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Energy security in the EU's external policy

A tanker delivering liquefied natural gas, at Świnoujście, Poland.

IN-DEPTH ANALYSIS

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The publication describes how energy affects the EU's relations with the rest of the world. It explains why the EU is dependent on energy imports, which are the main supplier countries, what kind of relations they have with the EU, and how the EU is trying to address energy insecurity through its external policy.

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Executive summary

Reliable and affordable energy supplies are vital for the European economy, but EU countries do not have nearly enough energy resources of their own to cover their needs. At present, nearly 90 % of the EU's oil needs and 70 % of gas have to be covered by imports.

For most of its energy imports, the EU has plenty of options; oil is abundantly available, and can be flexibly traded and transported across the world. Gas is more of a challenge, as it usually has to be imported through pipelines, which take years to build. At present, nearly 40 % of imports come from a single supplier – Russia, a country that has difficult relations with the EU. Dependence on energy imports is perhaps the EU's main external vulnerability, weakening its position vis-à-vis supplier countries such as Russia.

EU action to mitigate energy insecurity has both internal and external dimensions. Internally, the EU promotes renewable energy and energy efficiency, and pushes for integrated European gas markets. Externally, energy is central to the EU's relations with third countries. The EU promotes a coordinated approach by its Member States to energy suppliers such as Russia. In keeping with the EU's attachment to a multilateral, rules-based order, it supports international frameworks for energy relations, such as the International Energy Agency and the Energy Charter.

Even with more renewable energy, imported gas is likely to remain key in the EU's energy mix for decades to come. To reduce dependence on Russian gas, Europe is trying to find other suppliers, but this is difficult. Azerbaijan, Central Asia and – perhaps in the longer term – Iran offer potential, but all have their limitations. Liquefied natural gas (LNG) opens the door to imports from countries that do not have pipelines to the EU, but it is more expensive, and most European countries do not have the requisite infrastructure to import it, all of which means that Russia is likely to remain the EU's main energy partner for the foreseeable future.

Energy also plays a key role in the EU's relations with other neighbours. Ukraine is still the main transit country for Russian gas supplies to Europe; supporting Kyiv in its difficult relations with Moscow, for example by mediating in gas talks between the two sides, therefore also serves the EU's own interest. The EU also cooperates on energy with several other eastern neighbourhood/western Balkan countries, most of which face similar energy security challenges.

Despite EU efforts, energy security remains a concern. The picture is a mixed one, with both positive and negative trends. On the one hand, the rise of renewable energy gives the EU an opportunity to develop its own sources of clean energy in the long term; on the other, falling domestic production of oil and gas means that in the short and medium term, Europe will be more than ever dependent on fossil fuel imports. On the one hand, Europe has shown that it can act decisively and effectively in adopting sanctions against energy suppliers, such as Russia and Iran, that violate the international order; on the other, it has struggled to find a coherent position on Russia's Nord Stream 2 pipeline. On the positive side, there has been no lasting disruption to supplies since the oil crisis of the 1970s, and energy import costs – though high – have stayed at a level that is affordable for the EU economy.

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1. Energy security is a critical issue for Europe

1.1.1. What is energy security?

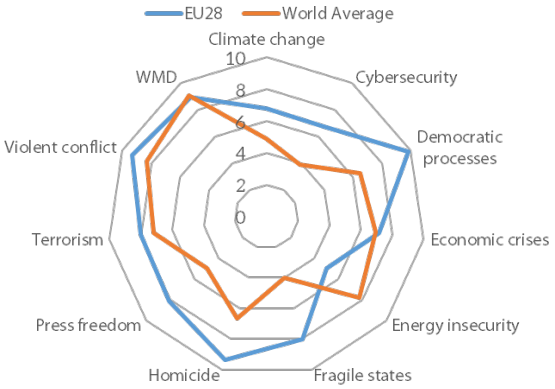
Energy security is defined by the International Energy Agency as 'reliable, affordable access to all fuels and energy sources'.[1] On similar lines, the EU 2014 European energy security strategy emphasises the critical importance of 'a stable and abundant supply of energy' for European prosperity and security.[2]

Energy security is often taken for granted by European consumers and businesses. However, even a partial disruption to supplies can have a devastating impact. In 1973, Arab oil producers imposed an embargo on western countries supporting Israel in the Yom Kippur war, causing oil prices to quadruple. The economic effects included galloping inflation, a stock market crash and global recession. European countries were hit by social unrest at home and foreign policy tensions abroad.

A second reminder of the importance of energy security came in 2009,[3] when Russian gas producer Gazprom halted supplies through Ukraine, leaving several south-eastern European countries including Moldova, Bulgaria and Romania with a severe shortage of gas for nearly two weeks in the depths of winter. Although the effects were much shorter-lived than in 1973, this temporary disruption served as a wake-up call for European policy-makers.

Energy insecurity has been identified by the EU's 2016 Global Strategy[4] and the European Parliament/Normandy Region's Normandy Index as one of Europe's main external vulnerabilities (see Figure 1).[5] The 2018 summit declaration of the North Atlantic Treaty Organization (NATO) expressed similar concerns.[6]

Figure 1 – Threats facing Europe
(10 = maximum threat, 0 = minimum threat)



Source: Mapping threats to peace and democracy worldwide: Introduction to the Normandy Index, E. Lazarou and P. Perchoc, EPRS, European Parliament, 2019.

The Normandy Index identifies energy security as the main threat facing the EU, and as the one area where it is more at risk than the world average.

[1] Energy Security, International Energy Agency.

[2] European Energy Security Strategy, European Commission, 2014.

[3] S. Pirani et al, The Russo-Ukrainian gas dispute of January 2009: a comprehensive assessment, Oxford Institute for Energy Studies, 2009.

[4] European Union Global Strategy, 2016.

[5] E. Lazarou and P. Perchoc, Mapping threats to peace and democracy worldwide: Introduction to the Normandy Index, EPRS, European Parliament, 2019.

[6] Brussels Summit Declaration, NATO, 2018.

1.1.2. The EU is highly dependent on energy imports

Europe is particularly vulnerable to energy supply disruptions, given that, with limited resources of its own, it depends on imports. In 2017, over half (55 %) of the EU's energy needs was covered by imports (see Figure 2).[7] Malta and Cyprus are the most dependent EU Member States (over 95 %), whereas Estonia and Denmark are the most self-sufficient (less than 15 %). The EU imports 87 % of its crude oil (which is also the largest component in the energy mix), 70 % of its natural gas, 40 % of its coal, and 40 % of its nuclear fuels.[8] The tendency over the past two decades has been for rising dependence, from 44 % in 1990, to the current record high level.

EU production of renewable energy has steadily increased, and energy efficiency has also improved. In the longer term, both trends will reduce energy dependence: more efficient energy use means less consumption and therefore also fewer imports, while renewable energy can mostly be produced locally. However, technologies such as wind and solar power require high initial investment, and output inevitably depends on weather conditions. In the longer term, technological development and falling costs are gradually helping to address such problems, but for the time being they stand in the way of renewables becoming the EU's energy mainstay. Meanwhile, post-Fukushima safety concerns have led Germany, Belgium and Spain to commit to phasing nuclear energy out of electricity production. Given the constraints on renewable and nuclear energy, fossil fuels continue to dominate the energy mix (see Figure 3).

Figure 2 – EU energy dependence

% of EU energy consumption covered by imports

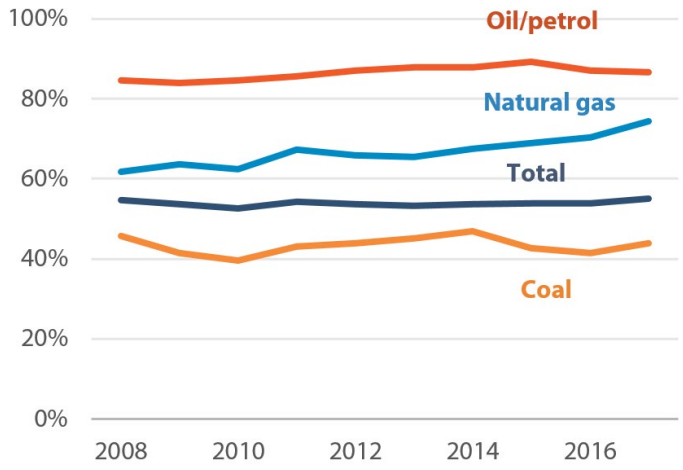
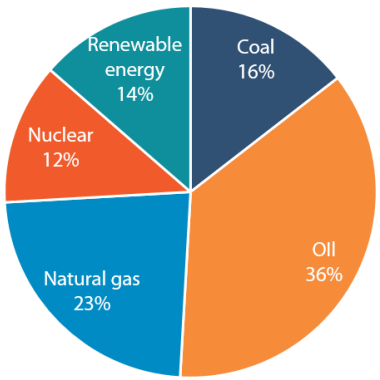


Figure 3 – Energy mix

% of total EU energy consumption, 2017



Data source: Eurostat (energy dependence; energy mix).

The EU imports nearly all of its oil, most of its gas, and slightly over half of its total energy needs. Most EU energy still comes from fossil fuels.

Coal is the dirtiest of the fossil fuels, both in terms of carbon emissions and the impact on air quality. Poland, Spain, Germany and Bulgaria still have substantial coal production, but many other countries have closed down coal-fired power stations.[9] Overall, in 2016 the EU consumed 47 % less

7 From where do we import energy and how dependent are we?, Eurostat.

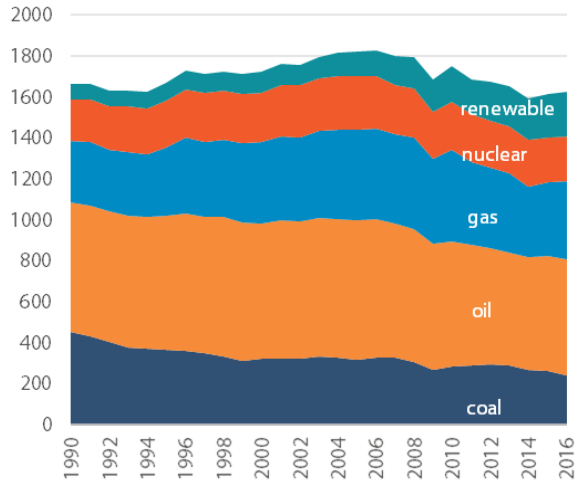
8 Energy dependence, Eurostat.

9 A. Widuto, EU support for coal regions, EPRS, European Parliament, 2019.

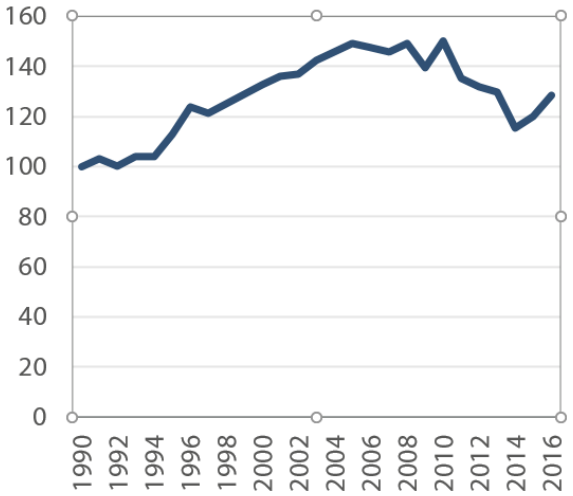
coal than it did in 1990 (see Figure 4). During the same period, oil consumption fell by 10 %. To compensate, the EU is consuming more gas (in 2016, +28 % compared to 1990, +11 % compared to 2014). Advocates of natural gas argue that it is cheap, abundant and cleaner than coal or oil.[10]

Figure 4 – Energy consumption in the EU, 1990-2016

Energy consumption, million tonnes oil equivalent



Gas consumption (1990=100)



Data source: Eurostat.

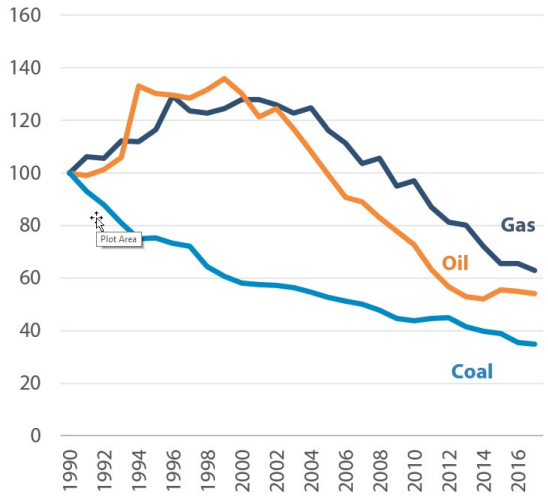
Oil and coal consumption are declining, both in absolute terms and as a share of total EU energy consumption. On the other hand, gas consumption, after falling in the mid-2000s, is now rising again.

[10] Natural gas and its advantages, Shell Global.

EU production of oil and coal is declining (see Figure 5), offsetting the effects of lower consumption. Balancing these two trends against one another, oil imports have declined slightly since 2015, while those of coal have risen (see Figure 2). Gas output has also fallen, especially in the United Kingdom and the Netherlands, the EU's two leading producers.[11] The combined impact of rising gas consumption and falling production means that imports are growing steeply. The European Commission expects this growth to continue: in 2016, it forecasts that by 2050, the EU will need to import 87 % of its gas needs, compared to 70 % at present.[12]

Developing new gas fields in Europe could help to reverse the decline in production and therefore also to curb imports. Romania and Cyprus have promising conventional reserves, while Poland and France may have substantial shale gas fields.[13] However, production of the latter will probably be limited by environmental concerns: several EU countries, including France, the Netherlands and the United Kingdom, have banned or suspended hydraulic fracking.

Figure 5 – EU energy production
(1990=100)



Data source: Eurostat.

EU production of coal has been in decline for many years. After peaking in the mid-1990s, oil and gas production are also declining.

1.1.3. Reliance on gas makes it harder to diversify suppliers

Given that the EU will continue to rely heavily on fossil fuel imports for the foreseeable future, it needs to protect itself from disruptions to supplies. This is relatively straightforward for most fuels. For example, oil can easily be transported and traded across the globe, and there is usually enough spare capacity to ensure that other exporters can take up the slack when necessary. Over the years, political turbulence has interrupted exports from such major producers as Saudi Arabia, Kuwait, Iran, Iraq and Venezuela, but mostly without having more than a short-term impact on prices or availability. Nuclear fuel supplies are also highly diversified, and the Euratom Supply Agency does not see 'any shortage concerns in the medium term' for uranium imports.[14]

However, gas is a very different story. Gas import infrastructure (pipelines, LNG terminals) is expensive; new pipelines take years to build, and require the consent of all countries along the route, which is often difficult to obtain. Therefore, relations between gas producers and importers tend to be long term, based on contracts lasting several years or even decades. Although the number and duration of long-term gas supply contracts is declining, in 2015-2018 their average duration was still 14 years.[15]

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11 A. Wilson, Liquefied Natural Gas in Europe, EPRS, European Parliament, 2015.

12 EU reference scenario 2016 – Energy, transport and GHG emissions: trends to 2050, European Commission, 2016.

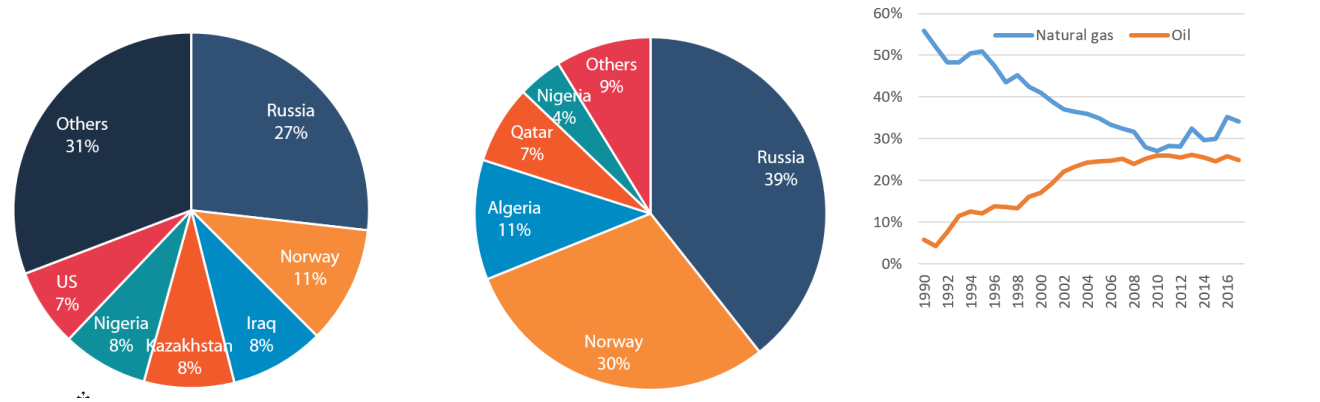
13 G. Erbach, Shale gas and EU energy security, EPRS, European Parliament, 2014.

14 Euratom Supply Agency Annual Report 2018.

15 C.K. Chyong, European Natural Gas Markets: Taking Stock and Looking Forward, 2019.

Given that switching to new gas suppliers at short notice is difficult, it makes sense to reduce the risk of disruption by diversifying supplier countries and routes. Indeed, diversification is a cornerstone of the 2014 European energy security strategy. However, the EU is still very far from achieving this goal; in the first half of 2019, nearly 40 % of EU gas imports came from a single supplier (Russia; see Figure 6), a share that has risen in recent years. The situation is all the more worrying, given that the EU's relations with Russia have been tense since the latter annexed Crimea in 2014. EU gas supplies are also at risk of falling hostage to the ongoing conflict between Russia and Ukraine, given that a large share transits the latter country.

Figure 6 – The EU's suppliers of oil and gas (first half of 2019)



Data source: Eurostat. Russia is by far the EU's biggest supplier of both oil and gas, and its share in the EU's imports of both fuels is increasing.

In practice, it is very difficult for the EU to find alternative countries to Russia that can export cheap gas in large quantities. Over 80 % of imports reach Europe through pipelines, which in practice limits suppliers to neighbours or near neighbours.[16] Political instability in north Africa and the Middle East (for example, Libya, Iraq) further limits the group of potential suppliers. The International Energy Agency expects high levels of dependence on Russian gas to continue until at least 2040.[17]

16 Liquefied natural gas, European Commission.

17 P. Zeniewski, A long-term view of natural gas security in the European Union, International Energy Agency, 2019.

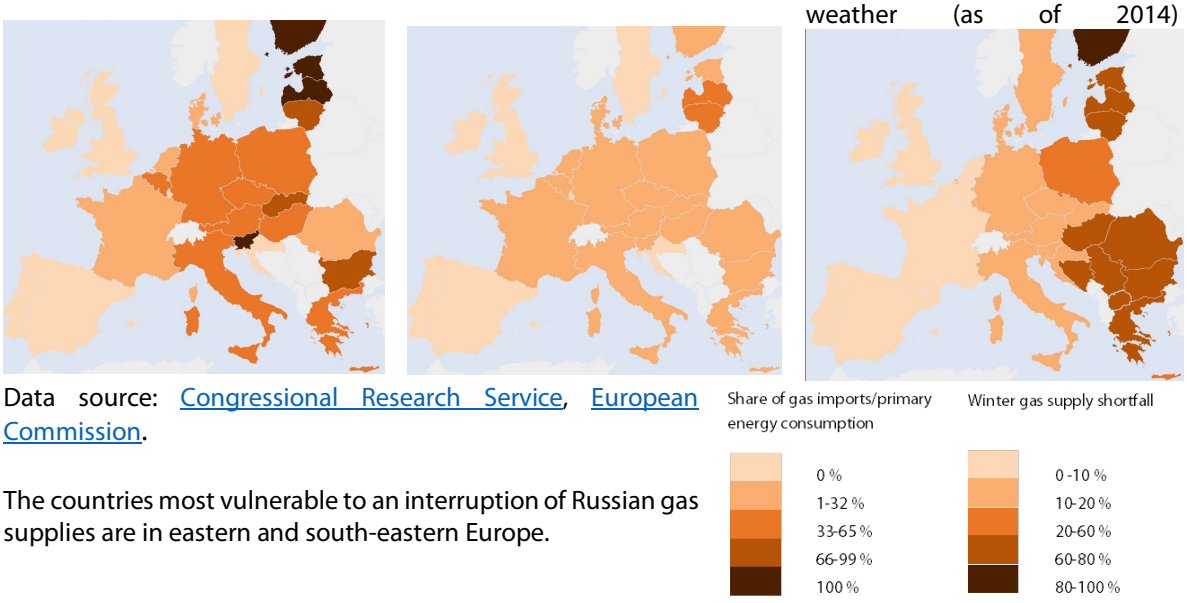
1.1.4. Some countries are much more dependent on Russian gas than others

Figure 7 – Dependence on Russian gas, by EU Member State

Russia's share of country's gas imports in 2014

Russian gas as share of country's primary energy consumption in 2014

Gas shortfall in February after a hypothetical six-month interruption of Russian gas supplies during severe winter weather (as of 2014)



Data source: Congressional Research Service, European Commission.

The countries most vulnerable to an interruption of Russian gas supplies are in eastern and south-eastern Europe.

Countries from central and eastern Europe are more reliant on Russian gas than western European countries. In 2014, Bulgaria, Slovenia, Slovakia, Finland and the three Baltic States imported 90 % or more of their gas from Russia; Russian gas covered over 20 % of the overall energy mix for Slovakia and Hungary, and close to 40 % for Latvia and Lithuania (see Figure 7). A 'stress test' carried out in the same year by the European Commission suggested that in the (highly unlikely) worst case scenario of all Russian gas supplies being interrupted for six months during winter, gas sharing would mitigate the impact, but would still leave Hungary, the Balkans, the Baltic States and Finland with a severe shortfall by February (see Figure 7).[18]

1.1.5. LNG as an alternative to pipeline gas – potential and limitations

As its name suggests, liquefied natural gas (LNG) is created by compressing natural gas into a liquid. Gas in this form can be transported by ship regardless of distance, opening the door to imports from countries such as Qatar, the United States (US) and even Australia.

There are still several constraints on LNG. LNG is more polluting than pipeline gas, as shipping and liquefaction generate additional emissions.[19] Expensive purpose-built LNG carrier ships are needed, as is land-based infrastructure in the form of terminals where the fuel can be unloaded and reconverted to gaseous form before feeding into the importer country's distribution pipelines. Eleven EU countries already have such terminals, and their total capacity is triple the current volume of EU LNG imports. However, European gas distribution networks are not sufficiently integrated to make full use of this capacity. For example, Spain has nearly one-third of the EU's import capacity,

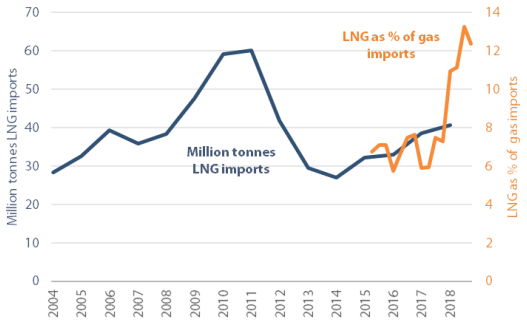
[18] The short term resilience of the European gas system, European Commission, 2014.

[19] K. Shaton et al, The Environmental Footprint of Gas Transportation: LNG vs. Pipeline, 2019.

but interconnecting pipelines are not sufficient to transport large quantities of gas from Spain to France, and from there to eastern Europe.[20]

Another limitation is price, with LNG traditionally tending to cost more than pipeline gas. However, plentiful global supplies (not least due to the development of US shale gas) has pushed down prices, helping to make LNG more competitive. As prices for both LNG and pipeline gas vary from one region and supplier to another, it is difficult to say which costs less at the moment: according to Russia,[21] its pipeline gas is 30-40 % cheaper than American LNG, while Poland claims that the LNG imported through its new Świnoujście terminal (opened in 2016) is 20-30 % cheaper than Russian gas.[22] Recent trends suggest that pipeline gas will continue to dominate in Europe (see Figure 8), but that competition from LNG is helping to keep prices down.[23] For example, in 2015 Lithuania was able to negotiate a discount on Russian pipeline gas after it announced the launch of a new LNG terminal.[24]

Figure 8 – EU LNG imports
(Million tonnes/LNG as % of total EU gas imports by gross calorific value)



Data source: International Group of LNG importers, Eurostat.
The EU's imports of LNG have increased since 2014, but most gas still reaches Europe by pipeline.

2. Addressing energy insecurity through external policy

2.1.1. Does energy insecurity weaken the EU as an international actor?

Already in 2000, the European Commission compared the EU, an economic giant dependent on multiple energy suppliers, to 'Gulliver in chains'.[25] The EU's reliance on energy imports potentially limits its capacity to promote interests and values that are not always shared by supplier countries. According to Freedom House NGO, out of the EU's top five oil and gas suppliers, only Norway meets international democratic standards; Nigeria is assessed as 'partly free ', while the remainder (Russia, Iraq, Kazakhstan, Saudi Arabia, Algeria, Qatar) are authoritarian states.[26] Although the Treaty on European Union demands that the common foreign and security policy should 'consolidate and support democracy, the rule of law, [and] human rights ', critics sometimes argue that the EU puts its need for energy ahead of such principles in relations with countries such as Saudi Arabia.[27]

However, it should be remembered that the EU and its energy suppliers are mutually dependent. In a globalised economy, such relations of mutual dependence are inevitable. Countries – including

20 LNG in Europe 2018: An Overview of LNG Import Terminals in Europe, King & Spalding.
21 Russian gas is 50 % cheaper for Europe than US LNG — OMV CEO, TASS, 2018.
22 LNG contracted by Poland's PGNiG 20-30% cheaper than Russian gas – minister, Reuters, 2019.
23 Prospects for fossil fuels in 2020, Oxford Analytica, 2019.
24 UPDATE 2-Lithuania wins cheaper Russian gas after LNG sabre rattling, Reuters, 2014.
25 Green Paper - Towards a European strategy for the security of energy supply, European Commission, 2000.
26 Freedom in the World 2019 Map, Freedom House.
27 Treaty on European Union.

Russia – that rely on hydrocarbons to generate the bulk of their export revenue – need energy trade to continue at least as much as the EU does (see Figure 9).

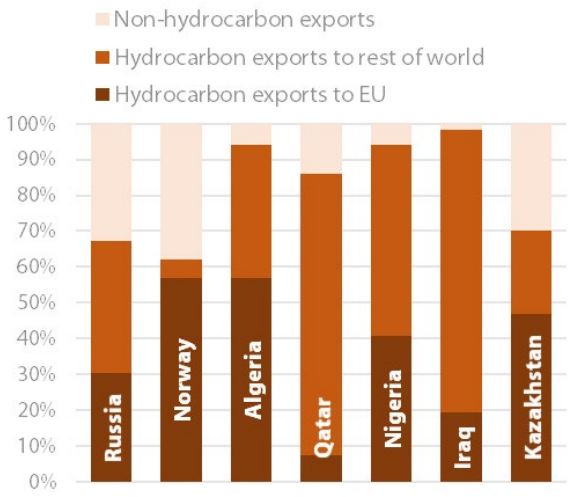
If anything, the balance often favours the EU. As the world's largest energy importer, the EU has strong leverage over countries such as Iran, whose economy was crippled by an EU-led oil embargo between 2012 and 2015, forcing it to agree to concessions on its nuclear programme. Moreover, developing oil and gas fields requires huge amounts of capital and sophisticated technology that many supplier countries lack. For example, Kazakhstan could hardly have developed its oil industry without massive investment from European companies such as Total, ENI and Shell.[28]

Besides, energy is by no means the only, or even necessarily the main factor shaping EU relations with supplier countries. The EU also has broader, non-energy-related trade and investment interests, a need to build geopolitical alliances, and a general preference for (in the words of the EU's 2016 Global Strategy) 'principled pragmatism' over confrontation, even with difficult partners.

For all these reasons, while energy security is certainly important for the EU, it would be difficult to argue that European external policy is seriously weakened as a result.

Figure 9 – The EU's energy suppliers: dependence on exports to the EU

Energy exports as % of total exports



Source: ITC Trade Map.

The seven countries that are Europe's main oil and gas suppliers rely on energy exports to the EU to generate a large part of their foreign trade – 30 % or more for Russia, Norway, Algeria, Nigeria and Kazakhstan.

2.1.2. Internal and external dimensions of energy security

Since the Lisbon Treaty, the EU has a legal basis for action on energy security: Article 194 of the Treaty on the Functioning of the European Union sets energy security as one of the four objectives of EU energy policy (the other three are: functioning energy markets; energy efficiency and renewable energy; interconnection of energy networks).[29] Member States remain responsible for managing energy resources and choosing their own energy mix. EU energy security laws are adopted by the ordinary legislative procedure, i.e. on the initiative of the European Commission, with approval by the European Parliament and the Council of the EU.

Spurred by the 2009 gas crisis, which came just 11 months before the Lisbon Treaty came into force, the EU and its Member States have used this basis to strengthen energy security. Legislation includes the 2009 third energy package, which aims to create liberalised and integrated energy

[28] 'Western oil firms pay Kazakhstan's oil field investment bill', *The Telegraph*, 2012.

[29] Treaty on the Functioning of the European Union.

markets,[30] and the 2017 Security of Gas Supply Regulation,[31] which among other things creates mechanisms for sharing gas between Member States in the event of a crisis.[32] With regard to oil, the 2009 Oil Stocks Directive requires EU countries to have enough oil in storage to cover at least three months of net imports and two of consumption.[33]

These regulatory measures are flanked by the construction of physical infrastructure such as reverse flow and interconnector pipelines allowing gas to be transported more flexibly from one country to another. In the 2014-2020 period, the EU allocated €5.35 billion from its Connecting European Facility to support energy investments such as new pipelines and electricity cables linking EU countries and their neighbours.[34] The Facility also helps to create or expand new gas storage investments (for example in Latvia, Romania and Bulgaria) as well as LNG terminals in Poland, Greece and Ireland.

Although most of the EU's energy security measures are internal, documents such as the 2014 European energy security strategy, the 2015 energy diplomacy action plan[35] and the 2016 Global Strategy emphasise that there is also an important external dimension, given that most EU energy suppliers come from outside Europe.

2.1.3. Promoting multilateral frameworks for energy cooperation

The International Energy Agency (IEA) was set up in 1974, one year after the oil crisis.[36] It aims to ensure energy security, among other things, by requiring member countries to reduce their oil consumption and to have adequate reserves in case of disruption. Of its 30 members, 25 are EU countries, and the EU also participates directly in the IEA's work, for example through its Governing Board.[37]

The EU's 2016 Global Strategy makes it a priority to 'strengthen relations with reliable energy-producing and transit countries'. The most important framework for such relations is the 1991 Energy Charter Treaty, signed by Member States, the EU itself, and 26 mainly Eurasian countries.[38] Its rules are applied to numerous energy-related investor-state disputes, for example a case recently filed by the Nord Stream 2 pipeline consortium against the European Commission.[39] However, their usefulness is limited by the fact that most of the EU's main energy suppliers are missing: Russia signed but never ratified the treaty (which nevertheless applies to the Russian-owned Nord Stream 2, given that the company operating the latter is based in Switzerland); Norway provisionally applies only parts of it; none of the Middle Eastern countries have signed, except for Jordan and Yemen. In July 2019, the Council of the EU approved a mandate for the European Commission to negotiate a reform of the Treaty.[40]

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30 Third energy package, European Commission.

31 Securing Europe's gas supply: new Regulation comes into force, European Commission, 2017.

32 Sharing gas to ensure gas for all, European Parliament, 2017.

33 EU oil stocks, European Commission.

34 CEF Energy, European Commission.

35 Council conclusions on Energy Diplomacy, Council of the European Union, 2015.

36 International Energy Agency website.

37 International Energy Agency, European Commission.

38 A. Wilson, Energy Charter: A multilateral process for managing commercial energy relations, EPRS, European Parliament, 2017.

39 Nord Stream 2 seeks arbitration in dispute with EU Commission, Euractiv, 2019.

40 The controversy behind the Energy Charter Treaty reforms, euobserver, 2019.

The EU cooperates more closely with western Balkan and eastern European neighbours through the Energy Community (see following section).

The 22 countries that are members of both the EU and NATO also cooperate on energy security through the Alliance. NATO activities include monitoring energy security risks, sharing intelligence and best practices, and carrying out exercises to help NATO allies protect critical energy infrastructure from attacks by hostile states, terrorists and hackers.[41]

2.1.4. Energy in bilateral relations

Given that EU energy supplies stand to benefit from liberalised and globalised markets, energy is a central issue on the EU's trade agenda. One of the EU's objectives in the now-stalled negotiations on a trade agreement with the United States was to secure access to US exports of oil and gas, which at the time were restricted.[42] Energy clauses also feature in agreements with Ukraine[43] and Kazakhstan[44], both of which include commitments to maintain continuity of supply.

The EU has energy partnerships and dialogues with supplier and transit countries, for example Algeria[45]and Turkey[46]; these involve regular meetings between representatives from both sides, at both ministerial and expert level. In December 2019, the new Commissioner for Energy Kadri Simson announced that cooperation with Africa, and North Africa in particular, would be a priority for the European Commission.[47]

While the bilateral energy dialogue with Europe's main supplier – Russia – has stalled since 2014, the EU remains instrumental in negotiating with Russia on energy issues. In December 2019, then-Energy Commissioner Maroš Šefčovič welcomed the Russia-Ukraine gas deal mediated by the EU as a diplomatic success.[48]

EU energy relations with individual supplier countries are discussed in greater detail in the following section.

2.1.5. Fighting climate change

Through its climate diplomacy (for example, support for the 2016 Paris Agreement) the EU has championed global efforts to cut fossil fuel consumption.[49] At the same time, EU development aid and European Investment Bank loans finance renewable energy and energy efficiency projects in countries such as Egypt, Sri Lanka and Tanzania.[50] Such measures primarily serve climate and environmental objectives, but there are also energy security implications. For example, EU support for renewable energy and energy efficiency in Algeria could help to curb Algerian domestic

41 NATO's role in energy security, NATO.

42 TTIP chapter on Energy & Raw Materials, EPRS.

43 EU-Ukraine Association Agreement.

44 EU-Kazakhstan Enhanced Partnership and Cooperation Agreement.

45 EU and Algeria to cooperate on energy, European Commission, 2015.

46 EU and Turkey strengthen energy ties, European Commission, 2016.

47 'People, planet and partners' are three pillars of EU's future energy policy, Agence Europe, 2019.

48 Statement of Vice-President Maroš Šefčovič on the positive outcome of trilateral gas talks, European Commission, 2019.

49 Climate diplomacy: Council adopts conclusions, European Council, 2019.

50 International Cooperation and Development: Energy, European Commission.

consumption, leaving more gas available for export to Europe. At global level, growing use of renewable energy should help to ease demand for fossil fuels and help to keep prices down.

2.1.6. Applying EU internal market legislation to external energy suppliers

In 2018, the European Commission succeeded in securing a commitment from Russian gas producer Gazprom to curb its abusive practices in the European markets where it holds a dominant position (see below, Section 3.1.3: Gazprom's abusive supply contracts in central and eastern Europe). Since 2014, the Commission and Gazprom have again been at loggerheads, this time over the company's pipeline projects. In particular, most of Nord Stream 2 is situated outside EU territory, leading to a prolonged legal debate on whether the pipeline was subject to European energy law.[51] In 2019, EU Member States agreed to amend the 2009 Gas Directive so that it would apply to Nord Stream 2 – thus prohibiting Gazprom from simultaneously owning the pipeline and supplying it with gas. The Nord Stream 2 company has lodged a legal challenge, arguing that the new rules are discriminatory.[52] The conditions under which the pipeline will operate are still unclear and will depend on how exactly the new EU legislation is applied.

2.1.7. Energy supply coordination between Member States

The need to present a united front to external energy suppliers (Gazprom, in particular) was behind a 2014 proposal by Poland's then-prime minister Donald Tusk for joint EU gas purchases.[53] In its energy union strategy, published the following year, the European Commission promised to look into this idea.[54] The proposal has not since been implemented, with EU Member States preferring to negotiate gas supply contracts individually. Instead, since 2017 Member States are required to notify the European Commission of the intergovernmental agreements they conclude with non-EU countries on oil and gas supplies.[55] The Commission has the power to veto agreements that pose supply risks or are inconsistent with EU law.

For nuclear fuels, the Euratom Treaty already envisages joint purchases through the Euratom Supply Agency. In practice, Member States conclude their own supply agreements, but the latter have to be co-signed by the Euratom Supply Agency, which is responsible for ensuring that the agreements do not pose any supply risks.[56]

2.1.8. Financial and regulatory support for external energy infrastructure

Energy infrastructure connecting EU Member States with one another and neighbouring countries can qualify as European 'projects of common interest' (PCIs) provided it serves EU energy goals such as integrating energy markets, promoting renewable energy and diversifying suppliers.[57] Such projects can benefit from funding (e.g. grants from the EU's Connecting Europe Facility, European Investment Bank loans) as well as fast-track environmental permits. The Southern Gas Corridor

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51 A. Wilson, Common rules for gas pipelines entering the EU internal market, EPRS, European Parliament, 2019.

52 Russia's Nord Stream 2 pipeline takes EU to court over new gas rules, Reuters, 2019.

53 Joint gas buying on EU leaders'' summit agenda, Euractiv, 2015.

54 A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy, European Commission, 2015.

55 G. Erbach, Intergovernmental agreements in the field of energy, EPRS, European Parliament, 2017.

56 Conclusion of supply contracts, Euratom Supply Agency.

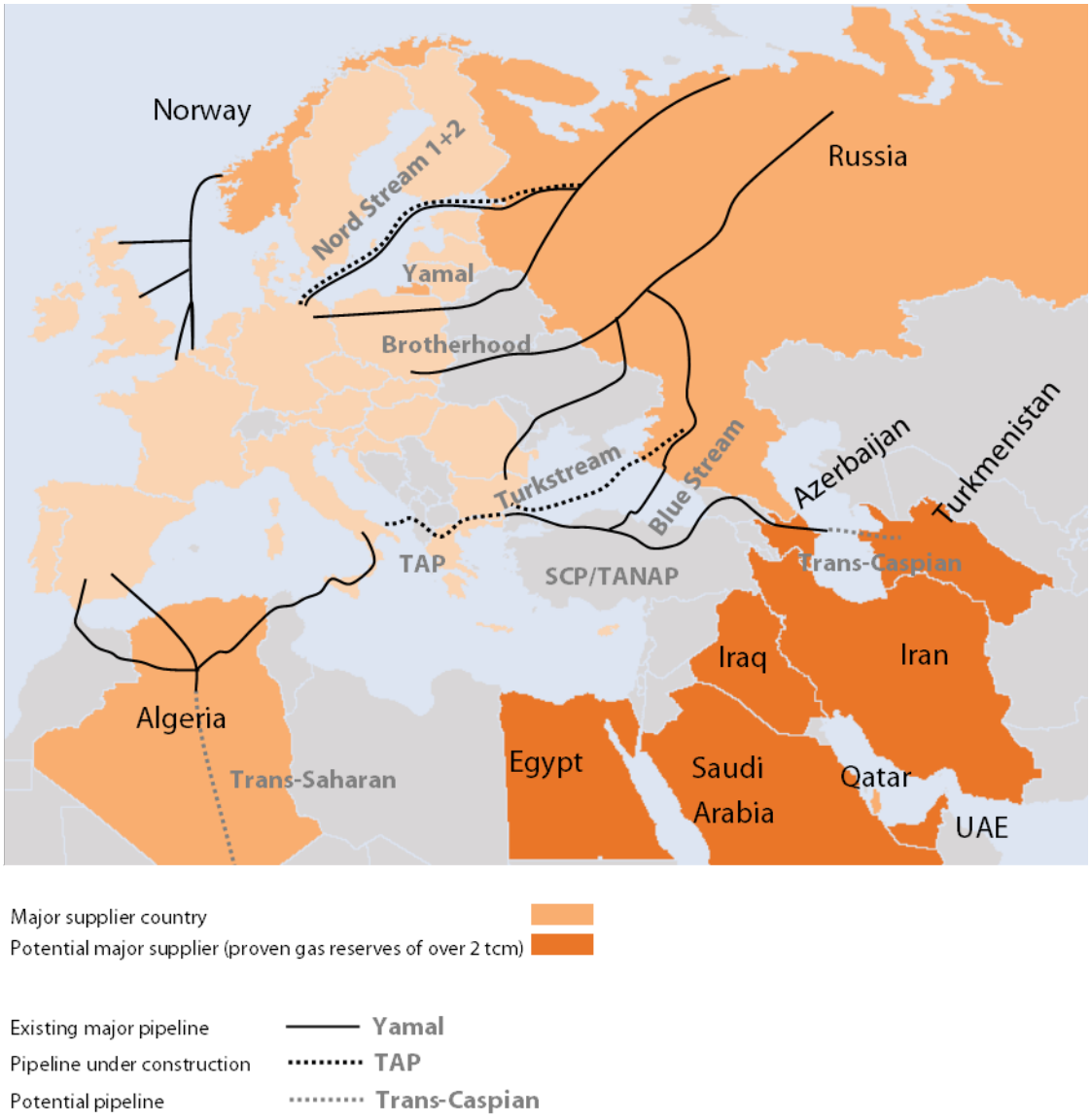
57 Key cross border infrastructure projects, European Commission.

connecting Europe to Azerbaijan, with a potential extension to Turkmenistan, is one such project, as is a high-voltage line that in future could bring Tunisian solar power to Italy.[58]

EU funding is also available for projects located completely outside the EU, for example in the western Balkans, where it has helped to build interconnectors to create an integrated western Balkan electricity grid.[59]

3. Energy security in the EU's relations with third countries

Figure 10 – The EU's main gas supplier countries and supply routes



Source: EPRS. Existing major pipelines based on ENTSOG Transparency Platform.

[58] Elmed interconnector aims to bring solar power from the Sahara to Europe, DW, 2019.

[59] EU Connectivity Agenda for the Western Balkans, European Commission, 2019.

3.1. Russia

3.1.1. The EU depends on Russia as its main energy partner

As already mentioned, Russia exports more energy to Europe than any other country. In 2017, it accounted for 30 %, 39 % and 15 % of EU imports of gas, oil, coal and uranium respectively.[60] Crucially, it also supplied 40 % of gas imports, which cannot easily be replaced from alternative sources.

Russian energy companies do not only export to Europe, they also control crucial European energy infrastructure. In Bulgaria, oil exporter Lukoil controls the country's only refinery and over half of its wholesale oil market.[61] According to the European Commission's 2014 European energy security strategy, Russian ownership of European refineries 'add[s] to the dependence on Russian crude oil'. In the gas sector, Gazprom owns Wingas, a German retail distributor, as well as storage facilities in several EU countries.[62] Russian-built nuclear power plants already operate in Bulgaria, the Czech Republic, Slovakia, Hungary, and Finland, and new ones are under construction in the latter two countries. At present, Russia is the only available supplier of assembled fuel for these plants, and is likely to remain so for several years, as qualifying alternative sources is a lengthy process.[63]

3.1.2. Concerns about the reliability of Russian gas supplies

In 1990, the Soviet Union cut off oil and gas exports to the Baltic States in an attempt to curb their aspirations for independence. Russia also has a track record of using energy as a weapon, for example abruptly raising gas prices for Ukraine in 2014 before cutting off supplies altogether.[64] However, the risk of Moscow trying to coerce EU countries in this way seems remote. European gas markets have become progressively more integrated: according to one report, as much as 75 % of gas in the EU is consumed in a competitive and well-functioning market, in which gas can be flexibly routed to countries and regions where the need is greatest.[65] Russia can therefore no longer easily cut off gas to individual countries except by halting gas exports to Europe altogether. This is something it can hardly afford to do given that fossil fuels generate two-thirds of Russia's exports and nearly half of federal budget revenue.[66] Collectively, EU countries are by far the biggest purchasers of Russian oil and gas, and likely to remain so, even though Russia has made some efforts to diversify its export markets, for example by developing LNG production and building the new Power of Siberia pipeline to China, which started operating in December 2019.[67]

Of course, not all EU Member States are equally well integrated. However, some of the countries most dependent on Russian gas have taken additional steps to reduce their vulnerability, Lithuania by constructing an LNG terminal, and Latvia by expanding its underground gas storage capacity, which is now enough to cover two years' consumption.[68]

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60 From where do we import energy and how dependent are we?, European Commission; Euratom Supply Agency annual report 2017.

61 The Kremlin Playbook: Bulgaria, Center for Strategic and International Studies, 2016.

62 Gazprom to double its European gas storage capacity, Euractiv, 2012.

63 EURATOM Supply Agency Annual Report 2018.

64 Russia's Use of the 'Energy Weapon' in Europe, Baker Institute for Public Policy, 2017.

65 P. Zeniewski, A long-term view of natural gas security in the European Union, International Energy Agency, 2019.

66 M. Russell, Seven economic challenges for Russia, EPRS, European Parliament, 2018.

67 Russia opens Power of Siberia natural gas pipeline to China, dpa international, 2019.

68 Latvia plans to boost gas storage capacity to 2.8 bcm by 2025, Reuters, 2014.

The biggest risk to gas supplies now comes from recurrent disputes between Russia and Ukraine, the main transit country for exports to central and south-eastern Europe. In 2008, the two countries were unable to agree on the price at which gas was to be sold to Ukraine, which also had problems paying for its imports. As a result, in January 2009 Gazprom closed the taps on all its pipelines entering Ukraine, leaving not only Ukrainian purchasers but also many in downstream countries such as Hungary and Bulgaria without gas for several days in the middle of the winter. In 2014, as part of a wider confrontation between Moscow and Kyiv, Gazprom once again stopped selling gas to Ukraine, though this time without serious consequences for customers; transit to EU customers continued almost uninterrupted, while Ukraine was able to cover its own needs by purchasing gas of mostly Russian origin re-exported from Hungary, Poland and Slovakia.

Matters threatened to come to a head again in 2019, with a gas supply and transit agreement due to expire at the end of the year and deadlock over the terms of a new agreement to replace it. That threat seems to have been averted, for now: under a last-minute deal announced in December 2019, Russian gas will continue transiting Ukraine at least until 2024.[69] In any case, the risk of a future Russia-Ukraine dispute disrupting supplies will become much smaller with the new Turkstream and Nord Stream pipelines bypassing Ukraine.

The fact that Russian gas has reached Europe without serious interruption since 2009 and looks likely to continue doing so for the next few years does not mean that it is without problems. Although Russia claims that its new pipelines will make EU countries less vulnerable to disruptions along the Ukraine transit route, critics argue that they are detrimental to energy security in other ways. They also criticise Gazprom's abuse of its dominant position on European gas markets and warn that Moscow's ownership of European energy assets gives it considerable political leverage over EU countries.

3.1.3. Gazprom's abusive supply contracts in central and eastern Europe

With near-total reliance on the company's gas and a lack of viable alternative suppliers, central and eastern European countries such as Bulgaria and Lithuania are in a particularly vulnerable position. An investigation launched by the European Commission in 2012 found evidence that Gazprom had abused its dominant position on European gas markets, with the result that five countries were paying unjustifiably high prices.[70] The Commission was also critical of restrictive clauses in Gazprom supply contracts, which among other things, banned purchasing countries from selling on their surplus gas to other countries. Threatened with a heavy fine for violating EU competition law, in 2018 Gazprom promised to mend its ways, with a commitment to sell gas at competitive prices without unreasonable restrictions.[71] Market data (see Figure 11) show that Russian gas has indeed become considerably cheaper, and that the gap between the prices paid by some of Gazprom's main customers has narrowed, although this also reflects other factors such as increased competition from LNG.

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69 Russia's Gazprom to pay $2.9 billion in new Ukraine gas deal, DW, 2019.

70 Antitrust: Commission sends Statement of Objections to Gazprom for alleged abuse of dominance on Central and Eastern European gas supply markets, European Commission, 2015.

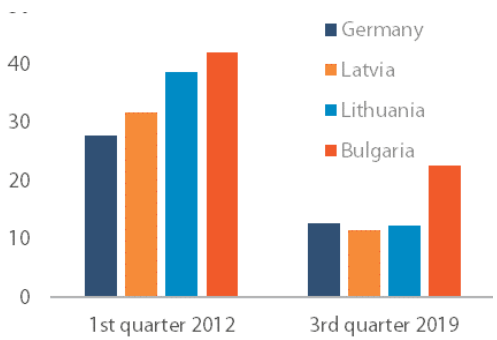
71 Antitrust: Commission imposes binding obligations on Gazprom to enable free flow of gas at competitive prices in Central and Eastern European gas markets, European Commission, 2018.

3.1.4. Russia's divisive pipelines: Nord Stream, South Stream, Turkstream

Russia's largest gas export pipeline is 'Brotherhood', which transits Ukraine and started operating in 1967.[72] Since then, several new routes have been added, including Yamal (to Poland and Germany, via Belarus), Blue Stream (to Turkey, under the Black Sea) and Nord Stream (to Germany, under the Baltic). The first Nord Stream pipeline started operating in 2011; Nord Stream 2, which follows the same route, is currently at an advanced stage of construction and is expected to be operational in 2020 or 2021.[73] The Nord Stream pipelines were to have been complemented by South Stream, linking Russia to Bulgaria under the Black Sea, but the project was abandoned in 2014 in the context of EU-Russia tensions over Ukraine. It has been replaced by TurkStream, a second undersea pipeline to Turkey.[74] Gazprom envisages that TurkStream, which started supplying Turkey and Bulgaria in January 2020, will eventually also connect to other countries in south and south-eastern Europe.[75]

Figure 11– Wholesale Russian gas prices

€/MWh



Data source: European Commission.

Russian gas has become considerably cheaper since 2012, and price discrepancies have also decreased, except in Bulgaria.

Russia argues that these new routes are needed to meet growing European demand for gas imports; additional pipelines would therefore enhance rather than undermine European energy security. However, the European Commission is sceptical, pointing out that Nord Stream 2 could allow Russia to export even more gas to EU countries, besides potentially leading to the phasing out of the Ukrainian route – not helpful from the perspective of diversifying European gas suppliers and delivery routes.[76]

The pipelines are also controversial from a legal point of view. The revised Gas Directive, which came into force in May 2019, applies EU law to Nord Stream 2, and therefore prohibits Gazprom from simultaneously owning and the pipeline and supplying it with gas.[77] This means that Nord Stream 2 will either have to obtain an exemption, or find an ownership arrangement which satisfies the requirements of the Gas Directive, potentially delaying or complicating the project. EU law is not applicable to TurkStream given that it does not pass through EU territorial waters, but connecting pipelines from Turkey to EU countries will have to comply.[78]

72 Transportation, Gazprom Export.

73 M. Russell, Gazprom's controversial Nord Stream 2 pipeline, EPRS, European Parliament, 2017.

74 TurkStream website.

75 Russia begins TurkStream gas flows to Greece, North Macedonia, Reuters, 2020.

76 Sefcovic sheds light on Nord Stream 2 negotiations, Euractiv, 2016.

77 A. Wilson, Common rules for gas pipelines entering the EU internal market, EPRS, European Parliament, 2019.

78 Deja vu: Bulgaria pipeline to face EU scrutiny, euobserver, 2018.

However, some of the main concerns are geopolitical. Ukraine earns up to US$3 billion a year from transit fees, and the loss of this much-needed revenue due to Russian gas bypassing the country through the new pipelines would further weaken its position in relation to Moscow. These worries have been partially allayed by the gas deal announced by Russia and Ukraine in December 2019: under the deal, gas will continue flowing through Ukraine, albeit it at reduced levels, until 2024 at least.[79]

At the same time, Nord Stream 2 has driven a wedge through European unity, pitting supporters such as Germany and Austria, which are involved in the project and stand to benefit from it, against opponents in the Baltic countries and Poland (whose former defence minister Radoslaw Sikorski – currently a Member of the European Parliament (Poland, EPP) – in 2006 even compared the first Nord Stream pipeline to the 1939 Molotov-Ribbentrop Pact between Nazi Germany and the Soviet Union).[80] Trans-Atlantic relations have also suffered (see Box).

Nord Stream 2 in EU-US relations

Nord Stream 2 is a bone of contention between European advocates of the pipeline and the United States. In December 2019, President Trump signed a defence bill that includes sanctions against companies laying the Nord Stream 2 and TurkStream pipelines. These measures have come too late to affect TurkStream, which is already complete, but are expected to delay Nord Stream 2 by several months as Gazprom will have to bring in its own pipe-laying ship to replace those of a Swiss company which pulled out of the project.

Though it has not been enthusiastic about Nord Stream 2, the European Commission criticised the US sanctions, as did the German government, which sees them as unjustified interference in European internal affairs. In 2017, then-German foreign minister Sigmar Gabriel and Austrian chancellor Christian Kern even claimed that Washington's goal was 'squeezing out Russian natural gas from the European market' in favour of American LNG.

3.1.5. Energy as a gateway for Russian influence in central and eastern Europe?

Russia's presence in EU energy sectors gives it the power to influence decisions by European governments, often in a non-transparent way. Examples include a possible link between the 2005 appointment of former German chancellor Gerhard Schröder to the board of the first Nord Stream pipeline, just weeks after his government approved it; amendments to Bulgarian energy laws intended to open the door to another Russian pipeline project, South Stream;[81] and the Hungarian government's decision to award a controversial US$12 billion project to expand the Paks power station to Russian nuclear energy company Rosatom without a public tender.[82]

These and many other examples point to efforts by Russian energy companies to secure political decisions favouring their business interests. However, a 2016 study by the US-based Center for Strategic and International Studies suggests that there are more than just commercial implications;[83] the study argues that energy is a key weapon in the 'Kremlin 's Playbook ', aimed at undermining European and trans-Atlantic unity, eroding democratic institutions, and ultimately achieving state capture in central and eastern European countries. The latter are, as relatively new democracies, particularly vulnerable to such manipulation, at the same time as being most heavily

79 Russia, Ukraine clinch final gas deal on gas transit to Europe, Reuters, 2019.

80 Nord Stream 'a waste of money', says Poland, Euractiv, 2010.

81 Bulgaria and Gazprom, European Commission answer to parliamentary question, European Parliament, 2014.

82 Commission notes cast doubt over approval of Russian-backed nuclear project, Euractiv, 2017.

83 The Kremlin Playbook: Understanding Russian Influence in Central and Eastern Europe, Center for Strategic and International Studies, 2016.

dependent on Russian energy. For example, the above-mentioned study estimates that Russia's economic footprint in Bulgaria covers as much as 22 % of the country's gross domestic product (GDP); Lukoil alone accounts for 9 % of GDP and around one-quarter of government tax revenue.

3.1.6. Energy insecurity in EU-Russia relations

Opinions are divided on the extent to which energy insecurity influences broader EU-Russia relations. Responding to Russian aggression in Ukraine, in July 2014, Europe adopted hard-hitting economic sanctions, estimated in 2018 to have cost Russia 6 % of its GDP.[84] The sanctions include restrictions on participation by EU companies in potentially lucrative Russian oil projects, though not on the country's oil trade as such.[85] For five years, the EU has maintained a united position on sanctions, which (despite reservations expressed by some countries) has been followed by the 28 Member States, including those most dependent on Russian energy.

On the other hand, trans-Atlantic critics in particular argue that the EU is a less united and principled actor vis-à-vis its main supplier than it could otherwise be. For example, the US think tank Atlantic Council claims that Russia's control of EU gas markets prevents Europe from effectively opposing its aggression in Ukraine. The US Department of Energy has even described American LNG exports to Europe as 'freedom gas', liberating the continent from its dependence on Moscow.[86] For such observers, the EU's decision in 2014 (unlike the United States) to exempt the Russian gas sector from economic sanctions, and its disunity over Nord Stream 2, are signs of weakness.

3.2. Western Balkans and former Soviet Union

3.2.1. Like the EU, most countries in the region are energy insecure

Most countries in the EU's eastern neighbourhood are energy importers, heavily dependent on Russian gas. Still struggling to assert their sovereignty, former Soviet countries are vulnerable to energy pressure from Moscow, which offered Armenia[87] and Ukraine[88] discounted gas as an incentive to join its Eurasian Economic Union. Prices for Kyiv were subsequently almost doubled,[89] after it decided to sign an association agreement with the EU instead.[90]

Russia is also a big energy player in the western Balkans, as the main gas supplier to Serbia, North Macedonia, and Bosnia and Herzegovina. It owns oil refineries and local energy companies in these three countries. However, energy dependence is probably less of a factor in Serbia's pro-Russia stance than the country's historical and cultural ties with Moscow.[91]

Since 2006, the EU has been part of an Energy Community with neighbouring countries (currently, the six western Balkan countries, as well as Ukraine, Georgia and Moldova).[92] Under the supervision of a mostly EU-funded secretariat in Vienna, these countries have adopted key European energy

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84 Here's One Measure That Shows Sanctions on Russia are Working, Bloomberg, 2018.

85 'US and EU sanctions take toll on Russian oil and gas exploration', *Financial Times*, 2019.

86 The LNG moment: How US production could change more than just markets, Atlantic Council, 2019.

87 "Freedom Gas', the Next American Export', *The New York Times*, 2019.

88 'Armenia Joins Russia-Led Eurasian Economic Union', *The Moscow Times*, 2015.

89 Russia Offers Ukraine Cheap Gas If Kyiv Joins Customs Union, RFE/RL, 2012.

90 UPDATE 3-Russia raises gas prices for Ukraine by 80 percent, Reuters, 2014.

91 Russia, Serbia show strong relations with Medvedev's visit, DW, 2019.

92 A. Wilson, Energy Community: Prospects and challenges, EPRS, European Parliament, 2015. The western Balkan countries are: Bosnia and Herzegovina, Serbia, Kosovo, Northern Macedonia, Montenegro and Albania.

laws, such as the second and third legislative packages on gas and electricity markets, as well as more recent legislation on security of supply for gas and electricity, oil stocks and renewable energy. This has helped them to strengthen their own energy security and integrate at least partially with the EU's internal energy market. However, there is still a long way to go: as of 2019, member countries had implemented less than half of the laws included in their Energy Community commitments.[93]

EU candidate countries (currently Albania, the Republic of North Macedonia, Montenegro, Serbia and Turkey) have taken a step further by committing to full adoption of EU energy law, which is covered by Chapter 15 of the 35 accession negotiating chapters.[94] So far, only Montenegro has opened discussions on Chapter 15.

Energy security cooperation in eastern and south-eastern Europe fits in with the EU's overall external policy objectives supporting the countries of these two regions by making them less vulnerable to energy supply risks. Given that countries such as Serbia and Ukraine are also transit countries for gas supplies to Member States, helping them to become more energy-resilient also serves the EU's own interests.

3.2.2. Special support for Ukraine

Ukraine is a country of special concern for the EU: not only is it the main transit country for Russian gas supplies, but also its energy insecurity makes it especially vulnerable in its ongoing confrontation with Moscow. NATO has described energy as an important part of Russia's hybrid warfare toolbox, with which it aims to destabilise Kyiv.[95] EU support for Ukraine includes mediation in the country's recurrent disputes with Moscow. As already mentioned, in 2019 the EU helped Ukraine secure favourable terms, with a commitment from Russia to continue transit via the Ukrainian route for at least five years, whereas Russia had previously only been willing to commit to one year.[96] The EU also played a key role in 2014, by offering to act as guarantor for Ukrainian debts to Gazprom, thus allowing Russian gas supplies to the country to resume after a five-month interruption;[97] in addition, it facilitated an arrangement for Kyiv to buy gas more cheaply from neighbouring EU countries such as Slovakia.[98]

3.2.3. Azerbaijan: a future energy supplier with serious human rights concerns

Unlike the rest of the EU's eastern neighbourhood, Azerbaijan has plenty of oil and gas of its own. The country is set to become a major gas exporter to Europe, thanks to the South Caucasus, Trans-Anatolian and Trans-Adriatic Pipelines (SCP/TANAP/TAP),[99] which together make up part of the Southern Gas Corridor connecting the Caspian region to Europe.[100] Once completed, they will supply Turkey, Greece, Albania, Italy, and potentially also North Macedonia, Serbia and Hungary. TANAP's current capacity is 16 billion cubic metres (bcm) a year, 10 bcm of which will be allocated

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93 Annual Implementation Report: Energy Community Secretariat, 2019.

94 European Neighbourhood Policy and Enlargement Negotiations: Chapters of the acquis, European Commission.

95 European Neighbourhood Policy and Enlargement Negotiations: Montenegro, European Commission.

96 Energy security: a critical concern for Allies and partners, NATO, 2019.

97 P. De Micco, The Russian-Ukrainian gas deal: Taking the bite out of winter?, Directorate-General for External Policies of the Union, European Parliament, 2014.

98 Slovakia agrees to reverse gas to Ukraine, Euractiv, 2013.

99 TANAP project website.

100 Southern Gas Corridor, TAP AG website.

to the EU starting from 2020.[101] This represents just 3 % of the EU's 2018 natural gas imports, not enough to significantly diversify supplies. In the longer term, the pipeline's capacity could be doubled to 31 bcm, but there are also doubts that Azerbaijan has enough gas to continue exporting large quantities over several years.[102]

Energy cooperation is overshadowed by Azerbaijan's human rights record, one of the poorest in Europe. In 2015, a European Parliament resolution on the country criticised the EU's double standards' towards Eastern Partnership countries, calling for an end to business as usual, suspension of negotiations on a new partnership agreement, and possible targeted sanctions.[103]

3.2.4. Central Asia: an energy-rich region with strong potential for the EU

Like Azerbaijan, the three largest Central Asian countries (Kazakhstan, Uzbekistan and Turkmenistan) have substantial oil and gas reserves. Kazakhstan is already a major supplier of oil and uranium to Europe. The EU is by far Kazakhstan's biggest export market (more than half of total exports),[104] and oil accounts for practically all (92 %) of those exports.[105] Over half of foreign direct investment in Kazakhstan comes from the EU, and this again is largely due to oil, with European companies helping the country to develop its hydrocarbon potential.[106]

Neighbouring Turkmenistan has the world's fourth largest natural gas reserves, making it a potentially attractive alternative to Russia.[107] To bring Turkmen gas to Europe, a Trans-Caspian pipeline is a priority for both the EU's 2019 Central Asia strategy and the previous version of 2007.[108] Feasibility studies for the pipeline were funded from INOGATE, a programme supporting energy cooperation with former Soviet Union countries and Turkey, which ran from 1996 to 2016.[109] In 2011, the EU adopted a mandate to negotiate the pipeline;[110] if ever built, it could form part of the Southern Gas Corridor, which currently only extends as far as Azerbaijan.

However, this remains at best a distant prospect. Russia is hardly likely to welcome a major competitor on European markets, and the 2018 Convention on the Legal Status of the Caspian Sea gives it the right to object to any new pipeline on environmental grounds.[111] Still, the country's huge gas potential was possibly a factor in the EU's 2019 decision to upgrade its diplomatic representation in Ashgabat, despite a dire human rights situation.[112]

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101 Turkey opens natural gas pipeline from Azerbaijan, Reuters, 2018.

102 Azerbaijan's gas supply squeeze and the consequences for the Southern Corridor, Oxford Institute for Energy Studies, 2016.

103 Resolution of 10 September 2015 on Azerbaijan, European Parliament.

104 European Union, Trade in goods with Kazakhstan, European Commission.

105 International Trade Centre.

106 'Kazakhstan attracts $330 billion FDI since 1991', *The Astana Times*, 2019.

107 BP Statistical Review of World Energy, BP, 2019.

108 The EU and Central Asia: New Opportunities for a Stronger Partnership, European Commission/High Representative, 2019; The EU and Central Asia: Strategy for a New Partnership, Council of the European Union, 2007.

109 Action Fiche for 2008 ENPI-East Annual Action Programme, European Commission.

110 EU starts negotiations on Caspian pipeline to bring gas to Europe, European Commission, 2011.

111 Russia, Iran Cite 'Ecological Concerns' In Opposing Trans-Caspian Pipeline, RFE/RL, 2019.

112 EU Foreign Policy Chief Holds Talks With Turkmen Officials Amid Rights Concerns, RFE/RL, 2019.

3.2.5. Algerian gas constrained by insufficient investment

Algeria is a major exporter of oil and, above all, gas, of which it is the EU's third largest supplier. Undersea pipelines connect to Spain – which imports over half of its gas from Algeria – and Italy.[113] As Spain has only limited connectivity to other countries, it relies almost entirely on Algeria for pipeline imports, which make up around half of its total gas imports, the rest coming from LNG, also largely from Algeria. In future, Algeria could also become a key transit country, if the long-delayed Trans-Saharan Pipeline to Nigeria is ever built.[114] Furthermore, the country has huge, as yet untapped, solar and wind power potential.

The EU is Algeria's main energy partner, purchasing the bulk of its energy exports and investing heavily in the country's hydrocarbon sector. The two sides launched a strategic partnership on energy in 2015, which has continued since then with regular meetings at ministerial and expert level, as well as a business forum.[115] Areas of cooperation include natural gas, renewable energy and energy efficiency. In 2017, the EU agreed to spend €10 million on supporting the latter two aspects.[116]

However, there are some constraints on Algeria as an energy supplier.[117] Existing gas fields are slowly running out, and a lack of investment is delaying development of new reserves. At the same time, following a similar trend to Egypt (which used to be a major gas exporter), domestic consumption of gas for electricity production is rising, leaving less for export.[118]

In the 1990s, European hydrocarbon trade with Algeria was sometimes criticised for helping to prop up an authoritarian regime during the country's decade-long civil war.[119] More recently, the involvement of foreign investors (including France's Total)[120] in plans to develop Algeria's huge Saharan shale gas reserves was also controversial; after fears that fracking could contaminate scarce groundwater led to massive protests, these plans have been postponed.[121]

3.3. Middle East

3.3.1. Saudi Arabia's oil weapon

In 2017, Saudi Arabia was the EU's fifth largest oil supplier, accounting for 7 % of EU imports. However, the country's influence over global – and therefore European – oil markets far exceeds its comparatively modest share of EU supplies. Riyadh is the world's largest oil exporter and second largest producer, accounting for 13 % of global oil production in 2018.[122] Moreover, it is the single most influential member of the Organization of the Petroleum Exporting Countries (OPEC) group, which collectively controls 42 % of global oil production. OPEC's international influence was

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113 Spain, US Energy Information Administration.

114 Nigeria: Trans-Saharan Gas Pipeline Project behind schedule, ESI Africa, 2018.

115 EU Neighbourhood-South: Union for the Mediterranean, European Commission.

116 EU-Algeria: EU adopts €40 million projects to support Algeria's renewable energy, public finances reform and to facilitate trade, European Commission, 2017.

117 Country Analysis Executive Summary: Algeria, US Energy Information Administration.

118 Energy: a shaping factor for regional stability in the Eastern Mediterranean?, Directorate-General for External Policies, Policy Department, European Parliament, 2017.

119 Algeria's Economy: The Vicious Circle of Oil and Violence, International Crisis Group, 2001.

120 'Des Algériens contre le « don de Dieu »', *Le Monde Diplomatique*, 2015.

121 'Environmental movement blocks fracking in Algeria's remote south', *Financial Times*, 2015.

122 BP Statistical Review of World Energy, BP, 2019.

highlighted by a 1973 embargo on western countries supporting Israel in the Yom Kippur war, which caused oil prices to quadruple. In 2016, Saudi Arabia was instrumental in securing a deal with the rest of OPEC and 10 other countries to cut output, which has helped oil prices to recover from their February 2016 low of US$30 per barrel. Since then, the 14 OPEC countries and 10 non-OPEC countries including Russia and Kazakhstan (collectively known as OPEC+, accounting for 55 % of global oil production) have continued working together to limit production.[123]

As oil importers, EU countries are inevitably affected by oil price volatility: according to one recent estimate,[124] halving oil prices would boost the EU's GDP by 0.7 % and create up to 3 million extra jobs, and it is likely that higher prices would have at least an equally large negative impact. It is therefore reasonable to expect that Europe would want to avoid upsetting the leading player on global oil markets. Indeed, initial Western outrage over the October 2018 killing of Saudi journalist Jamal Khashoggi quickly faded, suggesting that Riyadh's veiled threat of an oil price hike was enough to deter Western critics from further pursuit of the case.[125]

Nevertheless, there are serious doubts as to the credibility of Saudi Arabia's oil weapon.[126] Given that oil markets are globally integrated, Saudi Arabia could not selectively embargo EU countries without also cutting exports to the rest of the world, a ruinous move give that crude oil generates over three-quarters of the Kingdom's exports.[127] For the same reason, it is extremely unlikely that other OPEC countries would be willing to follow the Saudi lead. Therefore, the EU's stance on Saudi human rights abuses – often criticised as weak – probably has at least as much to do with other factors,[128] such as the geopolitical need for a reliable ally in the volatile Middle East region, as well as trade: in 2018, the EU's exports to Saudi Arabia were worth over €30 billion.[129]

3.3.2. Iran: energy takes second place to geopolitical tensions

Iran has the world's fourth and second largest proven reserves of oil and natural gas respectively, giving it huge potential as an energy supplier for the EU.[130] So far, that potential remains largely untapped. So long as tensions between Iran and the West continue, the country stands no chance of attracting the huge investment it would need to develop new gas fields or construct a pipeline to Europe. With regard to oil, sales to the EU peaked in 2011, at which time they represented 4.6 % of total EU oil imports. However, as part of its sanctions against Iran's nuclear programme, in January 2012 the EU decided to halt oil imports from the country. That embargo, together with a broader US economic embargo, had a devastating impact on Iran's economy and was a key factor in convincing the country to sign up to the 2015 Joint Comprehensive Plan of Action (JCPOA, also known as the Iran nuclear deal) under which Tehran agreed to limit its nuclear activities in exchange for relief from sanctions. On the other hand, as far as the global oil market was concerned, neither the embargo nor its subsequent lifting had a discernible impact (oil prices had already collapsed in 2014, while the embargo was still firmly in place).

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123 'OPEC Is Dead, Long Live OPEC+', *The Guardian*, 2018.

124 Z. Vrontisi et al, Impact of low oil prices on the EU economy, European Commission, 2015.

125 Why the market is suddenly concerned Saudi Arabia will weaponize oil in Khashoggi dispute, CNBC, 2018.

126 Commentary: Saudi Arabia's oil weapon doesn't work, Reuters, 2018.

127 International Trade Centre.

128 The end of the post-Khashoggi era? Europe's collapsing unity on Saudi Arabia, European Council on Foreign Relations, 2019.

129 European Union, Trade in goods with Saudi Arabia, European Commission.

130 BP Statistical Review of World Energy, BP, 2019.

In May 2018, the United States pulled out of the May 2018 nuclear deal and re-imposed its economic embargo against Iran. The EU continues to back the deal, less because of energy supply concerns than due to fears that if Iran cannot export oil, it will have no incentive to comply with the JCPOA, opening the door to a resumption of the nuclear programme.[131] However, a proposed scheme protecting European companies that buy Iranian oil from US sanctions has come to nothing so far, and, as a result, EU imports dried up in mid-2018.[132]

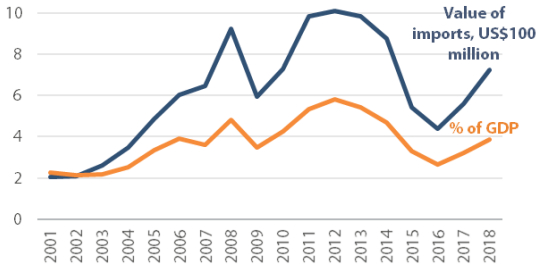
Escalating US-Iran tensions have raised fears of a military conflict. This has serious implications for oil given that over one-fifth of the world's supplies pass through the Strait of Hormuz between Iran and Oman.[133] After the US assassination of top Iranian general Qassem Suleimani in January 2020, crude oil briefly rose to over US$70 a barrel, its highest level in over a year, although still well within the US$30-80 range at which it has traded over the last five years.

4. How successfully has EU external policy promoted energy security?

In its 2014 European energy security strategy, the European Commission points to the fact that there has been no lasting disruption of supplies since the 1970s as evidence that EU and Member State energy security measures have succeeded. Energy costs have remained at a relatively affordable level: after peaking at US$1 billion in 2012, EU hydrocarbon imports have since declined to US$700 million in 2018, equivalent to 4 % of EU GDP – a heavy burden on the European economy, but not an unmanageable one (see Figure 12).[134]

Figure 12 – The cost of EU energy imports

EU hydrocarbon imports



Source: ITC Trade Map, World Bank.

Though high, the EU's external energy bill has remained manageable.

Nevertheless, energy security remains a concern. The picture is a mixed one, with both positive and negative trends. On the one hand, the rise of renewable energy gives the EU an opportunity to develop its own sources of clean energy in the longer term; on the other, falling domestic production of oil and gas means that in the short and medium term, Europe will be more than ever dependent on fossil fuel imports. On the one hand, Gazprom seems to have reined in its more abusive practices; on the other, the company's share of European gas market is rising, a trend that new pipelines such as Nord Stream 2 are likely to consolidate. For European external policy, the effects are also mixed: on the one hand, Russia's energy clout gives it political leverage over EU countries; on the other, the EU has shown that it can adopt a strong and principled position, including with respect to sanctions, towards energy suppliers such as Russia.

131 Europe looks to protect trade with Iran in defiance of Trump, *Handelsblatt Today*, 2018.

132 Iran's Exports To EU Drop Sixteen Fold As Europe Stops Buying Iranian Oil, Radio Farda, 2019.

133 The Strait of Hormuz is the world's most important oil transit chokepoint, US Energy Information Administration, 2019.

134 International Trade Centre.

Insofar as the energy security situation is a positive one, this is partly due to developments over which the EU has little influence, such as the technological advances that have brought an era of abundant energy.[135] These have unlocked formerly inaccessible oil and gas reserves, at the same time as making renewable energy an affordable alternative.

At the same time, EU measures to build resilience have played an important part. These include energy market integration and investments in new infrastructure. European external policy has also made a useful contribution. Member States have highly divergent energy interests, as the Nord Stream pipelines have highlighted. Nevertheless, the EU has been fairly successful in forging a coherent European position on this and other energy issues. EU leadership in dealings with powerful suppliers such as Gazprom illustrate the fact that, in energy as in other aspects of external policy, Member States are stronger when they speak with one voice than as individual actors.

[135] We Live In An Age Of Energy Abundance, Forbes, 2013.

This publication describes the link between energy security and the EU's external policy. The EU imports most of its energy, and its biggest supplier is Russia, a country with very different foreign policy goals to the EU's. Energy is a key aspect of the EU's external relations, not only with energy suppliers such as Russia, but also with neighbouring transit countries. Alongside internal measures to integrate European markets, energy diplomacy is a central part of the EU's efforts to address energy insecurity.

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