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NEGOTIATING AN ENERGY DEAL UNDER TTIP: DRIVERS AND IMPEDIMENTS TO U.S. SHALE EXPORTS TO EUROPE

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I. INTRODUCTION

The problem of global security of energy supply is growing in importance with the escalation of conflict between Russia and Ukraine. Interruptions of gas supplies to Ukraine by Russia threaten to cause devastating energy shortages not only in Ukraine but also in those E.U. Member States, which are dependent on the gas supplies from Russia via Ukrainian pipelines. In this regard, diversification of E.U. energy sources may be facilitated by U.S. exports of gas to Europe in view of breaking the Russian stranglehold on energy supplies.

Yet, this solution currently faces geopolitical, legislative and technical barriers to energy trade between the European Union and the United States and is associated with social and environmental costs. The European Union and the United States need considerable investments into building the necessary infrastructure for transporting gas from the United States (e.g. liquefied gas terminals, regasification terminals, requalification of refineries, etc.).[1] Changes are also required in the U.S. legislation to allow exports of energy resources (e.g. elimination of various forms of export quantitative restrictions, such as bans and non-automatic licensing procedures). Furthermore, an increasing role of the United States as a major energy exporter faces opposition of the long-established world energy suppliers in a context of shrinking oil prices, whereas domestically it confronts different sectors of the U.S. society with contrasting political economy interests.[2] Environmental concerns about the impacts of shale oil and gas exploitation also figure prominently in the debate.

The on-going negotiations of a free trade agreement between the European Union and the United States—the Transatlantic Trade and Investment Partnership ("TTIP")[3]—present an opportunity to speed up the dismantling of some of these barriers. Along with the evident gains for the European Union, the opening of E.U. energy markets for U.S. shale gas would also benefit the United States, which

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1. Trevor Houser & Shashank Mohan, *Kicking Off the Crude Export Debate*, RHODIUM GROUP (Jan. 7, 2014), http://rhg.com/notes/kicking-off-the-crude-export-debate.

2. CHARLES K. EBINGER & GOVINDA AVASARALA, NATURAL GAS BRIEFING DOCUMENT #2: REVISING THE LNG EXPORT PROCESS 3 (2013).

3. *Transatlantic Trade and Investment Partnership (T-TIP)*, OFF. U.S. TRADE REPRESENTATIVE, http://www.ustr.gov/ttip (last visited Jan. 19, 2015).

is experiencing shrinkages of shale gas prices caused by oversupplies in the internal market.[4] The mutual interests in energy trade could pave the way for the materialization of a TTIP chapter on energy and raw materials.[5] Furthermore, given the lack of international rules on energy trade, the negotiations between the European Union and United States create a unique opportunity to adopt a legal framework for trade in energy products and raw materials that has never existed before and could later be plurilateralized.

This paper explores some of the thorniest legal, geopolitical, and economic issues that need to be taken up by TTIP negotiators for the promotion of a secure and sustainable trade in energy between the United States and European Union. It is organized as follows: Section II gives an account of the most recent developments in the TTIP negotiations on energy; Section III examines the link between a possible legal framework for energy trade under TTIP and other energy-related regional and international fora; Section IV critically assesses the negotiating positions of the European Union and the United States in light of their reciprocal energy profiles and needs; Section V offers an overview of the critical items most likely to be on top of the TTIP agenda on energy based on a comparative analysis of energy provisions in E.U. and U.S. legislation and in light of the both parties' interests; Section VI discusses the main driving forces and inhibiting factors capable of facilitating or rather impeding a successful conclusion of an energy trade deal between the United States and the European Union; and Section VII provides concluding remarks.

II. TTIP NEGOTIATIONS ON ENERGY

In June 2013, the twenty-eight Member States of the European Union provided the European Commission with a mandate for negotiating TTIP with the United States.[6] Since then, TTIP negotiations have been carried out in regular rounds focusing on the elimination of tariff and non-tariff barriers to transatlantic trade and facilitation of mutual investments. The negotiations are closed to the public. Yet, the parties, especially the European Union, make their positions on major subjects of negotiations known in press releases, statements of government officials,[7] and initial position papers.[8] Moreover, at the beginning of January 2015,

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4. Houser & Mohan, *supra* note 1.

5. Press Release, Karel De Gucht, European Comm'r for Trade, The Future of TTIP—The Benefits and How to Achieve Them (Apr. 10, 2014), http://europa.eu/rapid/press-release_SPEECH-14-314_en.htm. *See also* Initial EU Position Paper on Raw Materials and Energy, EU-US Transatlantic Trade and Investment Partnership (July 2013), http://trade.ec.europa.eu/doclib/docs/2013/july/tradoc_151624.pdf.

6. *See* Memo, European Comm'n, Member States endorse EU-US trade and investment negotiations, MEMO/13/564 (June 14, 2013), http://europa.eu/rapid/press-release_MEMO-13-564_en.htm.

7. *See* Karel De Gucht, European Trade Commissioner, European Trade Comm'n, Speech at The Aspen Institute Prague Annual Conference: Transatlantic Trade and Investment Partnership (TTIP)—Solving the Regulatory Puzzle (Oct.10, 2013) http://trade.ec.europa.eu/doclib/docs/2013/october/tradoc_151822.pdf.

8. *See EU publishes initial TTIP Position Papers*, EUROPEAN COMM'N (Jul. 16, 2013),

the European Commission published a bulk of E.U. textual proposals, which include the legal language and binding rules the European Union is pushing for during TTIP negotiations, but exclude sensitive documents regarding market access, quotas and tariffs, as well as proposals on regulatory coherence and sustainable development, which first need to be agreed with the E.U. Council and Parliament.[9] From the available documents, it is clear that energy is an important part of TTIP negotiations.[10] The European Union seeks to include in the TTIP a separate chapter on trade and investment in raw materials and energy, including coal, oil and oil products, gas, and electricity. This proposal features prominently in a non-paper on raw materials and energy drafted by the European Commission Directorate-General for Trade on September 20, 2013.[11]

Referring to the lack of international disciplines on trade in energy and raw materials, the European Union supports the inclusion of legally binding commitments regarding these issues in TTIP.[12] In particular, seeking to promote fair competition in the energy sector, the European Union proposes rules prohibiting trading and export monopolies, preventing dual pricing, and facilitating transit and access to energy transport facilities.[13] It also proposes to ban local content requirements in support schemes for renewable energy.[14] TTIP rules on energy would also guarantee access and national treatment to enterprises of one party established on the territory of the other party in matters of prospecting, exploring, production, purchase, sale, import, and export of raw materials and energy.[15] A general exception is foreseen for measures necessary for the safe operation of the energy networks, subject to the requirement that such measures are not applied in a manner that would constitute a means of arbitrary or unjustifiable discrimination.[16] The E.U. position is that such an open, stable, predictable, sustainable, transparent, and non-discriminatory legal framework for traders and investors in raw materials and energy, agreed in the transatlantic context, could serve as a model for subsequent negotiations involving third countries.[17] The European Union has also declared that energy efficiency and the promotion of renewable energy are fundamental aspects of the energy policy of the European Union and the United States, both having a shared interest in improving

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http://trade.ec.europa.eu/doclib/press/index.cfm?id=943.

9. *See Now online EU negotiating texts in TTIP*, EUROPEAN COMM'N (Jan. 7, 2015), http://trade.ec.europa.eu/doclib/press/index.cfm?id=1230.

10. *See* Initial EU Position Paper on Raw Materials and Energy, *supra* note 5.

11. The E.U. non-paper on the TTIP chapter on energy and raw materials was leaked and published by the Huffington Post on May 19, 2014. *TTIP—Non Papers on Raw Materials and Energy* (Sept. 20, 2013), http://big.assets.huffingtonpost.com/TTIPNonPaper.pdf.

12. *See* Initial EU Position Paper on Raw Materials and Energy, *supra* note 5, at 1-2.

13. Zach Carter & Kate Sheppard, *Read The Secret Trade Memo Calling For More Fracking And Offshore Drilling*, HUFFINGTON POST (May 19, 2014), http://www.huffingtonpost.com/2014/05/19/trade-fracking_n_5340420.html.

14. *Id.*

15. *Id.*

16. *Id.*

17. Initial EU Position Paper on Raw Materials and Energy, *supra* note 5, at 2.

global governance in the area of renewable energy.[18] The TTIP should therefore support the promotion of renewable energy and energy efficiency and guarantee the right of each party to maintain or establish standards and regulation concerning energy performance of products, appliances and processes, while working towards a convergence of domestic standards or the use of international standards where these exist.[19]

While striving to fix fair competition rules in bilateral energy trade with the possibility for their further multilateralization in the future, the European Union is also pushing for the abolition of U.S. export restrictions on energy goods, including crude oil and gas, in order to increase U.S. imports of energy into the European Union.[20] Exports of energy goods to the other party would be made automatically compliant with any conditions and tests foreseen in the parties' respective legislation for the granting of export licences.[21] Through liberalization of the U.S. export regime for energy, the European Union seeks to increase diversification of its energy imports and improve energy security, currently undermined by the threats of discontinuation of gas supplies from Russia in the midst of the Russia-Ukraine conflict. It is this part of the U.S.-E.U. energy negotiations that will be addressed in the following sections.

III. DEALING WITH ENERGY TRADE UNDER FTAS

While a recent generation of Free Trade Agreements ("FTAs") covers a broad area of issues, often additional to what is covered by the World Trade Organization ("WTO") Agreement (e.g. competition, government procurement obligations for developing countries etc.), energy issues are usually not separately addressed in FTAs. This may have different explanations. On the one hand, there is a perception that as part of national security interests, the regulation of the energy sector is traditionally in the hands of sovereign national governments, and international trading rules have nothing to say on how energy should be traded. On the other hand, it is argued that energy is just another good or economic sector, and thus it falls within the scope of the WTO Agreement and is subject to the general rules of international trade (market access, most-favoured nation treatment, national treatment etc.) like all other goods or economic sectors.[22] Accordingly, energy trade is regulated by general FTA provisions applicable to trade in goods and services.[23] At the same time, the proponents of the latter view usually also agree that the international trading rules of the WTO are poorly designed to meet

18. *Id.* at 3.

19. *Id.*

20. Carter & Sheppard, *supra* note 13.

21. *Id.*

22. *Domestic Prosperity and Global Freedom Act: Hearing on H.R. 6 Before Subcomm. on Energy & Power of the Energy & Commerce Comm.*, 113th Cong. (2014) (testimony of James Bacchus, Chair, Greenberg Traurig), http://docs.house.gov/meetings/IF/IF03/20140325/101953/HHRG-113-IF03-Wstate-BacchusJ-20140325.pdf [hereinafter *Domestic Prosperity and Global Freedom* Act].

23. For example, provisions on national treatment, elimination of customs duties, prohibition of quantitative restrictions on imports and exports etc.

the current needs of the energy sector.[24] The reason for this is partly the difference between the regulatory needs of trade in energy and those of other goods and services. While the General Agreement on Tariffs and Trade ("GATT")/WTO rules traditionally put the emphasis on market access (i.e. liberalisation of import regimes), the needs of the energy sector are more on the side of supply pushing for the liberalisation of export regimes.[25]

A. Energy under E.U.-Signed FTAs and Sectorial Agreements

The access to energy supplies has always been an important issue for the European Union. It is not merely coincidence that the European Union takes its origin from an energy agreement—the European Coal and Steel Community established by Germany, France, Italy, Belgium, the Netherlands, and Luxemburg in 1951. The initial idea behind the European integration was to create a common European market for coal and steel and thus neutralize competition between West European countries over natural resources and thus prevent wars in the future.[26] The West European steel and coal industries were gradually united through common industrial, social and tax policies, and anti-cartel legislation.

Later, faced with the geopolitical changes in the early 1990s, the European Union initiated the Energy Charter Treaty ("ECT"), a pan-European energy agreement, which was initially aimed to integrate the former Soviet energy sector and its highly developed pipeline system with the European energy market on the principles of free market economy.[27] The ECT extended the GATT rules to trade in energy with Russia, which at that time was outside the WTO. The treaty covers all energy goods, including fossil fuels, petroleum and electricity, and energy-related equipment, but it does not cover energy-related services. Despite the fact that the ECT promotes open markets and market rules in the energy sector, it recognizes the principle of national sovereignty over energy resources.[28] It therefore leaves for governments to choose how to define the structure of national energy sectors, how to develop national energy resources and whether to open the energy sector to foreign investors or not.[29] For instance, the ECT does not impose an obligation to privatize state-owned energy companies or to break down

24. The WTO Agreement does not contain rules that are specific to energy. *See* Thomas Cottier et al., *Energy in WTO Law and Policy*, *in* THE PROSPECTS OF INTERNATIONAL TRADE REGULATION 211-244 (Thomas Cottier & Panagiotis Delimatsis eds., 2010).

25. Melaku Desta, *The Organization of Petroleum Exporting Countries, the World Trade Organization, and Regional Trade Agreements*, 37(3) J. WORLD TRADE 523, 539 (2003).

26. KLAUS-DIETER BORCHARDT, DIE RECHTLICHEN GRUNDLAGEN DER EUROPÄISCHEN UNION 41-42 (2010).

27. The geographical scope of the treaty was later extended to include such non-European countries as Australia, Japan, Mongolia, Tajikistan, Turkmenistan and Uzbekistan. *See Members & Observers*, ENERGY CHARTER, http://www.encharter.org/index.php?id=61 (last visited Feb. 7, 2015).

28. The Energy Charter Treaty, art. 18, Dec. 17, 1994, 2080 U.N.T.S. 95, http://www.encharter.org/fileadmin/user_upload/document/EN.pdf.

29. Yulia Selivanova, *The Energy Charter and the International Energy Governance*, *in* REGULATION OF ENERGY IN INTERNATIONAL TRADE LAW: WTO, NAFTA AND ENERGY CHARTER 376, 392 (Yulia Selivanova ed., 2011).

vertically integrated energy companies.

Regarding the regulation of energy trade in E.U. FTAs and its broader Economic Partnership Agreements ("EPAs"), so far there have been no provisions that would specifically apply to energy.[30] This basically means that all energy matters under E.U. FTAs fall under the general provisions on trade in goods, trade in services, and investment under those agreements.

B. Energy under U.S. FTAs

As of December 2014, the United States had FTAs in force with twenty countries, but an FTA between the United States, Canada, and Mexico—the North American Free Trade Agreement ("NAFTA")—is unique in the way it deals with energy.[31] NAFTA contains provisions that separately regulate trade and investment in energy and trade in energy-related cross-border services. These provisions are not only spread over different chapters in the agreement, but also separately dealt with in Chapter 6 on "Energy and Basic Petrochemicals."[32] All energy-related matters under NAFTA are subject to the general mandatory dispute settlement procedure, including investor-state arbitration.[33] However, similar to the Energy Charter Treaty, which underlines state sovereignty over energy resources, NAFTA Article 601 confirms full respect for the Constitutions of the parties, which automatically sets limits to the regulatory leverage of the FTA with respect to energy.[34]

The disciplines contained in the NAFTA energy chapter apply to a wide range of energy products, including diesel, gasoline, and electricity. They exclude, however, biofuels and energy-related equipment, which are subject to general rules on trade and investment under NAFTA.[35] Many NAFTA provisions on energy are WTO-plus, which means that they impose additional obligations to those imposed by the WTO Agreement on WTO members.[36] They include, for instance, along with the prohibition of quantitative restrictions, the restriction on the use of export

30. It is also important to mention that a recently concluded FTA between the European Union and Canada—the Comprehensive Economic and Trade Agreement ("CETA"), which is considered by many to serve as a template for TTIP—has no separate chapter on energy either. However, it foresees an investor-state arbitration, which may influence investments in the energy sector.

31. *Free Trade Agreements*, U.S. TRADE REPRESENTATIVE, https://ustr.gov/trade-agreements/free-trade-agreements (last visited Feb. 7, 2015). It should be noted that the legal framework for energy trade and investment was first developed in CUSFTA, a 1989 FTA between the United States and Canada that was then replaced by NAFTA. CUSFTA provisions on energy were contained in chapter 9 in part II on trade in goods.

32. North American Free Trade Agreement, ch. 6, Dec. 17, 1992, 32 I.L.M. 289 (1993), https://www.nafta-sec-alena.org/Home/Legal-Texts/North-American-Free-Trade-Agreement.

33. *See id.* ch. 11, §B.

34. *See* The Energy Charter Treaty, *supra* note 28; *see also* North American Free Trade Agreement, *supra* note 32, at art. 601.

35. GARY HORLICK ET AL., NAFTA PROVISIONS AND THE ELECTRICITY SECTOR 29 (June 2002) (background paper prepared for the Commission for Environmental Cooperation Secretariat), http://www3.cec.org/islandora/en/item/1821-nafta-provisions-and-electricity-sector-en.pdf.

36. *Id.* at 18.

duties and the prohibition of minimum or maximum energy export- or import-price requirements (the so-called dual pricing practice) that benefit domestic consumers and economies.[37] They also impose stricter conditions for the use of exceptions.[38] In general terms, the use of exceptions cannot result in a complete interruption of energy exports from one NAFTA party to another NAFTA party, be it for the reasons of critical shortages, environmental protection or any other justification foreseen under GATT Article XX.[39]

In practice, however, only the United States and Canada are bound by NAFTA special commitments on energy trade and investment. Having the government monopoly in the energy sector, Mexico managed to pull itself out of most of the obligations related to energy, which made energy rules of NAFTA Chapter 6 a bilateral deal between the United States and Canada.[40] One can also point to other weaknesses of NAFTA rules on energy. Article 601 speaks only about "gradual liberalisation" of trade in energy, thus showing certain tolerance for non-market mechanisms with respect to energy trade and investment in contrast to other sectors.[41] NAFTA also fails to address issues of access to energy infrastructure. It does not provide any rules on transit fees and third party access that would be additional to the basic ones, which are contained in the GATT for all goods.[42]

As mentioned, NAFTA is the most advanced FTA regarding the regulation of energy trade and investment. An energy agreement between the European Union and the United States could draw on NAFTA Chapter 6 on "Energy and Basic Petrochemicals" in many respects. At the same time, it should be noted that under U.S. domestic legislation, all U.S. FTA partners enjoy a more liberal regime for the exportation of natural gas from the U.S. Exports of liquefied natural gas ("LNG") to FTA partners are presumptively considered in the "public interest" and thus are entitled to licenses.[43] Accordingly, independently from the outcome of the E.U.-U.S. specific negotiations on energy, the conclusion of TTIP itself would facilitate the exports of LNG from the United States to the European Union.

VI. NEGOTIATING POSITIONS OF THE PARTIES

A. The European Union as a Demandeur

The European Union is the third greatest world energy consumer after China and the United States, and accounted for 13.8 percent of global final energy

37. *See* North American Free Trade Agreement, *supra* note 32, at art. 604, 603.2.

38. *See id.* art. 605.

39. Roberto R. Herran & Pietro Poretti, *Energy Trade and Investment under the North American Free Trade Agreement*, *in* REGULATION OF ENERGY IN INTERNATIONAL TRADE LAW 363 (Yulia Selivanova ed., 2011).

40. *Id.* at 358-64.

41. *See* North American Free Trade Agreement, *supra* note 32, art. 601.

42. *Id.* at 336.

43. Among major natural gas importers, the only country which has not concluded an FTA with the United States is South Korea. *See* Ebinger & Avasarala, *supra* note 2, at 4. *See infra* Section V.

consumption in 2010.[44] Although primary energy production is substantially declining in the European Union due to supplies depletion and the effects of climate change policies discouraging the exploitation of fossil fuels,[45] the European Union still relies on conventional energy resources to meet around three-quarters of its total energy consumption. According to 2010 figures, oil is the largest energy source providing 35 percent of total energy consumption, followed by natural gas (24 percent) and coal (16 percent).[46] Nuclear power accounts for 14 percent of global energy consumption, and the share of renewable energy is 10 percent (6.8 percent comes from biomass and renewable wastes, 1.6 percent from hydropower, 0.9 percent from wind energy, 0.4 percent from geothermal, and 0.4 percent from solar energy).[47]

This state of things translates into a heavy, and growing, dependence on the importation of primary energy supplies. The European Union imported almost 85 percent of its oil consumption, 67 percent of its gas consumption and more than 40 percent of its coal consumption in 2011.[48] Russia is by far its largest source of fossil fuels, providing 35 percent of total oil imports, 30 percent of overall natural gas imports, and 26 percent of global coal imports in 2011.[49]

The substantial dependence of the European Union upon the availability of Russian oil and gas supplies has become a major area of concern in light of the conflict between the Russian Federation and Ukraine. The issue of diversification of import sources has accordingly gained prominence in the E.U. political agenda.[50] The European Union in particular has started to explore opportunities to

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44. EUROPEAN COMM'N, EU ENERGY IN FIGURES: STATISTICAL POCKETBOOK 13 (2013), http://ec.europa.eu/energy/sites/ener/files/documents/2013_pocketbook.pdf.

45. EUROSTAT, THE EU IN THE WORLD 2013: A STATISTICAL PORTRAIT 117 (2013), http://ec.europa.eu/eurostat/documents/3217494/5748537/KS-30-12-861-EN.PDF/d60278b9-d0ee-47c1-bb96-2dbb9a5b80cb?version=1.0. GHG emissions abatement has figured prominently in the European energy agenda. The European Union adopted its first package of climate and energy measures in 2008. This set of measures established the so-called "20/20/20 targets" (i.e. the achievement of a 20% reduction of GHG emissions by 2020 compared to the levels of 1990, a 20% share of renewable energy, and a 20% improvement in energy efficiency). *The 2020 Climate and Energy Package*, EUROPEAN COMM'N, http://ec.europa.eu/clima/policies/package/index_en.htm (last visited Feb. 7, 2015). While the European Union is projected to fulfil and even surpass the 20/20/20 goals, a new set of E.U. targets was proposed within the context of a renovated European policy framework for climate and energy in the period from 2020 to 2030. *See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, A Policy Framework for Climate and Energy in the Period from 2020 to 2030*, at 2, COM (2014) 15 final (Feb. 22, 2014), http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014DC0015&from=EN.

46. EUROPEAN COMM'N, MARKET OBSERVATORY FOR ENERGY, KEY FIGURES 11 (2011), https://feb.kuleuven.be/public/n07048/EU%20Energy.pdf.

47. *See EU Energy in Figures: Statistical Pocketbook 2013*, *supra* note 44, at 20. In 2012, the share of renewable energy reached 13 percent. *A Policy Framework for Climate and Energy in the Period from 2020 to 2030*, *supra* note 45, at 2.

48. EU ENERGY IN FIGURES: STATISTICAL POCKETBOOK, *supra* note 44, at 22.

49. *Id.* at 24.

50. *See Communication from the Commission to the European Parliament and the Council: European Energy Security Strategy*, COM (2014) 0330 final (May 28, 2014).

facilitate the conclusion of supply contracts with alternative reliable suppliers. Significantly, the United States has been identified as a potential strategic partner in this respect.[51] The on-going TTIP negotiations are therefore critical for the European Union in view of securing privileged commercial relations in the energy sector with the United States and therefore achieving the diversification of the energy supply.

B. The U.S. Interests and the Case for Changes in its Current Energy Exports Regime

The United States is a relatively richly-endowed country with a long history of self-sufficiency in the energy sector. However, as from the second half of the twentieth century, the country started to increasingly rely on the importation of energy resources from the Middle East.[52] The Arab oil embargo of 1973 confronted the United States with the vulnerability linked to import dependency and marked the beginning of a decisive turn in the energy policy of the country.[53] Since then, the U.S. has consistently looked for ways to relieve its dependence on foreign energy supplies.[54] Accordingly, it radically reformed the export regime applicable to primary energy supplies.[55]

It should be noted that the U.S. was the top world energy consumer until the end of the 2000s and thereafter the second global energy consumer after China,[56] remaining for a long time a major net importer of energy supplies. Still in 2006, the U.S. was by far the biggest net importer of crude oil in the world, with over 13.4 million barrels imported per day.[57] The shale revolution has, however, sensibly changed the picture. As of September 2013, the U.S. is no longer the leading net oil importer, as it has been surpassed by China.[58] At the same time, the U.S. has recently become the top world producer of crude oil, ahead of Saudi Arabia and the Russian Federation.[59] According to the Brookings Institute, "[s]hale oil will also emerge as a route to self-sufficiency for the U.S., as the shale

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51. *Id.* at 15.

52. MARIAN RADETZKI, A HANDBOOK OF PRIMARY COMMODITIES IN THE GLOBAL ECONOMY 43-44 (2008).

53. Tim Boersma & Charles K. Ebinger, *Lift the Ban on U.S. Oil Exports, Memorandum to President Barack Obama*, BROOKINGS (Jan. 23, 2014), http://www.brookings.edu/research/papers/2014/01/lift-ban-us-oil-exports-boersma-ebinger.

54. Konrad Yakabuski, *The Downsides of U.S. Energy Independence*, GLOBE & MAIL (May 13, 2013), http://www.theglobeandmail.com/globe-debate/the-downsides-of-us-energy-independence/article11869851.

55. Boersma & Ebinger, *supra* note 53.

56. EU ENERGY IN FIGURES: STATISTICAL POCKETBOOK, *supra* note 44 at 13.

57. EDWARD L. MORSE ET AL., ENERGY 2020: OUT OF AMERICA: THE RAPID RISE OF THE UNITED STATES AS A GLOBAL ENERGY SUPERPOWER (2014), http://www.investorvillage.com/uploads/44821/files/CitiUSenergyPowerhouse2020.pdf.

58. Candace Dunn, *Today in Energy: China is Now the World's Largest Net Importer of Petroleum and Other Liquid Fuels*, U.S. ENERGY INFO. ADMIN. (Mar. 24, 2014), http://www.eia.gov/todayinenergy/detail.cfm?id=15531.

59. Countries with Highest Primary Energy Production, SHIFT PROJECT DATA PORTAL, http://www.tsp-data-portal.org/TOP-20-Producer#tspQvChart (last visited Sept. 30, 2014).

oil revolution taking place in the United States could result in the tripling of shale oil output to five million barrels a day by 2017."[60] Moreover, projections also indicate that the shale gas revolution will transform the U.S., currently the largest world consumer of natural gas, into a major gas exporter.[61]

The shale revolution notwithstanding, the United States still has in place a comprehensive export regime that dates back to the 1970s, the time of the reaction to the Arab oil embargo. With respect to crude oil exports in particular, a number of new acts were concluded in these years: the Trans-Alaska Pipeline Authorization Act (1973),[62] which substantially amended the Mineral Leasing Act of 1920;[63] the Energy Policy and Conservation Act (1975);[64] and the Naval Petroleum Reserves Production Act (1976).[65] Since then, a complex regime applicable to crude oil exports from the United States to a foreign country has been developed and administered by the Bureau of Industry and Security ("BIS"), an agency of the U.S. Department of Commerce. The cardinal points of such regime are contained in Part 754 of the BIS Export Administration Regulations ("EAR") on Short Supply Controls.[66] Under the BIS regulations, depending on the place of origin or the mode of transport of crude oil, its exportation is allowed only insofar as it is granted (1) explicit presidential authorization or (2) a BIS license.

Presidential authorization is needed for the exportation of domestically produced crude oil under specific statutory control regimes. These include: (1) exports of Alaskan North Slope oil under §203 of the Trans-Alaska Pipeline Authorization Act, as found in §28 of the Mineral Leasing Act;[67] (2) exports of domestically produced crude oil transported by pipeline over rights-of-way granted pursuant to §28(u) of the Mineral Leasing Act;[68] (3) export of crude oil produced from the outer Continental Shelf under the Outer Continental Shelf Lands Act;[69] and (4) exports of crude oil produced from the naval petroleum reserves under the Naval Petroleum Reserves Production Act.[70] Under such statutory controls, exports may only be approved if the president makes and publishes an explicit finding that such exports will not diminish the total quantity or quality of petroleum available to the United States, are in the national interest and in accordance with the Export Administration Act of 1979.[71] The president must

60. SUBIR GOKARN ET AL., ENERGY 2030: BACKGROUNDER 17 (2013), http://brookings.in/wp-content/uploads/2014/05/Energy-2030-Brookings-India-Backgrounder.pdf.

61. *Id.*

62. 43 U.S.C. § 1651 (2014).

63. 30 U.S.C. § 181 (2014).

64. Energy Policy and Conservation Act of 1975, 42 U.S.C. §§ 62-64 (2014).

65. Naval Petroleum Reserves Production Act, Pub. L. No. 94-258, 90 Stat. 26 (codified as amended in sections of 42 U.S.C., 43 U.S.C., 10 U.S.C., 50 U.S.C., 15 U.S.C., 43 C.F.R.).

66. 15 C.F.R. § 754.2 (2015).

67. 30 U.S.C. § 185(s) (2014).

68. *Id.* § 185(u) (2014).

69. 43 U.S.C. § 1354 (2014).

70. 10 U.S.C. § 7430 (2014).

71. Depending on the applicable law, the presidential findings must also fulfil other specific criteria. In the case of exports of Alaskan North Slope oil, for instance, the evaluation of whether

submit to the Congress a report containing such findings and explaining the reasons for justifying crude oil exports.[72] The Congress has sixty days to veto the presidential permission.[73] Finally, under the Export Administration Act, the president has also the authority to restrict refined petroleum products exports.[74] This authority has however not been exercised since 1981.[75]

The BIS automatically approves exports that are consistent with findings made by the president under specific applicable statutes.[76] Different kinds of crude oil export transaction are moreover generally approved by the BIS: (i) exports from Alaska's Cook Inlet;[77] (ii) exports to Canada for consumption or use therein;[78] (iii) exports in connection with refining or exchange of strategic petroleum reserve oil;[79] (iv) exports of heavy California crude oil;[80] (v) exports that are consistent with certain international agreements;[81] (vi) export that are consistent with findings made by the president under an applicable statute;[82] (vii) exports of foreign origin crude oil, provided that the oil has not been commingled with oil of U.S. origin.[83] All other applications are reviewed by the BIS on a case-by-case basis and only approved if BIS determines that they are consistent with the national interest and the purposes of the Energy Policy and Conservation Act.[84]

A very stringent export-licensing regime is also imposed in the United States on natural gas. Under the Natural Gas Act of 1938, as subsequently amended,[85] the Department of Energy ("DoE") is responsible for administering natural gas exports licences.[86] As already mentioned, a different regime applies depending on whether the natural gas is exported to FTA partners or to non-FTA countries. Applications to export natural gas to FTA partners are presumptively considered in the "public interest."[87] Natural gas exports to non-FTA countries are approved by

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exports are in the national interest needs to also take into account the results of an appropriate environmental review and "whether exports of this oil are likely to cause sustained material oil supply shortages or sustained oil prices significantly above world market levels that would cause sustained material adverse employment effects in the United States or that would cause substantial harm to consumers, including non-contiguous States and Pacific territories." 30 U.S.C. § 185(s) (2014).

72. *See* 30 U.S.C. § 185(u), 43 U.S.C. § 1354(c), and 10 U.S.C. § 7430(e). This requirement does not apply, however, in the case of exports of Alaskan North Slope oil. 30 U.S.C. § 185(s).

73. *See, e.g.*, 30 U.S.C. § 185(u) and 43 U.S.C. § 1354(c).

74. 50 U.S.C. § 2406(e) (2014).

75. John Kemp, *History of Controls on U.S. Oil Exports*, REUTERS (Oct. 23, 2014), http://www.reuters.com/article/2014/10/23/usa-oil-export-controlsno-kemp-idUSL6N0SI37X20141023.

76. 15 C.F.R. § 754.2(b).

77. *Id.* § 754.2(b)(i).

78. *Id.* § 754.2(b)(ii).

79. *Id.* § 754.2(b)(iii).

80. *Id.* § 754.2(b)(iv).

81. *Id.* § 754.2(b)(v).

82. *Id.* § 754.2(b)(vi).

83. *Id.* § 754.2(vii).

84. *Id.* § 754.2(2).

85. *See* 15 U.S.C. § 717 (2014).

86. *Id.*

87. Among major LNG importers, the only country which has not concluded a FTA with the United States is South Korea. Ebinger & Avarsarala, *supra* note 2, at 4.

the DoE only insofar as they are in the "public interest." The guiding criteria to determine whether the natural gas exports are in the public interest or not have not been laid out in any relevant instrument. The 1984 DoE Guidelines affirm that market considerations should govern the evaluation;[88] however, the DoE has declared that the applications are prioritized in the order that they were received and having due regard to their "cumulative impact" on the gas market and prices.[89] Other criteria the DOE listed are "domestic need, adequacy of supply, the environment, geopolitics, and energy security."[90] Another relevant factor taken into consideration is whether the prospective exporter has already completed the pre-filing process before the Federal Energy Regulatory Commission ("FERC"), which is responsible for the siting and construction of LNG import and export facilities.[91]

Since the shale gas revolution in the mid-2000s, the DoE has approved only two applications of LNG exports directed to non-FTA countries: the Cheniere Energy Sabine Pass terminal in 2012 and the Freeport LNG terminal in 2013.[92] Currently, there are fifteen projects awaiting approval, which represent over 40 percent of U.S. daily consumption of natural gas.[93] The lack of clarity surrounding the timing of approval determinations has ignited the debate over whether more expedited licensing procedure should be ensured to LNG export applicants. To this end, the Export American Natural Gas Act was introduced in the U.S. Senate on December 12, 2013.[94] It provides for a two-month limit for the DoE to approve LNG export applications.[95] On October 7, 2014, the North Atlantic Energy Security Act was also introduced in the U.S. Senate with the aim to automatically grant a license to LNG exports directed to Ukraine, NATO allies, and Japan.[96]

The existing U.S. legislation applicable to crude oil and natural gas exports represents a major obstacle in view of realizing a full liberalization of energy resources trade between the United States and the European Union. Furthermore, it presents many incompatibility problems with WTO law and, in particular, GATT provisions. Export bans, such as those applied on U.S. crude oil, are outlawed by

88. *Id.* (citing Freeport LNH Expansion, L.P., et al, Order Conditionally Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Freeport LNG Terminal on Quintana Island, Texas to Non-Free Trade Agreement Nations, DOE/FE Docket No. 3282, Docket No. 10-161-LNG, 6, 112 (May 17 2013), http://www.fossil.energy.gov/programs/gasregulation/authorizations/Orders_Issued_2013/ord3282.pdf.)

89. *Id.*

90. *See* MICHAEL RATNER ET AL., CONG. RESEARCH SERV., R42074, U.S. NATURAL GAS EXPORTS: NEW OPPORTUNITIES, UNCERTAIN OUTCOMES 13 (2013).

91. *See* FEDERAL ENERGY REGULATORY COMM'N: LNG, http://www.ferc.gov/industries/gas/indus-act/lng.asp (last visited Jan. 12, 2015).

92. *See* FEDERAL ENERGY REGULATORY COMM'N: NORTH AMERICAN LNG IMPORT/EXPORT TERMINALS APPROVED, http://www.ferc.gov/industries/gas/indus-act/lng/lng-approved.pdf (last visited Jan. 12, 2015).

93. Ebinger & Avarsarala, *supra* note 2 at 4.

94. H.R. 3760, 113th Cong. (2013).

95. *See id.*

96. *See* S. 2592, 113th Cong. § 108 (2013).

Article XI:1 GATT.[97] The same is true for non-automatic export licensing regimes which create uncertainties or affect investment plans by delaying the determinations as to whether a license is to be granted or not, as it is the case in the U.S. natural gas export licensing regime.[98] Moreover, this system differentiates the treatment of like natural gas exports depending on whether they are directed to FTA and non-FTA partners thus running counter to the most-favored nation ("MFN") principle under Article I:1 GATT.[99] The general exceptions recognized under Article XX GATT, finally, seem only partially of use, as the determinations of the 'national/public interest' by the BIS and the DoE do not respond to relevant public policy goals, such as, for example, the protection of public health or the conservation of natural resources, but rather take into account the impact of increased exports on the domestic oil/gas markets and prices.[100]

VI. TOWARDS AN E.U.-U.S. ENERGY SUPPLIES DEAL

In light of all the foregoing, the existing U.S. legislation restricting the exportation of crude oil and natural gas will likely be targeted by the European Union during the TTIP negotiations process. In its FTAs, the European Union has in fact traditionally concluded rules on export restrictions that contain at least the same prohibitions as those of the GATT. Very often, the European Union has aimed for the inclusion of WTO-plus obligations on export restrictions in its FTAs, mostly in the form of limited recourse to GATT exceptions available for Article XI:1 GATT-inconsistent measures. It has also negotiated WTO-plus obligations in the form of a general prohibition of export duties—admitted under Article XI:1 GATT—with several FTA partners.[101] Yet, in this respect it has frequently allowed for some forms of flexibility, either in the form of a progressive phasing out (as accepted by the European Union with countries such as Chile, Colombia and Peru, and South Korea for targeted products) or in the form of a product-specific exception (e.g. the agricultural products exception negotiated by the European Union with neighboring countries such as Albania, Bosnia, Croatia and Macedonia). However, this avenue would be pre-empted in the TTIP negotiations because the U.S. Constitution's Export Clause bars Congress from imposing export taxes in all circumstances.[102]

The practice of the European Union concerning the rules on export restrictions contained in its FTAs indicates that the European Union is likely to advocate a complete removal of export barriers in the E.U./U.S. bilateral trade relations along the lines of its fully liberalized export regime on energy

97. General Agreement on Tariffs and Trade art. XI(1), Oct. 30, 1947, 61 Stat. A-11, 55 U.N.T.S. 194 [hereinafter GATT].

98. *Domestic Prosperity and Global Freedom* Act, *supra* note 22 at 4.

99. GATT, *supra* note 97 at art. I(1).

100. *Id.*

101. *See* J. Korinek & J. Bartos, *Multilateralising Regionalism: Disciplines on Export Restrictions in Regional Trade Agreements*, (Org. for Econ. Co-Operation and Dev., Trade Policy Papers No. 139, 17, 2012), http://dx.doi.org/10.1787/5k962hf7hfnr-en.

102. U.S. Const., art. I, § 9; *See* E. M. Jensen, *The Export Clause*, 6 FLA. TAX REV. 1, 6-75 (2003).

resources.[103] It is, however, uncertain whether these E.U. initiatives will be supported by the United States. In a non-paper[104] on energy and raw materials, circulated by the European Union on May 27, 2014, it is noted that the United States has so far been hesitant to discuss a solution for U.S. export restrictions on crude oil and natural gas in the TTIP through binding legal commitments.[105] As will be discussed below, such reluctance by the United States can primarily be explained by its concerns that the increased energy exports would drive the domestic energy prices up, thereby putting its oil refineries, petrochemical and other energy-dependant industries and consumers at a competitive disadvantage. The document further reports that the United States has shown only limited openness towards considering energy-specific provisions on transport and transit as well as cooperation provisions on off-shore safety, and that a clear agreement to discuss a comprehensive chapter on energy and raw materials is still lacking.

It should also be noted that the negotiations of energy-specific rules on export restrictions is a major element of novelty for the European Union, whereas the United States already has the NAFTA model as a precedent. While the liberalisation of the U.S. energy export regime could immediately serve the energy security interests of the European Union, its consequences in the United States are much more mixed. As we shall see below, different categories of producers and consumers are going to be affected by the economic effects of a lift of export barriers on crude oil and natural gas. These various conflicting interests may serve at times as driving forces or inhibiting factors in the conclusion of a deal between the United States and the European Union on the treatment of energy export restrictions. External factors such as oil prices may further influence the outcome.

VII. DRIVING FORCES AND INHIBITING FACTORS FOR AN E.U.-U.S. ENERGY SUPPLIES DEAL

A. Geopolitical Situation and Global Oil Prices

The prospects of an energy trade agreement between the United States and the European Union are likely to be influenced by geopolitical developments. The current geopolitical tensions between the Russian Federation and Ukraine over the Ukrainian course toward the European integration poses the risk of energy blockade for the large territory of Eastern and Central Europe. When disagreeing on gas prices with Ukraine, Russia stopped supplies of gas through the Ukrainian

103. Council Regulation 1061/2009, Establishing Common Rules for Exports, 19 Oct. 2009 O.J. (L 291/1) repealed, among others, Article 10 of Regulation (EEC) No. 2603/69, as amended by Regulation (EEC) No. 1934/82 of 12 July 1982, and Regulation (EEC) No. 3918/91 of 19 December 1991. Under this Article, E.U. Member States could maintain under certain conditions export restrictions on petroleum oil products, oils obtained from bituminous material and other varieties of oil.

104. Non-papers are documents prepared by E.U. institutions with the aim to stimulate discussion on a particular sensitive issue to be decided in the future. Non-papers have no official status.

105. Simon McKeagney, *LEAKED: Proposal Reveals EU Pressure on US to Lift Ban on Crude Oil Exports—TTIP*, GREENS EUROPEAN FREE ALLIANCE (July 9, 2014), http://www.ttip2014.eu/blog-detail/blog/WP%20leak%20TTIP%20energy.html.

pipelines in the winter of 2008-2009.[106] This stoppage affected not only Ukraine, but also Bulgaria, Greece, Macedonia, Croatia, Romania and other Central European countries.[107] Taking into account the special needs of these countries for heating in winter, as well as the energy needs of their industries, the current situation presents a serious threat for the national security of Europe and pushes the European Union to diversify its energy supplies, particularly through supplies of LNG from the United States.

At the same time, energy supplies have long been a key determinant of the world politics.[108] The history of the Soviet Union presents a remarkable account of how energy resources influence the international position of a country. The economic growth and political power of the Soviet Union was based on its energy resources. The Soviet Union developed into a superpower in the 1960-1970s, when the world prices for oil were high; accordingly, the collapse of the Soviet economy and eventual breakdown of the Soviet Union in 1991 was accompanied by the drastic decrease in oil prices in the 1980s.[109] While the reason for the recent drop in oil prices from US$115 in June 2014 to US$50 in January 2015 is not entirely clear, the current geopolitical situation is most likely part of it.[110] Low oil prices could serve as a non-military tool to deter Russia from violating international law, inasmuch as the Russian economy heavily depends on oil and gas as the main sources of state revenues. In 2013, for instance, Russia needed an average of US$117 per barrel to balance its state budget, which has been considerably increased in the last years to finance social programs, the army and salaries for state employees.[111]

The dumping of oil prices might also be part of a strategy of leading energy exporters aimed at making the U.S. exports of LNG to the European Union and other countries economically unfeasible.[112] OPEC countries are not willing to lose their high shares in the E.U. and Asian energy markets to the U.S. shale oil and gas

106. Robert Lea, *Europe plunged into energy crisis as Russia cuts off gas supply via Ukraine*, DAILY MAIL (last updated Jan. 7, 2009), http://www.dailymail.co.uk/news/article-1106382/Europe-plunged-energy-crisis-Russia-cuts-gas-supply-Ukraine.html.

107. *Id.*

108. *See* BRUCE JONES ET AL., FUELING A NEW ORDER? THE NEW GEOPOLITICAL AND SECURITY CONSEQUENCES OF ENERGY 11 (2014), http://www.brookings.edu/~/media/research/files/papers/2014/04/14%20geopolitical%20security%20consequences%20energy%20jones/14%20geopolitical%20security%20energy%20jones%20steven_fixed.pdf.

109. *See* Gail Tverberg, *Oil Prices and the Fall of the Soviet Union*, OILPRICE.COM (Aug.11, 2011), http://oilprice.com/Energy/Oil-Prices/Oil-Prices-And-The-Fall-Of-The-Soviet-Union.html.

110. Anjli Raval & Neil Hume, *Oil Markets: A New Chapter for OPEC*, FINANCIAL TIMES (Nov. 24, 2014), http://www.ft.com/cms/s/0/64c2485e-70a4-11e4-8113-00144feabdc0.html#slide0. It should be noted, however, that the OPEC leaders persistently deny the geopolitical component of the sharp drop of oil prices stating that they "do not seek to politicize oil... it's purely business" and that oil prices fall because supply of oil exceeds demand.

111. Craig Mellow, *Drop in Crude Oil Prices Could Pressure Russia's Budget*, INSTITUTIONAL INVESTOR (Oct. 1, 2014), http://www.institutionalinvestor.com/article/3385857/banking-and-capital-markets-banking/drop-in-crude-oil-prices-could-pressure-russias-budget.html.

112. Raval & Hume, *supra* note 110 at 7.

over the next decade.[113] They are also interested in winning back their U.S. market shares, where the profitability of drilling is undermined with prices below US$80 per barrel.[114]

Irrespective of the reason behind the plunge of oil prices, the current level of prices and the refusal of OPEC countries to cut the production to bring the prices up may influence the outcome of E.U.-U.S. negotiations on U.S. energy exports to the European Union. How big the impact will be depends on how low the oil prices fall. Experts argue that the U.S. shale oil production growth is robust in the face of low oil prices and that U.S. rigs will only stop drilling if prices fall below a level of US$30 per barrel and only after some time.[115] Moreover, a recent study shows that lower oil prices may speed up the decision of the U.S. government to lift its crude oil export ban, as "there will be increasing pressures, and an increased national interest, in allowing exports of larger volumes of condensate and even of light tight oil" for which the refinery facilities in the United States are limited, while importing heavy crude oil at lower prices.[116]

In conclusion, the geopolitical situation is currently conducive to launching supplies of U.S. LNG to Europe, while the impact of falling oil prices is not straightforward and will depend on the persistence of low prices and the ability of markets to adjust.

B. Infrastructural Problems

Due to the peculiarities of sectorial energy infrastructure, the removal of existing U.S. export barriers on crude oil and natural gas could either be beneficial for both the European Union and the United States or rather constitute an obstacle to the conclusion of an energy deal between the U.S. and the E.U.

With respect to crude oil, the case for lifting the U.S. ban lies in the current location and configuration of U.S. refineries. Prior to the shale oil boom, U.S. oil companies invested massively in world-class refineries located in the Gulf of Mexico (so-called PADD III) that can process heavy, higher sulphur (i.e. sour) crude coming from the Middle East and Venezuela.[117] Since the U.S. shale oil revolution in 2008, however, the shale formations in North Dakota, Texas, New Mexico, and other midcontinent formations are producing lighter and low-sulfur (i.e. sweet) crude.[118] The existing U.S. refining capacity configured to process

113. ENERGY 2020, *supra* note 57, at 31, 52.

114. Andrew Critchlow, *US Oil Production Surge to Break Saudi Arabia's Grip on World Energy*, TELEGRAPH (Nov. 9, 2014), http://www.telegraph.co.uk/finance/newsbysector/energy/oilandgas/11215412/US-oil-production-surge-to-break-Saudi-Arabias-grip-on-world-energy.html.

115. Patti Domm, *OPEC Won't Stop US Oil Production Growth*, CNBC (Dec. 3, 2014, 6:31 PM), http://www.cnbc.com/id/102234051 (Fadel Gheit, senior energy analyst at Oppenheimer discusses U.S. shale production).

116. ENERGY 2020, *supra* note 57 at 86.

117. Houser & Mohan, *supra* note 1. PADD III refineries account for half of the total refining capacity of the United States.

118. *Id.*

sour crudes can only partially process sweet crudes. As a result, local oversupply situations have arisen and light crudes have been under-priced compared to internationally-traded heavier crudes.[119] Because of this mismatch between domestic prices and global light oil prices, the U.S. oil industry would gain from exporting light crudes to refineries located elsewhere, while still importing heavy crudes and thus capitalizing the investments made in the Gulf of Mexico. This is even more so considering the nosedive turn of global oil prices at which U.S. oil refineries could import heavy crudes.[120]

In the case of natural gas, the terms of the debate are more mixed. On the one hand, the surge in natural gas production imposes a redesigning of existing U.S. natural gas infrastructure because it occurs in areas of the country where no production had taken place in the past (e.g. Pennsylvania).[121] The U.S. Congress has recently passed the Natural Gas Pipeline Permitting Reform Act with the aim to expedite the federal approval for interstate natural gas pipelines.[122] However, the long-term paybacks of such investments combined with the fact that it may not always be economical to construct such pipelines[123] may still prevent the additional production from being adequately transported and consumed in the domestic territory, leading to areas of local oversupply and thus lower prices and areas of higher prices.[124] Moreover, long-term investments and planning would also be needed in the United States to accelerate structural changes in sectors, such as transportation or electricity, which have not traditionally relied on natural gas in the United States.[125] In principle, exports could thus provide an alternative avenue for U.S. natural gas, which will help to avoid domestic oversupply and low prices and will stimulate shale gas production benefitting from higher prices in the international market.

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119. *Id.* Although there are projects to expand existing midcontinent refineries and also build new ones, the envisaged additional refining capacity would still remain largely insufficient to cover the expansion of light oil production in that area of the country.

120. *See id.*

121. TIM BOERSMA & CHARLES K. EBINGER, NATURAL GAS BRIEFING DOCUMENT NO. 3: DEBATES RELATED TO NATURAL GAS INFRASTRUCTURE: INVESTMENTS AND EMISSIONS 3 (2013), http://www.brookings.edu/~/media/research/files/reports/2014/natural-gas-infrastructure-investments-emissions/debates-natural-gas-infrastructure-investments-emissions-boersma-ebinger.pdf.

122. Natural Gas Pipeline Permitting Reform Act, H.R. 1900, 113th Cong. (2013).

123. This is the case, for instance, of New England. Based on the configuration of existing natural gas pipelines, New England is not well-served, leading to higher prices of natural gas in that part of the country. However, the problem of higher prices may not likely be solved through the construction of new pipelines because it mainly relates to winter times, when demand for natural gas peaks. Companies may therefore not be keen to construct a pipeline just for facilitating this period of peak demand. NATURAL GAS BRIEFING DOCUMENT NO. 3, *supra* note 121 at 3.

124. Another important issue is whether, in case exports of natural gas from the United States continue to be restricted, domestic shale gas prices in areas of surged production would allow for the full recovery of costs and a reasonable profit. THOMAS L. BREWER, THE SHALE GAS REVOLUTION: IMPLICATIONS FOR SUSTAINABLE DEVELOPMENT AND INTERNATIONAL TRADE 2, 7, 15, 21 (2014), http://www.ictsd.org/downloads/2014/03/the-shale-gas-revolution-implications-for-sustainable-development-and-international-trade.pdf.

125. *Id.* at 4-6.

However, the exportation of LNG to Europe would also require additional investments on the part of both the United States and the European Union in export and import LGN terminals respectively (i.e. additional U.S. liquefaction terminals and additional E.U. regasification terminals). Investing in such facilities could represent a means for the European Union to strengthen its bargaining position with the Russian Federation in view of renegotiating existing contracts and lowering prices.[126] Realistically, building the missing regasification facilities in Europe for the purpose of intensifying E.U.-U.S. LNG flows would require some three to five years. It could thus potentially not be of use for solving the energy security problem in the short-term. Moreover, the uncertainties surrounding the medium to long-term productivity of shale rock formations may disincentivize companies to invest in such an operation, as it would require massive capital injections against long-term payback revenues.[127]

C. Political Economy Interests

The discussions concerning the possible removal of the U.S. export barriers on crude oil and natural gas has fuelled the domestic debate over the potential winners and losers in the United States and around the world—especially in the European Union. In the United States, the immediate beneficiaries of the crude oil ban and the stringent licensing regime imposed on natural gas exports have been the downstream processing producers, which have enjoyed abundant energy supply at a relatively cheap price. The U.S. energy "renaissance" triggered by the shale revolution has, however, led to a boom in domestic production, which in turn translated into a wide disconnect between international and domestic crude prices due to the export restrictions in place.[128] The question is now whether allowing U.S. exports into (at least) the E.U. market could bring benefits, in terms of production and economic growth, capable of outweighing the negative impacts expected to affect some economic players.

In the case of oil, analysts seem to agree that the export ban has so far brought advantages to midcontinent refineries, which have benefited from local oversupply of tight oil. The price of refined petroleum products such as gasoline, however, has not decreased for consumers as a result of the export restrictions in place.[129] Moreover, it is generally considered that the current export restrictions, by

126. *See* JASON BORDOFF &TREVOR HOUSER, AMERICAN GAS TO THE RESCUE? THE IMPACT OF US LNG EXPORTS ON EUROPEAN SECURITY AND RUSSIAN FOREIGN POLICY 3 (2014), http://energypolicy.columbia.edu/sites/default/files/energy/CGEP_American%20Gas%20to%20the%20Rescue%3F.pdf.

127. NATURAL GAS BRIEFING DOCUMENT NO. 3, *supra* note 121 at 2-3.

128. This effect was also amplified by the infrastructural gaps experienced by the U.S. oil and gas industry after the explosion of shale oil and gas production. *See* Houser & Mohan, *supra* note 1. *See supra* Section V(B).

129. Houser & Mohan, *supra* note 1. Yet, the gasoline prices have fallen sharply in the last few months in the United States, following the collapse of oil prices in the international market. Henning Gloystein, *Oil Prices Fall to Six-Year Low on Supply Glut*, BUS. INSIDER (Jan. 14, 2015), http://businesstoday.intoday.in/story/oil-prices-brent-crude-extends-loss-on-supply-glut-jan-14/1/214565.html.

preventing a realigning of domestic U.S. oil prices and global oil prices, would ultimately dampen U.S. shale oil production.[130] By contrast, macroeconomic analyses and projections show that allowing U.S. exports of crude oil would be beneficial for the U.S. economy as a whole, as it would incentivize crude production, increase new investments in the expansion of U.S. energy infrastructure, and boost income, domestic employment and taxes along the production chain.[131] Furthermore, while the domestic prices are expected to rise only to a limited extent,[132] gasoline prices are projected to decrease following the lifting of the ban due to the effects of an expansion of global crude supply to the benefit of both American and European consumers.[133]

Similarly, in the case of natural gas, opponents to the removal of export restrictions are mostly a nucleus of dominant industrial consumers of natural gas (e.g. Dow Chemical and the Industrial Energy Consumers of America, who fear to lose the competitive advantage arising from the provision of low-cost supply of natural gas).[134] However, not only the increase in natural gas prices domestically is projected to be marginal and inconsequential on domestic manufacturing,[135] but also the effects associated with the removal of export barriers on U.S. natural gas are generally considered to be beneficial when assessed from a macroeconomic perspective, due to the positive impacts of increased domestic gas production on infrastructure investments (e.g. liquefaction plants, pipelines, etc.) and domestic employment.[136] Ultimately, the case for lifting U.S. export barriers on crude oil and gas will very much depend on how well organized the winners and losers fronts would be.

D. Environmental Concerns

The energy-related initiatives of the European Union, especially those regarding export restrictions, provoked strong criticism on the part of non-governmental organizations (NGOs) and green parties on both sides of the Atlantic. In a critical report, Earthjustice highlighted the dangers of the E.U. proposal on energy, arguing that it would expand fossil fuel exploration, while

130. *See* Blake Clayton, *Policy Innovation Memorandum No. 34: The Case for Allowing U.S. Crude Oil Exports*, COUNCIL ON FOREIGN REL. (July 8, 2013), http://www.cfr.org/oil/case-allowing-us-crude-oil-exports/p31005.

131. Boersma & Ebinger, *supra* note 53.

132. *Id.*

133. U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-14-807, CHANGING CRUDE OIL MARKETS: ALLOWING EXPORTS COULD REDUCE CONSUMER FUEL PRICES AND THE SIZE OF THE STRATEGIC RESERVES SHOULD BE REEXAMINED 11-15 (2014), http://www.gao.gov/assets/670/666274.pdf.

134. Ebinger & Avarsarala, *supra* note 2, at 3.

135. Charles Ebinger, Director of the Energy Sec. Initiative, Booking Institute Panel on Liquid Markets: Assessing the Case for Liquefied Natural Gas Exports from the United States, at 19 (May 2, 2012), http://www.brookings.edu/~/media/events/2012/5/02%20lng%20exports/20120502_lng_exports.pdf.

136. NERA ECONOMIC CONSULTING, MACROECONOMIC IMPACTS OF LNG EXPORTS FROM THE UNITED STATES 16 (2012), http://energy.gov/sites/prod/files/2013/04/f0/nera_lng_report.pdf.

restricting investment in renewable energy.[137] The NGO is particularly concerned about a likely increase in the U.S. production of shale gas and oil, which is associated with environmental risks because of the use of hydraulic fracturing.[138] A growing sense of unease is also being felt with respect to the proposed competition rules in the energy sector.[139] The fear is that competition rules for energy trade might hamper the promotion of renewable energy in the European Union, as such rules could impose constraints on national policies supporting renewable energy producers.[140] Moreover, applying the principle of "freedom of transit" to energy transport via pipelines and transmission grids may limit the ability to regulate the environment and prevent climate change.[141]

Although concerns regarding the threats to the promotion of renewable energy may be warranted and need thorough examination, the advantages of natural gas over coal for the abatement of emissions, particularly in the short and medium term, should also be considered. It needs to be examined to what extent the U.S. imports of natural gas into the European Union may replace the consumption of coal, which, if combusted without carbon capture and storage facilities, is more carbon-intensive than gas, even if the latter is delivered to consumers in a liquefied form.[142] At the same time, it should also be examined to what extent the declining consumption of coal in the United States, and thus the reduction of domestic carbon emissions would be offset by carbon emissions derived from increasing consumption of coal imported from the United States abroad.[143] The situation however can be different if the United States becomes a leading exporter of natural gas too. While the U.S. shale revolution has so far led to increased coal imports into the European Union, replacing the import of coal by natural gas from the United States could lead to the reduction in the E.U. levels of carbon emissions.[144]

VIII. CONCLUSIONS

TTIP negotiations present an opportunity to negotiate a legal framework for bilateral trade in energy, which could serve as a model for future negotiations at a multilateral level. A key interest of the European Union in the energy negotiations with the United States is the removal of U.S. export barriers for crude oil and

137. EARTHJUSTICE, TRADE IN ENERGY IN THE TRANSATLANTIC TRADE AND INVESTMENT PARTNERSHIP: AN ANALYSIS OF THE EU "NON-PAPER" ON RAW MATERIALS AND ENERGY 18-19 (2014), http://action.sierraclub.org/site/DocServer/Analysis_of_EU_Energy_Proposal_for_TTIP_14-05-19_FINAL__.pdf?docID=15741.

138. *Id.* at 11-19.

139. Carter & Sheppard, *supra* note 13.

140. *Id.*

141. EARTHJUSTICE, *supra* note 138, at 19.

142. *See Joint Research Ctr. Ref. Report: Liquefied Natural Gas for Europe—Some Important Issues for Consideration*, at 3, EN 23818 (2009), http://iet.jrc.ec.europa.eu/sites/default/files/documents/scientific_publications/2009/eur_23818_en.pdf.

143. BREWER, *supra* note 124, at 13-14.

144. *Factsheet on Energy and Raw Materials in TTIP*, at 2 (Jan. 2015), http://trade.ec.europa.eu/doclib/docs/2015/january/tradoc_153015.2%20Energy%20and%20raw%20materials.pdf.

natural gas, which would enable it to diversify its energy sources in light of the uncertainties surrounding the Russia-Ukraine conflict. While the European Union is evidently a *demandeur* in this respect, the liberalisation of the U.S. energy export regime and the increase in external trade in shale oil and gas would generally be beneficial also for the United States when assessed from a macroeconomic perspective.

Yet, the conclusion of a shale deal between the European Union and the United States will ultimately depend on the interplay of different factors, including geopolitics and oil price dynamics, existing infrastructural deficiencies, political economy interests and environmental concerns. The recent geopolitical developments in Eastern Europe seem to be conducive to the opening of U.S. shale supplies to Europe. Uncertainties however exist as to the medium- and long-term behaviour of oil prices. Furthermore, the lifting of export restrictions could in principle mitigate the imbalances produced in the U.S. domestic oil and gas markets due to inadequacy of existing U.S. infrastructure. In particular, allowing U.S. exports would correct the mismatch between domestic prices and world prices to the benefit of U.S. producers, while at the same time making consumers in the United States and around the world better off due to the expected decrease in global oil prices. The intensification of E.U.-U.S. trade will, however, require considerable investment in infrastructure on both sides. Moreover, a shale deal between the European Union and the United States will need to take into account environmental concerns over fracking technologies and possible negative effects on carbon emissions.

Finally, independently from the outcomes of E.U.-U.S. specific negotiations on energy, the conclusion of TTIP would itself represent a first step towards the liberalisation of the U.S. energy export regime. The European Union will benefit from its status of FTA partner enabling U.S. producers to export natural gas through the automatic granting of an export licence. More liberalized trade under the TTIP in general would likely pave the way for relaxing the U.S. energy export restrictions in the future.