

**Energy Trade as a Special Sector in the WTO:
Unique Features, Unprecedented Challenges and Unresolved Issues**

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ABSTRACT

WTO law governs and regulates trade relationships among WTO members. Within the scope of the WTO, energy trade is one of the most significant trade sectors, as it constitutes the largest primary commodity of global trade in terms of volume and value. For decades, the energy trade sector has been treated as a special case because of the unique features attached to the energy sector in general and energy trade in particular. This special treatment should continue due to a combination of crucial factors: firstly, the uniqueness and importance of energy; secondly, the unprecedented challenges and concerns that confront global energy industries in general and energy trade in particular; and thirdly, certain legal debates and unresolved issues that emerge from the intersection between WTO law and energy trade. This article aims to examine the various factors that distinguish energy trade from other trade sectors, highlighting those significant factors and analyzing in depth their components.

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ABSTRACT

WTO law governs and regulates trade relationships among WTO members. Within the scope of the WTO, energy trade is one of the most significant trade sectors, as it constitutes the largest primary commodity of global trade in terms of volume and value. For decades, the energy trade sector has been treated as a special case because of the unique features attached to the energy sector in general and energy trade in particular. This special treatment should continue due to a combination of crucial factors: firstly, the uniqueness and importance of energy; secondly, the unprecedented challenges and concerns that confront global energy industries in general and energy trade in particular; and thirdly, certain legal debates and unresolved issues that emerge from the intersection between WTO law and energy trade. This article aims to examine the various factors that distinguish energy trade from other trade sectors, highlighting those significant factors and analyzing in depth their components.

I. Introduction

For decades, trade in energy has been treated as a special case of international trade, different from other trade sectors and products. In fact, it is safe to consider the energy trade sector as one of the most—actually *the* most—significant trade sectors for a variety of reasons, including its unique characteristics and the unprecedented challenges confronting it. Moreover, the ongoing debate over the applicability/inapplicability of the General Agreement on Tariffs and Trade (GATT)/World Trade Organization (WTO) disciplines to trade in energy further sets this sector apart. One school of thought believes that international trade in energy is included in and is subject to GATT/WTO disciplines. It holds that international trade in energy is governed by WTO law, like any other trade in goods or services, and that it is not excluded from the coverage of GATT/WTO law. The other school of thought holds that a combination of factors has led, *de facto*, to the exclusion of energy trade from the scope of GATT/WTO disciplines. To support their arguments and arrive at their conclusions, both schools of thought have examined the creation of the GATT, its founding members, the various multilateral trade negotiations, the purposes and objectives behind the GATT, the GATT rounds of multilateral trade negotiations, the Uruguay Round and the establishment of the WTO, and even aspects of the Doha Round of multilateral trade negotiations.

This article argues that, although trade in energy in general and trade in petroleum in particular were not clearly and directly included in any of the GATT provisions, according to GATT history, the contracting parties discussed energy-related matters during various rounds of GATT negotiations and, therefore, the presumption is that GATT/WTO disciplines apply to trade in energy. Had parties to the GATT not wanted energy in the trade agenda, they would have expressly mentioned so. It is therefore presumed that, since trade in energy was not expressly excluded from the GATT provisions, the GATT/WTO system applies to trade in energy. After this short introduction, Section II presents an overview of the international trade system and the reasons why trade in energy has been treated differently

from other trade sectors and products, while Section III analyzes the special characteristics of energy. Section IV presents the challenges in global energy trade, while Section V analyzes the link between WTO law and energy trade. It provides a chronological evolution of international trade in energy, starting with the International Trade Organization (ITO) (which eventually did not come into being) and the GATT creation in 1947, the various rounds of GATT negotiations, the subsequent accession of energy exporting countries to the GATT, the WTO era and energy trade, and the accession of energy-rich countries to the world trading system since 1995, all of which with a view to determine whether GATT/WTO law applies to trade in energy. It further discusses certain unresolved energy trade issues. Section VI concludes the article with the view that trade in energy is governed by, and subject to, the GATT/WTO umbrella.

II. The International Trade System

It is important to review the main characteristics of the multilateral trade system before addressing the main issue of this article.

1. The General Agreement on Tariffs and Trade (GATT)

In the aftermath of the World War II in 1947, 23 countries negotiated a multilateral agreement for tariff reductions.¹ The outcome of this negotiation was the genesis of the General Agreement on Tariffs and Trade (GATT).² The GATT entered into operation in January 1948 on a provisional basis.³ The GATT was enacted during the aftermath of World

¹ See B. Hoekman, P. Mavroidis, *The World Trade Organization, Law, Economics and politics*, (2007) at p. 8; B. Hoekman, M. Kostecki, *The Political Economy of the World Trading System*, (Oxford: Oxford University Press, 2011) at p. 47.

² See the General Agreement on Trade and Tariffs General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat. A-11, T.I.A.S. 1700, 55 U.N.T.S. 194.

³ See John Jackson, William J. Davey, Alan O. Sykes, *Legal problems of international economic relations: cases, materials and text on the national and international regulation of transnational economic relations*, (5th ed. 2008) [hereinafter Jackson] at p. 219 (explaining that some countries required parliamentary ratifications in order to apply some articles of the GATT and therefore, in late 1947, signed the Protocol of Provisional Application (PPA), which came into force on January 1, 1948. Under the PPA, the signatories applied the

War II, in 1947.⁴ It came into operation as an international treaty that contained a series of over 200 agreements, protocols and other documents. It dealt almost entirely with trade in products.⁵ Although intended to be an agreement to organize international trade in goods, the GATT has been the central international multilateral trade treaty and operated as an organization since its creation.⁶ The GATT's establishment sought to achieve several purposes, one of the most essential purposes of which was to improve worldwide economic growth and to free and liberalize global trade.⁷ These goals were assumed to be achieved by disallowing governments from imposing or continuing a variety of measures which restrain or distort international trade, such as tariffs, quotas, internal taxes and regulations.⁸

The GATT contains significant basic provisions that regulate international trade with respect to government actions: the "Tariff Schedules" provision, where each country commits to limiting its tariffs to a negotiated level on particular items⁹; the "non-discrimination obligation" principle, which includes (1) the "Most-Favored-Nation" clause, which imposes on a country the duty to provide equal treatment to all the countries it imports from,¹⁰ and (2) the "National Treatment" clause, which rules that imported goods shall be treated no worse than domestically produced goods¹¹; and the "prohibition on quotas" principle, which prohibits quantitative restrictions on import and export of goods.¹² In addition to these substantive provisions, the GATT includes a number of general and

GATT as a provisional treaty to operate under the umbrella of the International Trade Organization, which was never established).

⁴ See Jackson at p. 219.

⁵ See Jackson at p. 215, 222.

⁶ Id.; John H. Jackson, 'The WTO 'Constitution' and Proposed Reforms: Seven 'Mantras' Revisited', 4 *J. Int'l Econ. L.* 67, 68 (2001) (explaining that a primary objective of the GATT founders in the aftermath of World War II was to avoid another war by reducing the economic conditions that were seen as evocative of conflict).

⁷ See Jackson at p. 217-221 (noting there was no intention to make the GATT the principal international trade organization when the original idea was to create an International Trade Organization (ITO). However, the U.S. could not get congressional approval for the ITO (Havana) Charter. This meant the death of the ITO, and the GATT became the default central organization for coordinating national policies on international trade).

⁸ Id. at p. 215.

⁹ Id. at p. 222; Article II of the GATT.

¹⁰ Article I of the GATT; Jackson at p. 222.

¹¹ Article III of the GATT; Jackson at p. 222.

¹² Article XI:1 of the GATT; Jackson at p. 222.

particular exceptions.¹³

Although the establishment and operation of the GATT were meant to govern and promote international trade matters, the GATT faced a variety of problems that constituted substantial impediments for its operation and the fulfillment of its objectives.¹⁴ One of these major problems related to the use of the GATT in resolving disputes between its contracting parties.¹⁵ It is important to note that the GATT Panels' decisions were not binding and were adopted by a "consensus" approach, which limited the efficiency of resolving disputes between contracting parties.¹⁶

2. The World Trade Organization (WTO)

The WTO was established in 1994 by the Marrakesh Agreement and replaced the GATT in January 1995.¹⁷ The Uruguay Round results led to the creation of the WTO as a developed international organization and treaty structure, which includes almost 30 legal agreements and supplementary decisions. All its members become subject to all of the annexed agreements as a single package, except the plurilateral agreements.¹⁸ Currently, the WTO has 160 Member States, which are subject to the WTO rules and agreements in their direct and indirect international trade conducts. The WTO was founded as an improved successor of the GATT, and it was intended to be a very developed system for facilitating and unifying international trade, with the aim of eliminating protectionism and promoting free and globalized trade.¹⁹ Notably, the structure of the WTO distinguishes it as an international organization with legal personality. The WTO agreements encompass several annexes,²⁰

¹³ See Jackson at p. 216.

¹⁴ Id. at p. 220-221.

¹⁵ Id. at p. 220-222.

¹⁶ Id.

¹⁷ See Marrakesh Agreement Establishing the World Trade Organization, Apr. 15, 1994, 1867 U.N.T.S. 154, 33 I.L.M. 1144.

¹⁸ See Jackson at p. 217.

¹⁹ Id.

²⁰ Id. at p. 226-227 (describing the agreements that are included in the WTO agreements: Annex 1A the General Agreement on Tariffs and Trade 1994; Annex 1B, the General Agreement on Services; Annex 1C, the agreement

including Annex 1A that consists of GATT 1994.²¹ This Annex is substantively the same as GATT (1947) with a number of understandings on how the GATT should be interpreted.²²

Moreover, multilateral agreements within the WTO stipulate that Member States manage their trade in accordance with the main operative provisions of the GATT with respect to the use of non-discriminatory measures such as the Most Favored Nation clause²³ and the National Treatment clause.²⁴ The WTO also discourages quantitative prohibitions or restrictions on imports or exports of products through the General Elimination of Quantitative Restrictions provision.²⁵ Further, it promotes competition by encouraging the reciprocal reduction and elimination of tariffs and trade barriers.²⁶ In addition to these intrinsic obligations, WTO agreements contain many transparency and notification requirements.²⁷ The result has been a successful lowering of tariffs and reduction of quotas,

on Trade-Related Aspects of Intellectual Property (TRIPS); Annex 2, the Dispute Settlement Understanding (DSU); Annex 3, the Trade Policy Review Mechanism (TPRM); Annex 4 contains the four agreements which are "optional," termed "plurilateral agreements").

²¹ See General Agreement on Tariffs and Trade 1994, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, THE LEGAL TEXTS: THE RESULTS OF THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS 17 (1999), 1867 U.N.T.S. 187, 33 I.L.M. 1153 (1994) [hereinafter GATT 1994]

²² See Jackson at p. 216.

²³ Article I of the GATT; Jackson at p. 475.

²⁴ Article III of the GATT; Jackson at p. 540.

²⁵ Article XI of the GATT; Jackson at p. 423-24.

²⁶ In spite of these rules and provisions, some domestic environmental policies could, either directly or indirectly, discriminate against imports from other WTO Members, or may somehow result in quantitative restrictions. The following are examples of measures that have (at least *prima facie*) been at odds with the above mentioned GATT provisions: applying a minimum-size requirement to imports of lobsters (*United States – Prohibition of Imports of Tuna and Tuna Products from Canada*, GATT Panel Report, adopted 22 February 1982, BISD 29S/91.); embargoing imports of tuna not caught in a way that minimizes the risk to dolphins (*United States—Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/AB/R (May 16, 2012)); taxing sales of vehicles not in compliance with mandated fuel economy standards (*United States—Imposition of Import Duties on Automobiles from Japan under Sections 301 and 304 of the Trade Act of 1974*, WT/DS6); composition standards for conventional and reformulated gasoline (*United States—Standards for Reformulated and Conventional Gasoline*, WT/DS2/AB/R.); placing an embargo on imports of shrimp that were not captured using technology that minimizes harm to turtles (*United States—Anti-Dumping Measures on Shrimp and Diamond Sawblades from China*, WT/DS422); imposing export restraints on a number of raw materials (*China – Measures Related to the Exportation of Various Raw Materials*, WT/DS394/AB/R, WT/DS395/AB/R, WT/DS398/AB/R (Feb. 22, 2012)).

²⁷ See e.g., Article X of the GATT; Article III of the GATS; Article 63 of the TRIPs; Article 2 and 10 of the Agreement on Technical Barriers to Trade (TBT); Article 7 of the Agreement on the Application of Sanitary and

which has paved the way for focusing on other, less apparent blocks, including environmental health and safety (EHS) regulation, that hinders trade and may constitute a type of protectionism. Developing countries in particular have expressed concern that EHS regulations on the part of developed countries may be a cover for protectionist measures against their products, or a means by which to impose tougher environmental standards on them in a form of “eco-imperialism”.²⁸

In addition, it should be emphasized that the WTO has the most powerful intergovernmental dispute resolution mechanism of any international agreement.²⁹ In joining the WTO, Member States are held to the prescribed procedures and subject to mandatory jurisdiction, pursuant to the terms of the Dispute Settlement Understanding (the DSU).³⁰ The DSU is ‘obligatory on all members’ and comprises (for the first time) a ‘unitary dispute settlement mechanism covering all the agreements listed in Annex 1’ of the Marrakesh Agreement establishing the WTO.³¹

The DSU is one of the most important new features of the WTO. It established a system of review and procedures for situations such as a WTO member complaining that the actions or policies of another member have harmed it through a violation of WTO rules. Typically, a complaint would be followed by consultations, possible arbitration, the formation of a panel

Phyto sanitary measures (SPS); J. Ya QIN, “‘WTO-Plus’ Obligations and Their Implications for the World Trade Organization Legal System: An Appraisal of the China Accession Protocol, 37(3) *Journal of World Trade*, 483-522 (2003) at p. 491.

²⁸ See Cheyne, I. ‘The Precautionary Principle in EC and WTO Law: Searching For a Common Understanding’ *Env. L. Rev.* 8(4), 257-277 (2006); Gonzalez, C.G. ‘Beyond Eco-Imperialism: An Environmental Justice Critique of Free Trade’ *Denver University Law Review* 78(4), 979-1016 (2001); Lal, D. ‘Eco-Fundamentalism’ *International Affairs* 71(3), 515-528 (1995).

²⁹ See Keohane, R.O., Moravcsik, A. and Slaughter A. ‘Legalized Dispute Resolution: Interstate and Transnational’ *International Organization* 54, 457-488 (2000); Sutherland Report, “The Future of the WTO: Addressing Institutional Challenges in the New Millennium,” (2004), pp. 49-59; Ali, A. ‘Non-Compliance and Ultimate Remedies Under the WTO Dispute Settlement System’ *Jour. Pub. Int’l Affairs* (2003); Leal-Arcas, R. ‘Comparative Analysis between NAFTA’s Chapter 20 and the WTO’s Dispute Settlement Understanding,’ *Transnational Dispute Management*, Vol. 8, Issue 3, pp. 1-25, 2011.

³⁰ See Understanding on Rules and Procedures Governing the Settlement of Disputes, Marrakesh Agreement Establishing the World Trade Organization, Annex 2, THE LEGAL TEXTS: THE RESULTS OF THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS 354 (1999), 1869 U.N.T.S. 401, 33 I.L.M. 1226 (1994) [hereinafter DSU].

³¹ Annex 1A (GATT 1994), Annex 1B (GATS), and Annex 1C (TRIPS); Jackson, at p. 227.

of experts, and the Panel ruling. If the decision of the Panel is not appealed, it becomes binding after being adopted by the Dispute Settlement Body (DSB), which is a WTO body that rules on dispute settlement cases under the DSU.³² If the decision of the Panel is appealed, then the Appellate Body hears the appeal and its final decision becomes a binding decision, after being adopted by the DSB.³³ The WTO's system of settling disputes provides for specific deadlines, and is therefore quicker than the old GATT system. Its functioning is more automatic, which entails fewer obstacles compared to the GATT system. The rules concerning the establishment of the findings process are more detailed than they were under the GATT system. Panel reports and Appellate Body rulings can be overturned only by a unanimous vote of the Dispute Settlement Body (DSB). The DSB consists of all members of the WTO General Council, that is to say, all WTO Members' representatives in Geneva, who oversee the operation of all of the constituent WTO Agreements in general. The DSB rules on actions taken under the DSU.³⁴

Only States may raise complaints under the DSU.³⁵ When a WTO Member State brings a complaint against another WTO Member State, they must submit their dispute to a period of consultation "with a view to reaching a mutually satisfactory solution."³⁶ If no agreement

³² Articles 16-17 DSU.

³³ *Id.* The *raison d'être* of the WTO's dispute resolution is to reduce disruptions to fair trade as far as possible. In this respect, if a party's complaint is successful, recommendations of the Panel or Appellate Body will incline towards removing trade barriers and bringing "a measure into conformity with the covered agreements," as opposed to payment of restitution or compensation (Article 22.1 DSU). The DSU provides detailed procedures regarding the implementation of rulings and recommendations once they have been adopted by the DSB, and the supervision of this implementation by the DSB (Article 21 DSU). Compliance with recommendations should occur within a "reasonable period of time," (Article 21.3 DSU) which shall not exceed 18 months, "unless the parties to the dispute agree that there are exceptional circumstances" (Article 21.4 DSU). In the case that a party does not comply within a satisfactory period, "compensation and the suspension of concessions or other obligations are temporary measures available" (Article 22.1 DSU). A suspension of concessions essentially allows the prevailing party to impose tariffs against the non-complying party, equal to the economic loss that is being suffered by the winning country due to the ongoing breach of obligations under the WTO (Article 22, DSU). Such tariffs would normally be impermissible under the GATT.

³⁴ See Leal-Arcas, R. *Theory and Practice of EC External Trade Law and Policy*, (London: Cameron May, 2008), at p. 418.

³⁵ Article 1.1 DSU.

³⁶ Article 4.3 DSU.

is reached “within 60 days after the date of receipt of the request for consultations,”³⁷ the complaining State may request that the Dispute Settlement Body (DSB) (comprised of all the WTO Member States) form a Panel to hear the dispute.³⁸ The DSB has “the authority to establish panels”³⁹ to hear particular disputes, and to make recommendations for adoption by the DSB.⁴⁰ Either side of the dispute can appeal a panel’s ruling to the Appellate Body (AB),⁴¹ which is a permanent standing body composed of seven persons, “three of whom shall serve on any one case,”⁴² appointed by the DSB for four-year terms.⁴³ A dispute settlement recommendation to the DSB automatically becomes effective,⁴⁴ and the ruling of the Panel becomes legally effective, unless the DSB “decides by consensus not to adopt the report.”⁴⁵ The same procedure applies to the adoption of an AB report, which the parties must unconditionally accept, “unless the DSB decides by consensus not to adopt the Appellate Body report.”⁴⁶

3. International Trade in Energy

The presumption is that trade liberalization will increase economic activity and therefore energy consumption.⁴⁷ All countries require energy resources, but few possess these, and thus trade in energy (primarily oil) is crucial to fulfil global energy needs.⁴⁸ Internationally, there is more trade in oil than in anything else. “Fully half of world trade in services is intensely

³⁷ Article 4.7 DSU.

³⁸ Article 6 DSU.

³⁹ Article 2.1 DSU.

⁴⁰ Article 16 DSU.

⁴¹ Article 17.1 DSU.

⁴² *Id.*

⁴³ Article 17.2 DSU.

⁴⁴ Under pre-WTO dispute settlement procedures for GATT disputes, a recommendation did not become effective unless positively adopted by consensus of all GATT Parties.

⁴⁵ Article 16.4 DSU.

⁴⁶ Article 17.14 DSU.

⁴⁷ See for example ICTSD, “Linking Trade, Climate Change and Energy,” ICTSD, Geneva, 2006.

⁴⁸ Pauwelyn, J. “Global Challenges at the Intersection of Trade, Energy and the Environment: An Introduction,” in Pauwelyn, J. (ed.) *Global Challenges at the Intersection of Trade, Energy and the Environment*, Geneva: Centre for Trade and Economic Integration, 2010, p. 3.

energy-dependent.”⁴⁹ Yet, the GATT/WTO has historically not preoccupied itself with energy trade. Very few energy-rich countries saw a need to join the GATT/WTO club, given that the reduction of import restrictions—one of the main goals of the multilateral trading system—is not an issue when it comes to energy. Saudi Arabia, the main energy-producing country in the world, only joined the WTO in 2005 and many energy-producing countries are still not WTO Members.⁵⁰

All forms of energy should be subject to the same rules. Energy may become part of the WTO agenda in the near future.⁵¹ Given that current WTO rules are far from addressing all the needs of energy trade today, is it necessary to have a WTO Agreement on trade in energy?⁵² If so, can and should the Energy Charter Treaty be used as a model? Moreover, since Russia finally joined the WTO on its own in 2012⁵³ (and not as a customs union along with Belarus and Kazakhstan⁵⁴) and since energy is one of its greatest assets in economic terms, would this be the right time to include energy trade as part of the WTO Agreements? Those energy-rich Middle Eastern countries that are not yet WTO Members, but wish to

⁴⁹ Gault, J. “A World of Introduction from the Energy Industry Perspective,” in Pauwelyn, J. (ed.) *Global Challenges at the Intersection of Trade, Energy and the Environment*, Geneva: Centre for Trade and Economic Integration, 2010, p. 9.

⁵⁰ For further details, see Selivanova, Y. (ed.) *Regulation of Energy in International Trade Law: WTO, NAFTA and Energy Charter*, Kluwer, 2011; Shih, W. “Energy Security, GATT/WTO, and Regional Agreements,” 49 *Nat. Resources J.* 433, 2009.

⁵¹ Marceau, G. “The WTO in the Emerging Energy Governance Debate,” *Global Trade and Customs Journal*, Vol. 5, Issue 3, 2010.

⁵² On this point, see the views of Cottier, T. *et al.* “Energy in WTO law and policy,” in Cottier, T. and Delimatsis, P. (eds.) *The Prospects of International Trade Regulation: From Fragmentation to Coherence*, New York: Cambridge University Press, 2011, pp. 211-244 (arguing that, since the regulation of energy in international law is highly fragmented and largely incoherent, pertinent issues should be addressed by a future Framework Agreement on Energy in the context of WTO law).

⁵³ WTO, “Ministerial Conference Approves Russia’s WTO Membership,” 16 December 2011, available at http://www.wto.org/english/news_e/news_e.htm; see also “Russia to Join WTO Alone,” *The Moscow Times*, 16 April 2010, available at <http://www.themoscowtimes.com/business/article/russia-to-join-wto-alone/404038.html>.

⁵⁴ International Centre for Trade and Sustainable Development, “Russia Update,” *Bridges Monthly*, Vol. 13, No. 2, June 2009, available at <http://ictsd.net/i/news/bridges/48583/>.

become WTO Members, will most likely follow Russia.⁵⁵ These Middle Eastern countries should prioritize the conclusion of negotiations to enter the WTO in order to fully integrate into the global trading system and protect their growing interests on world markets. WTO membership will certainly help eliminate any discrimination against them in their trade and investment.

Trade in energy, *lato sensu*, encompasses various aspects and issues of transnational trade, including trade in goods, trade in services, investment matters, intellectual property, subsidies, *et cetera*. In addition, it involves different sorts of energy products, including oil, gas, coal, hydroelectricity, nuclear, and renewable energy, *inter alia*. However, the most predominant “line” of trade in energy, both historically and currently, is trade in fossil fuels, oil and gas. In 2010, fossil fuels supply comprised more than 80% of the global energy supply.⁵⁶ Predictions are that, for many years to come, the world energy system will remain a fossil-based system.⁵⁷ That said, the various aspects of trade in energy and the different components of energy are beyond the scope of this article.

At this initial stage and from an international trade perspective, it is worth clarifying the different statuses of countries in the energy sector, chiefly in terms of importing and exporting countries. In this respect, it has to be emphasized that not every energy-endowed country is an energy-exporting country, nor is every energy-producing country an energy-exporting country. Currently, there are two types of energy-endowed countries that produce energy: the first are energy-endowed countries that are both energy-producing and exporting countries, such as Saudi Arabia, Russia, and Norway. In this case, the country’s volume of energy production exceeds domestic demand, hence the country

⁵⁵ For an analysis on the governance of global energy, see the special issue “Global Energy Governance,” *Global Policy*, Vol. 2, Issue Supplement s1, September 2011, pp. 1-154; Goldthau, A., J.M. Witte (eds.) *Global Energy Governance: The New Rules of the Game*, Washington, DC: Brookings Institution Press, 2010.

⁵⁶ See International Energy Agency, *CO2 Emissions from Fuel Combustion*, (Paris, France 2012) p. 18, available at <http://www.iea.org/co2highlights/co2highlights.pdf>.

⁵⁷ Dries Lesage, Thijs Van De Graaf, and Kirsten Westphal, *Global Energy Governance in a Multipolar World* (Ashgate Publishing, Ltd., 2010) 17 (where the authors cite World Energy Outlook 2008, Paris: OECD/IEA, 2008).

exports its energy surplus to the international market. The second type are energy-endowed countries that, in spite of their energy production, are considered to be energy-importing rather than exporting countries, such as the US and the UK. In this case, the country's volume of energy production is less than domestic demand, and it therefore has to import energy resources from exporting countries in order to satisfy domestic consumption.⁵⁸

The fact that trade in energy has been treated differently from other trade sectors and products stems from a combination of factors that will be addressed below. They include:

- 1) the special characteristics of energy;
- 2) the challenges that confront the global energy industry in general and trade in energy in particular; and
- 3) ongoing debates and unresolved issues that emerge from the intersection between WTO law and energy trade.

Let us proceed with an analysis of each factor.

III. Special Characteristics of Energy

Energy is one of the most crucial elements of modern daily life. As a result, trade in energy constitutes, for every country, a major sector of international trade. There are a variety of reasons that makes trade in energy critical and unique.

1. Economic Aspects

Firstly, from an economic perspective, it has been known for decades that trade in energy products constitutes the largest share of international trade, in terms of value and share of “world merchandise export”.⁵⁹ According to data published by the WTO, in 2011 the value of

⁵⁸ This general classification refers to actual production *vis-à-vis* demand in a given country, regardless of its energy reserves or capacity.

⁵⁹ See the WTO, *International Trade Statistics 2012* (Geneva: WTO, 2012) p. 61, Table II.1, available at http://www.wto.org/english/res_e/statis_e/its2012_e/its2012_e.pdf; Y. Selivanova, “Managing the Patchwork of Agreements in Trade and Investment,” in A. Goldthau, and J.M. Witte (eds.), *Global Energy Governance: The New Rules of the Game*, (Washington, DC: Brookings Institution Press, 2010) at p. 49 [hereinafter

fuel exports was \$ 3,171 billion and comprised 17.8% of world merchandise exports.⁶⁰ Moreover, almost all sectors consume energy and critically rely on energy. This is in addition to the fact that the “regularity and quality of the energy supply to economic operators” is as important as the energy prices.⁶¹ It is also clear that low energy prices can “boost all other sectors of the economy”.⁶² The cost of energy impacts the prices of all other products and services and, as a result, affects the entire economy.⁶³ Additionally, the increase or decrease of energy prices in some countries leads to an increase or decrease in export prices of products and services, which then either impedes or enhances international competitiveness.⁶⁴ Energy therefore plays a crucial role in countries’ economies, and heavily impacts national and global economic development as well as international competitiveness.

2. Energy as an Asset of Strategic and Political Value

Secondly, since the exploration of petroleum, and particularly since the beginning of the 20th century, energy’s significance is not only measured by its economic value. Rather, energy products and resources have also been recognized as strategic political assets.⁶⁵ During

“Selivanova Goldthau”]; M. Desta, “The Organization of Petroleum Exporting Countries, the World Trade Organization, and Regional Trade Agreements,” 37 (3) *Journal of World Trade*, 523 (2003), p. 523 [hereinafter Desta World Trade] .

⁶⁰ According to WTO data, in 2011, chemical products were the second largest export after fuel, with an export value of \$ 1,997 billion. Chemicals comprised 11.2% of world merchandise exports; see the WTO, *International Trade Statistics 2012* (Geneva: WTO, 2012) p. 61, Table II.1, available at http://www.wto.org/english/res_e/statis_e/its2012_e/its2012_e.pdf; see also J. Gault, “A Word of Introduction from the Energy Industry Perspective” in J. Pauwelyn (ed.) *Global Challenges at the Intersection of Trade, Energy and the Environment* (Geneva, 2010) p. 9.

⁶¹ See Energy Charter Secretariat, *Trade in Energy: WTO Rules Applying under the Energy Charter Treaty* (Brussels, 2001) at p. 11; see also C. Melly, “Electric Power and Gas Market Reform and International Trade in Services,” in UNCTAD, *Energy and Environmental Services: Negotiating Objectives and Development Priorities*, (New York & Geneva, 2003) p. 164, available at http://unctad.org/en/Docs/ditctncd20033_en.pdf [hereinafter Melly UNCTAD].

⁶² See Energy Charter Secretariat, *Trade in Energy: WTO Rules Applying under the Energy Charter Treaty* (Brussels, 2001) at p. 11.

⁶³ Ibid; see also Melly UNCTAD at p. 164.

⁶⁴ See Melly UNCTAD, p. 164.

⁶⁵ See UNCTAD, *Trade Agreements, Petroleum and Energy Policies*, UNCTAD/ITCD/TSB/9 (New York and Geneva:2000),p.14,available at http://p166.unctad.org/pluginfile.php/1839/mod_resource/content/0/31oct/itcdtsb9_en.pdf [hereinafter

the 20th and 21st centuries, energy resources, markets and trade have been the direct motives or influencing factors in several international and regional conflicts. It is worth noting some of these famous conflicts:⁶⁶ World War I (1914), World War II (1939), the Suez War (1956); the Six-Day War (1967); the oil embargo (1973); the Arab-Israel War (1973), the Iranian revolution (1979), the Iran-Iraq War (1980-1988), the invasion of Kuwait (1990), the Gulf War (1991) and the Iraq War (2003).⁶⁷ These wars and conflicts highlight the strategic importance and influence of the geopolitics of energy. Moreover, most energy products are known as scarce products, underscoring energy's importance for political stability and national sovereignty.⁶⁸ Undoubtedly, energy resources critically impact the security and political stability of international, regional and national regimes.

3. International Development

Thirdly, the energy sector is important for national and global development. Indeed, it played a decisive role and influenced a wide array of important developments in the aftermath of the world wars.⁶⁹ Currently as well as in the near and distant future, energy appears to be the most important factor for modern global development. It is also worth mentioning that the energy sector has huge importance and an increasing influence in the

UNCTAD, Geneva 2003].

⁶⁶ See UNCTAD, Geneva 2003, at p. 14.

⁶⁷ See UNCTAD, Geneva 2003, p. 14; R. Bejesky, 'Geopolitics, Oil Law Reform, and Commodity Market Expectations,' 63 *Okl. L. Rev.* 193 (2011), p. 200; John E. Rhea, 'Privatization in the International Petroleum Industry: The Interplay Between Politics, Economics, and Reliance,' 33 *Den. J. Int'l L. & Pol'y* 609 (2005), 609-613; Fiona Venn, *The Oil Crisis*, (Longman, 2002) pp. 7-8; M. Klare, *Resource Wars: The New Landscape of Global Conflict*, (Holt Paperbacks, 2002), at p. 25; Susanne Peters, "Coercive Western Energy Security Strategies: 'Resource Wars' as a New Threat to Global Security," in P. Le Billon (ed.) *The Geopolitics of Resource Wars: Resource Dependence, Governance and Violence*, 187 (2005), pp. 202-204; U.S. Department of Energy, Energy Information Administration, Interagency Database and Projections Working Group (describing six major disruptions in world oil supply: the Suez War (1956); the Six-Day War (1967); the oil embargo (1973); the Iranian Revolution (1979); the Iran-Iraq War (1980); and the Gulf War (1990)); Barry Barton, *Energy Security: Managing Risk in a Dynamic Legal and Regulatory Environment* (Oxford University Press, 2004), 3, 4 [hereinafter Barton, *Energy Security*].

⁶⁸ See Energy Charter Secretariat, *Trade in Energy: WTO Rules Applying under the Energy Charter Treaty* (Brussels, 2001) at p. 11.

⁶⁹ See UNCTAD, Geneva 2003, at p. 14.

development of other industries, including manufacturing products and providing services.⁷⁰ In addition, the availability and affordability of energy products on international and national markets have significant impacts on “social development and quality of life”.⁷¹ These and other factors accentuate the importance of energy for international development.

4. Diversity of Energy Sources

Fourthly, energy trade is unique in that it involves different kinds of energy products and services that are derived from a variety of primary energy sources worldwide. Primary energy sources can be divided into two groups: conventional energy sources, known as non-renewable, and nonconventional energy sources, known as renewable. Non-renewable energy sources include fossil fuels (oil, coal, and natural gas) in addition to nuclear energy. Renewable energy sources encompass bio-energy, wind, solar, geothermal, and tidal energy. Although electricity is a secondary energy source that is generated through the conversion of primary sources of energy, it constitutes a crucial energy source. Indeed, all energy resources vary in terms of their features and trade-related issues, which distinguish them from other traded objects subject to the WTO regime.⁷² One major distinguishing

⁷⁰ See Y. Selivanova, “The WTO and Energy: WTO Rules and Agreements of Relevance to the Energy Sector”, ICTSD Trade and Sustainable Energy Series Issue Paper No. 1, (Geneva, 2007), at p. 12, available at <http://ictsd.org/downloads/2008/05/the20wto20and20energy.pdf>; Y. Selivanova, “Energy Challenges for International Trade Rules”, Oil Gas and Energy Law (2011).

⁷¹ See Y. Selivanova, “The WTO and Energy: WTO Rules and Agreements of Relevance to the Energy Sector”, ICTSD Trade and Sustainable Energy Series Issue Paper No. 1, (Geneva, 2007) at p. 12; see also Y. Selivanova, “The WTO and Energy: WTO Rules and Agreements of Relevance to the Energy Sector”, ICTSD Trade and Sustainable Energy Series Issue Paper No. 1, (Geneva, 2007) at p. 12; Melly UNCTAD at p. 164; Energy Charter Secretariat, *Trade in Energy: WTO Rules Applying under the Energy Charter Treaty* (Brussels, 2001) at p. 11 (explaining that energy is significant to everyone and has a precise social function; therefore, it is important to secure an affordable supply of energy for everyone including “rich and poor, young and old, employed and unemployed”); Selivanova Goldthau at p. 49.

⁷² See V. Rakhmanin, “Transportation and Transit of Energy and Multilateral Trade Rules: WTO and Energy Charter”, in J. Pauwelyn (ed.) *Global Challenges at the Intersection of Trade, Energy and the Environment*, (Geneva, 2010), pp. 123-126, at 123 [hereinafter Rakhmanin]; M. Cossy, “Energy Transport and Transit in the WTO”, in J. Pauwelyn (ed.) *Global Challenges at the Intersection of Trade, Energy and the Environment*, (Geneva, 2010), pp. 113-121, [hereinafter Cossy] at p. 113 (arguing that the distinction rooted in the WTO rules between goods and services is not always easily applicable to trade in energy and could cause “artificial determinations.”).

feature relates to energy's peculiar physical composition, which affects the ways energy products are stored, transported and distributed.⁷³ Therefore, the distinctive features of energy resources necessitate applying appropriate treatment and trade regulations to address specific trade and investment issues pertaining to each one of the various energy resources, products and services.

5. Finite Resources

Fifthly, the lion's share of energy trade revolves around the fossil fuel resources of oil, coal and natural gas, which are non-renewable resources with finite amounts available within proven natural reserves.⁷⁴ Importantly, only some countries are fossil-fuel endowed and exporting countries, while the vast majority of the world is composed of energy-importing countries.⁷⁵ In this sense, energy is the largest globally traded commodity and currently global usage is composed, almost entirely, of finite and non-renewable resources upon which the modern world is thus greatly dependent. The sale of energy products is controlled only by some countries, while the majority of countries are energy purchasers. Also, the multifaceted vulnerability of international trade and markets to the availability, stability and affordability of a sustainable and steady supply of these non-renewable energy resources poses an additional challenge to the energy trade sector.

6. Energy Security

Sixthly, the significance of energy and reliance of exporting and importing countries on energy trade emphasize national and global energy security issues.⁷⁶ Notably, the energy

⁷³ T. Cottier *et al.*, "Energy in WTO Law and Policy," *NCCR Trade Regulation Working Paper* No. 2009/25, available at <http://phase1.nccr-trade.org/images/stories/projects/ip6/IP6%20Working%20paper.pdf>.

⁷⁴ See Selivanova Goldthau, p. 49 (explaining that fossil fuel resources are distributed worldwide in "uneven" manner, thus they are found to be "under sovereign control of a limited number" of energy-endowed countries).

⁷⁵ See Selivanova Goldthau, at p. 49.

⁷⁶ See Desta World Trade, pp. 523-524; R. Strange, "Waving a Tangled Web: the Intersection of Energy Policy and Broader Governmental Policies", 5 *Tex. J. Oil Gas & Energy L.* 1 (2009-2010), at p. 6 [hereinafter Strange].

market is one market, thus any event that considerably impacts the supply of or demand for available energy on the market will affect energy export and import prices alike. Thus, events in any major oil importing or exporting country impact all other countries,⁷⁷ and, in fact, various historic events have given rise to deep and ongoing concerns over energy supply and demand for exporting and importing countries, respectively. This includes, *inter alia*, the era when the majority of the global oil industry was controlled by the international oil companies (IOCs) known as the “seven sisters”;⁷⁸ the oil embargo; the oil shocks; the rise of and increased concerns pertinent to climate change and carbon dioxide emissions; the financial crises; and the fluctuations of oil prices, mainly the unprecedented fluctuations of prices⁷⁹ during the last decade.⁸⁰ Therefore, the availability and affordability of energy in the international and domestic markets affect global as well as national energy security.⁸¹

Moreover, global trade in energy was neither regulated by suitable rules and regulations specific to trade in energy, nor conducted *de facto* by written or transparent rules. Instead, trade in energy was managed for decades through interstate relations influenced by political and diplomatic considerations. This politicized rather than regulated way of trade lacks transparency, certainty, stability and predictability. Furthermore, trade in non-renewable energy resources demonstrates the conflict of trade interests that exists in the intersection between the two interdependent groups of energy trading countries: the energy

⁷⁷ See Strange at p. 6.

⁷⁸ The term ‘seven sisters’ is a term coined by Enrico Mattei to refer to the following oil companies: the Standard Oil Company of New Jersey (later Exxon), the Standard Oil Company of New York (Socony, later Mobil, which eventually merged with Exxon), the Standard Oil Company of California (Socal, later renamed Chevron), the Texas Oil Company (later renamed Texaco), Gulf Oil (which later merged with Chevron), Anglo-Persian (later British Petroleum), and Royal Dutch/Shell. See U.S. Department of State, Office of the Historian, available at <http://history.state.gov/milestones/1921-1936/RedLine>.

⁷⁹ During the 2008 global financial crisis, oil prices increased rapidly to record on 3 July 2008 an all-time high price of US\$145.31 a barrel (West Texas Intermediate WTI); see U.S Energy Information Administration, ‘Petroleum and Other Liquids,’ available at <http://www.eia.gov/dnav/pet/hist/leafhandler.ashx?n=pet&s=rwtc&f=d>.

⁸⁰ Barton, *Energy Security*, 3–5.

⁸¹ See Yergin, Daniel, “Ensuring Energy Security,” *Foreign Affairs*, 85, No. 2 (March/April 2006). See also Desta World Trade at pp. 523-524 (discussing the negative economic impact of high prices of oil and the role of sharp rises in oil prices in slowing down growth and causing recessions in many developed countries as well as globally, based upon data from ECOSOC, *World Economic and Social Survey*, 2001).

importing countries, i.e., the vast majority of the world's countries, and the energy-endowed exporting countries, i.e., a small number of countries. While the first group is interested in securing an affordable (at the "lowest price") and steady supply of energy, the second group seeks to gain the maximum income and rent from the sale of its natural wealth for the benefit and development of its nations and economies.⁸² The direct consequence is that the availability, stability and affordability of traded energy resources in the domestic and international markets influence to a huge extent the "political stability and economic survival"⁸³ of exporting and importing countries, the international community as well as national and global energy security.

7. Transportation of Energy

Seventhly, energy products are transported differently from other products. A significant share of trade in energy is network-dependent.⁸⁴ This means that trade in energy, chiefly in the cases of natural gas and electricity, does not cross borders as other products do, but rather its transportation is usually linked to a "fixed infrastructure."⁸⁵ In the case of natural gas, it is transported via fixed pipelines, while electric power is transported via fixed grids.⁸⁶ Because of its peculiar physical limitations, 75% of natural gas is transported

⁸² See Y. Selivanova, "Trade in Energy: Challenges for International Trade Regulation," (WTO: Research and Analysis), available at http://www.wto.org/english/res_e/publications_e/wtr10_11june10_e.htm#fnt3 [hereinafter Selivanova WTO]; Y. Selivanova, "Challenges for Multilateral Energy Trade Regulation: WTO and Energy Charter," Society of International Economic Law, Second Biennial Global Conference, University of Barcelona, Working Paper No. 2010/20, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1632557 [hereinafter Selivanova SIEL].

⁸³ See Desta World Trade at p. 523.

⁸⁴ T. Wälde and A. Gunst, "International Energy Trade and Access to Competing Networks," Energy and Environmental Services: Negotiating Objectives and Development Priorities, UNCTAD (New York & Geneva 2003), p. 118 (noting that trade in electricity and gas is "as a rule network dependent", with the exception of the LNG transported via ships, and explaining, from a trade and investments perspective, that "network dependence" means that it is not enough to eliminate import barriers for freeing trade effectively, but there have to be "proactive measures" towards opening transportation networks for energy transit, including establishing new networks).

⁸⁵ See Rakhmanin at p. 123; see also Energy Charter Secretariat, *Trade in Energy: WTO Rules Applying under the Energy Charter Treaty* (Brussels, 2001) at p. 11.

⁸⁶ See Y. Selivanova, "The WTO and Energy: WTO Rules and Agreements of Relevance to the Energy Sector",

internationally via fixed pipelines, and only 25%, as liquefied natural gas (LNG), is transported by sea.⁸⁷ Meanwhile, crude oil usually is transported by sea.

The dependence of natural gas trade on a fixed pipeline infrastructure could explain why the volume of international trade in gas resources is much lower than that of international trade in oil resources.⁸⁸ Moreover, given the necessity of transporting gas via pipelines and electricity via grids, trade in these energy resources has been largely restricted to regional trade between those States that are connected through adequate networks.⁸⁹ Remarkably, the network dependence of energy transportation points to the substantial capital and investment required for the construction of new pipelines and transmission grids infrastructure, as well as for the maintenance of old and new transportation networks.⁹⁰ The intrinsic reliance on fixed infrastructure of gas and electricity transportation stresses greatly the interdependence and complexity of energy trade, essentially the transit of energy resources, in the international market.

The significance and unique characteristics of energy mentioned above distinguish trade in energy from other sectors of trade. Thus, this predominant sector of global trade requires and necessitates a special treatment.

IV. Energy Trade: Challenges and Concerns

The second factor that explains why trade in energy has been treated differently from other trade sectors and products has to do with the challenges that confront the global energy industry in general and trade in energy in particular.

ICTSD Trade and Sustainable Energy Series Issue Paper No. 1, (Geneva, 2007) at p. 18.

⁸⁷ See Rakhmanin, at p. 123, footnote 122.

⁸⁸ *Idem*.

⁸⁹ See Energy Charter Secretariat, *Trade in Energy: WTO Rules Applying under the Energy Charter Treaty* (Brussels, 2001) at p. 11.

⁹⁰ See Selivanova SIEL, at p. 2.

1. Supply and Demand

The global energy system is internationally interlaced and interdependent.⁹¹ The impacts of energy demand and supply are not limited to national borders; rather, energy supply and demand have global consequences and implications for a variety of sectors.⁹² An increasingly significant example of this global interdependence is the link between trade and energy. Recently, the international trade regime has been increasingly focusing on energy trade.⁹³ Indeed, both fields interact in a variety of ways and are becoming more and more interdependent.⁹⁴ One of the causes for this increasing interaction between trade and energy relates to the liberalization of energy markets in many countries, which subjected trade in energy products to market rules.⁹⁵

Moreover, trade in the energy sector, as elaborated earlier, plays a very significant role for promoting both international and national economic development. However, the energy world, including trade in energy, is confronted by unprecedented concerns and challenges. The origins of these challenges are deeply rooted in the tension between expanding trade and increasing economic growth, on the one hand, and promoting efficient

⁹¹ Leal-Arcas, R. and Filis, A. “The Fragmented Governance of the Global Energy Economy: A Legal-Institutional Analysis,” *Journal of World Energy Law and Business*, Vol. 6, Issue 4, pp. 1-58, 2013, Oxford University Press; Leal-Arcas, R. and Filis, A. “Conceptualizing EU Energy Security through an EU Constitutional Law Perspective,” *Fordham International Law Journal*, Vol. 36, Issue, 5, 2013.

⁹² See K. Westphal, “Energy in an Era of Unprecedented Uncertainty: International Energy Governance in the face of Macroeconomic, Geopolitical, and Systemic Challenges,” in D. Koranyi (ed.), *Transatlantic Energy Futures: Strategic Perspectives on Energy Security, Climate Change, and New Technologies in Europe and the United States*, (Washington, DC: Center for Transatlantic Relations, 2011) pp 1-26, at p. 1 [hereinafter Westphal Era of Uncertainty].

⁹³ See for instance a conference that linked these two epistemic communities (trade and energy): “Workshop on the role of intergovernmental agreements in energy policy,” 29 April 2013, WTO Secretariat, Geneva, available at http://www.wto.org/english/tratop_e/envir_e/wksp_envir_apr13_e/wksp_envir_apr13_e.htm. Another development that links the international trade and energy fields is a conference organized by the Centre for Trade and Economic Integration at the Graduate Institute of International and Development Studies in Geneva, titled “Global Challenges at the Intersection of Trade, Energy and the Environment,” WTO Secretariat, 22-23 October 2009, available at http://www.wto.org/english/res_e/reser_e/energy_oct09_e/energy_oct09_e.htm.

⁹⁴ See J. Pauwelyn, “Global Challenges at the Intersection of Trade, Energy and the Environment: An Introduction”, in J. Pauwelyn (ed.) *Global Challenges at the Intersection of Trade, Energy and the Environment*, (Geneva, 2010), pp. 1- 8, at p. 4 [hereinafter Pauwelyn Challenges].

⁹⁵ See Pauwelyn Challenges at p. 4; T. Wälde and A. Gunst, “International Energy Trade UNCTAD”, 18.

use of energy resources and protecting the environment, on the other hand.⁹⁶ In fact, “the energy world faces unprecedented uncertainty,”⁹⁷ according to the World Energy Outlook (2010) of the International Energy Agency (IEA).

Some of the most dominant concerns in the energy world are the concerns over energy supply and demand. These concerns are interconnected with different factors, including the economic growth and energy consumption of developed as well as developing countries; the availability of various energy resources; energy efficiency and sustainability; stability or fluctuations of energy prices in the international markets; financial stability or crisis; the capital of investments required towards the explorations and production of energy; geopolitical matters; political stability or instability, *et cetera*. Notably, the apparent economic growth of countries worldwide is accompanied by growth in energy consumption, mainly of oil and gas resources.⁹⁸ It is worth mentioning in this respect that during the last 20 years energy consumption increased by 45%, and over the period of 2010 to 2030 it is likely to grow by 39%.⁹⁹ Thus, the correlated high growth of economies and energy

⁹⁶ See J. Pauwelyn Challenges, at p. 1. See also Leal-Arcas, R. *Climate Change and International Trade*, Edward Elgar, 2013, Chapter 3; Abu-Gosh, E. and Leal-Arcas, R. “The Conservation of Exhaustible Natural Resources in the GATT and WTO: Implications for the Conservation of Oil Resources,” *The Journal of World Investment and Trade*, Vol. 14, No. 3, pp. 480-531, 2013.

⁹⁷ See International Energy Agency, *World Energy Outlook 2010 Executive Summary*, (Paris: OECD/IEA, 2010), at p. 3, available at http://www.worldenergyoutlook.org/media/weowebiste/2010/WEO2010_es_english.pdf [hereinafter IEA 2010].

⁹⁸ See C. Kemfert, “Global Energy Markets: Challenges and Opportunities – Energy Vision for 2050,” in C. Herrmann and J.P. Terhechte (eds.), *European Yearbook of International Economic Law*, Vol. 3, 271 (2012) at p-272, 274 [hereinafter Kemfert]; International Energy Agency, *World Energy Outlook 2012 Executive Summary*, (Paris: OECD/IEA, 2012) p. 6, available at <http://www.iea.org/publications/freepublications/publication/English.pdf> (explaining that in 2011 oil demand reached 87.4 mb/d, while the expectation for 2035 indicates that oil demand will reach 100 mb/d) [hereinafter IEA 2012].

⁹⁹ See British Petroleum, *BP Energy Outlook 2030*, (London: BP, 2011) p. 17, available at http://www.bp.com/liveassets/bp_internet/globalbp/globalbp_uk_english/reports_and_publications/statistical_energy_review_2008/STAGING/local_assets/2010_downloads/2030_energy_outlook_booklet.pdf; see also British Petroleum, *BP Energy Outlook 2030*, (London: BP, 2012) p. 11, available at http://www.bp.com/liveassets/bp_internet/globalbp/STAGING/global_assets/downloads/O/2012_2030_energy_outlook_booklet.pdf; Lesage, Graaf, and Westphal, *Global Energy Governance in a Multipolar World*, (Ashgate Publishing, Ltd., 2010) at p. 17 .

consumption in developed and developing countries, especially in emerging economies like China, Russia and India, obviously raises the demand for energy in the long term.¹⁰⁰

A similar growth, however, is not expected on the supply side. One of the reasons for this relates to the poor investment in the energy sector. Investment in this sector, mainly in exploration and production, is slow and “lagging behind”.¹⁰¹ Other reasons have to do with the 2008 global financial crisis as well as disputes between governments and investors in the energy industry, which have negative impacts and likely restrict investments in this sector.¹⁰² As a consequence, energy demand will be higher than energy supply, which will lead to energy scarcity, high energy prices and even to global economic crises.¹⁰³

2. Trade in Goods v. Trade in Services

An additional concern is found in the clear distinction between trade in goods and trade in services in the WTO discipline, where specific rules apply to trade in goods (the GATT) and other rules apply to trade in services (the General Agreement on Trade in Services (GATS)). But the energy sector does not apply this obvious distinction between energy products and energy services, which may result in artificial determinations and intrinsic obstacles to trade in energy.¹⁰⁴ Thus, this emerging debate around the dichotomy of goods and services, within trade in energy, complicates the substantial ongoing debate over the applicability and implementation of WTO rules to trade in energy.¹⁰⁵

¹⁰⁰ See IEA 2010, p. 5; IEA 2012, p. 4 ; Kemfert, at p. 277.

¹⁰¹ See Selivanova Goldthau, at p. 50.

¹⁰² Ibid.

¹⁰³ See C. Kemfert at pp. 274-275 (explaining that in order to satisfy the rise in global energy demand, an increase in energy supply is expected. But the traditional and low-cost oil fields are disappearing, which necessitates exploiting other oil production sites to meet demand, including deep sea drilling. This is highly risky, especially when drilling more than 1,500 meters deep, as the accident at the Deep Water Horizon in the Mexican Gulf in April 2010 has proven); IEA 2010, at p. 6.

¹⁰⁴ See Cossy, at p. 113 (explaining that the distinction between goods and services is inconsistent with the daily business reality. It also has various consequences, e.g., in the investment field, where it is clear that, while the GATS contains basic investment disciplines that apply and protect trade in services, the Agreement on Trade-Related Investment Measures, which applies to trade in goods, “does not protect investment per se.”).

¹⁰⁵ See Energy Charter Secretariat, *Trade in Energy: WTO Rules Applying under the Energy Charter Treaty*

3. Transit via Fixed Networks: Pipelines and Grids

Likewise, as mentioned earlier, an important challenge to trade in energy stems from the transportation of gas and electricity through fixed infrastructures, namely pipelines for gas and grids for electricity.¹⁰⁶ This limitation of network usage for specific energy products entails spending huge capital and substantial investment, in addition to drafting appropriate investment rules in order to secure the transportation and flow of energy products.¹⁰⁷ At the same time, WTO law was not designed specifically to address the crucial issues that arise from trade in energy through fixed networks. For example, WTO law includes more detailed rules regulating imports than rules relevant to exports, while, in the case of energy, countries are concerned more with rules on exports than imports in order to secure the supply of energy from exporting to importing countries.¹⁰⁸

Even though Article V of the GATT addresses the freedom of transit for goods in general, its applicability to transportation of energy through fixed infrastructures is questionable.¹⁰⁹ Various claims surround the existing text of Article V, including: the national treatment obligation in Article V is very limited; Article V lacks the power to oblige countries to invest and construct new infrastructures needed for energy transportation; and there is an ambiguity with respect to the applicability of Article V over energy companies, which control, by monopoly enterprises, access to energy infrastructure.¹¹⁰ Therefore, although the WTO embraces basic disciplines addressing transit of goods, they are incomplete and lack substantial obligations with relevance to the specific

(Brussels, 2001) at p. 15.

¹⁰⁶ See Selivanova SIEL, at p. 2; Rakhmanin p. 123; Energy Charter Secretariat, *Trade in Energy: WTO Rules Applying under the Energy Charter Treaty* (Brussels, 2001) at p. 14.

¹⁰⁷ See Rakhmanin p. 123 ; Selivanova Challenges SIEL, at p. 2.

¹⁰⁸ See Rakhmanin at p. 124; Cossy, at pp. 113-114.

¹⁰⁹ See Cossy at p.114, 115.

¹¹⁰ See Cossy at p. 115; Rakhmanin at p. 124; Y. Selivanova WTO; D. Azaria, "Energy Transit under the Energy Charter Treaty and the General Agreement on Tariffs and Trade," 27(4) *Journal of Energy & Natural Resources Law*, 559 (2009).

challenges of energy trade.¹¹¹ However, the transit issue is not the only unresolved issue with relevance to the intersection between trade and energy. It appears that WTO law was not designed to address and regulate additional critical unresolved issues, which include, *inter alia*, export restrictions including export quotas and duties, subsidies, dual pricing,¹¹² countervailing measures on energy products, technical regulations and standards, monopolies and state-trading enterprises.¹¹³ The consequences are more uncertainty and more challenges to trade in energy.

4. Combating Climate Change

Moreover, one of the most pressing current challenges for all industries in general and the energy sector in particular is combating climate change.¹¹⁴ Indeed, the whole energy chain involves a severe negative impact on the environment and contributes to climate change.¹¹⁵ This chain includes the exploration, production, refining, storage, transportation, distribution and consumption of energy, each of which involves the combustion of energy products. The consequence is a significant increase in greenhouse gas (GHG) emissions. In 2010, the combustion of energy resources comprised 65% of global GHG emissions.¹¹⁶

¹¹¹ See Cossy, at p. 120.

¹¹² The dual pricing practice is a practice where countries price exported energy resources, such as natural gas, at different rates from the domestic price for the same resources.

¹¹³ See Marceau, G. "The WTO in the Emerging Energy Governance Debate," in J. Pauwelyn (ed.) *Global Challenges at the Intersection of Trade, Energy and the Environment*, (Geneva, 2010) at pp. 33-36; A. Yannovich, "WTO Rules and the Energy Sector," in Y. Selivanova (ed.), *Regulation of Energy in International Trade Law: WTO, NAFTA and Energy Charter* (Global Trade Law Series), (Kluwer Law International, 2011) pp 1-74, at p. 1-28; Y. Selivanova, "The WTO and Energy: WTO Rules and Agreements of Relevance to the Energy Sector", ICTSD Trade and Sustainable Energy Series Issue Paper No. 1, (Geneva, 2007) pp. 15-30; T. Cottier et al., "Energy in WTO Law and Policy," *NCCR Trade Regulation Working Paper* No. 2009/25; Selivanova Goldthau; G. Marceau, "The WTO in the Emerging Energy Governance Debate," 5 *Global Trade & Cust J.* 83 (2010), at p. 88-91.

¹¹⁴ On the links between climate change, energy and trade, see generally Leal-Arcas, R. *Climate Change and International Trade*, Edward Elgar, 2013.

¹¹⁵ Leal-Arcas, R. "Linking energy and climate change," OUTREACH, Stakeholder forum, p. 4, November 2012.

¹¹⁶ International Energy Agency, "CO2 Emissions from Fuel Combustion", Paris: France 2011, 17, <http://www.iea.org/co2highlights/co2highlights.pdf> [hereinafter IEA CO2 Emissions 2012]. Kley Meyer, A.M., "New Rules for the Environmental Imperative: Considerations for the Energy Sector and Interaction with WTO Rules," in J. Pauwelyn (ed.) *Global Challenges at the Intersection of Trade, Energy and the Environment*

Of note in this regard is the fact that fossil fuels (oil, coal and gas) accounted for 81% of global total primary energy supply (TPES).¹¹⁷ This high fossil fuel share of TPES was addressed in an IEA report discussing global CO₂ emissions and indicating the emission quantity of each fossil fuel: coal 43%, oil 36%, and gas 20%.¹¹⁸ Nonetheless, there are various measures that can help mitigate climate change: substituting fossil fuel energy sources (high GHG emissions) for green and less polluting energy sources, particularly energy derived from renewable sources; imposing energy efficiency plans and steps for both producers and consumers; saving consumption of energy whenever possible; increasing public awareness through various educational plans, *et cetera*.¹¹⁹ In this respect, the legally binding obligations to reduce GHG emissions that countries made through the Kyoto Protocol to the UN Framework Convention on Climate Change (UNFCCC) is a significant global effort worth mentioning here.¹²⁰

In spite of their environmental repercussions, the current demand and consumption of fossil fuels are still high and growing constantly. Moreover, taking into account the global population and economic growth and rise in development, it is expected that the demand for and consumption of fossil fuels will increase dramatically in the coming decades.¹²¹ According to a recent report published by British Petroleum, although the OECD countries

(Geneva, 2010) at p. 63.

¹¹⁷ "IEA CO₂ Emissions 2012," 17, 18.

¹¹⁸ Ibid., figure 13, "World primary energy supply and CO₂ emissions: shares by fuel in 2010 Percent share," p. 19.

¹¹⁹ See Westphal *Era of Uncertainty* at p. 19; M. Powers, "Greening the Grid: Building a Legal Framework for Carbon Neutrality," 39 *Envtl. L.* 927 (2009) at p. 927.

¹²⁰ See Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 10, 1997, U.N. Doc FCCC/CP/1997/7/Add.1, 37 I.L.M. 22 (1998); Energy Charter Secretariat, *Trade in Energy: WTO Rules Applying under the Energy Charter Treaty* (Brussels, 2001) p. 11. See also Leal-Arcas, R. "Kyoto and the COPs: Lessons Learned and Looking Ahead," *Hague Yearbook of International Law*, Vol. 23, pp. 17-90, 2010. For alternative views on climate change mitigation, see Leal-Arcas, R. "Top-down versus Bottom-up Approaches for Climate Change Negotiations: An Analysis," *The IUP Journal of Governance and Public Policy*, Vol. 6, No. 4, pp. 7-52, December 2011; Leal-Arcas, R. "Climate Change Mitigation from the Bottom Up: Using Preferential Trade Agreements to Promote Climate Change Mitigation," *Carbon and Climate Law Rev.*, Vol. 7(1), pp. 34-42, 2013; Leal-Arcas, R. "The BRICS and Climate Change," *International Affairs Forum*, pp. 1-5, 2013.

¹²¹ Energy consumption is likely to grow by 39% over the period of 2010 to 2030; see BP 2011, *Energy Outlook 2030* at p. 17 ; BP 2012, *Energy Outlook 2030* at p. 9, 11; Lesage, Graaf, and Westphal, *Global Energy Governance in a Multipolar World*, (Ashgate Publishing, Ltd., 2010) 30, 31.

will succeed in reducing GHG emissions by 2030, the fast economic growth of non-OECD countries will cause a higher degree of emissions and outweigh the OECD countries' reduction. Therefore, in 2030 the aggregate projected increase in global emissions will be 28% (versus 2010).¹²² This trend of growth in the consumption and burning of fossil fuels results in a constant growth of GHG emissions that will threaten global climate.¹²³ Also, this serious, complicated and reciprocal challenge between climate change and energy constitutes part of the broader challenge to the fulfillment of global sustainable development.¹²⁴ Thus, the existing pattern of escalating energy demand, supply and consumption, accompanied by energy combustion, strengthens the threat of irreversible damage to the environment and thus to humankind and global sustainable development.

5. Energy Security

Nowadays energy security concerns are at the top of national, regional and international agendas.¹²⁵ As mentioned above, while all countries are involved in trade and consumption of energy, most of them are energy importers, as opposed to a few energy exporters. Hence, energy security and its concerns are not determined by a single definition, but rather the definition varies and the concept of energy security means different things to different countries and regions. Attempts to conceptualize energy security and its challenges were based upon various factors including energy endowment, geographical location, economic conditions etc. Also, critical elements and factors of energy security will vary in different countries at different times.¹²⁶ Therefore, to energy-endowed exporting countries, any disruption that threatens the stability of energy demand, production and prices as well as

¹²² See BP 2012, *Energy Outlook 2030* at p 81.

¹²³ See Kempf at p. 276-277.

¹²⁴ "IEA CO2 Emissions 2012," 19.

¹²⁵ Wen-chen Shih, "Energy Security, GATT/WTO, and Regional Agreements" 49 *Nat. Resources J.* 433 (2009) 434 [hereinafter Shih "Energy Security"].

¹²⁶ Barton, *Energy Security*, 5., 9; Gal Luft, *Energy Security Challenges for the 21st Century: A Reference Handbook* (ABC-CLIO, 2009), pp. 5-7; Shih, "Energy Security," 437; W.F. Martin, R. Imai, and H. Steeg, *Maintaining Energy Security in a Global Context: a Report to the Trilateral Commission*, Vol. 48 (Trilateral Commission, 1996), 4, <http://www.getcited.org/pub/100130828>.

the conservation of energy resources is a challenge to their economic security.¹²⁷ Whereas to energy importing countries, any factor that challenges the availability, stability and affordability of energy products supply poses a threat to their energy security.¹²⁸ Taking into consideration the complexity and interdependency of the energy world, it is obvious that any risk to the supply or demand of energy is considered a challenge and threat to energy security.

However, a broad variety of factors impacts the availability and affordability of steady supply and demand, namely energy security, with some of them known and predictable, and others unknown or unpredictable. In this respect, several substantial concerns around energy security should be mentioned, which include geopolitical conflicts, volatility of energy prices, disruptions of energy supply and demand, depletion of energy resources, climate change and environmental challenges, natural disasters, *et cetera*.¹²⁹ Due regard has to be given also to the monopolies that control all aspects of the energy sector in many countries, e.g., Russia, Saudi Arabia and Venezuela, whose policies directly affect both national and global energy security.¹³⁰ Noticeably, a few recent events highlight some challenges to national and global energy security, such as the global financial crises compounded by fluctuations of energy prices in 2008;¹³¹ the accident in the Deep Water Horizon in 2010, the nuclear catastrophe at Fukushima Daiichi in 2011; and the ongoing revolutions in the Middle East and North Africa region since 2011, known also as the Arab Spring.¹³² Precisely, energy

¹²⁷ Daniel Yergin, "Ensuring Energy Security," 85 *Foreign Aff.* 69 (2006) 70, 71; Christian Winzer, "Conceptualizing Energy Security," 46 *Energy Policy* 36 (July 2012) 37, 41; Gal Luft, *Energy Security Challenges for the 21st Century*, 6; Shih, "Energy Security," 436.

¹²⁸ Barton, *Energy Security*, 5; Shih, "Energy Security," 435.

¹²⁹ Catherine Redgwell, *International Energy Security, in Energy Security: Managing Risk in a Dynamic Legal and Regulatory Environment* (Oxford University Press, 2004), 17; Winzer, "Conceptualizing Energy Security," 46 *Energy Policy* 37; Yergin, "Ensuring Energy Security," 69.

¹³⁰ Kempfert 275; Barton, *Energy Security*, 8.

¹³¹ A. Salisu and I. Fasanya, "Comparative Performance of Volatility Models for Oil Price," *International Journal of Energy Economics and Policy*, 2 (3) (2012), pp. 167–183, at p. 182 (examining the volatility of crude oil prices from 1.2000 to 3.2012 over three periods, namely "pre-global financial crisis, global financial crisis, and post-global financial crisis," and found that oil prices changed most rapidly during the period of global financial crisis).

¹³² Westphal Era of Uncertainty, 3; Lesage, Graaf, and Westphal, *Global Energy Governance in a Multipolar*

security, in its national and global concepts, is a crucial constituent that challenges the energy world. Given the expected growth in trade in energy during the coming decades, and without extreme and dramatic innovation or revolution in the energy industry, it is safe to say that the more trade in energy expands, the more the challenges to energy security will increase.

In short, several concerns indicate that the global energy sector, including trade in energy, is subject to substantial challenges, especially economic, political and environmental. Although these challenges are very crucial in themselves, their importance is multiplied since energy influences all aspects of our daily modern life. It should be emphasized in this regard that existing global energy governance is ineffective and unqualified to address and resolve the above mentioned challenges. Global energy governance suffers from critical fragmentation and lack of consistent rules.¹³³ Its structure includes fragmented systems across multilayered regimes such as multilateral, regional, bilateral and national systems and treaties, in addition to a variety of international institutional governors like the IEA, the Organization of the Petroleum Exporting Countries, the UN, or the G20.¹³⁴ Therefore, the fragmentation of governance and inconsistency of rules in global energy governance will most likely cause additional tensions and uncertainties to trade in energy in particular and global energy governance in general.

World, (Ashgate Publishing, Ltd., 2010).

¹³³ Leal-Arcas, R. and Filis, A. "The Fragmented Governance of the Global Energy Economy: A Legal-Institutional Analysis," *Journal of World Energy Law and Business*, Vol. 6, Issue 4, pp. 1-58, 2013, Oxford University Press.

¹³⁴A. Ghosh, "Seeking Coherence in Complexity? The Governance of Energy by Trade and Investment Institutions," *Global Policy* 2, no. s1 (2011): 106–119, p. 107, 117; Benjamin K Sovacool and Ann Florini, "Examining the Complications of Global Energy Governance" 30, No. 3, *Journal of Energy & Natural Resources Law* (2012), 235, 238, 252; with regard to the fragmentation of the global energy governance, see generally A. Florini and B. K. Sovacool, "Bridging the Gaps in Global Energy Governance," *Global Governance: A Review of Multilateralism and International Organizations* 17, No. 1 (2011), pp. 57–74; Lesage, Graaf, and Westphal, *Global Energy Governance in a Multipolar World* (Ashgate Publishing, Ltd., 2010); A. Cherp, J. Jewell, and A. Goldthau, "Governing Global Energy: Systems, Transitions, Complexity," *Global Policy* 2, no. 1 (2011): 75–88; G. Marceau, "The WTO in the Emerging Energy Governance Debate," *Global Trade and Customs Journal* 5, No. 3 (2010): 83; Ann Florini and Navroz K. Dubash, "Introduction to the Special Issue: Governing Energy in a Fragmented World," *Global Policy* 2 (2011), pp. 1–5.

V. WTO Law and Energy Trade: Selected Debates

The third dimension that makes energy distinct from other sectors of trade is the ongoing debate and unresolved issues that emerge from the intersection between WTO law and energy trade. In principle, the trade regime embraces various sectors of trans-boundary trade with the assumption that the GATT/WTO disciplines prevail over all trade sectors. When it comes to trade in energy, however, this assumption is not entirely true. As mentioned earlier, nowadays trade in energy constitutes the largest universal constituent of trade that interacts with other sectors of trade and exerts great influence on these other sectors. Therefore, managing, fostering and securing trade in energy are on national and international agendas as a top priority for energy importing as well as exporting countries.¹³⁵ However, in spite of its high significance, trade in energy is not automatically, or by definition, included or excluded from the international trade discipline.

Notably, two major approaches have been developed in the last two decades to address the debate over the GATT/WTO disciplines and trade in energy. The first approach supports the view that the international trade discipline governs all sectors of trade including trade in energy, mainly because the energy sector was never excluded explicitly from the GATT/WTO disciplines.¹³⁶ The other approach casts doubts about the automatic governance of GATT/WTO disciplines over trade in energy and considers trade in energy a special case that was excluded *de facto*, not *de jure*, from the GATT/WTO disciplines.¹³⁷ As

¹³⁵ See for instance the views of Pascal Lamy, “Doha Round Will Benefit Energy Trade”, speech given at the 20th World Energy Congress, Rome, 15th November 2007. Available at http://www.wto.org/english/news_e/sppl_e/sppl80_e.htm.

¹³⁶ Andrea Jiménez-Guerra, “The World Trade Organization and Oil,” *Oxford Institute for Energy Studies* (Oxford 2001): 14, 19; Gabrielle Marceau, “The WTO in the Emerging Energy Governance Debate,” in Joost Pauwelyn, *Global Challenges at the Intersection of Trade, Energy and the Environment*, (Geneva, 2010), 25–41, 26; Alan Yanovich, “WTO Rules and the Energy Sector,” in Yulia Selivanova (ed.) *Regulation of Energy in International Trade Law: WTO, NAFTA, and Energy Charter Treaty* (Kluwer, 2011), 1–47, 2. Y. Selivanova, “Managing the Patchwork: Challenges for Multilateral Agreements in Trade and Investment,” in A. Goldthau and J.M. Witte (eds.) *Global Energy Governance: The New Rules of the Game* (Washington, DC: Brookings Institution Press, 2010), 53.

¹³⁷The United Nations Conference on Trade and Development UNCTAD, *Trade Agreements, Petroleum and Energy Policies* (United Nations, New York and Geneva, 2000), 1-2, 14-15, available at

long as there is no conclusive decision in this debate, the divergent approaches will more than likely be examined as a starting point in future discussions relevant to energy trade issues.

It is worth mentioning in this respect that this debate is based on a mutual significance to both sectors, namely international trade and trade in energy, and encompasses important consequences to both sectors. From the international trade system point of view, energy trade is the most significant sector of trade by virtue of being the largest trade sector in terms of share and value, as well as being crucial to other trade sectors. From the trade in energy perspective, being subject to the international trade system means being subject to a stable, agreed and predictable set of rules. Thus, the outcome of this debate reflects the distance between the existence and non-existence of a rules-based regime to regulate the most important sector of trade, and it also entails positive or negative implications for both sectors.

1. The Applicability of WTO Law to Energy Trade

In general, the source of international economic and trade law is international treaty law, rather than international customary law.¹³⁸ Treaty law is the law formulated by the parties to a treaty. The treaty, an international contract or agreement, reflects the willingness and intention of the parties, who create the obligations of the agreement. Thus, the obligations made by the parties are the binding law applicable to the relations/transactions between the parties to the agreement. The result is that contracting parties agree between themselves as to the laws and norms that apply to them, and what is included in and excluded from this

http://p166.unctad.org/pluginfile.php/1839/mod_resource/content/0/31oct/itcdtsb9_en.pdf; Melaku Geboye Desta, "The Organization of Petroleum Exporting Countries, the World Trade Organization, and Regional Trade Agreements," *Journal of World Trade Law* 37, no. 3 (2003): 523–552, 529; Melaku Geboye Desta, "GATT/WTO System and International Trade in Petroleum: An Overview," *Journal of Energy & Natural Resources Law* 21 (2003): 385, 387, 391; Kenneth Aidelojie and Zen Makuch, "Multilateral Organizations, Fossil Fuels and Energy Law and Policy: The Tower of Babel Revisited" 17, *European Energy and Environmental Law Review* (2008): 227–255, 229, 230.

¹³⁸ See generally John Jackson, *The Jurisprudence of GATT and the WTO: Insights on Treaty Law and Economic Relations* (Cambridge; New York: Cambridge University Press, 2000).

binding law.

Accordingly, in the specific case of the WTO, the founding members agreed to bind all WTO members (founders and acceding) to a set of international agreements which compose the law of the WTO and govern their trade relations. Besides, this set of agreements is known as the “single package”. Importantly, according to WTO law, when a country joins the WTO, it must accept the single package as a binding law of the WTO. This section analyzes the chronological evolution of international trade in energy, starting with the ITO and the GATT creation in 1947, the various rounds of GATT negotiations, the subsequent accession of energy exporting countries to the GATT, the WTO era and energy trade, and the accession of energy-rich countries to the world trading system since 1995, all of which with a view to determine whether GATT/WTO law applies to trade in energy.

a. The International Trade Organization and the GATT Creation

Although energy issues were not specifically addressed during the negotiations for the establishment of the ITO and the GATT, natural resources matters in general were brought up, discussed and agreed upon.¹³⁹ During the ITO negotiations era, in parallel to the creation of the GATT, the Havana Charter addressed issues relevant to natural resources in several provisions.¹⁴⁰ Within these provisions, several articles warrant mention in this regard: Articles 10 and 13 of the Havana Charter, which emphasized the role that natural resources play in “economic development and reconstruction”, and Article 45 of the Havana Charter, which justified measures related to the “conservation of exhaustible natural resources”.¹⁴¹ Similar to Article 45 of the Havana Charter, Article XX(g) of the GATT granted protection to

¹³⁹ See Y. Selivanova, “Managing the Patchwork of Agreements in Trade and Investment,” in A. Goldthau and J.M. Witte (eds.) *Global Energy Governance: The New Rules of the Game* (Washington, DC: Brookings Institution Press, 2010), 52.

¹⁴⁰ See United Nations Conference on Trade and Employment, March 1948, Havana Charter for an International Trade Organization, Article 11(2), U.N. Sales No. 48.II.D.4, E/CONF.2/78 (1948) [Havana Charter].

¹⁴¹ See Article 13, paragraphs 6, 7(iii) and Article 45, paragraph 1(a)(viii) of the Havana Charter; see also Y. Selivanova, “Managing the Patchwork of Agreements in Trade and Investment,” in A. Goldthau and J.M. Witte (eds.) *Global Energy Governance: The New Rules of the Game* (Washington, DC: Brookings Institution Press, 2010), 52.

the conservation of “exhaustible natural resources”.¹⁴² Notably, the term “natural resources” was understood to include “raw material”, while the term “exhaustible natural resources” covered “stock resources”, including metal or “oil”.¹⁴³ Hence, it can be deduced that energy trade in general was intended to be subject to the disciplines of the ITO and the GATT, unless a particular kind of energy trade was targeted by a measure aimed at conserving exhaustible natural resources, according to Article 45 of the Havana Charter and Article XX(g) of the GATT.

b. Energy Tradable Products

Following the demise of the ITO, the GATT became the binding multilateral trade treaty which had a general application and governed trans-boundary trade in commodities between GATT parties.¹⁴⁴ Generally, any product eligible as tradable, through export or import, was subject to the GATT. Thus, all tradable energy products, in principle, qualified as tradable products capable of being exported and imported. In fact, during the entire life of the GATT, since 1947, enormous volumes of energy products, specifically oil, coal and gas, have been traded internationally. Therefore, it can be assumed that, to the extent that energy resources were tradable products, all trade in energy products, similar to other tradables, are subject to the GATT.¹⁴⁵

c. Energy Trade was not excluded from the GATT

One of the main reasons supporting the applicability of GATT rules to trade in energy relates

¹⁴² See Article XX(g) of the GATT.

¹⁴³ See Charnovitz, Steve, “Exploring the Environmental Exceptions in GATT Article XX,” 25 *J. World Trade* 37, 45, 63 (1991).

¹⁴⁴ See the General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat. A-11, 55 U.N.T.S. 194; John H. Jackson, William J. Davey, Alan O. Sykes, *Legal Problems of International Economic Relations: Cases, Materials and Text on the National and International Regulation of Transnational Economic Relations*, (5th ed. 2008), p 215, 222.

¹⁴⁵ See Gabrielle Marceau, “The WTO in the Emerging Energy Governance Debate,” in Joost Pauwelyn (ed.) *Global Challenges at the Intersection of Trade, Energy and the Environment* (Centre for Trade and Economic Integration: Geneva, 2010), 25–41, at 26.

to the fact that neither energy as a trade sector nor energy products as commodities were ever explicitly excluded from the application of the GATT.¹⁴⁶ Indeed, none of the provisions of the GATT agreements, protocols or other related legal documents approved by the contracting parties has excluded energy products from GATT coverage, unlike the case of certain products, such as agricultural goods and textiles. These commodities, which were important for some of the GATT drafters, such as the US and certain European States, were granted special treatment within the GATT regime to the extent that the general provisions of the GATT did not apply to them.¹⁴⁷ Additionally, the GATT discipline granted affirmative exemptions from the coverage of its rules to certain kinds of measures, activities or situations. These exemptions were provided to GATT contracting parties through a variety of specific as well as general GATT exceptions. According to the various exceptions, measures and activities would be exempt from compliance with general GATT rules if they met the specific requirements of whichever GATT exceptions were applicable.

Therefore, it may be concluded that the GATT drafters intended to apply GATT rules to all goods that were not explicitly excluded from the coverage of the GATT. Secondly, when the GATT drafters intended to exempt an activity or a measure from compliance with GATT rules, they did so by designating certain exceptions. Accordingly, energy products were among those general non-excluded tradable products. Thus, in principle, their international trade was subject to GATT rules,¹⁴⁸ unless a measure related to their trade was eligible, by a party taking that measure, to invoke one of the potentially applicable GATT

¹⁴⁶ See Andrea Jiménez-Guerra, "The World Trade Organization and Oil," *Oxford Institute for Energy Studies SP 12* (2001), 14; M.G. Desta, "The GATT/WTO System and International Trade in Petroleum: An Overview," *J. Energy & Nat. Resources L.* 21 (2003), pp. 385-398, at 391; Waelde, T.W. & A.J. Gunst, "International Energy Trade and Access to Energy Networks," *Journal of World Trade*, 36 (2), 191-218, 2002.

¹⁴⁷ See generally John S. McPhee, "Agriculture and Textiles: The Fare and Fabric of Current GATT Negotiations," *Indiana International & Comparative Law Review* 3 (1992), 155; Kitty G. Dickerson, "Textile Trade: The GATT Exception," *St. John's Journal of Legal Commentary* 11 (1996), 393; Hathaway, Dale, *Agriculture and the GATT: Rewriting the Rules*, Policy Analysis in International Economics, (Washington, DC: Institute for International Economics, 1996).

¹⁴⁸ See Yulia Selivanova, "Challenges for Multilateral Energy Trade Regulation: WTO and Energy Charter," Society of International Economic Law (SIEL), Second Biennial Global Conference, University of Barcelona, July 8-10, 2010, SSRN Scholarly Paper, June 29, 2010, available at <http://papers.ssrn.com/abstract=1632557>.

exceptions. However, this argument's premise relies on the questionable assumption that energy products belonged to the same pool of products as other traded products. Accordingly, as long as energy products were not explicitly left out of this pool, they, like other products, were subject to GATT rules. Nevertheless, this argument, through its inclusive interpretation of the GATT coverage, ignores the possibility that energy products might not have been intended at all to belong to the general pool of tradable products.

d. GATT Negotiations

Although trade in energy in general and trade in petroleum in particular were not clearly and directly included in any of the GATT provisions, according to GATT history, the contracting parties discussed energy-related matters during various rounds of GATT negotiations.¹⁴⁹ Importantly, subsequent to the wave of nationalization of the petroleum industry by several Middle East and North African countries in the early 1970s, as well as due to the oil embargo and first oil shock in 1973, the US attempted to raise the issue of energy trade export restrictions and export taxes relating to energy during the Tokyo Round (1973-1979). Ultimately, the opposition of developed and developing countries led to the failure of this initiative.¹⁵⁰ Despite rejecting this initiative, during the Tokyo Round, several issues indirectly relevant to oil were negotiated. The Tokyo Round resulted in the creation of special agreements (Codes), which included, *inter alia*, subsidies, antidumping and technical barriers. Notably, these agreements included new rules with potential impacts on energy products and policies applied by energy exporting countries.¹⁵¹ Even though these agreements were the result of a multilateral round of the GATT, they were conceived not as binding but "optional" agreements. However, almost two decades later, with the

¹⁴⁹ See Andrea Jiménez-Guerra, "The World Trade Organization and Oil," *Oxford Institute for Energy Studies SP 12*, p. 14.; Selivanova, "Challenges for Multilateral Energy Trade Regulation," p. 4.

¹⁵⁰ See The United Nations Conference on Trade and Development (UNCTAD), *Trade Agreements, Petroleum and Energy Policies* (United Nations, New York and Geneva, 2000), 15, available at http://p166.unctad.org/pluginfile.php/1839/mod_resource/content/0/31oct/itcdtsb9_en.pdf.

¹⁵¹ See David W. Leebron, "An Overview of the Uruguay Round Results," *Columbia Journal of Transnational Law* 34 (1996), p. 18; Andrea Jiménez-Guerra, "The World Trade Organization and Oil," 14-16.

establishment of the WTO, the optional agreements became part of the WTO binding agreements.¹⁵²

It is worth noting another issue relating to energy *vis-à-vis* the GATT, which arose directly out of the Tokyo Round, i.e., the issue of the dual pricing practice. The GATT parties were required to formally discuss the dual pricing practice at the GATT Ministerial Meeting in 1982. This issue had emerged at that meeting since the GATT Council was requested to provide arrangements to serve towards the study of the dual pricing practices.¹⁵³ No substantive decision was taken in this regard and this specific practice continued until recently with regard to the negotiations around Russia's accession to the WTO, given Russia's practice of pricing gas exported and gas consumed domestically at different rates.¹⁵⁴

e. Accession of Energy Exporting Countries to the GATT

During the GATT era, some energy exporting countries became signatories to the GATT, such as Indonesia (1950), Nigeria (1960), Kuwait (1963), Mexico (1986) and Venezuela (1990).¹⁵⁵ Among these energy exporting countries, it is important to focus on the accession of Mexico and Venezuela. The accession of these two countries to the GATT casts light upon the link between the GATT discipline and trade in energy. More essentially, their accession to the GATT highlights how these two energy exporting countries perceived the interplay between GATT and energy trade and the implications of their GATT accessions for their energy trade.

¹⁵² See Leebron, "The Uruguay Round," 18–25; Andrea Jiménez-Guerra, "The World Trade Organization and Oil," at 16.

¹⁵³ See UNCTAD, *Trade Agreements, Petroleum and Energy Policies*, [hereinafter UNCTAD, *Trade and Energy*] at 17, footnote 6.

¹⁵⁴ See J. Selivanova, *Energy Dual Pricing in WTO Law: Analysis and Prospects in the Context of Russia's Accession to the WTO* (London: Cameron May, 2008), pp. 5 and 11; Sergey Ripinsky, "The System of Gas Dual Pricing in Russia: Compatibility with WTO Rules," *World Trade Review* 3, No. 3 (2004): 463–481; J. Selivanova, "World Trade Organization, Rules and Energy Pricing: Russia's Case", 38 (4) *Journal of World Trade* (2004), pp. 559-602.

¹⁵⁵ See WTO, The 128 countries that had signed GATT by 1994, available at http://www.wto.org/english/thewto_e/gattmem_e.htm.

Mexico became a contracting party to the GATT in 1986,¹⁵⁶ and a founding member of the WTO in 1995.¹⁵⁷ At the time of joining the GATT, Mexico was one of the most important oil producing and exporting countries in the world. Notably, when Mexico negotiated its accession to the GATT, one of the most important energy trade issues came to the fore, i.e., the issue of export restriction practices that energy producing and exporting countries used to impose over the production or exportation of energy products, essentially over crude oil.¹⁵⁸ In order to preserve its sovereignty and apply certain export restrictions with regard to its natural resources in general and energy products in particular, Mexico sought to maintain its rights through Paragraph 5 of the Protocol of Accession to the GATT.¹⁵⁹ Paragraph 5 of Mexico's Protocol of Accession states:

“Mexico will exercise its sovereignty over natural resources, in accordance with the Political Constitution of Mexico. Mexico may *maintain certain export restrictions* related to the conservation of natural resources, *particularly in the energy sector*, on the basis of its social and development needs if those export restrictions are made effective *in conjunction with restrictions on domestic production or consumption.*” (Emphasis added)

On the contrary, a few years later, in 1990, Venezuela joined the GATT without retaining any right to regulate its energy trade. Venezuela is one of the leading energy producing and exporting countries and one of the five founding members of the Organization of Petroleum Exporting Countries (OPEC) in 1960.¹⁶⁰ With regard to the practices of production or export restriction, it is important to mention that in 1985 OPEC countries transformed their coordination practices from setting oil prices directly to

¹⁵⁶ For further details, see Richard D. English, “The Mexican Accession to the General Agreement on Tariffs and Trade,” *Texas International Law Journal* 23 (1988) 339-393, 340.

¹⁵⁷ See WTO, Mexico and the WTO, available at http://www.wto.org/english/thewto_e/countries_e/mexico_e.htm.

¹⁵⁸ See UNCTAD, *Trade and Energy*, 20.

¹⁵⁹ *Ibid.*, 20 (Protocol for the Accession of Mexico to the GATT); see also Andrea Jiménez-Guerra, “WTO and Oil,” 22; Wen-chen Shih, “Energy Security, GATT/WTO, and Regional Agreements” 49 *Nat. Resources J.* 433 (2009): 468.

¹⁶⁰ See OPEC, Member Countries, available at http://www.opec.org/opec_web/en/about_us/25.htm.

imposing production ceilings or quotas.¹⁶¹ Thus, at the time of becoming a contracting party to the GATT, this new practice was very relevant to Venezuela as a GATT signatory because of Article XI: 1 of the GATT, which bans imposing quantitative restrictions on imports and exports. In fact, Mexico's Protocol of Accession specifically included a reservation in Paragraph 5 allowing for the retention of its ability to regulate trade in energy.

It was expected that Venezuela would include a similar text or paragraph in its accession documents, especially bearing in mind the new quota restrictions it imposed as a member of OPEC, which could be in infringement of Article XI: 1 of the GATT. However, unlike the Mexican case, it appears that Venezuela did not feel the need to incorporate any wording in its Protocol of Provisional Application (PPA) or even in the report of the Working Party to maintain its ability to apply production or export restrictions to its oil sector. In fact, Venezuela relied on the general exception of the GATT and, in particular, on Article XX(g) of the GATT. This article provided a valid defense to measures related to the "conservation of exhaustible natural resources".¹⁶² Indeed, Venezuela did not request the inclusion of any additional and specific text to the PPA for the sake of maintaining its oil production and export policies. Therefore, it is obvious that Venezuela considered the text in Paragraph 5 of Mexico's Protocol of Accession to be no different than Article XX(g) of the GATT and as not containing any particular advantage.¹⁶³ Also, it can be concluded that Venezuela considered GATT law to include an internal mechanism, i.e., Article XX(g), that

¹⁶¹ See OPEC, Brief History, available at http://www.opec.org/opec_web/en/about_us/24.htm; Heather Wagner, *The Organization of Oil Exporting Countries* (New York: Chelsea House, 2009), 54-57 (describing the events that accompanied the shift from setting oil prices to setting oil production ceilings); John Gault, Charles Spierer, Jean-Luc Bertholet, Bahman Karbassioum, "How does OPEC allocate quotas?" *Journal of Energy Finance and Development*, 4(2), 137 (1999), pp. 137-148; Rafael Sandrea, "OPEC's Next Challenge – Rethinking their Quota System," *Oil & Gas Journal*, Vol. 101.29, (2003), p. 2, available at http://www.ipc66.com/publications/OPEC_Nex_Challenge_quota_system.pdf; Melaku Geboye Desta, "The Organization of Petroleum Exporting Countries, the World Trade Organization, and Regional Trade Agreements," *Journal of World Trade* 37, No. 3 (2003): 523-551.

¹⁶² See Article XX(g) of the GATT; UNCTAD, *Trade and Energy*, 20; Shih, "Energy Security," 468; Abu-Gosh, E. and Leal-Arcas, R. "The Conservation of Exhaustible Natural Resources in the GATT and WTO: Implications for the Conservation of Oil Resources," *The Journal of World Investment and Trade* Vol. 14, No. 3, pp. 480-531, 2013.

¹⁶³ See UNCTAD, *Trade and Energy*, 20; Andrea Jiménez-Guerra, "WTO and Oil", 22-23.

allowed regulating the exploitation of natural resources, including energy resources.

In this respect, two substantially different situations have to be addressed concerning the issue of GATT (in)applicability to energy trade issues: the first deals with excluding trade in energy initially from the GATT discipline; the second focuses on exempting energy trade from one or more GATT rules through invoking GATT methods. The first situation implies that all types of trade in energy are conducted fully outside the scope of the GATT, and both rules and exceptions have no validity over this sector of trade. Conversely, the starting point of the second situation highlights the full applicability of GATT rules to trade in energy matters. However, according to the latter situation, if a certain issue, activity or measure of energy trade meets the requirement of one of the GATT exceptions, this specific item will be exempt from the GATT discipline. All other activities, issues or measures related to energy trade will continue to be subject and bound by GATT rules.

Although the approaches of Mexico and Venezuela differed in their accession to the GATT, it can be implied that both treated the GATT discipline as being applicable to trade in energy, following the second situation mentioned above. It is through the specific reservation in Paragraph 5 of its Protocol of Accession that Mexico kept “certain export restrictions” outside the scope of GATT rules. Meanwhile, Venezuela referred to Article XX(g) of the GATT to defend a similar practice. Admittedly, the reservation within the Protocol of Accession as well as Article XX(g) of the GATT are both precisely GATT methods. These GATT methods were an inherent part of GATT law and were provided to GATT contracting parties or acceding States by GATT law. Consequently, the reliance on and the usage of GATT methods to exempt certain energy trade practices undoubtedly emphasize the coverage of the GATT discipline to all energy trade issues, except those exempted by GATT exceptions or reservations in Protocols of Accession. In other words, using GATT methods to invalidate the GATT discipline over particular energy practices means, first and foremost, accepting the applicability of this discipline to all other non-exempt energy trade issues.

f. The Uruguay Round

During the Uruguay Round (1986-1994), different groups of countries held discussions that had a clear impact on energy matters. For instance, some of the countries participating in the Negotiating Group on Natural Resources-Based Products, called attention to certain problematic practices pertinent to energy products issues.¹⁶⁴ Among those debatable issues were dual pricing, export restrictions, and trade distortions due to governmental ownership and control practices.¹⁶⁵ Objecting countries claimed that these practices caused variations of energy prices favoring domestic markets, hence, resulting in trade distortion.¹⁶⁶

However, the opponents to this argument stressed that these practices were outside the scope of the mandate of the Negotiating Group on Natural Resources-Based Products.¹⁶⁷ Additionally, within the Negotiating Group on Subsidies and Countervailing Measures, attempts were made to address subsidies issues relating to energy. These attempts were also opposed for being “outside the terms of reference of the Negotiating Group on Subsidies and Countervailing Measures”.¹⁶⁸ Finally, this initiative failed to incorporate energy-related texts in the Chairman’s draft text of the Agreement on Subsidies and Countervailing Measures.¹⁶⁹

g. The WTO Coverage

The outcome of the Uruguay Round was the creation of the WTO with its set of binding

¹⁶⁴ See Uruguay Round, Group of Negotiations on Goods, Negotiating Group on Natural Resource-Based Products, meeting of 11 February 1987, note by the GATT Secretariat, MTN.GNG/NG3/, 26 February 1987; UNCTAD, *Trade and Energy*, 15 at footnote 6, mentioning the submission of the US in MTN.GNG/NG3/W/2, MTN.GNG/NG3/W/13 and MTN.GNG/NG3/W/23, as well as the submission of the European Communities in MTN.GNG/NG3/W/37.

¹⁶⁵ See paras. 10–11 of the Uruguay Round Meeting of 11 February 1987; UNCTAD, *Trade and Energy*, 15–16.

¹⁶⁶ See paras. 10-11 of the Uruguay Round Meeting of 11 February 1987; UNCTAD, *Trade and Energy*, 16; Andrea Jiménez-Guerra, “WTO and Oil,” 17.

¹⁶⁷ See para. 12 of the Uruguay Round Meeting of 11 February 1987; Mireille Cossy, “Energy Trade and WTO Rules: Reflexions on Sovereignty over Natural Resources, Export Restrictions and Freedom of Transit,” in Christoph Herrmann and Jörg Philipp Terhechte (eds.), *European Yearbook of International Economic Law (EYIEL)* Vol. 3, 2012, 281, 292; UNCTAD, *Trade and Energy*, 17.

¹⁶⁸ See Uruguay Round, Trade Negotiations Committee, Subsidies and Countervailing Measures, Communication from the Permanent Delegation of Mexico, MTN.TNC/W/38 (26 November 1990).

¹⁶⁹ Ibid. See also UNCTAD, *Trade and Energy*, 18–19.

agreements. Indeed, the WTO encompasses rules relevant to trade in goods, services and intellectual property rights. Although the WTO agreements do not specify either an independent agreement addressing energy matters or any particular provisions relating to energy, the premise is that the WTO covers a multitude of energy trade issues.¹⁷⁰ For example, all trade in energy products is covered by GATT rules; likewise, all trade in energy services should be conducted according to GATS rules.¹⁷¹

Moreover, the Doha Round, which began in 2001 and is an ongoing multilateral round of negotiations,¹⁷² contains few implications for energy trade. It neither addresses energy trade as a separate or independent area of negotiations nor does it highlight its critical issues. This is despite the fact that there are three major areas of negotiations in the Doha Round with relevance to trade in energy issues: liberalizing trade in environmental products and services (climate friendly goods and services), energy services, and trade facilitation (energy transit).¹⁷³ The fact that the Doha Round includes energy issues,¹⁷⁴ even if treated

¹⁷⁰ See Marceau, G. "The WTO in the Emerging Energy Governance Debate," in Joost Pauwelyn (ed.) *Global Challenges at the Intersection of Trade, Energy and the Environment* (Centre for Trade and Economic Integration: Geneva, 2010), pp. 25-41; Alan Yanovich, "WTO Rules and the Energy Sector," in Yulia Selivanova (ed.) *Regulation of Energy in International Trade Law: WTO, NAFTA, and Energy Charter Treaty* (Kluwer, 2011), 1-47, 2.

¹⁷¹ See Marceau, G. "The WTO in the Emerging Energy Governance Debate," in Joost Pauwelyn (ed.) *Global Challenges at the Intersection of Trade, Energy and the Environment* (Centre for Trade and Economic Integration: Geneva, 2010), 26-30; G. Marceau, "The WTO in the Emerging Energy Governance Debate," *Global Trade and Customs Journal* Vol. 5, No. 3 (2010) 83. See also the background note by the WTO Secretariat, "Energy Services," S/C/W/311, 12 January 2010.

¹⁷² See WTO, Ministerial Declaration of 14 November 2001, WT/MIN(01)/DEC/1, 41 I.L.M. 746(2002). For analyses of the Doha Round (especially from a services trade perspective), see Leal-Arcas, R. "Services as Key for the Conclusion of the Doha Round," *Legal Issues of Economic Integration*, 35(4), pp. 301-321, 2008; Leal-Arcas, R. "The Resumption of the Doha Round and the Future of Services Trade" *Loyola of Los Angeles International and Comparative Law Review*, Volume 29, Issue 3, 2007, pp. 339-461; Leal-Arcas, R. "Bridging the Gap in the Doha Talks: A Look at Services Trade," *Journal of International Commercial Law and Technology*, Volume 2, Issue 4, 2007, pp. 241-249; Leal-Arcas, R. "The GATS in the Doha Round: A European Perspective," in Alexander, K. & Andenas, M. (eds.) *The World Trade Organization and Trade in Services*, Brill/Nijhoff, 2008, pp. 9-104.

¹⁷³ See Pascal Lamy, "Energy, Trade and Global Governance," in *Global Challenges at the Intersection of Trade, Energy and the Environment*, in Joost Pauwelyn (ed.) (Geneva, 2010), 15-18, at p. 17; Marceau, G. "Energy Governance Debate", 31.; Murray Gibbs, "Energy Services, Energy Policies and the Doha Agenda," in UNCTAD, *Energy and Environmental Services: Negotiating Objectives and Development Priorities*, vol. UNCTAD/DITC/TNCD/ 2003/3 (Geneva: UNCTAD, 2003), p. 4, available at

only as sub-matters rather than major areas of negotiation, stresses the existence of energy trade issues in the WTO.

h. Accession of Energy-Endowed Countries to the WTO

The accession of energy-endowed countries to the WTO strengthens the argument that trade in energy is subject to the WTO discipline. In contrast to the GATT era, the WTO seems to attract more energy-endowed countries to become full members of this multilateral trade organization. The most prominent energy producing countries¹⁷⁵ that joined the WTO are: Qatar (1996), United Arab Emirates (1996), Angola (1996), Oman (2000), China (2001), Saudi Arabia (2005), and Russia (2012).¹⁷⁶ In order to properly answer the question of the applicability of GATT/WTO disciplines to trade in energy, another significant milestone should be examined, namely the accession of the energy-exporting countries to the WTO, and particularly, the accession of the biggest energy producing-exporting countries, i.e., Saudi Arabia and Russia, which joined the WTO in 2005 and 2012, respectively. Both countries have been considered for decades the biggest energy producing and exporting countries worldwide. The accession of these two countries to the WTO constitutes a landmark event in the history of the WTO in relation to trade in energy. In addition, other significant energy-endowed countries are in the process of negotiating their accession to the WTO, and in the meantime have observer status. This group of observers includes Iran, Iraq, Libya, Algeria, Kazakhstan, and Azerbaijan.¹⁷⁷ Accordingly, it is assumed that the dynamics of the WTO may well be changed due to the accession of energy producing countries.¹⁷⁸ The

http://unctad.org/en/Docs/ditctncd20033_en.pdf.

¹⁷⁴ See the reference Pascal Lamy makes to energy services in the context of the Doha Round. Lamy, P. "Energy, Trade and Global Governance," in *Global Challenges at the Intersection of Trade, Energy and the Environment*, in Joost Pauwelyn (ed.) (Geneva, 2010), pp. 15–18, at p. 17.

¹⁷⁵ For an account of the major oil producing countries as of 2009, see <http://aspousa.org/peak-oil-reference/peak-oil-data/production-and-peak-dates-by-country/>.

¹⁷⁶ See WTO, Members and Observers, http://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm.

¹⁷⁷ Ibid.

¹⁷⁸ Shih, "Energy Security", 439- 440; Timothy J. Richards and Lawrence Herman, "Relationship between International Trade and Energy", WTO, Research and Analysis, available at

more energy-endowed countries join the WTO, the more energy trade becomes subject to the WTO.

However, if the presumption were that energy trade was outside the scope of GATT/WTO disciplines, then it may be incorrect to claim that accession of energy-producing countries to the WTO would mean the automatic application of WTO rules to energy trade. An argument based solely upon accession is weak compared to the previous arguments. In the context of applying the WTO discipline to energy trade, using the accession to the WTO of energy producing countries entails linking this argument to other substantial aspects of accession, such as: the negotiation agenda and process; energy-related issues raised and negotiated *de facto* between the negotiations' parties; notes from the WTO Working Party reports referring to energy matters; commitments agreed between the WTO and an acceding State in the ultimate protocols of accession and whether these protocols integrated energy issues or not. Therefore, a reliance only on the mere fact and act of accession with no clear reference to the negotiated and agreed issues, pertaining to energy, would not be a sufficiently convincing argument.

2. Unresolved Energy Trade Issues

There are unresolved issues which lie at the intersection between international trade rules and trade in energy. Although WTO law applies to all other trade aspects, its application to the energy sector has been unclear.¹⁷⁹ Besides, WTO law, with all of its agreements, rules, obligations and exceptions, was not originally drafted to address and tackle energy issues.¹⁸⁰ It should also be noted that the WTO discipline is based heavily on rules that ban WTO members from acting in certain ways.¹⁸¹ It lacks rules imposing positive obligations on WTO

http://www.wto.org/english/res_e/publications_e/wtr10_richards_herman_e.htm.

¹⁷⁹ See generally ICTSD, “*Fostering Low Carbon Growth: The Case for a Sustainable Energy Trade Agreement*” (Geneva, Switzerland 2011).

¹⁸⁰ See Rakhmanin at p. 123.

¹⁸¹ For example, the prohibition of discriminatory treatments (Articles I and III of the GATT) as well as the prohibition on imposing quantitative restrictions (Article XI:1 of the GATT); see Cossy, at p. 113.

members, which are necessary to regulate significant issues of trade in energy.¹⁸²

Energy resources have always been potent geopolitical and strategic tools in the world order.¹⁸³ However, when the GATT was first negotiated in the 1940s, liberalizing global trade in energy was not considered to be a ‘political priority’.¹⁸⁴ However, rising global energy needs¹⁸⁵ combined with factors including the recent accession to the WTO of several ‘energy-significant’ economies¹⁸⁶, the increased centrality of energy in environmental and climate change-related discussions¹⁸⁷, and the proliferation of private-sector involvement in energy¹⁸⁸ have resulted in a reconsideration of this view today.¹⁸⁹ As a result, the role of the WTO in regulating global trade in energy goods and services has increasingly come into question.¹⁹⁰

In response, this section focuses on the relationship between trade in energy and the rules currently existing under the WTO regime. It addresses the distinctive nature of trade in energy and the resulting complexities associated with its regulation under existing WTO rules; it considers whether existing WTO rules are capable of operating to cover the sector; and it concludes the discussion with a critical comment of this coverage, or lack thereof.

¹⁸² See Cossy, at p. 114 (mentioning some of the limited or missing rules from the WTO discipline, such as rules for obliging WTO members to act and ban anticompetitive activities by monopolies, or rules pertinent to access and use of “transport facilities” in the energy sector).

¹⁸³ UNCTAD, ‘Trade Agreements, Petroleum and Energy Policies’, UNCTAD/ITCD/TSB/9, at 14 (2000).

¹⁸⁴ Thomas Cottier *et al.*, ‘Energy in WTO Law and Policy’, Working Paper No 2009/25 (May 2009), at p. 1, available at <http://phase1.nccr-trade.org/images/stories/projects/ip6/IP6%20Working%20paper.pdf>; see also Yulia Selivanova, ‘The WTO and Energy: WTO Rules and Agreements of Relevance to the Energy Sector,’ Issue Paper No.1 (August 2007), ICTSD Programme on Trade and Environment.

¹⁸⁵ See for example M.A. Adelman, ‘World oil production & prices 1947-2000’ (2002) 42(2) *The Quarterly Review of Economics and Finance*, at 170; BP Statistical Review of World Energy, at 42 (June 2013), available at http://www.bp.com/content/dam/bp/pdf/statistical-review/statistical_review_of_world_energy_2013.pdf.

¹⁸⁶ By this term, reference is made to both significant energy-exporters as well as consumers (for example, Russia, a major energy exporter, joined the WTO in August 2012).

¹⁸⁷ UNCTAD, ‘Trade Agreements, Petroleum and Energy Policies,’ UNCTAD/ITCD/TSB/9 at 13 (2000).

¹⁸⁸ See for example World Trade Organization, ‘Energy Services,’ S/C/W/52 (September 1998), at paragraph 6.

¹⁸⁹ See Mireille Cossy, ‘Energy Transport and Transit in the WTO,’ in Pauwelyn, J. (ed.), *Global Challenges at the Intersection of Trade, Energy and the Environment*, Geneva: Centre for Trade and Economic Integration, 2010, at 113; Gabrielle Marceau, ‘The WTO in the Emerging Energy Governance Debate,’ in *ibid.*, at 25 ff.

¹⁹⁰ World Trade Organisation, ‘Energy Services,’ S/C/W/52 (September 1998), , at page 8; Anna Marhold, ‘The World Trade Organization and Energy: Fuel for Debate’ *ESIL Insights*, Volume 2, Issue 8, 2013.

a. Energy vis-à-vis other goods and services

The intuitive difficulties in reasoning that the WTO agreements *ipso facto* apply to trade in energy stem from the existence of a number of features – that characterize energy trade – which are absent from trade in other goods and services. These distinctive features can broadly be grouped into two inter-related categories – based on physical features and political considerations.

In the first category falls the ‘peculiar’ physical form of energy goods which are often difficult to store and volatile. This results in the necessity for special infrastructure and methods to store, transport and distribute them. Further, energy goods are naturally finite and often non-renewable,¹⁹¹ form an ‘essential intermediate input for almost all economic activity,’ and have a ‘direct impact on the welfare of end-users’.¹⁹² These distinctive ‘physical’ features result in a number of unique political and economic considerations coming into play, as explained in Section III above. For instance, price, quality, availability, marketability, transport and other conditions of purchase or sale.¹⁹³

As for the second category, based on political considerations, a number of monopolies in exploitation exist in the sector. These result either from an unequal distribution of energy resources across countries by nature or due to the strategically motivated dominance of vertically-integrated state-controlled enterprises in the energy industry of a particular country.¹⁹⁴ Another distinct issue is the dependence of the sector on capital-intensive fixed

¹⁹¹ Yulia Selivanova, ‘International Energy Governance: The Role of the Energy Charter’, American Society of International Law Proceedings, Vol. 106, Issue 1 (March 28-31, 2012), at 394-5; Cottier *et al.*, ‘Energy in WTO Law and Policy’, Working Paper No 2009/25 (May 2009), at 2.

¹⁹² WTO, ‘Communication from Venezuela, Negotiating Proposal on Energy Services,’ S/CSS/W/69, 29 March 2001, at 1; See also Yulia Selivanova, ‘The WTO and Energy: WTO Rules and Agreements of Relevance to the Energy Sector,’ Issue Paper No.1 (August 2007), ICTSD Programme on Trade and Environment, at 13.

¹⁹³ Article 14.d of the Subsidies and Countervailing Measures Agreement.

¹⁹⁴ Cottier *et al.*, ‘Energy in WTO Law and Policy’, Working Paper No 2009/25 (May 2009), at 2.

infrastructures.¹⁹⁵ These raise dual considerations in terms of the frameworks in place to regulate investments in such infrastructures and, subsequently, the conditions of access to the same.¹⁹⁶ In contrast, manufactured products can be stored and distributed in settings that are not dependent on infrastructures to which access may be restricted or conditional.¹⁹⁷

Thus, it becomes clear that energy products possess characteristics which evidently differentiate them from trade in other commodities and manufactured goods. The question that logically follows is whether the differentiation is substantial enough to render the WTO agreements *in limine* inapplicable to the sector.

b. Trade in Energy under the existing WTO Regime

Given the discussion above, a preliminary question is whether – given the uniqueness of trade in energy – the WTO agreements can at all apply to trade in energy. The traditional conception has been that the sector is one that is ‘largely not covered by the WTO’¹⁹⁸ and did not fall within the ambit of its agreements. However, for the reasons outlined above, this assumption has, in recent times, come under enhanced scrutiny. Today, the position is rather uncontroversial with there being a broad consensus that there is nothing in the WTO framework that prevents its application to energy trade.¹⁹⁹ In other words, it has been for reasons that are political, strategic and security-related, rather than legal, that states chose to address issues affecting trade in energy “outside” the realm of the WTO.²⁰⁰ Given this lack of

¹⁹⁵ Yulia Selivanova, ‘The WTO and Energy: WTO Rules and Agreements of Relevance to the Energy Sector,’ Issue Paper No.1 (August 2007), ICTSD Programme on Trade and Environment, at 13.

¹⁹⁶ Selivanova, Y. ‘International Energy Governance: The Role of the Energy Charter’, American Society of International Law Proceedings, Vol. 106, Issue 1, at 395.

¹⁹⁷ Manufactured products can be stored and distributed by means such as trucks, ships or trains, which only depend on unconditionally accessible ‘public’ infrastructure, such as road, water or rail.

¹⁹⁸ ‘No thanks, Geneva’, *The Economist*, 18th June 2009, Moscow, available at <http://www.economist.com/node/13871196>.

¹⁹⁹ M.G. Desta, ‘The GATT/WTO System and International Trade in Petroleum: an Overview’, *Journal of Energy and Natural Resource Law*, Vol. 21 (2003), at 398; Lambert Botha, ‘How do the current WTO disciplines apply to the trade of energy goods and services?’, Discussion Paper (July 2009), at 3, available at <http://www.internationaltradelaw.co.za/dmdocuments/LB%20Paper.pdf>.

²⁰⁰ Lambert Botha, at 16.

a *de jure* exclusion of energy trade from the WTO, some of the most important issues that arise when WTO norms are made to apply to trade in energy have been outlined below.

i. Definitional/Classification issues

There are a number of yet unresolved issues that arise when it is attempted to apply the provisions of the GATT to global energy trade. At the outset is the lack of a definitive classification of energy goods and energy services. Neither term is definitively defined – with the latter only being provisionally listed.²⁰¹ Another challenge is the difficulty associated with distinguishing clear elements of services and goods in energy trade – with most of the trade possessing elements of both.²⁰² Similarly, there is no unanimity on whether ‘electricity’ should be categorized as being either a good or a service under WTO norms.²⁰³ Finally, the nature of energy products brings up many questions of interpretation of specific questions, including whether different types of energy products (such as ‘renewable’ and ‘non-renewable’) can be treated as being ‘like products’ and whether the freedom of transit would apply to fixed infrastructures, such as pipelines.²⁰⁴

ii. General Agreement on Tariffs and Trade

A fundamental issue concerning the applicability of GATT Articles I and III – concerning MFN and national treatment, respectively – relates to the test of “likeness” of energy products. An example of a potential issue is whether renewable energy goods compete with non-renewable energy goods and, therefore, whether they should be treated by law in the

²⁰¹ Marhold, A. ‘The World Trade Organization and Energy: Fuel for Debate’ *ESIL Insights*, Vol. 2, Issue 8, p. 3, 2013.

²⁰² WTO, ‘Energy Services,’ S/C/W/52 (September 1998), at page 2.

²⁰³ Robert Howse and Elisabeth Turek, “The WTO Negotiations on Services: The regulatory state up for grabs,” CANADA WATCH, Vol. 9, No. 1-2, pp. 3-9, at 4 (September 2002): “*With respect to energy, the situation is even more complex because some WTO members view electricity as a good, [...] while others view the generation of electricity and the operation of power plants as a service*”. Others view it differently: in case C-393/92 *Almelo v Energiebedrijf IJsselmij* [1994] ECR-I-1477 [28] and case C-158/94 *Commission v Italy* [1997] ECR I-5789 [17], the European Court of Justice ruled that electricity should be treated as a good.

²⁰⁴ Yulia Selivanova, ‘The WTO and Energy: WTO Rules and Agreements of Relevance to the Energy Sector,’ Issue Paper No.1 (August 2007), ICTSD Programme on Trade and Environment, at 18.

same manner.²⁰⁵ There are additional issues regarding the interaction of these articles with prevailing practices in energy trade. For example, Article III may be violated when WTO Members grant preferential distribution network (e.g., pipeline) access to vertically-integrated state-run monopolies. The freedom to transit goods without interference through a WTO Member's territory is enshrined under Article V. While such a provision would have definite applications for cross-border energy trade, it is in doubt whether the provision covers transport through pipelines or wires under 'traffic in transit'.²⁰⁶ It has also been argued that Article 7 of the Energy Charter Treaty (ECT) would offer a more robust provision for energy-related cases where applicable.²⁰⁷ Article XI of the GATT prevents quantitative border restrictions. A possible issue here is the interaction of this provision with the imposition of conditions of access or licensing requirements for oil and gas pipelines of a WTO Member.

iii. General Agreement on Trade in Services

In addition to the definitional problems above, considering 'energy services' under the GATS also raises a number of unresolved issues. Article II seeks to ensure MFN status for all services of all WTO Members, without discrimination. Article VI, concerning 'domestic regulation,' would be crucial to a sector that is often the subject of heavy regulatory oversight by governments. Of particular relevance to the energy sector is Article VIII, addressing 'monopolies and exclusive services suppliers'. This provision lays down specific

²⁰⁵ Gabrielle Marceau, 'The WTO in the Emerging Energy Governance Debate,' in Pauwelyn, J. (ed.), *Global Challenges at the Intersection of Trade, Energy and the Environment*, Geneva: Centre for Trade and Economic Integration, 2010, at 25 ff.

²⁰⁶ Yulia Selivanova, 'The WTO and Energy: WTO Rules and Agreements of Relevance to the Energy Sector,' Issue Paper No.1 (August 2007), ICTSD Programme on Trade and Environment, at 18.

²⁰⁷ Article 7 ECT enshrines rights relating to transit; WTO, Communication from the European Communities, 'WTO Trade Facilitation – Strengthening WTO Rules on GATT Article V on Freedom of Transit,' G/C/W/422 (30 September 2002), at 5: "WTO members may wish to evaluate whether freedom of transit for such goods is effective and whether there is any need or scope for reassessing GATT Article V to take account of the special nature of this form of transit." See also Danae Azaria, 'Energy Transit under the Energy Charter Treaty and the General Agreement on Tariffs and Trade', *Journal of Energy and Natural Resource Law*, Volume 27, No.4 (2009), at 574.

conditions for the operation of monopolies and will have important implications for the energy sector, where state-run monopolies are not uncommon. The stricter regulations on monopolies will translate into healthy competition which, in turn, benefits energy consumers and enhances energy security globally.

iv. Agreement on Technical Barriers to Trade

The Technical Barriers to Trade Agreement is a step towards harmonization of technical regulations and product standards.²⁰⁸ The Agreement would be applicable to a number of energy-trade variables, including technology efficiency requirements and standards.

v. Agreement on Subsidies and Countervailing Measures

The application of the Subsidies and Countervailing Measures (SCM) Agreement to energy trade will raise a number of issues to be settled. Article 8 of the SCM Agreement – which expired in 1999 – deemed ‘non-actionable’ certain government schemes that provided ‘assistance to promote adaptation of existing facilities to new environmental requirements.’²⁰⁹ With the expiry of this provision, government subsidies aimed at encouraging the adoption of green energy technology would be called into question. Another question concerns the applicability of the SCM Agreement to the common industry practice of ‘dual-pricing’.²¹⁰ If the specific conditions laid down in the SCM Agreement are met, the practice may, in fact, be illegal.

vi. Exceptions

A number of WTO agreements, including the GATT and GATS, provide for exceptions to a WTO Member’s obligations under WTO law. These, when implemented in accordance with

²⁰⁸ Article 2.6, Agreement on Technical Barriers to Trade.

²⁰⁹ Article 8.2(c) of the SCM Agreement.

²¹⁰ Marhold, ‘The World Trade Organization and Energy: Fuel for Debate’ *ESIL Insights*, Volume 2, Issue 8, p. 3, 2013.

the relevant rules provided therewith, would exclude a WTO Member from having to respect its obligations under the respective agreement. Exceptions that may apply to the energy sector include:

- (i) the necessity to protect human, animal or plant life or health;²¹¹
- (ii) relating to the conservation of exhaustible natural resources;²¹²
- (iii) essential to the acquisition or distribution of products in general or local short supply;²¹³ and
- (iv) the national security exception – given the clubbing of energy with the national security of states.²¹⁴

Moving forward, it will be important to evolve guidelines on the invocation of these exceptions in relation to energy trade so that WTO Members do not avoid obligations based on subjective interpretations of broad provisions.

c. Final Remarks

In light of the above discussion, it is clear that the existing regime under the WTO does in fact cover trade in energy. However, the status quo is far from ideal, with a number of ambiguities and uncertainties prevailing – including those detailed above. In light of these, the necessity of the hour is clarity in applying WTO norms to the international energy market. This may be achieved either through a specific WTO Agreement on Energy or through *ad-hoc* interpretations of the various WTO agreements by the WTO's DSU. However, given the lack of political will in bringing in an international energy governance framework, it would seem that the latter is the most feasible model in the short and medium-term. To avoid conflicting norms from developing, there is also a growing need to study the

²¹¹ Article XX(b) of the GATT; Article XIV(b) of the GATS; Article 2.2, TBT Agreement; Article 27(2), Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs).

²¹² Article XX(g) of the GATT.

²¹³ Article XX(j) of the GATT.

²¹⁴ Article XXI of the GATT; Article XIV bis of the GATS; Article 73 of TRIPs.

relationship between the ECT – a multilateral effort aimed at governing energy-related investments – and the existing WTO structures.

VI. Conclusion

WTO law governs and regulates trade relationships among WTO members. Within the scope of the WTO, energy trade is one of the most significant trade sectors, constituting the largest primary commodity of global trade in terms of volume and value.

This article has reviewed the treatment of energy trade in the WTO system by examining whether such type of trade deserves to be recognized as a special trade sector. The energy trade sector has been treated for decades as a distinct type of trade, mainly due to unique features attached to the energy sector in general and energy trade in particular. However, it is not only the unique features of energy that make this trade sector a special sector under the WTO regime, but there are three main factors that support this argument, as explained before. The first factor relates to the special characteristics of the energy sector that make such a sector different from other trade sectors; the second factor focuses on significant and unprecedented challenges that confront the global energy industry in general and energy trade in particular; and the third factor refers to certain ongoing debates and unresolved issues that emerge from the intersection between WTO law and energy trade.

Undoubtedly, the combination of these three main factors distinguishes energy trade from other trade sectors and contributes to presenting energy trade as a special sector under the WTO regime. Although the uniqueness of the energy trade sector becomes prominent under the WTO regime, this regime is still inadequately equipped to handle and regulate all energy trade-related issues.

Moreover, this article concludes that, although there are various factors which explain why international trade in energy has been treated differently from other trade sectors and products in the world trading system, no GATT/WTO provision expressly provides that energy trade is not applicable to the GATT/WTO disciplines. In fact, a

combination of multiple substantial factors and arguments upholds the applicability of the GATT/WTO disciplines to trade in energy. Therefore, it can be concluded that the GATT/WTO legal regime applies to trade in energy.