energy markets, is quite significant. Similarly, there is a substantial Russian presence in the Baltic energy markets, and due to the small size of these economies even seemingly minor FDI figures translate into relatively substantial influence. Unfortunately, we do not have sufficiently detailed data to provide a comprehensive analysis of Russia's pre-crisis positions in the energy sectors of the Central and Eastern European regions.

This does not in itself negate the basic argument, which is that on the whole Russian influence on these markets was low because the overall FDI numbers are too low for a major influence. But it is true that a more detailed assessment might make the overall picture more nuanced.

[85] https://www.rt.com/business/surgutneftegas-buys-212-stake-in-mol-from-omv/

3. Country Reviews

The following chapter will review the investment activities of Russian companies since 2008 in the energy sectors of fifteen EU Member States, specifically the new Central and Eastern European member states, plus Austria, Finland, Germany and Greece. Though we have sought to gain a broad perspective on Russian investment activities, our review is not exhaustive and does not include all investment projects in this period. Rather than aiming for a total picture with all the details, we sought to attain an understanding of the prevailing trends. Correspondingly, we collected information not only about successful investments but were also interested in divestments and failed or unexploited investment opportunities. What Russian corporations sought to attain but could not, or what they abandoned, could be just as revealing in analysing Russian investment trends than what they actually did buy.

A few other caveats are also in order. Our reviews lack a quantification of total impact; it is not that such an effort would be uninteresting or irrelevant if it were well-done. In fact, it would be ideally a next step in such a research. But it is a tremendous operational and conceptual challenge that raises many questions. For starters, what does one quantify: Investment value? Market control? Volumes of product affected? Sales volumes? How does on account for the strategic importance of the investment project? Etc. Another problem we have faced is that in terms of influence, not all investments are created equal, and this obvious statement is not merely a question of money invested. Thus, for example Surgutneftegas' purchase of a 21% stake in the Hungarian national oil corporation MOL is one of the biggest deals in the period investigated, but it did not leave the Russian buyers with full control over the corporate activities of MOL, and thus the influence on the Hungarian market was limited despite the vast sum invested. It did turn out to be a good investment, however, as Surgutneftegas sold its stake to the Hungarian state at a significant markup over the purchase price. Other investments, by contrast – take for example pipeline or storage capacity building, which are fairly typical investments projects – may yield less direct or less immediate financial benefits, but they have a greater impact on local markets than minority stakes in large companies. The same is true for majority stakes in key market players or joint ventures. Nevertheless, while our reviews will mention different types of deals, we did not perform a systemic analysis of these differences and their varied impact.

Finally, a common problem with Russian investments is that the links between the actual investor and the target are not always obvious. Like wealthy investors elsewhere – and in fact even more so – Russian investors also often hide money in companies based in Cyprus or offshore jurisdictions, and occasionally the chain of ownership is so convoluted that it takes considerable investigative efforts to unearth the identity of beneficial owners. This is less of a problem in the case of major investments, but in the case of smaller deals there may be systemic problems that our research has failed to capture.

Nevertheless, if the reader keeps these caveats in mind, the broad picture that was promised above will emerge from the analysis below and from the conclusions draw in the subsequent chapter.

3.1. Austria

Austria is a small to mid-sized market in the class of those investigated here, but for several reasons it is among the most relevant for Russia. For one, it is among the wealthiest in the group investigated here. Second, it enjoys traditionally warmer relations with Russian than many other western states. Austria, which was part of the West but neutral during the Cold War, was the first western importer of Russian gas starting in 1968, almost half a century now.[86] Correspondingly, Austrian politicians have repeatedly voiced their opposition to sanctions against Russia[87] or called for softening them.[88] In January 2015, OMV and Gazprom updated their long-term gas supply contract.[89] Third, there is traditionally a very strong intertwinement between major corporations and politics, a relationship that tends to be less pronounced on average in western countries than in Russia. In other words, when Russian CEOs sit down to negotiate with their Austrian counterparts, in many cases there may be some level of cultural affinity. Austria also has a high level of energy dependency, exactly ten points above the EU average at 63.2%,[90] and the overwhelming majority of its natural gas imports stem from Russia, though the latter plays a more minor role in Austria's oil imports.[91]

These factors probably explain why Russian corporations have been active in the Austrian energy sector. Just as in Germany, gas storage has emerged as the key loci of Russian investments. The main success in this respect was the expansion of the Haidach storage, of which Gazprom owns 50%, which began in 2008 and was completed in 2011.[92] With its capacity of 2.6 billion cubic meters after the expansion, Austria's largest gas storage site has

[86] http://www.petroleumreview.ro/magazine/2015/february/40-february-2015/439-omv-gazprom-agreement-on-amendment-to-gas-supply-contract
[87] http://www.euractiv.com/sections/energy/austria-seals-south-stream-deal-gazprom-303046
[88] http://www.reuters.com/article/2014/12/20/us-ukraine-crisis-russia-austria-idUSKBN0JY0IY20141220#073IK5sdeXjzptA7.97
[89] http://www.themoscowtimes.com/business/article/austria-omv-and-russia-s-gazprom-agree-to-long-term-gas-deal/515037.html
[90] http://ec.europa.eu/eurostat/documents/2995521/6614030/8-09022015-AP-EN.pdf/4f054a0a-7e59-439f-b184-1c1d05ea2f96
[91] http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Share_of_national_imports_of_petroleum_oils_and_natural_gas,_2013,_trade_in_value.png
[92] http://www.rag-austria.at/geschaeftsbereiche/speichern/joint-venture-speicher/haidach.html

also emerged as western Europe's second largest, following Rehden,[93] also a Gazprom asset.[94]

Though it is not an investment in the energy sector narrowly understood, in a deal related to the oil business and involving one of Russia's major energy producers, Lukoil, the latter company purchased OMV's 35,000-tonne/year lubricant blending plant near Vienna and related assets.[95] The European Commission approved the deal shortly thereafter.[96] In February 2015 Lukoil announced that it would expand the lube-manufacturing plant and add a bulk-oil transshipment and storage terminal.[97]

Among the major failed deals in this period was a plan to involve Gazprom in OMV's virtual gas trading platform, the Central European Gas Hub (CEGH), which labels itself Central Europe's leading gas exchange.[98] The original deal, which was agreed in 2008, was to include Gazprom's Germany subsidiary and the Vienna Stock Exchange as minority owners, and the original creator and owner of CEGH, OMV, as the majority owner of the gas exchange, which is based on the physical gas transmission hub at Baumgarten, Austria, one of the major distribution points for Russian gas in the EU.[99] In 2011 the European Commission blocked Gazprom's involvement in the trading platform, however, with the argument that it would contravene the principle of autonomy of the infrastructure (separation of supply) of the EU's energy market.[100] Since then a Slovakian company, EUStream, has taken a stake in CEGH.[101]

Austria was also among the staunchest proponents of the ultimately scrapped South Stream pipeline, and when the deal for the Austrian section was finalised in June 2014, the CEO of OMV expressed his hope that in light of the EU's dependence on Russian gas, the pipeline would be built despite the current political difficulties.[102] Since the EU scuttled the South Stream project, however, OMV and Gazprom came up with an alternative and ambitious plan in the summer of 2015, amidst the political crisis between Russia and the EU: the two companies want to jointly build a "new Nabucco pipeline" partially alongside the route of the original failed EU pipeline project, which would transport gas from Russia to Austria.[103] According to the plans the pipeline would transport 30 billion cubic feet of gas annually, more than four times the amount of Austria's gas consumption of 7 billion cubic meters in

[93] https://www.gazprom-germania.de/fileadmin/templates/pdf/Geschaeftsberichte_2011/HGB_D.pdf
[94] For more details on Rehden, please see the chapter in Germany.
[95] http://www.ogj.com/articles/2013/07/lukoil-buys-omv-s-european-lube-business.html
[96] http://www.lubesngreases.com/lubereport/14_4/russia/-4556-1.html
[97] http://www.euro-petrole.com/lukoil-starts-upgrade-of-lube-plant-un-austria-n-i-10916
[98] http://www.cegh.at/about-us
[99] http://www.omv.com/portal/generic-list/display?lang=en&contentId=122520897081366
[100] http://www.osw.waw.pl/en/publikacje/analyses/2011-06-29/problems-gazprom-buying-shares-cegh
[101] http://www.cegh.at/cegh-shareholders
[102] http://www.euractiv.com/sections/energy/austria-seals-south-stream-deal-gazprom-303046
[103] http://deutsche-wirtschafts-nachrichten.de/2015/06/24/trotz-sanktionen-oesterreich-und-russland-planen-gemeinsame-pipeline/

2014.[104] The relevant analyses suggest that the pipeline would help Gazprom meet the supplies it seeks to deliver to western Europe.

3.2. Bulgaria

Bulgaria has some of the most intense ties with Russia in the region, though – also in parallel with some other countries in the CEE region – this relationship has had its ups and downs. Specifically, Russia used to get on well with the post-communist Bulgarian Socialist Party (BSP) and far-right Ataka,[105] which Russia allegedly sponsors.[106] Relations have sometimes been strained under centre-right governments, which were less enthusiastic about Russia's engagement in the country. These strains occasionally manifested themselves in the context of energy policy investments.

The EU's poorest member state has gone from a peak level of energy dependence in 2008, when it depended on imports to cover over half (51.7%) of its energy needs, to a considerably lower, 37.8%, dependency rate in 2013, a significant improvement that is now well below the EU average of 53%.[107] Coal and nuclear power play a major role in domestic energy production, and the share of both is higher than the respective EU average (though the gap is far greater in the case of coal).[108] The ratio of renewables in domestic energy production is below the EU average, but not dramatically. For its oil and gas needs, neither of which are produced to any significant extent in Bulgaria, the country depends overwhelmingly on Russian imports, however.[109]

Crucially, one of the most obvious instances when Russia has allegedly meddled with the domestic politics of other countries to further its own energy agenda also occurred in Bulgaria. The Balkan country currently produces very little gas but sits atop gas reserves that could make it independent of Russian imports for some time. When the centre-right prime minister in 2011, Boyko Borissov, gave the US company Chevron the right to explore shale gas reserves, far-right Ataka organised massive and successful protests that subsequently halted the project, and in 2012 the Bulgarian parliament even banned explorations aimed an quantifying the country's gas reserves.[110] Though this was a clear victory for

[104] http://www.salzburg.com/nachrichten/oesterreich/wirtschaft/sn/artikel/heimischer-gasverbrauch-fiel-auf-20-jahres-tief-137661/
[105] http://www.themoscowtimes.com/news/article/far-right-europe-has-a-crush-on-moscow/511827.html
[106] http://444.hu/2015/01/01/bulgaria-kitalal-igy-mesterkedtek-putyinek-a-deli-aramlat-sikere-erdekeben/
[107] http://ec.europa.eu/eurostat/tgm/table.do?tab=table&plugin=1&language=en&pcode=tsdcc310
[108] http://ec.europa.eu/eurostat/documents/2995521/6614030/8-09022015-AP-EN.pdf/4f054a0a-7e59-439f-b184-1c1d05ea2f96
[109] http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Share_of_national_imports_of_petroleum_oils_and_natural_gas,_2013,_trade_in_value.png
[110] http://www.nytimes.com/2014/12/31/world/europe/how-putin-forged-a-pipeline-deal-that-derailed-.html?smid=tw-share&_r=1

environmentalists, it was marred somewhat by the fact that Russia was alleged to be deeply involved with the organisation of the mass protests. Borissov struck back in the same year, terminating a longstanding project (which also went through major ups and downs) on building a nuclear power plant in cooperation with Rosatom's subsidiary Atomstroyexport in the town of Belene.[111] Apart from disagreements about the price tag – the Borissov government asked the Russians for a significantly lower price than planned – another source of discord was Borissov's insistence that EU and/or American companies be allowed to join the project. Ultimately, the Russian party lost a deal worth 5-6 billion euros.

Yet these tensions could not halt the expansion of what may be Russia's prized asset in the region, the Lukoil Neftohim Burgas oil refinery, which is the largest of its kind in the CEE area and the country's largest private employer.[112] Plans for the expansion, which cost around 1.5 billion US dollars, were first announced in 2012 and were ultimately completed a few months behind schedule in spring 2015.[113]

Lukoil is also present in the Bulgarian oil wholesale market and operates a vast network of 222 filling stations, the third largest presence in an EU retail market after Finland and Romania.[114] In recent years Gazprom was also in the process of expanding its – vastly more modest – network of filling stations (currently including 24 stations[115]),[116] though the expansion ran out of steam after the spring of 2014.

Despite the failure of the Belene Nuclear Power Plant project, the Russian influence is also palpable in the area of nuclear energy. Rusatom Service, a company in the Rosatom empire, performs the upgrade of blocks 5 and 6 of the Kozloduy nuclear plant.[117] The parties concluded the agreements on upgrading blocks 5 and 6 in 2013 and 2015, respectively, and pursuant to the agreement the output of both blocks will be increased to 1100 MWs. The upgrade of block 5 costs 24.7 million euros, and it was performed by Rusatom Services and another Russian company, OJSC Power Machines. Furthermore, pursuant to an agreement concluded in November 2015, Rosatom's subsidiary also supplies security and radiation control equipment for both aforementioned blocks.[118] Bulgaria's nuclear fuel needs also bind Bulgaria to the Russians, since they acquire their nuclear fuels from the Rosatom subsidiary TVEL.

[111] http://www.novinite.com/view_news.php?id=137961
[112] http://www.jamestown.org/single/?tx_ttnews%5Btt_news%5D=38393&no_cache=1#.Vlon-XarSN0
[113] http://www.ogj.com/articles/2015/05/lukoil-commissions-new-plant-at-bulgarian-refinery.html
[114] http://www.lukoil.com/static_6_5id_2173_.html
[115] http://www.lukoil.bg/Main.do?actionName=map
[116] http://www.gazprom-petrol.bg/en/nis-petrol-bulgaria-opened-new-station-smolyan-and-pazardjik-under-gazprom-petrol-stations-brand
[117] http://www.neimagazine.com/news/newsrussia-contracted-to-upgrade-bulgarian-reactors-4699965
[118] http://www.neimagazine.com/news/newsanother-bulgarian-contract-for-russia-4720206

Bulgaria was also associated with Russia's greatest defeat in the realm of its expansion in the EU's energy business: A few months after the EU told Bulgaria that construction on the South Stream pipeline had to be halted,[119] Russia abandoned the project in response. Estimates suggest that this might have cost the country around 6,000 jobs and 3 billion dollars in investment, not to mention the benefits of being the main transit country where the pipeline was to have entered the EU.[120]

3.3. Croatia

Based on data from 2013, Croatia's energy dependence is roughly on par with the European Union average,[121] which means that slightly more than 50% of Croatia's energy needs is covered from external sources. In the early years of the 2010s, there was a considerable drop in the country's energy dependence; until 2008 it had needed energy imports to cover between 55-60% of its consumption, and this value peaked in 2008. In the following years this ratio dropped to 50-55%, that is during the 2010s Croatia's energy dependence dropped by roughly five points as compared to the values of the previous decade. In 2013, it stood at 52.3%, 7.6 percentage points below the 2008 level.[122]

Croatia is among the countries with the lowest levels of energy consumption in the EU. Most of this energy need is covered by renewables, natural gas (41% each) and to a lesser extent oil (17%).[123] With respect to fossil energy, Croatia is dependent on imports; in the case of oil, the vast majority of its imports stem from Russia, while in the case of gas it is less dependent on Russia.[124] Russian influence is primarily manifest through the direct presence in Croatia of two Russian producers of fossil energy.

The Russian energy company Lukoil operates a network of filling stations in Croatia, which it has been able to expand over the past years.[125] The Russian gas giant Gazprom's presence and influence in Croatia is greater still. In 2010 Croatia signed a memorandum of understanding on joining Russia's South Stream gas pipeline project, which was ultimately abandoned at the end of 2014.[126] Until 2014, preparations for the construction of the

[119] http://www.wsj.com/articles/eu-tells-bulgaria-to-stop-work-on-gazproms-south-stream-project-1401811829
[120] https://www.rt.com/business/222619-bulgaria-south-stream-gazprom/
[121] http://ec.europa.eu/eurostat/documents/2995521/6614030/8-09022015-AP-EN.pdf/4f054a0a-7e59-439f-b184-1c1d05ea2f96
[122] http://ec.europa.eu/eurostat/tgm/table.do?tab=table&plugin=1&language=en&pcode=tsdcc310
[123] http://ec.europa.eu/eurostat/documents/2995521/6614030/8-09022015-AP-EN.pdf/4f054a0a-7e59-439f-b184-1c1d05ea2f96
[124] http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Share_of_national_imports_of_petroleum_oils_and_natural_gas,_2013,_trade_in_value.png
[125] http://www.euro-petrole.com/lukoilexpands-its-retail-gas-satations-in-croatia-n-i-1840
[126] http://24.hu/fn/gazdasag/2010/03/03/horvatorszag-csatlakozik-a-deli-aramlat-gazvezetekhez/

Croatian section were performed jointly with the project manager Gazprom.[127] There were also several other mutually beneficial energy agreements between Russia and Croatia beyond South Stream. Thus, for example in 2012 the agreement on Russian gas supplies to Croatia was extended, and in fact its value grew in the past year,[128] while an action plan was drawn up concerning cooperation between service providers in the area of transportation and logistics, which will allow Gazprom to enter the Croatian NGV market.[129]

Another effort aimed at expanding Russian influence in Croatia was the planned attempt in 2014 to acquire a majority stake in the Croatian national oil corporation INA. The Hungarian national oil corporation MOL, which owns the INA shares, and Gazprom came close to a deal involving the transfer of MOL's 49% share in INA, along with control over the company. The Russians would have further expanded their share by buying another 19% from the Croatian state.[130] Such a step would have provided another key energy bridgehead for Russia in the EU member states. The importance of such a transaction is also highlighted by the fact that if Gazprom had taken control of INA, it could have halted the construction of the LNG terminal that the Croatian company built on the island of Krk, which serves as a potential source of energy diversity that reduces Croatia's dependence on Russia. The terminal allows Croatia and other countries in the region to receive American shale gas in addition to Russian gas. This reduces Russia's ability to assert its dominant position in the region by setting the prices in line with its political interests or by changing the quantity of gas it supplies.[131]

Croatia only has one nuclear power plant that it shares with Slovenia; the plant is located in the territory of the latter country. The reactor built by Westinghouse was completed in 1981 and is the first western-type nuclear power plant in eastern Europe.[132] Nevertheless, the ties that bind the country to the Russian energy industry giant Rosatom are evident in the activities of the Migrit Solarna Energija corporation. The Croatian energy company evinced great interest in the nuclear power plant expansion in Finland, the plans for which were drawn up by a Russian company. The actions of the Croatian company illustrate certain aspects of Russian energy influence.

The Finnish government only agreed to the realisation of the Hanhikivi power plant on the condition that at least 60% of the ownership stakes in the Fennovoima corporation, which commissioned the project, would be held by companies based in either the EU or EFTA. To attain the mandated quota, those in charge sought to involve the Fortum corporation, which is also invested in the Russian market and cooperates with Rosatom on several projects. Yet

[127] http://energiaoldal.hu/alairtak-a-deli-aramlat-horvat-mellekagarol-szolo-orosz-horvat-memorandumot/
[128] http://www.gazprom.com/press/news/2014/july/article195744/
[129] http://www.euro-petrole.com/gazprom-entering-croatian-ngv-market-n-i-8250
[130] http://index.hu/gazdasag/2014/07/14/a_gazprom_vinne_az_ina-t/
[131] http://nol.hu/belfold/krk-szigeten-adnanak-mattot-az-oroszok-1499357
[132] http://www.world-nuclear.org/info/Country-Profiles/Countries-O-S/Slovenia/

the background negotiations did not result in an agreement by the deadline provided, and this lead to the inclusion of Migrit Solarna Energija in the interest of ensuring the required EU ownership ratio.[133] The company sought to acquire a 9% stake in Fennovoima. However, research into the company's background revealed that in reality it is owned by two Russian businesspersons, and the owners are likely to be frontmen for Rosatom.[134] Following a vetting process, the Finnish government refused to accept the involvement of the Croatian company. Subsequently, following further background deals, the required ownership ratio was finally met once the Finnish Fortum corporation bought a 6.6% stake in the consortium, while Finnish state-owned companies raised the company's stock capital. [135]

3.4. Czech Republic

In terms of its energy independence, the Czech Republic is among the leading countries in the EU based on the relevant data for 2013. Only 27.9% of the country's energy consumption stemmed from imports, which is less than half the EU average. There are only five countries in the EU that are less dependent on external sources of energy (Estonia, Denmark, Romania, Poland and the Netherlands).[136] There was no major change in the Czech Republic's energy dependence during the period investigated: It was 28% in 2008 and the same value in 2013, though twice in the intervening period, in 2010 and 2012, it dropped to 25%.[137]

Nevertheless, in terms of the structure of its imports the Czech Republic, just like many other European countries, is significantly dependent on Russian imports, with over three-quarters of its extra-EU imports stemming from Russia.[138]

The magnitude of the Central and Eastern countries' energy dependence is most clearly manifest in the volume of Russian gas and oil product imports and in the presence of Russian energy companies in their markets. Both Gazprom and Lukoil have been very active in the Czech Republic in recent years. In 2008, Gazprom agreed with the privately owned Czech company Moravske Naftove Doly (MND) on the joint construction of a gas storage facility in

[133] http://www.helsinkitimes.fi/business/13432-croatian-energy-utility-to-take-stake-in-fennovoima.html
[134] http://www.helsinkitimes.fi/finland/finland-news/domestic/13435-new-fennovoima-shareholder-is-a-russian-creation.html
[135] http://atomenergiainfo.hu/atomenergetika-a-vilagban/igent-mondott-a-fortum-a-fennovoimara
[136] http://ec.europa.eu/eurostat/documents/2995521/6614030/8-09022015-AP-EN.pdf/4f054a0a-7e59-439f-b184-1c1d05ea2f96
[137] http://ec.europa.eu/eurostat/tgm/table.do?tab=table&plugin=1&language=en&pcode=tsdcc310
[138] http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Share_of_national_imports_of_petroleum_oils_and_natural_gas,_2013,_trade_in_value.png

the Czech Republic. Moreover, a Gazprom subsidiary, Vemex, concluded an agreement with MND on the acquisition of all gas produced in the Czech Republic.[139]

Not all Russian attempts at extending the Russian foothold in the Czech Republic's energy sector have proved successful between 2008 and 2014. Ultimately, Gazprom failed to acquire the Italian ENI corporation's 32.5% stake in a Czech oil refinery company, which would have provided a substantial boost to Russia's position in the Czech market.[140] Lukoil's ambitions to this end between 2009-2011 also failed to succeed – the Russian corporation had targeted shares in the publicly owned oil transportation company Metro[141] and in the also publicly owned oil refinery Cepro, [142] but ultimately it managed to buy neither. Finally, in 2014, Lukoil decided to withdraw from the region – also in response to the sanctions against Russia – and sold its network of filling stations to the Hungarian energy company MOL.[143]

Efforts to impede Russian expansion were discernible not only in the areas of oil and gas investments but also in the context of nuclear energy, where Russians may lose market share in the Czech Republic to US companies. Tenders for the expansion of the power plant in Temelin were scrapped in 2014 since the state did not provide guarantees to underwrite the project. Two serious contenders in the original tender were the American-Japanese company Westinghouse and the Czech-Russian company MIR.2000, and sources in the industry said the latter submitted the better bid.[144] The American party probably has a better chance in the new tender process, however, also because of the EU sanctions against Russia. Russian companies will also compete with Americans in a new tender issued for the supply of fuels for a Czech nuclear power plant; the current Russian supplier TVEL faces a serious competitor in the American company Westinghouse.[145] Currently, the country relies on Russia for its entire nuclear fuel need because, pursuant to an agreement concluded in 2006, as of 2010 the Rosatom subsidiary TVEL will supply the country's nuclear power plants with the fuels necessary for operating the blocks of the power plants.[146]

The most recent news suggest that Rosatom is still very interested in these investments; it most recently affirmed this publicly in September 2015, when it said that was willing to act as a minority partner in a joint venture with the CEZ state-owned energy company in the Czech Republic, in order to bid in tenders planned for the expansion of nuclear reactors.[147]

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[139] http://index.hu/kulfold/2009/04/10/oroszok_es_gaz/
[140] http://www.bloomberg.com/news/articles/2011-03-15/unipetrol-spokesman-says-eni-talking-with-gazprom-on-exit
[141] http://zpravy.aktualne.cz/czech-energy-security-under-influence-of-russian-lukoil/r~i:article:658447/
[142] http://ceskapozice.lidovky.cz/foreign-oil-firms-eye-stakes-in-czechs-cepro-and-mero-f96-/tema.aspx?c=A110908_160602_pozice_35101
[143] http://blogs.wsj.com/emergingeurope/2014/08/05/mol-ups-its-stake-in-central-europe-buys-lukoils-czech-fuel-stations/; http://tass.ru/en/economy/743501
[144] http://kitekinto.hu/bem-rakpart/2014/06/08/uj_palyazat_lesz_a_cseh_atombvitesre/#.VkNWZ7_deRi
[145] http://index.hu/gazdasag/energia/2015/01/29/temelin_ujratoltve/
[146] https://www.stratfor.com/analysis/us-russia-battle-extends-nuclear-energy-sector
[147] http://atomenergiainfo.hu/atomenergetika-a-vilagban/csehorszagi-tenderekre-keszul-a-roszatom

3.5. Estonia

In 2013, Estonia was the European Union's least energy dependent member state, since only slightly over 10% of its energy needs had to be covered by imports. This is 40% under the average EU value.[148] Recently, there has been a declining tendency in the Baltic country's dependence on energy imports: in 2008 roughly a quarter of all the energy it consumed[149] stemmed from external sources, while by 2013 this ratio had dropped to 12%; in other words, in the span of merely five years Estonia's energy dependence dropped by half. What has rendered all the Baltic countries especially vulnerable to Russian influence is the fact that, they are part of the BRELL circuit of Belarus, Russia, Estonia, Latvia and Lithuania, relying on Russian operators to control frequencies and balance their power grid[150]. However, the Baltic countries plan to replace BRELL circuit with Europe's power grid within the next 10 years.

The country is nearly self-sufficient in solid fuels,[151] and shale oil constitutes the most prominent part of its energy mix. With a share of 50%, this is the highest ratio of shale oil in all of Europe. On the one hand, this reduces the country's dependence on energy imports, but at the same time it also constitutes a risk due to the one-sidedness of the country's energy mix. However, Estonia is dependent on imports for its second most used energy source, oil, but the source countries of these imports are varied, and over two-thirds stem from the European Economic Area.[152] The role of gas in Estonian energy consumption has also been declining. While in 2006 it had made up 15% of the total energy used by the Baltic country, in 2010 this ratio had dropped to 9%. Virtually all of the country's natural gas needs are covered by imports from Russia, however.[153] Another aspect that increases Estonia's dependence on Russia is that the country's gas network is only connected to Russia's and Latvia's, while it is isolated from the rest of the EU.

Hence despite the low level of energy dependence there is substantial Russian energy influence in Estonia, which results both from the country geographic locations and the lack of balance in its energy mix. In recent years Estonians have taken decisive and deliberate measures to reduce this dependence.

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[148] http://ec.europa.eu/eurostat/documents/2995521/6614030/8-09022015-AP-EN.pdf/4f054a0a-7e59-439f-b184-1c1d05ea2f96
[149] http://ec.europa.eu/eurostat/tgm/table.do?tab=table&plugin=1&language=en&pcode=tsdcc310
[150] http://www.euractiv.com/sections/energy/baltic-power-grid-plans-may-increase-tensions-russia-313775
[151] http://www.telegraph.co.uk/finance/newsbysector/energy/oilandgas/10265383/Estonia-becomes-self-sufficient-on-shale-gas-boom.html
[152] http://ec.europa.eu/economy_finance/publications/occasional_paper/2013/pdf/ocp145_en.pdf
[153] http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Share_of_national_imports_of_petroleum_oils_and_natural_gas,_2013,_trade_in_value.png

As one of the key elements in this process the country adopted a law in 2012 on the separation of gas sales and gas transportation. This measure compelled the country's main gas company, the near monopolist Eesti Gaas – in which the Russian gas giant Gazprom is the largest shareholder with 37% –, which also supplies the Latvian and Lithuanian markets, to sell its gas transmission network,[154] thereby reducing Russian ownership in the strategically vital Estonian gas storage facilities. Another example of scaling back Russian influence is the failure of the liquid gas terminal project valued at half a billion euros that Gazprom had sought to build in Estonia. The LNG terminal was intended to convert some 2.3 million tons of gas annually into liquid gas. Gazprom cancelled the investment in early 2015, however, citing difficulties arising from the economic sanctions imposed by the EU.[155] The fact that since 2014 Estonia has also been importing gas from Lithuania serves to diversify its gas imports and hence its dependence on Russian energy.[156] In addition to Gazprom, another major Russian energy player, Lukoil, has also reduced its presence in the Baltic country after selling its Estonian chain of filling stations in 2014 to the local Aqua Marina AS company.[157]

3.6. Finland

Slightly less than half of Finland's energy consumption stems from external sources, and with this ratio the northern country is in a somewhat better situation than the EU average, which is 53.3%. In the period investigated, the value was around 50% in Finland, but the last few years show a gradual decline. In 2008 Finland's energy import needs had stood at 54.2%, and by 2013 this ratio had declined to 48.7%.[158]

Apart from renewables, nuclear energy also plays a decisive role in Finland's domestic energy production,[159] which serve to compensate for the almost total absence of fossil energy sources. For oil and natural gas, Finland is almost completely dependent on imported raw materials, most of which – not counting intra-EU trade – stems from Russia. Over three quarters of Finland's oil and gas consumption are delivered from the country's eastern neighbour.[160] Nevertheless, the energy trade between these parties are not unidirectional, since as of 2015 the Finns have been exporting electricity to Russia,[161] and due to low costs

[154] http://www.baltictimes.com/news/articles/31392/
[155] http://shipandbunker.com/news/emea/814735-gazprom-pulls-out-of-estonia-lng-project
[156] http://www.themoscowtimes.com/article.php?id=512758
[157] http://www.euro-petrole.com/lukoil-optimizes-stucture-in-baltic-states-n-i-11479
[158] http://ec.europa.eu/eurostat/tgm/table.do?tab=table&plugin=1&language=en&pcode=tsdcc310
[159] http://ec.europa.eu/eurostat/documents/2995521/6614030/8-09022015-AP-EN.pdf/4f054a0a-7e59-439f-b184-1c1d05ea2f96
[160] http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Share_of_national_imports_of_petroleum_oils_and_natural_gas,_2013,_trade_in_value.png
[161] https://www.rt.com/business/265672-russia-finland-energy-electricity/

of Finland's electricity production, this has actually resulted in savings for the Russians. Nevertheless, Russia plays a dominant role in the bilateral energy relations, and in recent years Finnish energy dependence was especially manifest in the context of its import of fossil energy and Russia's nuclear energy investments in Finland.

Following a previous, unsuccessful attempt at building a new nuclear power plant, Finland greenlit the construction of a new reactor in 2014, though preparations had begun already earlier.[162] The Fennovoima group is in charge of the construction of the Hanhikivi reactor, and it ultimately agreed with the French company Areva, the Japanese Toshiba and the Russian Rosatom about the execution of the project. Several companies have backed out of the project, however, after concerns were raised about the expected returns, specifically since there are projections that by the time the power plant will be completed, it will be possible to buy considerable cheaper energy from wind power plants in neighbouring Scandinavian countries. Despite the decline in available funding, the Russian party insisted on the investment project, and in 2014 it acquired a 34% share in the Finnish corporate group that has been commissioned to build the plant,[163] which now makes Rosatom a part-owner of the nuclear power plant as well. Russian state funds are also being invested in the project. All this suggests that for the Russian government the point is not only to make profits but also to exercise influence. In all, the Russian state will offer 2.4 billion euros in support for the project; according to Moscow's plan it will yield 4.5 billion euros in budget revenue.[164] Since the fate of the power plant construction was still in jeopardy as it was unclear whether the funds would be sufficient, the Russians put pressure on the Finns, allegedly threatening that Fortum, the Finnish state-owned energy company, will be excluded from the Russian market.[165] Relenting under pressure, the Finnish state companies involved in the project have raised the consortium's capital stock, thereby ensuring that there will be sufficient money available to realise the project that the Russians pin such high hopes on.

In addition to the construction of the Hanhikivi Nuclear Power Plant, Rosatom also wanted to be involved in the expansion of the country's other nuclear power plant at Loviisa. It submitted a declaration of interest for the construction of the third block in the summer of 2015. Russia also supplies the other blocks of the aforementioned power plant with nuclear fuels.[166]

[162] https://www.rt.com/business/211867-finnish-russian-nuclear-plant/
[163] http://www.world-nuclear-news.org/C-Rosatom-buys-into-Fennovoima-2803144.html
[164] http://atomenergiainfo.hu/atomenergetika-a-vilagban/orosz-allami-penz-a-finnorszagi-atomeromure
[165] http://444.hu/2015/10/29/nem-engedtek-az-oroszok-veszni-hagyni-a-finn-atomeromuvuket
[166] http://sputniknews.com/business/20150615/1023401078.html

3.7. Greece

Greece's energy dependency is fairly high, but has significantly decreased in recent years. At the beginning of the period under investigation, in 2008, close to three-quarters (73.3%) of Greece's energy needs were covered by imports. By 2013, this ratio had declined to 62%.[167] This drop of 10 percentage points may be an encouraging sign for a country that went through a severe economic crisis during the same period, but nevertheless: based on data from 2013, Greece's reliance on energy import continues to be considerable, 9% above the EU average.[168]

With their roughly 50% share of all energy, oil/oil-products continue to play a significant role in the country's energy mix. Moreover, the amount used is almost all brought in from abroad, almost entirely from outside the EU. Greece is also dependent on a limited number of extra-Union sources to meet its somewhat less pronounced need for natural gas.[169] Russia is a key supplier for both these energy sources, and it provided over a quarter of Greece's non-EU oil imports and more than half of its non-EU gas imports.[170] In addition to the importation of energy, the country is also exposed to Russian energy influence on account of its geographic location, as one of the potential transit countries for a gas pipeline connecting Russia and Europe.

Greece had previously committed itself to the South Stream pipeline, and in addition to intergovernmental agreements to this effect, Gazprom also signed a Basic Cooperation Agreement with the Greek gas transportation and distribution company DESFA in 2010.[171]

Partly as a result of the protracted Greek crisis, the two countries also signed a long-term energy agreement in 2014 that extended the existing agreement between them, due to run out in 2016, by another 10 years to 2026. Pursuant to this agreement, the Greek party receives a discount and also somewhat more flexibility in terms of the minimum amount of gas it is obligated to buy.[172] In 2015 Russian energy influence grew further as Greece joined another Russian pipeline project. The parties signed the agreement on the Greek section of the Turkish Stream pipeline in June. The investment, valued at roughly 2 billion euros, wanted to deliver roughly 47 billion cubic meters of gas from the Black Sea to Europe after

[167] http://ec.europa.eu/eurostat/tgm/table.do?tab=table&plugin=1&language=en&pcode=tsdcc310
[168] http://ec.europa.eu/eurostat/documents/2995521/6614030/8-09022015-AP-EN.pdf/4f054a0a-7e59-439f-b184-1c1d05ea2f96
[169] http://ec.europa.eu/economy_finance/publications/occasional_paper/2013/pdf/ocp145_en.pdf
[170] http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Share_of_national_imports_of_petroleum_oils_and_natural_gas,_2013,_trade_in_value.png
[171] http://www.desfa.gr/default.asp?pid=228&rID=350&la=2
[172] http://www.wsj.com/articles/SB10001424052702303880604579405140644147098

the completion of the pipeline, which was scheduled to take place in 2019.[173] However, because of the tensions between Turkey and Russia, this project is currently suspended.

3.8. Germany

Germany was probably the subject of the highest level of Russian investment interest in the energy sector. The chief explanation is of course the size and wealth of the German market – Germany alone consumed 19.5% of the EU's total energy consumption, an extraordinary figure even if it has dropped 2 percentage points since 1990[174] – which renders it most lucrative for Russia. Though renewables play a major and growing role in the German energy mix, without major oil and gas reserves the bulk of Germany's domestic energy production comes from nuclear power and coal. Given that the German government wishes to phase out nuclear power because of safety concerns, while the production of coal raises both economic and environmental concerns, Germany will rely on energy imports to a significant extent in the foreseeable future. Currently, Germany's energy dependence stands at 62.7%, almost ten points above the European average.

Though the share of Russian imports in Germany's natural gas consumption is roughly around the EU average, in other words far below the 50-100% value typical of almost all the other countries analysed in this study, by volume Germany was the second biggest gas importer from Russia in 2012[175] – after Ukraine, which renders it likely that in the wake of the conflict between Ukraine and Russia, and Russia's decision to halt gas shipments unless it is paid in advance, Germany now boasts the highest volume of gas imports from Russia.

Germany's extraordinary role was also manifest in the two countries' political ties, which grew particularly intense in the early years of the previous decade, under then-Chancellor Gerhard Schröder. Two weeks before the election that resulted in Schröder losing office in 2005, he signed a deal with Vladimir Putin on the construction of what later became the Nord Stream pipeline. Immediately after the lost election, Schröder parachuted into a lucrative position at the company taken with building the pipeline.[176] The move caused considerable protests, including intense criticisms by Angela Merkel's Christian Democrats (CDU), but the pipeline project went ahead and Merkel and her party have also embraced it.

In fact, in a key indication of Germany's dependence on Russian energy imports, the conflict over Ukraine did not have a substantial impact on gas and oil inflows from Russia, and even joint projects between major German and Russian energy players were only temporarily

[173] https://www.rt.com/business/268279-russia-greece-turkish-stream/
[174] http://ec.europa.eu/eurostat/documents/2995521/6614030/8-09022015-AP-EN.pdf/4f054a0a-7e59-439f-b184-1c1d05ea2f96
[175] http://www.ft.com/intl/cms/s/0/b943b2c4-b8ed-11e3-98c5-00144feabdc0.html#axzz3r0XvzU00
[176] http://www.theguardian.com/world/2005/dec/13/russia.germany

delayed. The most telling illustration of Germany's high level of dependence is the fact that as a result of the sanctions, the trade deficit of the "*Exportweltmeister*" (world champion in exports) Germany with Russia reached an all-time low, since German exports to Russia declined by a significant 18%, while imports – chiefly made up of energy – dipped only slightly, by 7%.[177]

The most important project in the period investigated was the completion of the Nord Stream pipeline, which had been initiated already in 2005 but was only finalised and officially launched in 2011,[178] while the second half of the twin pipeline was completed in 2012.[179] The project's estimated costs are around 8.8 billion euros.[180] The pipeline delivers Russian gas straight to Germany, skipping the traditional transit route through Ukraine and Poland, thereby reducing Russia's dependence on two countries with which it enjoys fluctuating and often fraught relations.

The most recent major deal involving Russian investments in Germany was actually years in the making and experienced setbacks before it was finalised in autumn 2015. Gazprom and Wintershall, subsidiary of the German chemical industry giant BASF, had agreed on an asset swap deal back in 2012[181] and signed an agreement to this end in 2013.[182] As part of the deal, Gazprom was to take possession of Wintershall's gas storage capacities in Germany, while the German company was to receive rights to gas fields in western Siberia. Though in autumn 2014 both parties claimed that the deal would go forward despite the sanctions regime imposed on Russia,[183] by December of that year BASF CEO Kurt Bock cited a "difficult political environment" and expressed his "regret that the asset swap will not be completed".[184] Yet Bock simultaneously expressed his confidence that the "20 year cooperation" with Gazprom would persevere. His optimism proved well-founded, as almost a year later, in September 2015, the deal was finally completed, giving Gazprom control over a significant portion of Germany's gas storage capacities, including Rehden, Europe's largest gas storage facility that holds 22% of the total German gas storage capacities.[185] In a statement that is only slightly hyperbolic, Rehden's manager Andreas Schulz referred to the storage site as the "backbone of a safe energy supply in Germany and Europe."[186] Through taking full ownership of the Gazprom-Wintershall joint venture Wingas, Gazprom is also the sole owner of the gas storage facility at Jemgum, which opened in 2013 after five years of

[177] http://russia-insider.com/en/politics/2014-german-russia-exports-declined-18-or-7-billion-official-stats/ri7360
[178] http://www.bbc.com/news/world-europe-15637244
[179] http://www.themoscowtimes.com/business/article/gazprom-launches-2nd-phase-of-96bln-pipeline/469455.html
[180] http://www.bbc.com/news/world-europe-14803065
[181] http://www.ft.com/cms/s/0/023a4892-2e59-11e2-8bb3-00144feabdc0.html#axzz3pYaAH9AK
[182] https://www.rt.com/business/194208-russia-gazprom-buys-german-gas/
[183] ibid.
[184] http://www.welt.de/wirtschaft/article135543286/Milliarden-Deal-zwischen-BASF-und-Gazprom-geplatzt.html
[185] http://www.welt.de/wirtschaft/energie/article146029254/BASF-verkauft-alle-deutschen-Gasspeicher-an-Russen.html
[186] https://www.astora.de/presse/presseinformationen/19-september-2015.html

construction.[187] In another joint venture with the German gas company Verbundnetz Gas AG (VNG), in which Gazprom held a 10.5% stake it bought from the French company EEG in 2010,[188] the Russian company also built a storage site near Berlin named after the Russian Tsarina Catherine. Along with the storage site Etzel, which began operating in 2014,[189] Gazprom now owns almost 7 billion cubic meters of gas storage in Germany,[190] mostly in northern Germany near the entry point into the country of the Nord Stream pipeline. There are plans to significantly expand the capacities of the existing storage facilities.

In another major deal, in the spring of 2014 the struggling Germany energy company RWE sold its subsidiary DEA for a sum of 5.1 billion to LetterOne, a Luxemburg-based company owned by the Russian oligarch Mikhail Fridman, former owner of the Russian oil company TNK (which eventually became TNK-BP before being purchased by Rosneft, the largest Russian oil corporation).[191] Though DEA is a German corporation, many of its activities are conducted outside Germany in 13 countries, as it is an international oil and gas exploration and production company.[192]Both the German government and the European Commission gave their blessing to the acquisition despite the ongoing conflict between Russia and Ukraine and the EU sanctions, and despite protests by the British government, which is affected by the deal since DEA holds several oil and gas fields in the British section of the North Sea.

Despite the success of the abovementioned projects and some other, less significant deals, there have also been setbacks for Russian investment in Germany. In 2010, for example, Gazprom expanded its stake in the third largest German importer of gas, the VNG company, which is a major buyer of Gazprom's products.[193] Gazprom purchased the shares from the French-owned company EEG, and a German business newspaper reported that the deal raised concerns among one of VNG's key owners, a conglomeration of local governments in the surrounding region for whom VNG is a key source of jobs and commercial activity. A German newspaper referred to VNG as the only major German corporation headquartered in the country's former communist federal states.[194] Five years later, in the spring of 2015, Gazprom sold is 10.52% stake in VNG in what Germany's leading weekly Spiegel called a "further retrenchment of the company's European business".[195] Gazprom gave up on VGN after its strategic business partner, BASF subsidiary Wintershall, also sold its stake in the

[187] https://www.wingas.com/uploads/tx_news/PI_13_07_Eroeffnung_Jemgum_en_02.pdf
[188] http://www.handelszeitung.ch/unternehmen/gazprom-stockt-vng-anteile-auf-af
[189]http://www.jamestown.org/regions/russia/single/?tx_ttnews[pointer]=49&tx_ttnews[tt_news]=41955&tx_ttnews[backPid]=48&cHash=d72759aac5bcddf3d7c611a37dd5a346#.VixfbH6rSN0
[190] https://www.gazprom-germania.de/geschaeftsfelder/erdgasspeicher.html
[191] http://www.brokervergleich.net/rwe-dea-fridman
[192] https://www.rt.com/business/alfa-agrees-dea-acquisition-314/
[193] http://www.handelszeitung.ch/unternehmen/gazprom-stockt-vng-anteile-auf-af
[194] http://www.nwzonline.de/nachrichten/wirtschaft/weser-ems/ewe-uebernimmt-vng-paket-von-gazprom_a_26,0,1681888935.html
[195] http://www.spiegel.de/wirtschaft/unternehmen/gazprom-verkauft-anteile-an-vng-aus-leipzig-a-1027239.html

company.[196] Other failed opportunities include the ultimately scrapped plans to build a gas-fired power plant jointly with the German company RWE,[197] which had started promisingly in 2011.[198] Russia's biggest failure in Germany was certainly the collapse of the South Stream pipeline project, which has affected Russia's position in the entire region.

However, in mid-June 2015 the German E.ON, the Dutch-British Shell and the Austrian OMV corporation agreed with Gazprom on the construction of the North Stream 2 project by 2019. Similarly to the first pipeline, the new pipeline will also feature a capacity of 55 billion cubic feet and will pass below the Baltic Sea to deliver gas directly from Russia to Germany. There is no urgent economic rationale behind the investment, since thus far even North Stream I is far from operating at full capacity. What motivates the project instead is that due to the well-known conflicts between the two countries, Russia no longer wishes to rely on Ukraine in delivering gas to Europe, and if a new route is chosen, then Germany would prefer to be at the other end of the line.[199]

The stockholder agreement of the investment project was signed in early September by the stakeholders, who agreed on creating a joint venture called New European Pipeline AG, whose job it would be to create a new pipeline system. Gazprom would receive a 51% share of the new company, while E.On, Shell, OMV and BASF–Wintershall would each receive 10%, with Engie controlling the remaining nine. Thanks to the investment, the currently existing North Stream pipeline system would be expanded by an identical pair of pipelines with a gas transmission capacity of 55 billion cubic meters annually.[200] In November an amendment was added to the stockholder agreement, which specified that Engie's share in the joint venture rises from 9 to 10%, while Gazprom's would be reduced from 51% to 50%, effective from the point when the founders actually purchased their respective shares in the joint company. The share of the other companies would remain unchanged at 10% each.[201]

In protesting the planned expansion of the North Stream gas pipeline, the energy ministers of seven EU member states – Poland, Slovakia, Hungary, Romania, Estonia, Latvia and Lithuania – wrote a letter to the European Commission in which they warned of the potentially damaging implications of this development on European energy geopolitics. Initially, Greece, Bulgaria and the Czech Republic were also allegedly parties to the joint letter, but ultimately they withdrew.[202] Currently, the German energy authority is examining whether the submitted project plans comply with environmental and other requirements. If they find everything to be in order, then the German authority must turn to the

[196] http://uk.reuters.com/article/2015/04/06/uk-russia-gazprom-vng-idUKKBN0MX15U20150406
[197] http://uk.reuters.com/article/2011/12/22/rwe-gazprom-idUSL6E7NM1BG20111222
[198] http://www.ft.com/cms/s/0/4b078324-f00b-11e0-bc9d-00144feab49a.html#axzz3pksRFFyh
[199] http://444.hu/2015/07/17/a-nemetek-es-az-oroszok-osszefogtak-a-hideg-hullamok-alatt
[200] http://kitekinto.hu/europa/2015/09/06/nagy_jelentseg_papirt_irt_ala_a_gazprom/#.Vqd5a1IriDk
[201] http://www.napi.hu/nemzetkozi_vallalatok/atalakul_a_az_eszaki_aramlat_2_projekt.605946.html
[202] http://kitekinto.hu/europa/2015/12/02/a_magyarok_is_furjak_putyin_uj_tervet/#.VqeOBFIriDk

Commission to request a temporary exemption from the requirements of the infrastructure access in the Third Energy Package.[203]

Though Germany declared a nuclear stop in 2011, as a result of which it plans to completely abandon the use of nuclear energy by 2022, the Russian side nevertheless tried to export nuclear energy to Germany again. Adapting to the German regulations, however, their plan was not to build a nuclear power plant in Germany proper, but in Russia's own territory near Germany, the strategically located Kaliningrad region, Russia's enclave in the Baltics.[204] The planned station was expressly intended to serve the export market, and Russia specifically sought to deliver electricity to Germany, Poland and Lithuania. In 2013, however, the investment project was put on hold as Lithuania and Poland both indicated that they had no need of the Russian energy that would be produced by the planned Russian nuclear power plant, due to political and business considerations alike (the two countries were contemplating the construction of their own nuclear power plant).[205]

All in all, one striking aspect of Russian activities in Germany is that the sanctions and the German government's decisive endorsement thereof had actually only a very limited impact – delaying at best – on deals that the parties were keenly interested in pursuing, such as the Wintershall-Gazprom or the RWE-Letter One deals. Nevertheless, over the past two years, German media and business analysts have repeatedly talked about the withdrawal of Russia from the German market (the significant expansion of Russia's presence in the gas storage market notwithstanding). Analysts usually assessed that the difficult political climate played a less prominent role in this process; instead, they frequently referred to a variety of business-related decisions rooted in the financial woes of Russian investors, different business cultures and the like.

3.9. Hungary

Hungary has continuously and considerably reduced its energy consumption since transitioning to a market economy in 1990, from 28.8 MTOE that year to 22.7 MTOE in 2013.[206] Nevertheless, Hungarian energy dependency remains high at 53.3%, just a whiff below the EU average.[207] The overwhelming majority of the country's extensive imports of oil and natural gas are covered by Russia, which makes the latter country most important

[203] http://kitekinto.hu/europa/2015/12/20/komoly_vita_europaban_az_orosz_gazvezetek_korul/#.VqeU01IriDk
[204] http://www.reuters.com/article/germany-russia-nuclear-idUSLDE7600CF20110701
[205] http://www.osw.waw.pl/en/publikacje/analyses/2013-06-12/russia-freezes-construction-nuclear-power-plant-kaliningrad
[206] http://ec.europa.eu/eurostat/documents/2995521/6614030/8-09022015-AP-EN.pdf/4f054a0a-7e59-439f-b184-1c1d05ea2f96
[207] ibid.

external factor of Hungary's energy security by far.[208] Hungary's energy strategy until 2030, adopted by the government in 2011, speaks a clear language on this issue: "Russia will remain the most important source of [energy] imports in the long-run. Thus stable and balanced relations between Russia and Hungary are vital elements of [Hungary's] security of supply."[209]

Paradoxically, the excellent relations between the Russian and Hungarian governments in the past years (already before Orbán took over in 2010), have not resulted in growing Russian investments in Hungary over this period. In fact, total Russian FDI stock has declined massively over the past years, and Hungary went from being the top target of Russian investments in the region to one of the least important among these countries in terms of total Russian FDI. Almost all of the former top position that had prevailed early in this period owed to the acquisition by Russian Surgutneftegas of 21.2% in the Hungarian national oil company MOL in 2009, which in itself accounted for roughly two-thirds of Russian FDI in Hungary.[210] The Orbán government had been keen on buying Surgutneftegas' stake back from the very beginning, and in 2011 it did so in a deal that yielded a substantial profit for the Russian company.[211] As a result, the total Russian FDI in Hungary took a massive dive. By 2013, it had still not recovered.

One of the major projects that failed during this period was the construction of a gas storage site in the Hungarian town of Pusztaföldvár. MOL and Gazprom set up a joint venture to this end in 2009,[212] but in light of the unfavourable impact studies they abandoned the project in 2012.[213]

There were also some successful expansions of Russian corporations in the Hungarian market, however. In 2010, Gazprombank acquired a controlling share in the Hungarian gas wholesale trading company Centrex Hungária through a chain of subsidiaries.[214] In the same year Gazprom also set up another subsidiary in the gas wholesale market, WIEE Hungary, which was created as a joint venture with BASF subsidiary Wintershall.[215]

Russia and Hungary have also agreed to cooperate on what qualifies as one of the largest energy projects in the region: the expansion of the Hungarian nuclear power plant in Paks by two reactor blocks. The project will cost a massive 12,5 billion euros, 10% of Hungary's GDP. Russia, whose Rosatom will be the main contractor in the project, is offering 80% of

[208] http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Share_of_national_imports_of_petroleum_oils_and_natural_gas,_2013,_trade_in_value.png
[209] http://www.complex.hu/kzldat/o11h0077.htm/o11h0077_7.htm
[210] http://www.surgutneftegas.ru/en/press/news/item/267/
[211] http://bbj.hu/business/hungary-buys-back-mol-stake-from-surgutneftegas_57986
[212] http://www.portfolio.hu/vallalatok/energia/pusztafoldvari_gaztarolo_a_ceg_mar_megvan.127400.html
[213] http://nol.hu/gazdasag/nem_lesz_mol-gazprom_gaztarolo-1298971
[214] http://www.galamus.hu/index.php?option=com_content&view=article&id=37268
[215] http://vilaggazdasagi.blog.hu/2012/04/21/oroszorszag_es_a_kozep_es_kelet_europai_allamok_gazipari_egyuttmukodesenek_aktualis_kerdesei_kulonos

the total contract amount as a sovereign loan to be paid back in instalments over 21 years.[216] The project has been controversial inside and outside Hungary, with many questioning the economic/energy policy sense behind the decision,[217] a variety of environmental organisations protesting it,[218] and a majority of the public also rejecting it in its current form.[219] Currently, the investment project is in limbo as the European Commission, too, has raised concerns, most recently about compliance with public procurement rules[220] and about the issue of state aid and Paks' impact on competition.[221] The EU's formal objections in the form of an infringement procedure could significantly delay the project and potentially even block it if infringements are found that the Hungarian government is unwilling to remedy.

3.10. Latvia

Latvia's energy dependency is slightly higher than the EU average. The level of dependency has not changed significantly in recent years. In the years 2008 and 2009 roughly 60% of the country's energy needs were covered by imports. Though in 2010 this ratio declined to 45%, in the two following years it climbed back to 60% once again. Based on the most recent data available, Lithuania's external energy dependence was 56% in 2013.[222] In addition to this overall statistic, which is not particularly remarkable when compared to the EU average, one must also point out that in the absence of domestic oil and gas reserves, the country is also particularly dependent on imports of these resources, and in practice this means a dependence on Russia. This is particularly true for natural gas, over 75% of which the country purchases from Russia.[223] Russia also asserts its energy policy influence in Latvia through long-term gas supply contracts.

In addition to external gas and oil dependence, Latvia's overall energy dependence is also exacerbated by the fact that like the other Baltic states, Latvia's network of gas pipelines is not connected to the gas EU's networks. In combination with other factors, this constitutes a threat to the country's energy security in a potential scenario where Russian gas supplies are reduced or cease completely. Though this dependence is somewhat mitigated by the fact that unlike Lithuania and Estonia, Latvia boasts its own gas storage capacity, the facility in question is operated by the energy exporting Russian company.[224]

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[216] http://www.reuters.com/article/2014/01/14/russia-hungary-idUSL6N0KO28L20140114
[217] E.g. http://230.atlatszo.hu/2015/01/20/paks-ii-nelkul-a-vilag-kiszamoltuk-es-kozze-is-tesszuk/
[218] http://www.greenpeace.org/hungary/hu/legy-aktiv/paks2/
[219] http://www.greenpeace.org/hungary/hu/sajtokozpont/A-magyarok-ketharmada-tiszta-energiat-akar-orosz-energiafuggseg-helyett/
[220] http://europa.eu/rapid/press-release_MEMO-15-6006_en.htm
[221] http://europa.eu/rapid/press-release_IP-15-6140_en.htm
[222] http://ec.europa.eu/eurostat/tgm/table.do?tab=table&plugin=1&language=en&pcode=tsdcc310
[223] http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Share_of_national_imports_of_petroleum_oils_and_natural_gas,_2013,_trade_in_value.png
[224] http://ec.europa.eu/economy_finance/publications/occasional_paper/2013/pdf/ocp145_en.pdf

Hence a reduction of Latvia's energy dependence on Russia would be crucial. The Baltic states have jointly lobbied the EU for the construction of a natural gas terminal for years now. The Latvians want the terminal to be built in their own country, which has led to tensions among the Baltic states. In return for its support of an LNG terminal, Brussels has asked the Baltic states to liberalise their gas markets.[225] Latvia has also sought to implement reforms that further energy market liberalisation. As a first step, it adopted a law at the end of 2013 that allows non-nationals access to the Latvian gas distribution system.[226] The domestic gas monopolist Latvijas Gaze (Gazprom holds a 34% stake in the company) has resisted liberalisation, however, at the end of 2015 they seem to fail to stop the opening up of the gas market in the country,

3.11. Lithuania

There has been a significant deterioration in Lithuania's energy dependence in the period investigated. This owes mainly to the fact that the country's last nuclear reactor was shuttered at the end of 2009, thus turning Lithuania from an energy exporter into an energy importer.[227] While in the 2000s the country's energy imports tended to fluctuate between 40-60%, that is roughly around the EU average, in 2010 its dependence on energy imports surged to 80%.[228] Suddenly, Lithuania became one of the most vulnerable member states in terms of its energy dependence, since in 2013 only Malta, Luxemburg, Cyprus and Ireland relied on energy imports to a higher degree than Lithuania.

Virtually all of the Lithuanian oil and natural gas imports in 2013 stemmed from a single source, namely Russia,[229] which has resulted in a significant Russian influence on the country's energy market. This was exacerbated by the fact that Lithuania's gas network is not connected to the EU's gas network. The Lithuanian government plans to reduce the country's dependence on Russian energy, which currently stands at 80%, to 55% by 2016 and 35% by 2020.

Correspondingly, a reduction of Russia's energy policy influence has been designated as a strategic policy objective in Lithuania, and the results of this strategy will be apparent already within the next few years. One potential avenue towards reducing energy dependence

225 http://kitekinto.hu/europa/2012/01/20/tarolokkal_es_olajpalaval_kuzd_a_baltikum_az_orosz_gazuralom_ellen/#.VkYm_b_deRg

226 http://www.baltictimes.com/news/articles/34019/

227 http://ec.europa.eu/economy_finance/publications/occasional_paper/2013/pdf/ocp145_en.pdf

228 http://ec.europa.eu/eurostat/tgm/table.do?tab=table&plugin=1&language=en&pcode=tsdcc310

229 http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Share_of_national_imports_of_petroleum_oils_and_natural_gas,_2013,_trade_in_value.png

would be the diversification of the import sources of fossil energy. The completion of the LNG terminal in Klaipeda in the end of 2014 led to the diversification of gas supply and introduced competition. As a consequence, no less than 0,54 billion cubic meters of gas were supplied through the LNG terminal in 2015. After signing new contracts with the Norwegian company Statoil, the LNG supply in 2016 is expected to double. The Klaipeda LNG terminal has significantly enhanced security of gas supply for all consumers in the Baltic States by providing an alternative gas supply source on the basis of full Third Party Access. The Klaipeda LNG terminal regasification capacities of 3.8 bcm/y (10.3 mcm/d) are sufficient to cover around 90% of all current demand in the Baltic States. To end the Baltic States' (and Finland's) physical isolation from the European gas networks, the new bi-directional gas pipeline between Poland and Lithuania (GIPL) is planned. The financing agreement of this project, signed on 15 October 2015, paves the way for its implementation by the end of 2019.

Lithuania's energy dependence is also mitigated by the fact that, as the consequence of the implementation of the EU's Third Energy Package, in 2014 Gazprom chose to sell its Lithuanian assets, a step that was also influenced by E.ON's earlier decision to do the same. The Russian company has sold its shares in Amber Grid, the company that operates Lithuania's transmission grid, as well as in Lietuvos Dujos, the company that distributes and supplies gas in Lithuania. The Lithuanian state bought the respective shares, which were valued at 120 million euros. Through this step Lithuania has become the first Baltic state that complies with the requirements laid down in the EU Energy Package concerning the unbundling requirements.[230]

Lithuanian electricity import was diversified by completing 700 MW capacity NordBalt (Lithuania-Sweden) and 500 MW capacity LitPol Link (Lithuania-Poland) electricity interconnections in the end of 2015. These interconnections will substantially increase Baltic States' participation in the Scandinavian electricity market and will diversify Lithuanian electricity import sources.

The country could also boost its independence from Russia by increasing the use of nuclear energy, and the issue has been on the public agenda for years now. The nuclear power plant closed at the end of 2009 could be supplanted by new blocks, but for the time being this project is in the planning stages. Lithuania concluded an agreement with the Japanese company Hitachi in 2011 on the construction of a nuclear power plant. According to the plants at the time, this was to be realised in the framework of an international project involving the other Baltic States and Poland. The investment project came to a standstill in the same year as the Polish party exited from the project, while the Baltic states bickered amongst one another. In 2012 the Lithuanian population also voted against the plans in a

[230] http://www.lithuaniatribune.com/69209/gazproms-exit-means-lithuania-is-1st-in-baltics-to-unbundle-gas-sector-pm-201469209/

non-binding referendum. Despite these setbacks, Lithuania still appears set to build the nuclear power plant.[231]

The nuclear power plant that the Russians had planned to build in Kaliningrad also counted on Lithuania as a potential customer. RAO UES – 57% of which is owned by Rosatom – even concluded a contract with its Lithuanian subsidiary, INTER RAO Lietuva about energy exports totalling 1,000 MWe, which were scheduled to begin in 2017. The Lithuanian government had environmental and nuclear safety objections to the Russian project, however, and also expressed its doubts regarding the investment on several occasions, because in the absence of network capacities the transportation of the energy created by the nuclear power plant would have been problematic. In addition to the aforementioned considerations, the Russian Baltic Nuclear Power Plant would obviously have been a rival to the reactors planned by the Lithuanians and Poles, and thus in the end – similarly to the Poles and Germans – the Lithuanians finally decided to forgo the energy from Kaliningrad, and as a result the Russian party abandoned the project.[232]

On the whole, it can be said that Lithuania seeks to reduce Russia's pronounced energy influence through strategic measures involving cooperation with Scandinavian and other Baltic states. The newly gained access to the global gas markets through LNG terminal and electricity interconnections combined with the potential to increase domestic generation capacity are key to realise Lithuania's objectives in the near future.

3.12. Poland

In terms of its energy import dependence, Poland is among the least vulnerable countries in the European Union. In the first half of the 90s, the country was fully self-sufficient, and then gradually its import dependence grew by 30 percentage points. At the starting point of the period we investigated, 2008, Poland's external energy dependence had risen to 30%, and by 2013 it had declined slightly, to roughly 25%.[233] With these values Poland is the fourth most independent country in the EU terms of its reliance on foreign energy; its energy imports as a share of total imports are less than half the EU average, and this ratio is only lower in Estonia, Denmark and Romania.[234]

[231] http://atomenergiainfo.hu/atomenergetika-a-vilagban/litvania-felmelegitene-az-atomeromutervet
[232] http://www.world-nuclear.org/info/Country-Profiles/Countries-G-N/Lithuania/
[233] http://ec.europa.eu/eurostat/tgm/table.do?tab=table&plugin=1&language=en&pcode=tsdcc310

[234] http://ec.europa.eu/eurostat/documents/2995521/6614030/8-09022015-AP-EN.pdf/4f054a0a-7e59-439f-b184-1c1d05ea2f96

Its low dependence on imports was made possible by the high ratio of domestic coal use, which makes up 50% of Poland's energy mix. The expected exhaustion of its coal reserves, which is projected to occur in the near future, and the low diversity of its energy mix constitute a serious threat to the country's energy security.[235] Poland relies on imports to cover its need of the two other most prominently used energy sources, oil and gas. Almost all of its oil needs and two-thirds of its gas consumption stem from imports. Most of its imports of these two energy sources come from Russia,[236] and Poland has long-term gas agreements with Gazprom.

In the issues pertaining to Russian-Polish energy relations in the last few years, we have observed a balancing tendency on the part of the EU country, which strives to strike a balance between the need to adequately supply the country's energy needs and to avoid an even greater energy dependence on Russia. Nearer to the end of the period investigated, the emphasis was shifting towards the latter.

One example is the 2010 renegotiation of the gas supply agreement between the two countries. Contrary to the previously established practice, Poland did not extend the agreement that was about to expire, with the result that the import agreement on the supply of natural gas would only stay in force until 2022 rather than 2037, while the Russian gas transit agreement would be in force until 2019 rather than 2045.[237] Despite the shortened contractual period, the decision that was achieved was favourable to Russia, since based on this agreement the volume of gas exported to Poland after 2011 grew substantially, by 38%, while the guaranteed level of profits derived from gas transits were fixed in the agreement at 7 million USD. Moreover, unlike in previous situations in the past, the Poles were also willing to consider Russian bids in the process of privatising a state-owned oil company.[238] In 2011 a Russian-British joint venture submitted a bid for the Polish Grupa Lotos, as the government was seeking to divest its almost 50% share in the company. The privatisation ultimately failed, however. Gazprom also submitted another bid for Grupa Lotos at a later time, but that deal was not concluded either.[239]

Another typical manifestation of Russian energy influence are efforts to improve Russia's positions through the construction of natural gas transportation routes. During the period

[235] http://ec.europa.eu/economy_finance/publications/occasional_paper/2013/pdf/ocp145_en.pdf

[236] http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Share_of_national_imports_of_petroleum_oils_and_natural_gas,_2013,_trade_in_value.png

[237] http://www.vg.hu/gazdasag/gazdasagpolitika/lengyel-orosz-gazszerzodes-varso-nem-hosszabbit-330560

[238] http://energiainfo.hu/cikk/veglesitettek-a-lengyel-orosz-gazszerzodest.22784.html

[239] http://www.bloomberg.com/news/articles/2011-05-27/tnk-bp-submits-bid-for-poland-s-grupa-lotos-kommersant-reports

investigated Poland has taken a more rejectionist stance concerning gas pipeline projects, however. In 2007 it had still supported the construction of the Yamal 2 pipeline that would go through Belarus and Poland towards Europe,[240] but over the years the Polish position changed. In 2013, when Gazprom and the Polish company Europol Gaz managed to reach an agreement on the expansion of the Yamal pipeline, the Polish government vetoed their agreement.[241] By the 2010s the goal of curbing Russian energy influence had emerged as a primary objective of Polish policy, and Poland also became active at the EU level in lobbying for the realisation of this objective, introducing a 5-point package of measures to this end in 2014.[242]

Though it is less pronounced, the Russian party also exhibits an obvious desire to gain influence in the area of nuclear energy. In 2012, Rosatom expressed its interest in participating in a nuclear power plant investment project planned by Poland.[243] Ultimately, this project was not realised, and Russia's own reactor plans in Kaliningrad, which also rested on the assumption that Poland would import energy from the reactor, never came to fruition either. Similarly to the other potential target countries, Poland made clear that it would not be buying energy produced by the reactor, which led to Rosatom's decision to abandon the investment in 2013.

Nevertheless, Rosatom had some measure of success in this area. At the end of 2015 it won a tender that allowed the Russian energy giant's nuclear fuel-producing subsidiary TVEL to become the supplier of the experimental reactor of the Polish National Centre for Nuclear Research. This agreement was also approved by the European Atomic Energy Community, which operates alongside the European Union, and hence after a break of seven years the delivery of Russian nuclear fuel to Poland has resumed once again.[244]

3.13. Romania

In terms of energy dependence, Romania is exceptional among Central and Eastern European EU member states, for it boasts the lowest level of dependence on Russian gas.[245] The country's annual gas consumption was roughly 12.5 billion cubic meters in 2014, while its domestic production amounted to 11 billion cubic meters. Romania imported roughly a quarter of its gas needs from Russia, even though it could have covered a portion of these

[240] http://sputniknews.com/russia/20071101/86223448.html

[241] https://www.rt.com/business/gazprom-polish-gas-pipeline-481/

[242] http://www.portfolio.hu/vallalatok/energiaunio_letrehozasaert_lobbiznak_a_lengyelek.197456.html

[243] http://www.warsawvoice.pl/WVpage/pages/article.php/22133/news

[244] http://atomenergiainfo.hu/atomenergetika-a-vilagban/orosz-futoanyagot-kap-a-lengyel-maria

[245] http://index.hu/kulfold/eurologus/2014/12/09/hatalmi_pokerjatszma_a_deli_aramlat_romjain/

imports from its own production.[246] In addition to a drop in domestic consumption, this also results in a greater domestic production. By 2015 Romania had become nearly independent from Russian natural gas shipments, and in the coming years it wishes to attain complete energy independence through gas production from its recently discovered Black Sea reserves.[247]

One sign that Romania is distancing itself from Russia in terms of its energy policy is that even though originally the South Stream gas pipeline – which was to connect Russia and Europe – was planned to run through Romania (Romanian officials signed a memorandum of understanding to this effect in 2014[248]), in 2014 the final plans of the ultimately scrapped project did not include a Romanian section; these were replaced with a Bulgarian section instead. In 2014 Romanian MPs debated participating in a system of European interconnectors independent from Russia.[249] The trend of the last few years has thus clearly been a successful reduction in Romania's dependence on Russian energy supplies.

Nevertheless, the significant advances in gaining independence from Russian natural gas does not imply that Romania is totally free of Russian energy influence. Russian influence on the Romanian energy market primarily manifest itself through the business activities of Russian oil corporations, as well as informal Russian pressure. Two large Russian energy companies have a major presence in Romania. Market leader Gazprom has opened the first Gazprom-branded filling station in 2012, and originally anticipated operating 50 stations by the end of 2013.[250] The second Russian company, Lukoil, operates some 300 filling stations in Romania, and is also a majority shareholder in the concession to explore the country's maritime gas fields.[251] In 2015 this project discovered a vast sub-aquatic gas field in the Black Sea. The Russian company also raised the stock capital of the company operating the Petrotal-Lukoil oil refinery by 35 million euros in 2015.[252]

Apart from direct business influence, there have also been instances of informal energy policy pressure. In early 2015, the American Chevron corporation, which had explored for shale gas in Romania, left the country. Its decision was influenced by popular resistance, among other factors. At the same time Romanian press reports suggested that the public protests owed less to popular awareness than to Russian efforts at instigating such a reaction in the public.[253] Russia's interests are namely obviously under threat by any effort

[246] http://energiaoldal.hu/mar-romania-is-kevesebb-orosz-gazt-kap/
[247] http://nol.hu/kulfold/vegeaz-orosz-fuggesnek-1566857
[248] http://hvg.hu/gazdasag/20101013_orosz_roman_deli_aramlat
[249] http://hirtv.hu/hirtvkulfold/roman-vezetek-lephet-a-deli-aramlat-helyebe-1262533
[250] http://www.euro-petrole.com/the-first-petrol-station-under-gazprom-brand-opens-in-romania-n-i-6939
[251] http://www.euro-petrole.com/lukoil-panatlantic-and-romgaz-discovers-large-deep-water-offshore-gas-field-in-romania-n-i-12095
[252] http://www.petroleumreview.ro/34-october-2014/302-new-capital-increase-for-petrotel-lukoil-refinery
[253] http://hvg.hu/kkv/20150223_Putyin_nyert_Romaniaban_Kivonul_a_Chevron

aimed at producing Romanian fossil energy, because this would serve to reduce the dependence of the region and the entire EU on Russian energy supplies.

With respect to nuclear energy, the Russian party expressed an interest in expanding the nuclear power in Cernavoda. AtomTechnoProm, a consortium comprising four Russian companies, was among three companies in 2011 that were considered among the likely prospects to win the tender to construct the third and fourth blocks of the nuclear power plant.[254] Nevertheless, the Russians failed to successfully assert their influence in Romania and ultimately did not secure the contract: Romania chose China instead, and in 2013 the Romanian energy company Nuclearelectrica and the China General Nuclear Power Group (CGN) signed an agreement. By 2015 it was clear that the two new blocks of the Cernavoda nuclear power plant would be under Chinese control. China General Nuclear Power Corporation will control 51% of the joint venture, and in the long term the Romanian stake might even drop to 30%.[255]

3.14. Slovakia

Slovakia's energy dependence is slightly higher than the EU average. More than half its energy needs are covered by external sources, though the past years have seen a slight improvement in this respect. In 2010 the country's energy import made up 63% of Slovakia's total energy consumption, which exceed the EU average by 10 percentage points.[256] Based on 2013 data, the country's energy dependence dropped to 60%, but it is still consistently above the European average.[257]

In the absence of its own oil and gas resources, Slovakia is almost completely dependent on importing these energy resources, which the country predominantly acquires from Russia.[258] In terms of gas, Slovakia's dependence on Russia is close to a 100%, while in the case of oil it is somewhat lower, but still significant.

Slovakia is bound to Russia through a long-term oil supply contract, which the parties renewed just last year for another 15 years. Based on the renewed agreement, Russia will ship 6 billion tons of oil annually to Slovakia through the Druzhba (Friendship) pipeline, while another six million tons of oil flow as transit shipments through Slovakia towards western Europe.[259] The other significant development is that in the interest of providing for the

[254] http://www.world-nuclear.org/info/Country-Profiles/Countries-O-S/Romania/
[255] http://nol.hu/kulfold/vegeaz-orosz-fuggesnek-1566857
[256] http://ec.europa.eu/economy_finance/publications/occasional_paper/2013/pdf/ocp145_en.pdf
[257] http://ec.europa.eu/eurostat/documents/2995521/6614030/8-09022015-AP-EN.pdf/4f054a0a-7e59-439f-b184-1c1d05ea2f96
[258] http://www.nytimes.com/interactive/2014/03/21/world/europe/how-much-europe-depends-on-russian-energy.html?_r=0
[259] http://mno.hu/gazdasag/oroszorszag-es-szlovakia-megegyezett-a-koolajrol-1261888

country's energy needs, Slovakia has suggested that it is necessary to build the so-called Eastring pipeline, which would deliver Russian gas to the region without transiting Ukraine. Instead, this pipeline would connect to the Turkish Stream pipeline built by Gazprom and deliver natural gas to Slovakia's network through Bulgaria, Romania and Hungary.[260] However, because of the increasing tensions between Turkey and Russia, the Turkish Stream project is currently suspended.

Due to Slovakia's need for fossil energy, Russia will probably continue to retain an influence on Slovakia's energy supply. Though not at the initiative of the Slovakian party, but the second largest Russian oil company Lukoil decided to withdraw from the Slovakian, Hungarian and Czech markets in 2014, and sold its network of filling stations in these countries in response to the sanctions against Russia.[261]

Reducing energy dependence on Russia to the greatest extent possible is on the public agenda in Slovakia. Nuclear energy offers the most promising alternative in this regard, and in fact we have recently seen some specific measures in this area. In 2014, Slovakia terminated its nuclear fuel supply agreement with its Russian partner, and in the future Slovakia will procure the enriched uranium it needs to operate its nuclear power stations from a French company.[262] The magnitude of this decision is also illustrated by the fact that Slovakia was the first country in the region that renounced Russian nuclear fuels.

However, Russian nuclear energy interest is still present in Slovakia, where Russian companies are interested in building two new nuclear power plants. Russian company AtomStroyExport was one of the group of enterprises that Slovakia concluded an agreement with in 2009 for the completion off blocks 3 and 4 of the nuclear power plant in Mochovce. The actual performance of the terms was delayed as a result of EU investigations, and the completion of Block 3 is now scheduled for the end of 2016, while the current plan is for Block 4 to be completed in 2017.[263] Russian companies are present as potential investors as well as technology service providers in the other reactor investment project planned for Bohunice. The Czech company CEZ, which was part of the JESS consortium formed to implement the projects, has offered its 49% stake in the joint venture to Rosatom. The Slovakian ministry for the economy has approved the offer contingent on the condition that the Russians build a 1,200 MWe reactor by 2021. In the long run, Rosatom wishes to attain a guaranteed electricity price of 60-70 euros/MWh. The government does not agree with this, however. In January 2014 the Russian party indicated that it was still interested if there was any way for the Slovakian party to guarantee the profitability of the investment, and negotiations resumed on that basis. As of December 2015, the Slovakian government

[260] http://energiaoldal.hu/utat-keresnek-az-orosz-gaznak-europa-fele/
[261] http://magyarhirlap.hu/cikk/2252/Kivonul_tersegunkbol_az_orosz_Lukoil
[262] http://www.bumm.sk/gazdasag/2014/11/14/szlovakianak-nem-kell-az-orosz-uran
[263] http://www.world-nuclear.org/info/Country-Profiles/Countries-O-S/Slovakia/

claimed that Rosatom was still interested in the project.[264] This claim is also supported by documents that the Russian government released a few months earlier.[265]

3.15. Slovenia

Slovenia is in a rather favourable situation in terms of its energy dependence. According to data from 2013, the country relies on imports for less than half of its total energy consumption, and its 47% level of dependence is slightly below the EU average of 53%.[266] The current figure is also the result of a positive trend towards greater independence: in 2006 52% of Slovenia's energy needs had to be covered by imports, which implies a small but discernible improvement.[267]

Slovenia is also in better shape than many other EU member states in terms of its energy dependence on Russia in particular. In 2014 roughly a quarter of its energy imports stemmed from Russia.[268] Nevertheless, Slovenia has no reserves of natural gas and is thus fully dependent on foreign resources in this respect. At the same time, Slovenia's natural gas consumption is among the smallest in the EU – it is below a billion cubic meters – and is relatively balanced in terms of its import structure. It procures the biggest chunk of its gas needs from Russia, but in 2012 this plurality still accounted for little over 40% of its total gas imports, while only five years earlier Russian gas had provided 52% of all imported gas supplies, which implies that dependence on Russia has declined during this period. This owes to the fact that significant quantities of natural gas arrive in Slovenia from Austria (35%), while gas imports from Algeria and Italy also increase the diversity of its energy supply.[269]

In recent years Slovenia has been involved in two natural gas pipeline projects that serve Russian interests. Already in 2009 Slovenia approved the Russian request to build a section of the South Stream pipeline in its territory. In the framework of this cooperation Gazprom and its Slovenian partner established a joint venture to implement the project,[270] while Slovenia also undertook to represent Gazprom in its debate with the EU concerning the Third Energy Package.[271] Then the Russians also involved the Slovenians in the plans for the construction of Turkish Stream, which is meant to supplant the South Stream project that

[264] http://www.world-nuclear.org/info/Country-Profiles/Countries-O-S/Slovakia/
[265] http://sputniknews.com/europe/20150602/1022844527.html
[266] http://ec.europa.eu/eurostat/documents/2995521/6614030/8-09022015-AP-EN.pdf/4f054a0a-7e59-439f-b184-1c1d05ea2f96
[267] http://ec.europa.eu/economy_finance/publications/occasional_paper/2013/pdf/ocp145_en.pdf
[268] http://www.nytimes.com/interactive/2014/03/21/world/europe/how-much-europe-depends-on-russian-energy.html
[269] http://www.geoplin.si/en/natural-gas/slovenian-market
[270] http://www.naturalgaseurope.com/gazprom-slovenia-jv-south-stream
[271] http://kitekinto.hu/europa/2011/04/08/szlovenia_lett_az_oroszok_brusszeli_stromanja/#.VjopLL_deRg

was scrapped due to EU opposition. Unlike in the case of the South Stream pipeline, the Slovenians have not yet approved the (currently suspended) investment, however. They will decide about the Slovenian section based on the project parameters as they become available.[272] This more reserved attitude probably owes to the fact that based on recent trends the country is less dependent on Russian energy.

[272] https://www.rt.com/business/310881-russia-slovenia-turkish-stream/

4. Conclusion

It is clear that the significant dependence of the Central Eastern European region on Russian energy supplies is a major risk for the security of the EU's energy supplies. If Russian energy imports were to cease, the economic and social impact on the region in question would be devastating to the extreme.

It must also be pointed out, however, that the vast majority of this problem stems not only from a deliberate Russian strategy to further this dependency but also from a lack of natural energy resources, the slow speed at which the EU energy mix is restructured to give greater weight to renewables, as well as the price of diversifying the EU's energy import structure.

The dependence on Russia cannot be easily reduced. Where it has been achieved, such as in the case of Romania or Estonia, it is often the result of fortuitous (or environmentally less fortuitous, as in the case of Estonia's shale gas) discoveries of domestic oil and/or gas reserves or replacing one country's dependence on Russian energy imports with another's, thus essentially shifting the "Russian" burden by importing from another country energy that was supplied from Russia, or which at least needs to be replaced with Russian imports.

It is also up to European policymakers, both at the national and the EU level, to determine both the instruments and the pace at which they reduce this dependence; throughout most of the EU, Russia has limited influence on whether European players invest more in renewables and energy efficiency. The situation may be more complex with respect to finding alternative sources of supply in order to reduce dependence on Russia, that is the diversification of import sources, for Russia wields considerable political influence over several of the potential alternative sources in Central Asia.

It also needs to be emphasised that the dependence is not at all one-sided, though arguably the EU, or at least its eastern half, depends more on Russia than vice versa – this assessment implies the juxtaposition of two very different kinds of dependencies, energy on the one hand and money on the other, and rests on the argument that ultimately it is easier to forgo money than, say, heating. For one, certain countries among those investigated here exhibit such a high dependence on Russia and yet account for such a small share of Russian imports that in their particular context the relationship is one-sided indeed. Nevertheless, on the whole the Russian economy also depends massively on energy exports to the EU, and Russia's newfound wealth, along with the social and political stability it has engendered, stems to a very significant extent from European money paid in exchange for Russian energy exports. The Russian population has proved extraordinarily resilient in face of economic hardships, primarily manifest in the form of massive inflation, that resulted from the EU sanctions coupled with the drop in energy prices. In fact, hostility with the West has served

to shore up public support for President Putin despite the obvious economic costs. Still, a scenario where Russia loses the vast majority of its energy export revenues is similarly unfathomable for Russia as the situation would be for the EU. This explains incidentally why even at the worst point in the tensions between Russia and the West energy trade continued, and why in the case of some countries the planned business deals that were temporarily put on hold resumed rather quickly as soon as tensions eased. The mutual dependence is too strong to sever ties over even a major disagreement, which the Ukraine issue certainly is. It is also crucial to point that energy trade also have some sort of stabilising factor in regional relations, since both parties can ill afford to let conflicts escalate to a point where these exports could not continue.

We would not belittle, still less deny, the potential hazards of excessive reliance on a single source of energy imports, especially one as geo-politically ambitious and as willing to flex its muscles as Russia. Apart from conflicts between the trading parties, such a dependence is also subject to risks emanating from infrastructural problems in Russia or along the pipeline routes; to internal conflicts in Russia or between Russia and other non-EU energy transit countries; and other problems beyond the EU's control.

In reviewing the investment projects in the countries we looked at in researching the present study, it also important to point that on the whole Russian investment activity has not risen to a level which might give substantiate concerns that there is something akin to an "invasion" going on. After the financial crisis of 2008/2009 there was a dip in the Russian FDI stock in roughly half the countries investigated here, while Russian investments stagnated in most of the remaining countries. Nevertheless, after this brief break Russian investments grew again in most of the region and in the entire EU, and had risen significantly by 2010. Yet the baseline was so low that in terms of total investment volume Russia is still a minor player in most European markets. Moreover, even though the most recent data publicly available are from 2013, our suspicion would be that the crisis over Ukraine has once again put a damper in the EU investment activities of Russian corporations; in the energy sector specifically, this trend was likely reinforced by the financial problems of major energy companies as a result of dropping oil and gas prices.

The most important setback in the period investigated was without doubt the cancellation of the South Stream pipeline project, which was a major factor in the energy cooperation between Russian and several of the states reviewed above. For Russia, which desperately wishes to reduce its dependence on Ukraine as a transit country, new pipeline links to Europe are regarded as a strategic imperative. Apart from limiting Russia's gas delivery options for the time being, South Stream also compels it to continue cooperating with Ukraine. This is especially true as current events, to wit an intensifying conflict between Russia and Turkey over Syria, also put in jeopardy the chief Russian alternative to South Stream, the so-called Turkish Stream project.

It is also important to highlight the differences (and similarities) between fossil energy and nuclear energy. These distinctions apply to several areas, most obviously economics/business, strategic vulnerabilities and environmental impact. A fourth key dimension is the intersection between business and geostrategy, for as this paper has emphasised repeatedly based on a wide variety of sources, in the case of Russia's public and semi-public sector corporations, strategic considerations are never far removed from business decisions. Let us focus on some key observations.

In terms of the business aspect, it is key to point to out that while the European investment activity of Russian fossil energy producers may have suffered as a result of business setbacks and problems stemming from sanctions, overall there is not going to be a massive change in the volume of fossil fuels that the EU will import from Russia (as to actual sales, that fluctuates along with oil and gas prices). Moreover, after some retrenchment in the immediate wake of the Ukraine crisis, there are indications that business ties with some EU countries are intensifying once again, which is especially relevant in the context of such wealthy and geographically fortuitously located economies as Germany and Austria. Moreover, it is important to point out that the long-term outlook at least for gas is still likely to be optimistic: Russia's role as a global producer will increase, there are no obvious alternatives to Russian gas, and the EU's thirst for the fossil fuel is unlikely to diminish. The biggest unknown in this equation is of course the price of gas, and we have no more information or ideas on this than the average reader, but in any case: even while persistently low fossil fuel prices appear possible now, there is no way to assume any certainty in this regard. In either case, if prices are low, then that, too, can increase dependency: Renewables will become relatively more expensive, which may lead to the decision to take longer to reduce the EU's dependence on Russian gas and oil, with all the implicit environmental and strategic costs.

On the nuclear front, Russian business prospects in the EU appear considerably dimmer, primarily because of political considerations and the strategic implications of deepening nuclear ties. The already cited Greenpeace analysis shows quite convincingly that on nuclear energy, the current trend is increasingly one of bifurcation, where a few countries – including some economically critical ones – are moving towards greater reliance on nuclear power, while much of the world is moving away from nuclear power.[273] There is not much intersection between the EU and those segments of the world that are moving towards increasing the role of nuclear energy. Of the 66 nuclear reactors that were under construction globally in 2013, only four were in the EU (and two of these were decades-old projects).[274] This is a very low ratio, especially since in theory the EU's financial capacity

[273] Ulrich, et al. Rosatom Risks - Exposing the troubled history of Russia's State Nuclear Corporation. Greenpeace, 2014.
[274] http://www.worldnuclearreport.org/IMG/pdf/20130716msc-worldnuclearreport2013-lr-v4.pdf

would make it a very attractive market for nuclear reactors, which ideally require lots of money and a high level of technological development. In practice, however, the available levels of wealth tend to allow these countries either the possibility to chart their own nuclear strategy independent of Russia (cf. France) and/or to eschew nuclear energy altogether (e.g. Germany). The "growth" markets for nuclear energy appear to be primarily in Asia, where rising wealth is often coupled with lower levels of public pressures on the government from democratic politics.

There is a glimmer of hope for Rosatom in Europe in the fact that several of the countries investigated here are either toying with the idea of increasing the role of nuclear energy or are actively engaged in the process. Even in these cases, however, the Russian partner also struggles with a level of suspicion that is difficult to overcome in the current environment, which may make offers by competitors more attractive. However, Rosatom may benefit from a growing authoritarian/anti-EU trend in some part of the European Union, especially if populist parties with close ties to Russia became more influential electorally. Growing authoritarianism in certain segments of the EU could prove beneficial because nuclear energy is generally not very popular in the public, which has vivid memories of Fukushima and even Chernobyl. A 2015 survey of Hungarians showed that 60% reject the Paks deal and 66% would prefer if renewables played a greater role in the energy mix, while only 15% would say the same for nuclear energy.[275] Thus an overall trend of less debate and authoritarian decision-making could provide a breeding ground for governments to simply ignore public opinion on this matter, as they did in Hungary and potentially some Asian countries, too. But even so, the big prices are not likely to be up for grab, as even under the new Law and Justice government Poland remains extremely wary of Russia, and France (with Front National and its links to Russia), for example, has neither need of Russian expertise nor credits. This leaves smaller markets such as the remaining Visegrad Four countries. In particular, some countries may be drawn to the appealing package of building their nuclear power plants with Russian credits (see Bangladesh and Hungary discussed in Section 2.2), which places virtually the entire onus of implementing the gigantic and expensive project on the Russian party.

Even if the basic mood were – or will shift to become – more welcoming to nuclear energy, the EU would probably be well advised to guard against a massive incursion by Rosatom into the energy sectors of its member states, for both strategic and environmental reasons. At the theoretical level once again, nuclear energy can enhance energy independence, and this has in fact been an argument relentlessly emphasised by the Orbán government.[276] In reality, however, the situation is considerably more difficult. Since a country can only genuinely increase energy independent by using nuclear energy if it can produce its own nuclear fuel to

[275] http://www.greenpeace.org/hungary/hu/sajtokozpont/A-magyarok-ketharmada-tiszta-energiat-akar-orosz-energiafuggseg-helyett/
[276] http://budapesttimes.hu/2014/01/20/row-as-putin-orban-sign-paks-power-plant-expansion/

operate the power plants *and* indefinitely store the spent nuclear fuel elements, in reality many countries that operate nuclear power plants are highly dependent on continuous external support to facilitate the operation of their plants. Experience has shown that a nuclear power plant built by Rosatom can only be safely operated by Russian engineers trained to this end, and if there is trouble, the Russian party needs to step in even if the everyday operation of the plant has been taken over by experts from the host country. This is a major source of additional (technological) dependence.

Moreover, one of the biggest benefits of Russian involvement in a nuclear power project in a partner country is the Russian offer of storing spent nuclear fuel, which is one of the politically and environmentally most problematic aspects of using nuclear power. Yet any country that enters into an agreement with Rosatom in order to avail itself of the nuclear energy building services in the awareness that it will have to rely on these services for decades, must also be aware that energy independence thus attained is an illusion.

As we have noted above, a mutual dependence reduces the probability that conflicts between two parties will escalate, and it is all the more remarkable that despite the armed conflict involving combatants from Ukraine and Russia (though only informally in the case of the latter), gas supplies through Ukraine continued, albeit with interruptions (as of this writing, they are interrupted again). Forcing Russia to rely on Ukraine for its export revenues could thus also serve as an instrument in limiting its violations of the territorial sovereignty of its western neighbour.

Even as the investment activities of Russian companies increased over the last few years, they also often ran into obstacles, both business and politics related. In some cases, major acquisitions were thwarted by other bidders, and in some cases major privatisation deals with Russian bidders were abandoned for reasons that might well have been a reflection of the public owners' or other players' desire to keep Russian companies out of their energy markets. Sometimes business was simply not as good as the Russian investors had anticipated, leading to divestments, and there were also analyses which suggested that as a result of different corporate cultures, Russian companies sometimes clash with companies that they have acquired or that they have bought a stake in.

We can only speculate – though with reasonable certainty – that recent events have held back Russian investments in the EU, but is very likely that in the end the mutual interest in business will propel these activities to pick up again. The speed at which especially German and Austrian companies have resumed their ties with their Russian counterparts – see for example the immense asset swap between the BASF subsidiary Wintershall and Gazprom – show that the demand for cooperating with Russia remains vigorous in the business sector, and barring an outright ban it will likely be stronger than whatever scepticism many businesses may harbour on political or even business related grounds. Nevertheless, even

under the assumption that Russian FDI in the EU grows at the pre-2014 pace, its overall impact on the EU markets will be limited for a while.

Finally, with regard to strategic concerns it is worth pointing out that ultimately Russian investments in the EU serve the interest of selling more Russian products rather than cutting the EU off. In the case of a serious conflict with the EU, the Russian party would not be able to make much use of its vast gas storage capacities in Germany and Austria, which it acquired to distribute Russian gas. It is more likely that such investments will have a moderating effect on Russian policy, and in that respect a cessation of Russian investments might be a signal that is of greater concern.

Still, in the introduction we referred to another potentially problematic dimension of Russian investments, namely their environmental impact. As we anticipated, we found that the overwhelming majority of Russian energy investment projects has focused on oil, gas and related products and services. A minority also involved nuclear energy. Thus Russian energy investments are clearly geared towards the classic elements of the energy mix that the EU is trying to leave behind. They foster the market for those products that Russia boasts naturally (oil and gas) or where it has exportable expertise (nuclear energy). The investments in oil- and gas-related projects are most often a logical consequence of vertical integration. It makes perfect sense that Lukoil, with a huge oil refinery in Bulgaria, would also have over 200 filling stations and a 26% market share in the petrol retail market. So based on our observations we can state that Russian investments are indeed aimed at furthering the distribution and use of fossil fuels and, to a lesser extent, of nuclear energy.

However, when Russia uses its energy leverage to bully EU states or EU allies such as Ukraine, then its leverage stems primarily from energy dependence rather than Russian investment projects. Competition rules clearly need to be enforced and the EU's strategic interests should also be taken into consideration when assessing and potentially barring specific investment projects extending Russian influence in the EU, but the only way to reduce Russian influence is by increasing the pace of changing the EU's energy mix, reducing its dependence on fossil fuels and subsidising renewables. This would make strategic sense, environmental sense and, though it might be costly in the short term, it is likely also to make sense financially.

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