<fresh recto><pn>PART IV

<ph>SECURITY OF ENERGY DEMAND

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<fresh recto><cn>11.<ch>Energy Demand: Security for Suppliers?

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<a>11.1 INTRODUCTION

The vast majority of papers on energy security look at it from the consumer's point of view, making security of supply the key preoccupation. However, this volume is an excellent illustration that energy security is an 'umbrella term', covering 'many concerns linking energy, economic growth and political power' (Westminster Energy Forum 2006, p. 9). Preoccupations of suppliers are not new; they emerged in the 1980s and have grown in scope ever since. These interests and concerns are expressed by both individual producing countries and by organizations that bring them together.

Demand security is frequently portrayed as the other side of the energy security medal, the side which was overlooked for a long time. Most decision-makers and analysts currently agree about the interconnectedness of supply security and demand security. A vicious circle emerges, for example, when high prices lead to the decline in demand and, therefore, limit the will of producing countries to invest in new production facilities and in infrastructure bottlenecks. 'The disincentive to invest then creates the roots of the next oil price shock once oil demand recovers' but the capacities to feed the demand remain limited (Fattouh and van der Linde 2011, p.12). Another vicious circle emerges when prices are too low, they constrain opportunities for bringing in operation new oil and gas fields or ways of their transportation. As a result, the increase in the demand for oil and gas cannot be met and this leads to a price hike.

Cooperation of producing and consuming countries is needed to convert these vicious circles into virtuous ones. In other words, energy security is about cooperation and interdependence rather than about confrontation and zero-sum games. Liberalism

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and institutionalism is a more appropriate perspective for energy demand security than international relations realism. However, to understand the goal of demand security it is necessary to examine the source of producing countries' political objectives, as well as their feasibility. This chapter seeks to achieve that understanding through analysis of key documents (energy strategies, doctrines, concepts) and speeches and declarations of representatives of key oil and gas exporting countries (see Table 11.1).

<table>***Table 11.1 Key Oil and Gas Exporting Countries***[Q1]

	Net oil export, bln t			Net natural gas export, bcm	
	2010	**2011**		2010	**2011**
Saudi Arabia	343.4	**398**	Russia	174.8	**182.4**
Russia	376.2	**375.4**	Qatar	96.3	**130.6**
Kuwait	103.7	**121**	Norway	102.3	**97.4**
UAE	102.5	**119.6**	Canada	64.9	**55.7**
Iran	117.3	**118.8**	Algeria	57.3	**50**
Venezuela	105.6	**101.3**			

</table>This chapter will first look at how the concept of demand security came about and how it evolved. It will then examine in more details requests of consuming countries. Finally, the chapter will analyze the means that producing countries use to ensure demand security. Both the requests and the means to meet them are classified in two groups (economic and political). The term 'political' is preferred to 'geopolitical', which is frequently used in this context, because it embraces not only geopolitical ambitious of producing countries but also such instruments of traditional international relations like dialogues among producers or between producers and consumers, as well

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as an efforts to induce new international legislation. In sum, 'political' for us includes both realist and liberal institutionalist approaches.

<a>11.2 HOW DID THE CONCEPT OF DEMAND SECURITY DEVELOP?

The peculiar needs of producing countries had already been recognized by the experts' community in the 1970s, at the start of the current studies of energy security, although they did not immediately become the focus of political interaction. The needs of exporting countries were defined then as sovereignty over resources and granted access to consumers abroad (see, for example, Willrich 1975).

OPEC members first made requests for demand security in the 1980s. That was the result of the two oil crises of the 1970s, which encouraged European consumers to drastically reduce their energy consumption. Demand security in the 1980s boiled down to price stability and amounts to be exported. It was also limited to oil, a commodity which at that time was globally traded. Demand security has been present in both political agendas and experts' deliberations from that time on.

The 1990s made the arguments and concerns of oil producing countries more sophisticated. Firstly, instead of arguing only about a fair price, they made a link between the cash flow and their propensity to invest in downstream business as well as in transportation and oil processing. In other words, they connected concerns of exporting countries and the long-term supply stability of consumers. Moreover, rather than arguing about a fair price, consumers and producers introduced at the Third International Energy Conference in 1994 the notion of price stability, which is mutually beneficial for both sides. They underlined that:

<quotation>price stability is a key concern for the energy security from the point view of both consumers and producer countries. It is therefore necessary to enhance the study

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of the limits of that reasonable price level in order to identify the range that would provide for common benefits and at the same time, avoid the risks of price volatility for both consumer and producer countries. (Fattouh and van der Linde 2011, p. 65)</quotation>

In other words, an effort was made to make energy security a cooperative game as opposed to relying on a zero-sum approach.

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Secondly, environmental arguments moved in the forefront of the discussion in the 1990s. On the one hand, traditional sources were undermined due to their environmental impact; in particular, producing countries objected to energy taxation, which discriminated oil as a polluting source. On the other hand, European countries progressively encouraged development of renewable sources of energy, deemed more climate-friendly and at the same time decreasing their external dependence. It is, therefore, noteworthy that Saudi Minister for Petroleum and Mineral Resources defined producers' security then as 'continued access into the markets of oil importing countries, the steady share of oil in total energy consumption over the long term, and fair and stable prices that allow for their sustainable development over the lifetime of the resource' (Fattouh and van der Linde 2011, p. 61).

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Besides, the 1990s also saw the emergence and beefing-up of the International Energy Forum (IEF). It brought together key oil exporting and importing countries and enabled their dialogue on oil trade. Hence, the first institutional structure to promote permanent policy interaction between consumers and producers emerged; it also became the venue, which strived to find the balance between the two sides of the energy security medal (between supply and demand concerns). Ultimately it facilitated an approach to

energy security as a cooperative game, which takes into consideration the demands of suppliers and consumers.

Finally, towards the end of the 1990s the discussions on demand security broadened to gas due to its liberalization, which started in the US and UK and then made it way to Europe. Liberalization in consuming countries raised producers' concern due to unbundling, which undermined their ownership of some pipelines beyond their territory, as well as due to the changes in long-term contracts, which consuming countries requested. Gas demand security debates, however, remained fairly tacit until the turn of the millennium because initial liberalization meant only information transparency whereas unbundling (division in production, transportation and distribution) was implemented through the division of management and through clear costs' allocation. In 2002 gas discussions were incorporated into the agenda of the IEF.

The turn of the new millennium ushered further developments of the demand security debates. The IEF further expanded the linkage between prices and their volatility, investments and a fair share of hydrocarbons in the market. These debates 'were given more content' because they included 'issues of policy uncertainty, data transparency, human capital shortages, the IOC-NOC relationship and the role of technology' (Fattouh and van der Linde 2011, p. 116). However, environmental issues remained relatively low-profile, presumably because 'parties wanted to avoid confrontational topics and focus more on themes that can bring them closer together' (Ibid).

At the same time, a new line of debates emerged outside of the IEF. Oil producing countries increasingly applied development arguments to justify high prices and guaranteed volumes of export. On top of economic pragmatism (mutually beneficial

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for exporters and importers price stability and guaranteed investments), they applied a normative justification. They argued that revenues from the sale of hydrocarbons are crucial for their development, for social inclusion and stable employment. It is telling, for example, that the head of the Energy Studies Department of OPEC Secretariat, Mohamed Hamel, interpreted that energy is a two-way street in the following way: <quotation>On the one hand, oil is important to the economic growth and prosperity of consuming/importing countries, but on the other hand it is also crucial to the development and social progress of producing/exporting countries. For example, while net oil imports in OECD countries account for around 60 per cent of their total demand, oil exports from OPEC's Member Countries account for no less than 77 per cent of their total exports, and for some of them, more than 90%. (Hamel 2007)</quotation>[Q2]

This line of arguments can be seen as offsetting the normative environmental logics of developed countries, which mostly happen to be consumers (Norway provides a noticeable exception here).

However, the most tangible development in the concept of demand security came in the new millennium is not from the oil sector but from that of natural gas. Two developments facilitated it. Deepening of liberalization was the first one; as the time passed unbundling in key consuming markets was increasingly about organizational independence of upstream, midstream and downstream businesses, and eventually about legal and ownership separation. That development meant that gas suppliers progressively were stripped of the guaranteed consumption, which underlined the very development of the industry. Secondly, the first decade of this century also saw a drastic decrease in the costs of liquefied natural gas (LNG). Its significance lies in the fact that

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it makes redundant costly pipeline infrastructure and converts previously closed and separated regional gas markets into one global one.

Given these developments, gas moved into the forefront of the demand security debates. It is noteworthy that the IEF held a specialized ministerial forum on gas in November 2008. But even before, at the start of the century, key gas producing countries beefed up their efforts to promote demand security, and Russia has so far been the most active player in this game. This later development is not surprising given the fact that Moscow is by far the largest producer and exporter of natural gas in the world. The country also relies on the revenues from the sale of oil and gas to carry out domestic reforms and fulfill its numerous other social obligations.

Russia's urge to assume the leading role among gas producers was also fed by its ambitions to stay among key world players at the time when some prerequisites for it (in particular, economic strength and ideological, normative appeal) were missing. It is worth mentioning, for example, that President Vladimir Putin has repeatedly stated the goal to achieve Russian leadership in the context of global energy security (see Putin 2005). Current Russian energy strategy notoriously stresses the need 'to ensure the contribution of the energy sector into improvement of foreign economic activities and to reinforcement of Russia's positions in the world economic system' (Russian Federation 2010, p. 14–15).[2]

Russian activity served to increase the perception that energy security is an issue of mutual dependence because it has emphasized cooperation and shared responsibility.[3] Firstly, it involved a larger array of international, non-energy specialized organizations (G-8, G-20, OSCE, UN, APEC). It meant that the number of arenas for the discussions on demand security was increased and the awareness on this issue was increased.

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Moreover, it was introduced into the agenda of developed countries, the majority of which were net consumers. Gradually most fora recognized the 'mismatch between security of supply and security of demand' (OSCE 2010).

Secondly, Russia contributed to the change of the definition by putting in the agenda the term 'global energy security' during its G-8 presidency in 2006. The new discussion stressed the 'interdependence between producing, consuming and transiting countries', the indivisibility of energy security into that of exporters and that of importers (G-8 2006). It also made central the 'development of transparent, efficient and competitive global energy markets' as well as 'enhanced dialogue on relevant stakeholders' perspectives on growing interdependence, security of supply and demand issues' to achieve energy security (Ibid).

The G-8, of course, lacks legitimacy as a forum for the full-scale dialogue between consumers and producers (primarily because many suppliers are absent but also because it is not an international organization but rather a discussion club). Therefore, it made several references to the IEF as a venue for further elaboration.

The reason for Russia introducing the global energy security as a point of G-8 discussions was not tactical, 'to recover its tattered reputation' following the 2005–2006 transit conflict with Ukraine and interruption of supply (Van de Graaf and Westphal 2011, p.22) but rather strategic. Russia used the new term (global energy security) to challenge existing legal obligations (i.e. Energy Charter Treaty), which it believed to favour consumers over suppliers. It shifted the discussion from the contrasting of two terms (supply security and demand security) to the holistic idea of global energy security, to a more cooperative game. This shift enabled Russia to introduce a new conceptual approach in 2009 and a draft convention on energy security in 2010.

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Thirdly, Russia has sought to modify some international legal instruments to take into account the needs and priorities of producers. It famously refused to ratify the Energy Charter Treaty, which it perceived as the document privileging consumers over producers. In 2009 President Dmitry Medvedev suggested an alternative legal regime (Medvedev 2009), which became the basis for the draft Convention on global energy security. This later document defined global energy security as:

<quotation>the state of world energy system, which guarantees steady and uninterrupted supply of consumers with energy materials and products on the conditions, which satisfy all market participants with minimal environmental impact and pursuing the goal of sustainable socio-economic development of the global community. (Shtilkind 2010)</quotation>

The draft also contained such principles as interdependence, equal responsibility of producers, consumers and transit countries, fair distribution of risks and balance of all interests (Ibid). It, therefore, incorporates the interests of producing and consuming countries. Russian activity also prompted modernization of the Energy Charter process (the relevant process was launched in 2010 and reflected the ideas, promoted by Moscow, including the concept of global energy security (Energy Charter Secretariat 2010)).

In sum, Russia contributed greatly to raising awareness about demand security. It also diversified arenas of this discussion as well as the ways of promoting this concept. Interestingly, however, Russia has never attempted either to expand the normative definition of demand security, which OPEC countries worked out (contribution to social and development goals) or to change it. Rather, in its internal documents (Russian Federation 2003, 2010) Moscow adhered to western normativity

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(meaning, environmental protection and energy efficiency) and argued that although energy sector is important in terms of revenues it brings to the budget, the ultimate goal is modernization and a drastic reduction of the share of oil and gas in the GDP. This attitude, in fact, reflects the ambiguous position of Russia, which strives to straddle the two worlds (that of oil and gas producers and another one, composed of developed states). It is also an excellent illustration of the fact that Russian normativity is embodied in an immediate and pragmatic economic action rather than in abstract issues.

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The increasing concern about demand security for natural gas also encouraged key producing countries to coordinate their activities. In 2001 they set up an informal Forum of Gas Exporting Countries (FGEC), which was transformed into a fully-fledged international organization in 2008.

Thus at the time of writing, in 2012, the concept of demand security has been quite developed and was integrated into the concept of global energy security. It included both oil and natural gas, both economic and political aspects. These later elements are analyzed in more details in the next section.

<a>11.3 WHAT DO SUPPLIERS WANT WHEN THEY TALK ABOUT DEMAND SECURITY?

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Two observations are to be made before we discuss bits and pieces of demand security. Firstly, producing countries are different in the extent they promote various parts of demand security. At least three factors influence their propensity to defend demand security. These are the degree of their integration in the western world (or the wish to be there); the dependence on oil and gas revenues; and the ability to supply resources to global market. For example, Norway promotes environmentally-sound energy sectors and stresses that stable supply is its international responsibility rather than defends

demand security. Russia has always restated western arguments on energy efficiency and environmental safety. At the same time the western concern about the supply stability and credibility of Moscow stimulated the later to underline the importance of export markets stability. OPEC countries, Canada and Algeria have also been extremely vocal in defending their right to access consuming markets. On the other hand, Iran has been practically silent due to its increasing domestic demand, which challenges its ability to export as well as the increasing number of international sanctions against it.

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Secondly, some experts contrast oil and gas producers' reasons to seek demand security. It is true that gas is more dependent on fixed infrastructure than oil (the amount of LNG is still limited and it presents a commercially viable option only on long distances), and hence redirection of gas is more complex. Furthermore, oil 'producers can add value by refining oil but gas-value is location specific' (Ghiles 2009). Finally, while oil producers use demand security to justify low investments in production capacities (see Jesse and Van der Linde 2008), gas producers are mainly interested in maintaining their share in the market and fear the competition from other fuels (El-Katiri 2010). These variations are worth pointing as they shape the specificity of demand security concerns in oil and gas sectors. However, the elements of demand security are the same for oil and gas sectors. They are structured below in economic and political groups.

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<a>11.4 ECONOMIC CONCERNS

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Five economic aspects stand out in the demand security, requested by producing countries. *Price stability* is the first, and, possibly, the best known. Current discussion is not so much about a fair price but rather about contained price volatility. This latter is the effect of both physical problems with supply and demand (due to economic

recession, availability, infrastructure disruptions etc) and the intricate work of financial markets, which are frequently 'detached from supply and demand fundamentals' (Salem El-Badri 2011, p.2).

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Both excessively high and excessively low prices are harmful, as the introduction to this chapter pointed out. The first affect the demand and encourage consumers to look for alternative sources. Moreover, the higher the prices for oil and gas, the more attractive are renewable sources and energy efficiency technologies. Low oil prices, on the other hand, question the security of supply because they discourage producers from investing in new fields and transit capacities. They also raise the concern of whether idle capacities are needed and who should pay for them. On the consumers' side they also undermine 'conservation and climate change agenda' (Fattouh 2012).

A particular concern of gas exporting countries is the price-setting mechanism. For a long time gas prices were linked to oil prices; the historical reason is that gas was not traded freely and globally but was viewed as a substitute to oil. However, the development of spot markets for gas as well as the use of LNG for price arbitrage between various regions of gas consumption have created preconditions for independent gas pricing. Currently most long-term gas-supply contracts presuppose an oil-related price formula whereas short-term trade is based on spot prices, the later being most of the time lower compared to the long-term prices. Hence, consumers would like to change the price mechanism whereas producers (especially, Russia and Algeria) would prefer to maintain the existing practice.

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Stability of oil and gas consumption is another key challenge for today's producers. It is affected by a number of factors. One is temporary and relatively short-

term: the results of 2008 financial crises are still felt; the lack of growth means, in turn, a depressed energy demand. Another trend, which affects the stability of oil and gas consumption, is more long-term. It stems from the efforts to instill the so-called green economy, which consists of increases in energy efficiency and the development of renewable sources of energy.

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The benefits of green economy are two-fold. They reduce the dependence of importers on foreign supply and hence, from the classical realist point of view, increase their national security. On the other hand, they also mean new local, knowledge-intensive production and, by consequence, additional employment possibilities. Moreover, 'the renewable energy market is flexible, with greater opportunities for smaller, independent producers to phase into the energy markets using smaller scale investments' (Boëthius 2011). In sum, the advantageous are diverse and numerous, but not for producers of traditional sources of energy.

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There is also a technical concern here. It is particularly acute for the natural gas sector: once a gas field is put into operation it is impossible to stop the flow. Hence, producers can interrupt the supply for as long as they have storage capacities. Then, if consumers are still not interested in their gas, exporters can either divert the flow or start burning it. As a result, demand insecurity makes the supplier a hostage of the consumer.

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The good news for oil and gas exporters is that renewable sources of energy

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cannot fully substitute oil and gas (with the possible exception of small Scandinavian economies). More good news lies in the low acceptability of nuclear energy today, which is the result of both Chernobyl and Fukusima disaster. Nor can nuclear power stations be fully substituted with alternative sources of energy.

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However, the stability of consumption remains uncertain. It is for this reason that they request that future policies 'ensure that all sources of energy, including oil and gas, are part of a balanced future energy portfolio' (Hussain 2012).

The third concern, which is linked to the discussion on the stability of demand is that of *(un)just taxes* in importing countries. In part, they are used to level price fluctuations for final consumers. However, many producing countries also believe that as a result exporters reap a part of their rent, depriving them of the resources, which could be used for the development and social cohesion. Russia has also argued against import taxation because it results in higher prices for final consumers, which producers are ultimately blamed for. It is for this reason that Russian draft convention on global energy security suggested inter alia to ban all import taxes and duties (but also to preserve all export ones).

Furthermore, some taxes are also introduced to encourage consumers to shift from one energy source to another. This strategy is frequently used to subsidise renewable sources of energy with the revenues, collected from dirtier (in terms of green-house gases and other environmental impacts) traditional sources of energy. Producers frequently argue, however, that 'increased use of fossil fuels is consistent with the protection of the environment, through the development and dissemination of advanced cleaner fossil fuel technologies, and in particular the promising technology of carbon capture and storage' (Hamel 2007). Furthermore, Moscow has also suggested – to no avail – that natural gas environmental soundness is to be recognized and upheld in the EU's tax regime.

Stability of regulation on consumers markets is another source of concern for producing countries. It is especially pronounced for gas exporters, who increasingly

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face the results of gas liberalization, especially in the European markets. Russia inter alia voiced its unease about the ownership rights on the infrastructure, which Russian (or Soviet) companies have constructed or still plan to build. Suppliers have consistently tried to prove that as a result the EU will soon face the deficit of infrastructure investments (the Californian crisis is frequently cited as an example). Moscow also questioned the legitimacy of unconditional third-party access, which undermines both its ability to sell its gas and, ultimately, the security of supply of consumers in the European market.

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Finally, suppliers (especially in gas) are *uncomfortable about competition* in their export markets. They would much prefer exclusive contracts and a guaranteed access to final consumers. However, what is even more annoying to them is unfair competition. This later emerged as a result of discriminative taxation or instability in the regulation in their export markets.

These five economic concerns of exporting countries frequently make them classified as supporters of the Beijing consensus, emphasizing the role of the state in economic relations as oppose to more liberal consuming countries, oriented towards Washington consensus and ultimately free markets (see, for example, van der Linde 2005). The reality is, however, more complex. Greater state interference in the economy of the majority of producing countries is the fact of life. However, what producing countries would like to see is not a similar ownership / regulation structure in consuming countries. Rather, they encourage shared responsibility and markets, which are not distorted by the normative logics of the west (i.e. by the wish to limit their supply dependence and to promote renewable sources of energy at the expense of traditional sources of energy).

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Another interesting argument, which has been raised by representatives of the OSCE, Energy Charter Secretariat, is that supply security requires only technical adjustment by governments (in the form of 'binding multilateral rules on investment, transit, resources' (Dickel 2009)) whereas demand security is something that governments cannot guarantee because it is up to the markets to define the overall demand, the role of various resources in the energy mix as well as access to markets (Ibid). The reality is, however, that these market choices are distorted by the deliberate government regulation (including taxation). This is not to say that it is a wrong choice but rather to underline that both demand security and supply security are a combination of market choices and government regulation and, therefore, can be equally affected by public authorities.

<a>11.5 POLITICAL CONCERNS

Political concerns of energy exporting countries, linked to demand security, are a logical continuation of economic concerns. They have already been mentioned before, and therefore deserve only a brief summary here:

<nl>1. Demand security guarantees *stable revenues for national budgets*; this money is mostly used to finance the development of producing countries, their improved social cohesion, education of local population, and modernization of their economies. Thus the revenues have a goal, which goes beyond the economic one. At the end of the day the very stability of exporting countries hinges on the stability of oil and gas money.

2. Suppliers are interested in the *development of a new legal regime* (or adjustment of the present one) in a way that takes their interests into consideration; as depicted in the first part of this chapter, Russia has been particularly vocal and active in pursuing this way.

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3 Finally, supplying countries are *against any form of politicization of energy relations*. Russia has consistently argued for more business-type relations in the field of gas and perceived the wish of the EU to reorient its contracts towards alternative (and more expensive) suppliers of natural gas as a political rather than an economic step. Alexei Miller, the CEO of Gazprom, has famously argued that his company 'is not afraid of competition' but that he feels that 'competition should be honest, rational, without any discrimination, not distorted by any political, bureaucratic and ideological factors' (Miller 2012). Other countries (like Iran) have also voiced their concern about boycotts as a political weapon to put pressure on their ruling regime.</nl>

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In sum, political concerns are a continuation of the economic ones. They are not independent, rather they are meant to support the economic concerns and thus perform an auxiliary function.

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<a>11.6 WHAT INSTRUMENTS DO SUPPLIERS APPLY?

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The means that producers use to further demand security and that can be applied by consuming countries can also be structured in economic and political groups. Again, the classification is more for the purpose of clarity because political tools just elaborate and enhance economic ones.

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<b>11.6.1 Economic Means

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At least five economic leverages are used by suppliers to defend their interests. *Storage facilities* for both oil and natural gas and *spare capacities* to produce oil are the first, rather technical ways that producers use. These instruments are helpful to offset short-term (daily and seasonal) fluctuations in demand, sharp hikes and falls in prices and so on. Some of these facilities go beyond the needs of an individual supplier and acquire a global dimension. This is particularly the case with the Saudi spare capacities. As an

unnamed industry official of this country said, ‘Saudi Arabia will always play a balanced role in supplying global demand’ (Reuters 2011). The regulation of volumes of export has a proved record of success, although the exact correlation between volumes and price fluctuations remains a topic of discussion.

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Both storages and idle capacities represent considerable investments that do not pay back immediately and rather represent a global public good (particularly when they are used to smooth price volatility). Hence, the question has always been who is to pay for them and how to share the price between consumers and producers in a fair manner (for a recent discussion see, for example, Bodro Irawan 2012).

[Q4]2 Another classical way to guarantee a predictable price in the field of natural gas is a *long-term contract*. It came into being in the 1970s and ever since it has served the basis for the majority of trade in gas. The attractiveness of long-term contracts lies in the fact that they guarantee certain consumption for a period of about 20 years. If an importing country does not need that amount of gas, it still has to pay for it (this is the notorious take-or-pay obligation). As a result long-term contracts guarantee a predictable cash-flow, which is essential to make costly investments in upstream business and transportation. These contracts also served as a guarantee for credits, used to develop new fields and construct pipelines and other infrastructure. Russia is a particularly vocal supporter of these contracts, which is reflected in its current energy strategy (Russian Federation 2010) as well as in its conceptual approach to global energy security and draft convention on global energy security (see Medvedev 2009, Shtilkind 2010).

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Some experts suggest that individual countries (big and prospective consumers like China or India) can also use this practice of long-term contracts in oil business and 'index the price to signals generated elsewhere in the world' (Luciani 2011, p.13).

3 *Control of transportation routes* is yet another way to secure the demand. This strategy mostly works for natural gas, which relies on fixed infrastructure, too costly to duplicate. For example, Russia has effectively denied third-party access to its gas pipelines (both in bilateral negotiations and in the talks on the Energy Charter Treaty and on its accession to the WTO). This allowed Moscow to regulate access of Central Asian resources to the European market. Another interesting strategy was adopted by Russia when negotiations on Nabucco (a gas pipeline that would link Central Asian gas to Europe around Russia from) started. Moscow did its best to contract the majority of resources in the region thus making investments in the Nabucco pipeline commercially unattractive.

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4 Producers regularly try to offset or *correct the changes in the regulation of consuming countries*, which disadvantage them. An array of various measures is applied for that. Most recent activities have taken place in the gas domain with the view to adapt to the liberalization process. Two approaches have been applied.

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The first is to defend the interests of relevant national companies in the new legal environment. Both Russia and Algeria have actively searched an access to EU's consumers. It guarantees them export markets, acts as a safeguard against prospective increase of competition and heightens their profit (the largest margin of profit is believed to be reaped in the so-called last-mile of supply). In order to get this access they bid for distribution networks but also invite energy companies of importing countries to participate in the development of new gas fields on their territory in

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exchange for their share in the distribution market (the strategy of assets-swap). They also frequently apply the concept of reciprocity in the access to reserves and consumers to defend their position. The purchase to distribution networks by gas-developing companies is, however, increasingly against the legislation, prescribing unbundling in the majority of consumers.

The second is to encourage exporters to fine-tune their legislation in a way which is favourable to producers. International legislation is mostly used for that. Russia has also exploited Energy Charter Treaty's clause on the protection of investors to claim that consuming countries cannot force foreign companies to sell their stakes in the transit and distribution business. These clauses were also included in the Russian suggestions on how to improve global energy security (Medvedev 2009, Shtilkind 2010).

Finally, all producers actively apply *the strategy of diversification* to hedge their stakes and to balance the desire of consumers to decrease their dependence on oil and natural gas. One variant is *to diversify export markets*. For example, at the 2006 G-8 meeting in St. Petersburg Russia made known its intention 'to increase oil exports to Asian countries from 3% to 30% by 2020 and gas exports from 5% to 25%' (RIA Novosti 2006). This goal was later repeated in the 2009 energy strategy of the country, although the indicators were adjusted to 22–25 per cent and 19–20 per cent for oil and gas respectively (Russian Federation 2010). Interestingly, Russia also tried to encourage Qatar to move to Asia to diversify its markets. This is, however, a strategy, which aims not so much at the increase of profit of the largest LNG producer but rather at the protection of Russian share in the European gas market (see Hulbert 2012).

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Asian markets clearly present a very lucrative opportunity for both oil and gas producers due to their growing consumption, which by far outstrips that of European states. However, there is a fly in the ointment, and that is much lower prices in the most populated part of the world, compared to the revenues that can be reaped in Europe.

The aim of the geographical diversification, from the producers' point of view is to return to the situation when consumers compete for resources as oppose to the competition among exporters. In a way, this diversification race has already brought some results:

<quotation>Already, Europe has to compete for LNG flows from other gas-rich regions. Moreover, Europe is now effectively competing for new gas developments in Russia with other consuming countries because Gazprom does not have an unlimited capacity and capability to develop very many large projects all at once. (Van der Linde 2007, p.17)</quotation>

Another approach is *to diversify energy production.* A curious trend is the interest of oil and gas producers to renewable sources of energy. For example, Algerian Sonatrach 'launched a business line to harvest power from the sun' (El-Katiri 2010, p.15); the aim is to become a world leader in the production and export of the solar energy. The decision is clearly based on a good understanding of today's energy trends. It is also noteworthy that the CEO of New Energy Algeria (partly owned by Sonatrach) underlines that his country's 'potential in thermal solar power is four times the world's energy consumption', which allows it to 'have all the ambitions' in the field (see El-Katiri 2010, p.15). In a similar way Saudi Arabia successfully bid to become the headquarter of the new International Renewable Energy Agency (IRENA), which allows the country to closely follow all the trends in the field.

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Another energy production diversification is to move away from the export of raw energy materials to oil- and gas-processing on the national territory and to the export of the production of refineries and gas factories. This is the strategy which Russia has tried to pursue, at least according to its energy strategies. The problem, however, has lied in the legal uncertainty for business in Russia, in the low propensity to long-term investments and clash of interests of established energy companies, exporting raw materials and those interested in the export of processed energy goods. Similar processes can also be identified in other exporting countries.

Finally, a trend to *diversify away from energy* goods can be identified. It manifests itself at the national and companies level. For example, Russian 2009 energy strategy presupposes a drastic reduction of the energy sector in both economy and revenues of the state budget (Russian Federation 2010). Moreover, various oil and gas exporting states now set up special funds, which they fill with oil and gas revenues. This approach allows them to remove superior oil and gas revenues (and therefore fight inflation), cushion external shocks (like 2008 financial crises) with the help of this money, set aside, and use them to finance modernization of the country (for details also see Austvik 2009).

Similarly big oil and gas companies moved to other (energy-intensive) sectors (like metal or chemical production) to secure the demand and at the same time gain profit from alternative sources.

<b>11.6.2 Political Means

Again, as in the situation with political concerns, political means are a continuation of the economic ones. In most of the cases they perform an auxiliary function rather than

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attempt to use energy as a political weapon. However, we would like to differentiate five types of activities of producing countries:

<nl>1 Producers have attempted to use *international legislation* to limit the freedom of consumers to change their internal legislation. Russia has been particularly skillful in this domain. At one instance it tried to apply the Energy Charter Treaty (which Moscow did not ratify but applied provisionally) to challenge the EU's right to demand ownership unbundling of gas pipelines from production and distribution. Later Russia presented a Conceptual Approach to regulate international energy relations (Medvedev 2009) and a draft convention on the same subject (Shtilkind 2010) to amend current legal norms. It inter alia attempted to make the demand more transparent and predictable, to limit unbundling, abolish export duties and limit the clause on regional integration, which exempted the EU from the application of universal transit norms. As mentioned, the end result was the launch of the reform of the Energy Charter Treaty (Energy Charter Secretariat 2010).

2 *Producers have increasingly cooperated with each other*. OPEC became the first – and probably, still the best known – of this clubs.[4] More recently gas exporting countries took this practice on board by forming the FGEC. Unlike OPEC FGEC has never had the goal of price control because of the still regional character of gas markets and because of broad specter of interests among its limited members (pipeline users vs producers of LNG). Rather the driving idea has been to exchange information on production and transportation, relevant technologies and practices. However, confidence-building measures between producers and consumers have moved to the front of the FGEC agenda.

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3 As described in the first part of this chapter, producers have relied to a great extent on soft measures, like *dialogues between producers and consumers*. There are both global initiatives (like the IEF) and regional ones (i.e. between the EU and its suppliers like Norway, Russia and the Gulf Countries). Some, relatively modest, role was accorded to voluntary efforts to increase the transparency of the relations (notably, through the IEF JODI system). Although these instruments have only limited results, the uncertainty in the world energy market encourages their mushrooming. Russia, for example, in June 2012 announced that it was organizing a Russian International Energy Forum in 2013, which will bring together representatives of governments, business community and experts.

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4 Both oil and gas producers have invested a lot in *improving their reputation of stable suppliers*. The fears that they have to deal with have varied. For the majority of OPEC countries the concern has been about their stability and openness to cooperation. Russia has dealt with the accusation that it uses energy to pursue not so much business relations but rather its geopolitical ambitions. Producing countries have used various measures to calm their partners (among them are speeches of political leaders and business representatives, increased transparency, hiring western PR agencies to present their strategies and so on). The best way is of course to improve their legislation and openness to the world economy but activities in this domain have been patchy and slow.

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5 Russia has entertained the *ideas of integration* with the European Union where it would bring its energy complex while the EU will guarantee consumption. Vladimir Putin made the most famous presentation of this kind in 2010 in *Sueddeutsche zeitung* (Putin 2010). The crux of the idea is that integration of economies of Russia and the EU (its key consumer) will lead to the elimination of threats to demand security because the

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very position of Russia will change (from an external to an internal supplier). The plan also has wider political and economic implications bus it has so far fallen on deaf ears in the EU.</nl>

<a>11.7 CONCLUSION

Demand security is a more recent concept compared to supply security. However, since its inception in the 1980s it has developed considerably in scope, issues and instruments. It does, indeed, represent the other side of the medal and, together with supply security, it forms global energy security.

Despite numerous efforts to instill mutually beneficial cooperation between producers and consumers, however, energy security remains a combination of liberal efforts to cooperate and realise attempts of both consumers and producers to decrease dependence on each other. It has not become an area of constructive, liberal cooperation and it will remain in the present state for the foreseeable future. In this game producers will be increasingly more vulnerable. Their strategies to minimize their exposure will grow in sophistication.

As for many years before, a liberal agenda remains a goal on the horizon, which moves away every time one tries to approach it. However, further policy efforts and expert studies are needed to find the way for true global energy security, which takes into consideration the needs of consumers and producers and makes operational all the pieces of governance emerging in the area.

<a>11.8 ENDNOTES

[1] Calculated by the author on the bases of the statistics, provided by the BP (BP 2012[Q3]).

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[2] This phrase is one of the most controversial in the document and is frequently cited to prove political rationale of Russian energy policy, which Moscow has mostly sought to deny.

[3] We stop short of using the term 'liberal' here because to be recognized liberal, Russia has to have the credibility of a liberal actor, which it currently lacks. Therefore, most Moscow initiatives, which do have a neoliberal institutionalist character, are met with such disbelief and criticism.

[4] In theory the International Gas Union was the first because it was established in 1931. However, it remained rather loose, and included too many members with diverse interests. Moreover, its power until very recently was constrained by the nature of gas market.

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