I

The Topic and Its Importance, the Scope and Structure of This Study, Overview of Relevant Theoretical Issues

> [T]he major obstacle to the development of new supplies [of energy] is not geology but what happens above ground: namely, international affairs, politics, decision-making by governments.
>
> Daniel Yergin[1]

I. Setting the Context

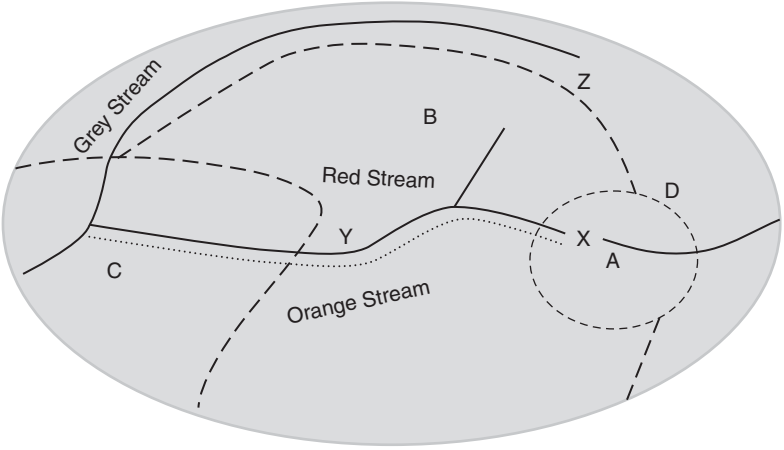
This monograph discusses the regulation of the transit of natural gas via pipelines[2] under the rules of the World Trade Organization (WTO).[3] This issue is becoming increasingly topical in international trade law, which is evident from the growing number of WTO disputes involving trade in energy[4] and the on-going discussions within the WTO

[1] Yergin, Daniel, 'Ensuring Energy Security', 85 *Foreign Affairs* (2006) 69.

[2] The term 'gas' is shorthand for hydrocarbon deposits existing naturally in a gaseous or a mixed gaseous and liquid state, such as methane. Roberts, Peter, *Gas Sales and Gas Transportation Agreements: Principles and Practice*, 2nd ed. (London: Sweet & Maxwell, 2008) at 5. The term 'pipeline' throughout this monograph does not refer exclusively to a line of pipe but also, where applicable, to pumping machinery and apparatus, including valves, compressors, metering and regulator stations. See Vinogradov, Sergei, 'Challenges of Nord Stream: Streamlining International Legal Frameworks and Regimes for Submarine Pipelines', 9 *Oil, Gas & Energy Law Intelligence* (2011), www.ogel.org, accessed 15 February 2014 at 10.

[3] At the time of writing, the WTO had 162 Members, including all major economies, apart from a few states in the Middle East and Central Asia. See World Trade Organization, 'Members and Observers', www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm, accessed 30 November 2015.

[4] Among the most recent disputes only, see Appellate Body Reports, *Canada – Renewable Energy/Canada – Feed-in Tariff Program*; and the request for consultations submitted to the WTO by the Russian Federation in *European Union and Its Member States – Certain Measures Relating to the Energy Sector* (DS476).



Solid line: existing pipeline
Round dot line: proposed pipeline

Figure 1: Example of Pertinent Problems Arising in Cross-border Gas Transit

community on the need to negotiate specific rules on energy trade.[5] Moreover, this issue raises a number of important legal and technical questions that have not been clarified by WTO panels and examined sufficiently by scholars. This study analyses some of these questions.

The practical challenges to the effective regulation of the pipeline gas transit in the WTO can be illustrated by considering the following hypothetical scenario involving WTO Members[6] A, B, C and D (see Figure 1).

[5] See Lamy, Pascal, *The Geneva Consensus: Making Trade Work for All* (New York: Cambridge University Press) at 117–118; Marceau, Gabrielle, 'The WTO in the Emerging Energy Governance Debate', in J. Pauwelyn (ed.), *Global Challenges at the Intersection of Trade, Energy and the Environment* (Geneva: The Graduate Institute, Centre for Trade and Economic Integration, 2010) 25 at 38–40; Cottier, Thomas et al., 'Energy in WTO Law and Policy', NCCR, Working Paper No 2009/25 (May 2009), http://phase1.nccr-trade.org/images/stories/projects/ip6/IP6%20Working%20paper.pdf, accessed 30 November 2013; Poretti, Pietro and Rios-Herran, Roberto, 'A Reference Paper on Energy Services: The Best Way Forward?', 4 *Oil, Gas & Energy Law Intelligence* (2006), www.ogel.org, accessed 15 February 2014; Evans, Peter, C., 'Strengthening WTO Member Commitments in Energy Services: Problems and Prospects', in P. Sauvé and A. Mattoo (eds.), *Domestic Regulation and Services Trade Liberalization* (Washington, DC: World Bank Publications 2003) 167 at 177–185; Nartova, Olga, *Energy Services and Competition Policies under WTO Law* (Moscow: Infra-M, 2010) at 234–257; and Wälde, Thomas, W. and Gunst, Andreas, J., 'International Energy Trade and Access to Energy Networks', 36 *Journal of World Trade* (2002) 191 at 217.

[6] While some agreements, such as most WTO-covered agreements, use the term 'Member' to denote their member states, others employ the term 'Contracting Parties'. To avoid any confusion, throughout this study, these terms are used interchangeably.

A is an energy-endowed developing country, for which the revenue budget largely depends on gas sales by its domestic producer and exporter company X. Because it is also a land-locked country, for an extensive time period, A has had no choice but to export its gas to transit states B and D. Both B and D also export gas through their domestic companies Y and Z, respectively, to C. The market of C offers a more profitable price for gas than the markets of B and D.

At various inter-governmental conferences and meetings conducted under the auspices of, inter alia, the WTO and the United Nations (UN), A, B, C and D publicly acknowledged the importance of gas trade for increasing the welfare of developing countries and promoting energy security and the sustainable development of states by virtue of access to clean energy sources. They confirmed that, as Members of the WTO, they would comply with WTO rules establishing freedom of transit, including energy transit, namely Article V of the General Agreement on Tariffs and Trade (GATT) 1994. They also vowed to engage in international cooperation on promoting transit via fixed facilities (such as pipelines and grids) and the development of cross-border pipeline infrastructure.

After one such event, private energy-supplying companies incorporated in Member C offered company X and the government of A to buy a significant portion of A's annual gas production for a lucrative price, much higher than the price that A currently receives from B and D. If this situation were to occur in reality, a gas-sales contract could be implemented between X and C's private companies in two ways.

Due to A's land-locked position, gas produced by X would have to travel to the market of C through the territory of B and would, therefore, have to be shipped through the pipeline network operated by company Y, called 'Red Stream'. This would require an arrangement between Y and X or, at an inter-governmental level, between B on one hand and A and/or C on the other. This arrangement would have to stipulate the rules on what will be called in this study a **'third-party access'** right to a given pipeline (*in casu* the Red Stream). If there was no physical capacity in the Red Stream enabling Y to provide third-party access to X or, alternatively, if there was not any pipeline infrastructure in the territory of B, B and A and/or C would have to agree on the ways to expand or construct additional pipeline facilities in the territory of B – that is, **'capacity establishment'** rights. The nature and content of third-party access and capacity establishment rights are discussed in detail in other chapters. However, for the time being, it would suffice to mention that, in the

context of gas transit, these rights are essential to the practical implementation of the principle of freedom of transit recognised by WTO law.

In light of the foregoing, if A or its company X were to accept the offer of C's private companies and agree to conclude a gas-sales contract with these companies, A/X would have to seek a separate gas transit agreement with B or Y, setting out conditions for X's third-party access to the Red Stream. In normal circumstances, these conditions would include transit fees covering the cost of transportation and a reasonable profit margin. As explained earlier, if the pipeline capacity in the Red Stream were not sufficient to carry all of A's gas supplies to C, envisaged by the proposed gas-sales agreement, A could offer B to expand its pipeline network by, inter alia, building a new pipeline (e.g. 'Orange Stream'), along the route of the Red Stream at A's expense, to be recouped from the latter's gas sales to C.[7]

However, in a trilateral consultation between A, B and C, B declined to allow X's gas transit via its territory to the market of C. It stated that, first, there is no available pipeline capacity in the Red Stream to allow any gas transit via its territory, because this pipeline is fully utilised by its company Y, which supplies gas to the domestic market as well as to the market of C. Second, B stated that if A wants to build a new pipeline in the territory of B, A must, in exchange, offer reciprocal concessions to B, such as granting Y the right to produce and export gas from the territory of A. B also noted that, while it shares the common objective of the international community[8] to promote energy transit and the development of cross-border pipelines, as expressed in a number of international instruments in which B participates (such as various UN declarations and resolutions), these instruments do not have any legally binding effect on B. Finally, in B's opinion, the lack of a transit route via its territory does not preclude A and C from finding an alternative route, such as a route through the territory of D (by connecting to the 'Grey Stream' pipeline), albeit the latter would be a lengthier, circuitous route.

[7] Assume that, according to A's proposal, the Orange Stream will be operated by Y in the territory of B. The proposal does not in any way affect the property titles of B or Y over pipelines crossing the territory of B. What A merely needs is to lease a certain percentage of the pipeline capacity of the Red Stream and/or the Orange Stream.

[8] In this study, the notion of 'international community' denotes states united by common principles and values as expressed in the 1945 Charter of the United Nations (UN Charter), as well as other commonly recognised principles and rules of public international law. On this notion, see Simma, Bruno and Paulus, Andreas, L., 'The "International Community": Facing the Challenge of Globalization', 9 *European Journal of International Law* (1998) 266.

As explained further in Chapter II, this hypothetical scenario illustrates typical barriers to trade and transit of gas that WTO Members or their private companies face. It demonstrates how, in a technically complex area of gas transit, political considerations can hamper the establishment of a trade connection between suppliers and consumers located in different WTO Members. In turn, such impediments constrain the development of a competitive international gas market, in which the equilibrium between gas supply and demand would be struck by market forces.

The unique feature of gas is that, because of its physical qualities, it can only be shipped via specific modes of transportation, such as pipelines or LNG tankers.[9] However, in any event, to be shipped as an LNG, gas must first be delivered to a vessel via pipelines. Access to the pipeline infrastructure is, therefore, the key prerequisite for the development of an international gas market. Put differently, gas trade and transit are network-dependent – inherently reliant on the existence of adequate infrastructure.

The transit barriers discussed in this chapter would appear to go against the basic logic of free trade promoted by the WTO. As the preamble to the Marrakesh Agreement Establishing the World Trade Organization of 1994 (WTO Agreement) provides, the WTO seeks to establish a progressively liberalised trade system, which aims, inter alia, at expanding the production of and trade in goods and services, while allowing for the optimal use of the world's resources in accordance with the objective of sustainable development.[10] From an economic standpoint, this system is premised on a number of economic theories explaining the gains from trade for the world economy as well as the economies of individual states. These theories include the classical

[9] The particular physical qualities of gas include the relationship between the interdependent variables, such as pressure, volume and temperature of gas, which need to be controlled during its shipment. The term LNG stands for 'liquefied natural gas', which is liquefied through the process of refrigeration to a temperature of –160 °C. Roberts, above n 2 at 6–8. While some other natural resources, such as water and oil, can also be shipped via pipelines, their physical qualities, such as density, are entirely different. For example, even the density of LNG is about half that of oil. See Energy Charter Secretariat, 'Putting a Price on Energy: International Pricing Mechanisms for Oil and Gas' (Brussels: Energy Charter Secretariat, 2007) at 35. On important technical differences between oil pipelines and gas pipelines, see Dow, Stephen, Siddiky, Ishrak A. and Ahmmad, Yadgar K., 'Cross-border Oil and Gas Pipelines and Cross-border Waterways: A Comparison between the Two Legal Regimes', 6 *Journal of World Energy Law and Business* (2013) 107 at 108–109.

[10] WTO Agreement, *WTO Legal Texts*, http://www.wto.org/english/docs_e/legal_e/legal_e.htm, accessed 15 February 2014.

Ricardian theory of 'comparative advantage'[11] and more recent theories of the 'economies of scale in production' and 'enhanced competition'.[12] Based on these theories, the WTO aims to protect the competitive opportunities of its Members in the global market by eliminating discrimination, lowering trade barriers and fostering transparency of trade regulation.[13] Notably, some of these economic theories expressly recognise that the gains from trade for countries endowed with relatively immobile and scarce natural resources, such as natural gas, will, to a large extent, depend on the existence of infrastructure and the distance from world markets.[14] In other words, absent adequate infrastructure, the gains from trade for such countries would be negligent and their participation in the world economy insignificant.

As explained in greater detail in Chapter II, transit barriers to trade in gas may also have other negative consequences, such as the impact on energy security and the sustainable development of states. By hampering access to clean energy sources that are intensively used in industrial processes, not only can a transit state tilt the balance between the competitive opportunities of WTO Members in its own favour, but it can also prevent other Members from shifting their economies away from dirty energy fuels, such as coal.

Another obstacle to trade in gas that can be drawn from the hypothetical scenario is that pipeline facilities in the territory of transit states can be operated by state, private or quasi-private monopolies. These companies, for various reasons, including anti-competitive conduct, may be reluctant to release unused pipeline capacity for access by their potential competitors.[15] However, WTO law concerns only governmental

[11] According to this theory, the best gains from trade could be achieved if WTO Members were to specialise in the production of goods (or services) that they can produce relatively more efficiently than other Members. See Mankiw, Gregory, N. and Taylor, Mark, P., *Economics* (USA: Thomson, 2006) at 51–57.

[12] See the overview of major economic theories explaining the gains from trade in WTO Secretariat, 'World Trade Report 2008: Trade in a Globalizing World' (Geneva, 2008) at xiv–xviii.

[13] World Trade Organization, Secretariat, 'What Is the World Trade Organization?', http://www.wto.org/english/thewto_e/whatis_e/tif_e/fact1_e.htm, accessed 30 September 2011.

[14] WTO Secretariat, 'World Trade Report 2010: Trade in Natural Resources' (Geneva, 2010) at 74.

[15] See ibid. at 167; Wälde, Thomas, W. and Gunst, Andreas, J., 'International Energy Trade and Access to Energy Networks', above n 5 at 210; Slotboom, Marco, 'Recent Developments of Competition Law and the Impact of the Sector Inquiry', in M. M. Roggenkamp and U. Hammer (eds.), *European Energy Law Report VII* (Antwerp: Intersentia, 2010) 97 at 106–108.

measures, as the WTO creates obligations only for its Members.[16] Logically, a purely private measure, which cannot be attributed to a WTO Member, falls outside WTO law.[17] Furthermore, it will be explained in other chapters that international law (including the WTO legal framework) has scant competition rules, which are not sufficient to enforce third-party access against a private pipeline operator abusing its dominant position in the market.[18] The relationship between state and non-state pipeline operators must, therefore, be addressed in this study.

Having said this, it is important to note that private restrictions on the establishment of a gas transit flow are only relevant to the issue of third-party access to pipelines and do not necessarily determine the feasibility of gas transit via a particular state as such. This is because that state can always resort to capacity establishment rights, should it wish to operationalise its transit obligations, but cannot enforce third-party access rights against a domestic private company.

Against the backdrop of our hypothetical scenario, a question can be asked whether the WTO, as a forum governing global trade, has sufficient legal instruments to facilitate the development of an international gas market and ensure energy security and the sustainable development of its Members by requiring WTO Members – transit states – to guarantee freedom of gas transit via their territories.[19] In so doing, WTO law must regulate the essential feature of gas trade, namely its network dependence.

In the following sections, this chapter explains the scope and structure of this study, including specific questions that this study will aim to answer. In Section III, this chapter provides an overview of relevant theoretical issues that permeate the discussion of pipeline gas transit in this monograph.

[16] See GATT Article XXIII (Nullification or Impairment), referring to violation or non-violation complaints resulting from a conduct of *Contracting Parties* (WTO Members). GATT 1994, *WTO Legal Texts*, above n 10. Article 3.1 of the Dispute Settlement Understanding confirms this principle. Dispute Settlement Understanding, ibid.

[17] In WTO law, trade-related measures are broadly divided into governmental and private measures, which are 'counterpoints' excluding each other. See Panel Report, *US – Export Restraints*, para. 8.49. On the rules of attribution and the responsibility of WTO Members for private measures restricting third-party access, see Chapter V, section III.B.

[18] See Wälde and Gunst, above n 5 at 209; and Chapter II, Section III.C.1.

[19] WTO rules relevant to gas transit are discussed in Chapter IV.

II. The Scope and Structure of This Study

A. *The Key Focus of This Study*

1. Regulation of third-party access and capacity establishment rights under WTO law

This monograph aims to answer two main questions. The **first question** (analysed in Chapters III–VI) is how – if at all – WTO law regulates particular aspects of pipeline gas transit: third-party access and capacity establishment rights. It was explained earlier that these rights are essential to effective freedom of gas transit. The nature and precise content of these rights will be further explained in Chapter II. This question can be extended by asking more specifically: (i) whether third-party access rights imply compulsory or negotiated third-party access; (ii) what is the scope of a capacity establishment right (that is, does it imply an obligation for a transit state to construct or expand a pipeline or to allow investment in its territory); and (iii) what is the relationship between the claims to third-party access and capacity establishment? All these questions are answered in the course of this study.

Although some of these questions have previously been addressed by a number of scholars,[20] they are far from resolved. The most obvious gap in the literature on this subject is that previous researchers have always discussed third-party access and capacity establishment rights from a limited perspective of WTO law. However, WTO transit rules are relatively vague and do not expressly regulate these rights. Consequently, it will be seen throughout this study how and why the previous discussions have led to contradicting conclusions and have fallen short of explaining the nature of these rights.

In this study, the boundaries of the previous research will be transcended by analysing the WTO's regulation of third-party access and capacity establishment rights from the perspective of the systemic integration of WTO law with other relevant sources of public international law, [21] in particular, principles of general international law. These principles are freedom of transit, the principle of effective or integrated rights, the principle of economic cooperation, the obligation to negotiate in good faith with a view to achieving a non-discriminatory freedom of transit (derived from the *pactum de contrahendo* nature of GATT Article V:2) and the prohibition of abuse of rights. The WTO provisions

[20] See Chapter IV, Section III.A.1.
[21] See the principle of systemic integration explained in this chapter, Section III.B.

pertaining to the rights that are discussed here are: (i) the obligation to provide freedom of transit under GATT Article V:2 (first sentence); (ii) non-discrimination obligations under GATT Articles V:2 (second sentence) and V:5; and (iii) the non-violation complaint under GATT Article XXIII:1(b). In addition, the relevance of the General Agreement on Trade in Services (GATS) to gas transit and third-party access and capacity establishment rights will be explored.

The assessment of WTO rules governing pipeline gas transit through the prism of systemic integration of public international law sources is the original contribution this study makes to the existing literature on trade in energy. While it has direct implications for trade in gas, the conclusions reached here can be transposed *mutatis mutandis* to other areas of network-bound trade, such as trade in electric power.

The **second question** that will be discussed is how WTO transit rules could be improved through a legislative reform to regulate particular aspects of pipeline gas transit better – namely, third-party access and capacity establishment rights. This question will be analysed in Chapter VI from two perspectives. First, it will be discussed how WTO Members could 'codify' commonly recognised principles of general international law identified for the purposes of answering the first question within the WTO legal system. The term 'codification' is used here as it is generally defined in international law, in particular in the UN Charter, which, in Article 13(1), entrusts the UN General Assembly with encouraging the progressive development of international law and its codification.[22]

[22] Charter of the United Nations of 1945, http://www.un.org/en/documents/charter/, accessed 10 January 2014. The actual process of 'codification' of international law is formally carried out by the International Law Commission (ILC), which prepares a draft report in the form of articles on a particular subject (such as the law of treaties, the law of the sea, most-favoured-nation clause, or state responsibility) and submits this report to the UN General Assembly; the ILC may recommend, inter alia, that the latter body take no action, take note of or adopt the report by resolution, or use it as a basis for an international convention. See Articles 18–24 of the Statute of the International Law Commission, http://legal.un.org/ilc/texts/instruments/english/statute/statute_e.pdf, accessed 15 September 2013. See the analysis of the ILC's methods and achievements in the area of codification in: Villiger, Mark, E., *Customary International Law and Treaties: A Manual on the Theory and Practice of the Interrelation of Sources*, 2nd ed. (The Hague: Kluwer Law International, 1997) at 119–148; Rosenne, Shabtai, *Developments in the Law of Treaties 1945–1986* (New York: Cambridge University Press, 1989) at 1–80; and Roessler, Frieder, *The Legal Structure, Functions and Limits of the World Trade Order: A Collection of Essays* (London: Cameron May, 2000) at 49–67. However, given that the very purpose of codification is to articulate and document the existing principles or rules of general international law, there is no compelling reason why other organisations or institutions specialised in particular areas of international law and consisting of a great

The expression 'codification of international law' means 'the more precise formulation and systematization of rules of international law in fields where there already has been extensive State practice, precedent and doctrine'.[23] In contrast, the term 'progressive development' in Article 13(1) refers to 'the preparation of draft conventions on subjects which have not yet been regulated by international law or in regard to which the law has not yet been sufficiently developed in the practice of States'.[24]

In this connection, relevant rules of the Energy Charter Treaty (ECT) and the 1982 United Nations Convention on the Law of the Sea (LOSC) will be analysed as illustrative examples of possible ways to codify the aforementioned principles of general international law. These legal frameworks address the issues of access to and use of transit facilities in a manner more specific than WTO law, by establishing rights similar to third-party access and capacity establishment. They also appear to reflect the consensus among a large number of the international community members on how these rights must be regulated at a multilateral level.[25]

Second, the possibility of the 'progressive development' of the existing GATS obligations regulating trade in energy services relevant to gas transit will also be explored. This development could be modelled on additional commitments undertaken by Ukraine on pipeline transport, discussed in Chapters IV and VI. Alternatively, as some Members and scholars have proposed, the GATS could provide a legal framework for regulating gas trade in the form of a 'reference paper on energy services', drawing on the relatively successful experience of a similar Reference

number of states, such as the WTO, cannot make their own, albeit informal, contribution to this process. In the end, the ILC has recognised that the texts of international instruments (including multilateral treaties), decisions of international courts and the practice of international organisations constitute evidence of customary international law. See International Law Commission, 'Ways and Means for Making the Evidence of Customary International Law More Readily Available', *Yearbook of the International Law Commission*, vol. 2 (1950) at 368–370, 372. Rosenne also states: 'There is no doubt that to limit the concept of codification convention only to conventions adopted as the consummation of the study of a topic by the International Law Commission would rapidly lead to serious distortions and misconceptions about the substantive content of international law today.' Rosenne, ibid. at 6.

[23] See this term defined in Article 15 of the ILC Statute, above n 22. Villiger defines the expression 'codification of international law' as the 'transformation of an existing rule of international law, *lex lata*, in the form of writing, of *jus non-scriptum* into *jus scriptum*'; as the author states, 'the normative material for codification is customary law.' Villiger, *Customary International Law and Treaties*, above n 22 at 102.

[24] Article 15 of the ILC Statute, above n 22.

[25] At the time of writing, the LOSC and the ECT had 166 and 54 Contracting Parties, respectively. See Appendix 2.