

External energy policy: old fears and new dilemmas in a larger Union

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Energy has shot up the national and European Union political agenda and a proposal is now on the table to create a common energy framework which enables the member states to address the long-term policy goal of creating a competitive and low-carbon European economy. To this end, the Commission advocates an ordering of priorities for energy policy at EU level: reasonable price, security of supply and environmental sustainability. The EU is already competent for the internal energy market, which is the main policy instrument for achieving reasonable prices. The EU is also responsible for climate change policies and thus carbon dioxide (CO₂) emission levels. However, security of supply and the national energy mix have so far remained within the field of competence of the individual member states. The Commission now proposes to include security of supply in the common EU energy framework, so that the EU can 'speak with one voice' in its energy diplomacy with third-country producers. Will member states play ball?

These proposals are not new. In earlier periods of EU policymaking, notably in the 1960s, 1970s and early 1980s, the Commission attempted without much success to unify the member states' energy security policies. National member states' interests stood in the way of progress. The liberalisation of EU energy markets was the first breakthrough. The international energy market circumstances from the late 1980s onward – a buyers' market – helped convince the member states to reform their energy markets and reap the benefits of widely available international oil and gas flows and more efficient organisation of the EU market. Energy security was not a issue, or at least was not deemed to be an issue which the market could not deal with. With the liberalisation process underway, the switch to a sellers' market at the turn of the century forced the member states to rethink energy security matters. The

growing dependency on imported oil and gas, the declining energy production in member states and in other 'safe' producer countries, and the climate change agenda rekindled old fears and, as a result, created new dilemmas for the member states.

The sense of urgency in both EU energy and climate matters has been boosted by energy security concerns. The widely expected dash for gas as a result of climate change policies has increased dependency on gas imported from only a few exporting countries. In the expected rapidly globalising world where international relations are increasingly driven by privatised economic interests, these import dependencies were apparently not viewed as problematic. But in the emerging new international political relationships after 2001, where competition for resources has replaced the situation of widely available energy flows and where energy-producing countries have re-emerged as strategic and national players, energy security matters.

The switch to a low-carbon economy is driven both by climate concerns and by energy security concerns. Diversifying away from fossil fuels will cut CO₂ emissions and reduce the structural dependency on oil- and gas-exporting countries. However, this strategy provides only a long-term solution to what are also more immediate problems and does not relieve the pressure on member states to address energy security problems in the short and medium term. The presidency conclusions of the European Council of 8-9 March 2007 reflect these dilemmas. The discussion about implementation and organisation of this strategy has only just begun.

This chapter attempts both to analyse the development of energy policymaking in the EU and to discuss the energy security dilemmas that confront the member states in the short and medium term. The central issue here is how security of supply and a sustainable energy system can be achieved in a market environment, which is the main thrust of the Commission's proposals, while at the same time government intervention in international energy markets is on the rise.

It is suggested that the mismatch between the level of government involvement and the market model in the international energy sector has become more pronounced lately and impacts upon the security of supply and demand policy toolset of consumer and producer countries. Arguably, the switch from an international oil and gas buyers' market to a sellers' market has not only rekindled resource nationalism in producer countries but also stimulated a certain preference for bilateral energy relations over multilateral ones in some consumer countries in an attempt to secure supplies. Chinese energy diplomacy in Africa and elsewhere is a good example of bilateralism, while some member states also deem the Nordstream pipeline project to be an example of energy bilateralism on the part of Germany. The latter project was clearly

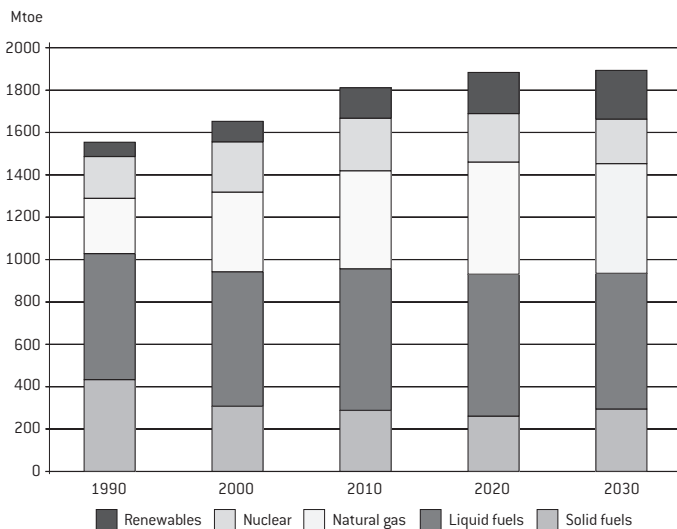
a trigger for the current EU proposal on external energy relations, encouraging member states to ‘speak with one voice’. However, it will be argued in this chapter that the asymmetry in import dependency among the member states, the preference of member states for a certain energy mix, the member states’ competitive position in world markets and different foreign and security approaches, will make ‘speaking with one voice’ a lot harder to achieve than in climate change matters.

This chapter first gives some facts and figures about European energy. It then discusses both past and current energy policy in the EU. The issue is raised whether the strategic energy interests of the member states are best achieved at the national or at the supranational (EU) level. In the following section, recent developments in international energy markets and in oil and gas value chain management serve as the stepping stone for an evaluation of the current internal and external energy policy proposals of the EU. The final section is a conclusion.

Some facts and figures

The EU energy economy’s dependence on fossil fuels is still very large. In 2004, the primary energy mix was 80 percent dependent on fossil fuels (18 percent on solids, 38 percent on oil and 24 percent on gas, see Figure 9.1), while electricity generation was 54 percent dependent on these three fuels (European Commission 2007b).

Figure 9.1: EU25, total primary energy supply (baseline scenario)



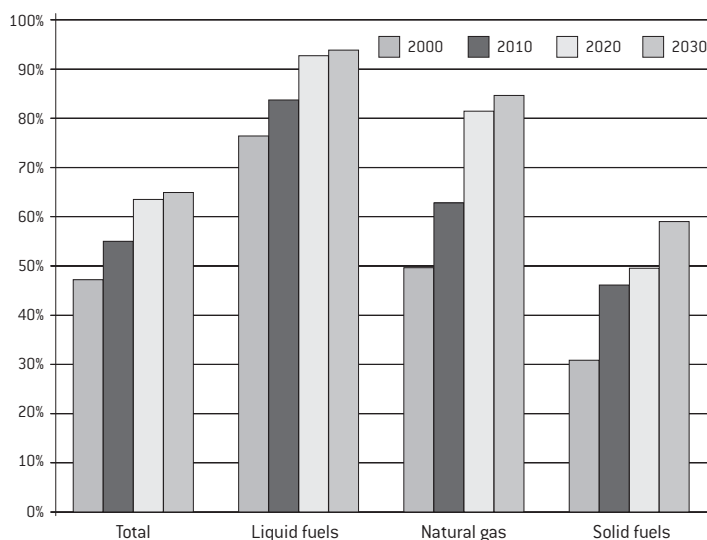
Source: European Commission

In the primary energy mix, nuclear contributed 14 percent and renewables six percent, while in electricity generation the shares of nuclear and renewables were 31 percent and 14 percent respectively in 2004. The contribution of domestic EU production to the primary energy mix (54 percent of the solids, 37 percent of gas and 18 percent of oil) in 2004 is still significant but will decline in the coming decades. Although the figures presented here are based on a baseline scenario and do not include the recently contemplated additional measures to stimulate renewables, it is clear that despite these efforts the EU energy mix will remain largely dependent on fossil fuels up to 2020 and beyond. This is partly the reason why new energy and climate strategies include clean fossils. But the technology to capture CO₂ in aquifers and old oil and gas fields is far from developed. In general, the combined energy and climate strategy as promoted by the Commission and the European Council depends on quite a few technology breakthroughs and cost reductions.

Import dependence is already substantial and will continue to grow in the period to 2030 (see Figure 9.2). The import dependence on oil (mainly for the transport sector) is already very high, and with the modest resources in OECD countries in decline, will not only increase further but oil supplies will also become more concentrated.

The combination of declining domestic supplies and growing demand results in a rapidly increasing import dependency on natural gas. Despite growing liquified natural gas (LNG) supplies, gas imports are also predicted to remain very concentrated

Figure 9.2: EU25, development of import dependence to 2030 (baseline scenario)



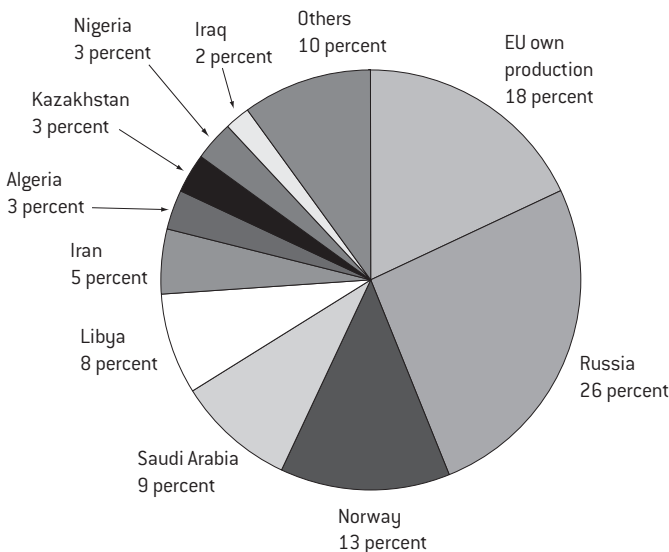
Source: European Commission

for large parts of the EU. The concentration of suppliers is already relatively high for the EU as a whole, but is very concentrated indeed for the north-west and eastern European gas markets where Russian pipeline supplies dominate. LNG development will only marginally relieve the structural import dependence because the line of arbitration between Russian pipeline gas and LNG will be unlikely to shift that far north and east to include large parts of the German, Austrian and Swiss markets, let alone those of the eastern European member states.

The EU imports from a relatively small number of fossil fuel suppliers, particularly in gas and oil [see Figures 9.3 and 9.4]. Some countries are important suppliers in all three fossil fuels [see Figure 9.5]. For instance, in 2004, Russia supplied eight percent of the EU's coal imports, 29 percent of its gas imports and 26 percent of its oil imports, while Algeria supplied 13 percent of gas imports and three percent of oil imports. Norway supplied 17 percent of gas imports and 13 percent of oil imports. Saudi Arabia is an important oil supplier with nine percent and South Africa an important coal supplier. In general, coal imports, despite the projected increase, are not considered a problem with regard to security of supply. This is due to the larger domestic supplies, the wider variety of suppliers and the national policies of most of these exporting countries.

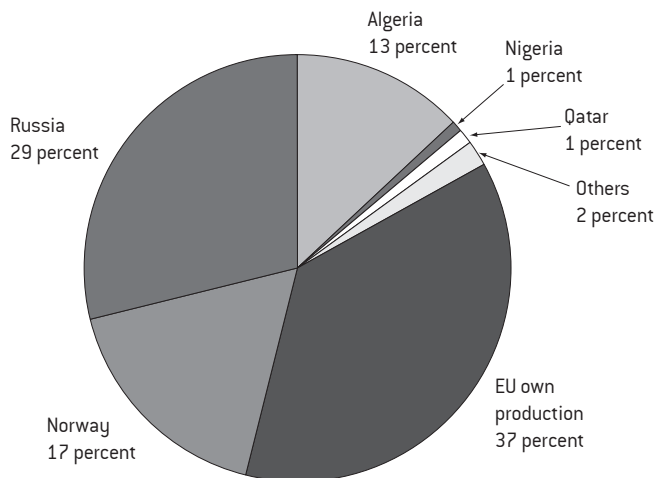
The current energy mix and the outlook in respect of climate change and security of

Figure 9.3: EU 27, origin of oil, 2004



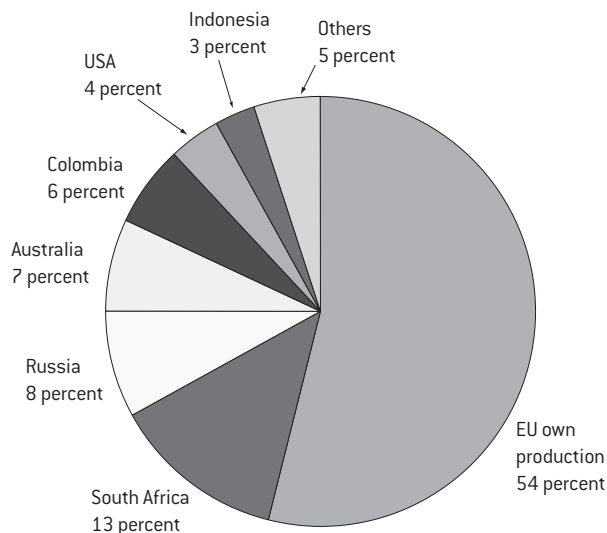
Source: European Commission

Figure 9.4: EU 27, origin of natural gas, 2004



Source: European Commission

Figure 9.5: EU 27, origin of hard coal, 2004



Source: European Commission

supply (concentrated on a few net exporting suppliers of which most are economically and/or politically unstable in the short or longer term) are the main drivers for the proposed structural changes in the energy economy of the EU and its member states. In the case of Russia, both the uncertainty about the internal developments in the country and a combination of regional and geopolitical rivalry, have soured relations

with the EU in the past few years. Energy has played a major role in this development, in which the Russian-Ukraine dispute was taken as a cue for some EU countries to steer away from a larger dependency on Russia. However, the imports from Russia will be very difficult and costly to replace by alternative flows and fuels. The longer-term drive to achieve a more sustainable energy system, not only on account of climate change but also in terms of structural political and economic dependence, could be at the source of short- and medium-term problems in energy security. In addition to a possible reluctance of producing countries to invest in fossils to provide sufficient capacity in the short- and medium-term, the difficulty of the EU strategy is that this new public interest should be achieved in a manner that does not impede the EU and its stakeholders in their global competitive position. International fossil energy prices, the price for CO₂ and the organisation of the energy sector, among other things, therefore play an important role in achieving these policy goals.

Energy policy in the EU

The run up to the new initiatives

Recent increases in energy price levels on world markets, partly due to high political risk premiums on energy, increasing demand in newly emerging economies, underinvestment in all parts of the value chain, the rising cost of new oil and gas flows, access to resources and markets, and renewed sentiments of energy or resource nationalism and a renewed sense of urgency concerning climate change have contributed to the intensifying international and European energy debate.

Since 2005 a certain degree of willingness among the member states has begun to develop in favour of closer cooperation on energy policy issues. Security of delivery and security of supply are issues which have gained prominence as a result of increasing energy trade flows among the member states and growing import dependency on third-country supplies, in addition to the environmental agenda. The idea that market forces alone could provide the member states with sufficient security of supply began openly to be doubted against the background of the renewed emphasis on national interests by producer country governments. They raised the issue of security of demand against the background of investment requirements and intensified transition plans to include more sustainables in the energy mix in consumer countries, such as the EU.

Moreover, the liberalisation of the EU energy market had not from the outset been properly accompanied by crisis policy mechanisms, such as the International Energy Agency (IEA) mechanisms for oil, which gave rise to doubts about the policy

direction. At the same time, the implementation of the internal market itself required more coordination than merely taking away barriers to trade and regulating natural monopolies. Coordination of security of supply policies also proved to be more difficult, particularly in gas, where the dedicated infrastructures and trade depend on long-term commercial and government relations between member states and third countries. The absence of a structural crisis, such as the 1973 oil crisis, made member states more reluctant to trade their long-term bilateral energy relations with relations managed from Brussels that would not necessarily benefit the security of the individual member states. Moreover, nervousness was growing about the liberalisation agenda regarding the position of national champions and the future organisational structure of the sector. In general, these uncertainties in turn created an unstable investment climate.

At the EU's Hampton Court European Council meeting in autumn 2005, a paper was presented that invited the member states to tackle some of the outstanding issues on the internal energy market, and to examine how progress could be made with regard to the environment. This debate kick-started the current energy policy discussion. At the meeting, the Commission was invited to prepare a green paper, which was published in March 2006. While the Commission was preparing the paper, the impact of the January 2006 Russian-Ukrainian gas crisis emphasised the urgency also to include a view on external energy relations. The 2006 Commission Green Paper, 'A European Strategy for Sustainable, Competitive and Secure Energy' and Commission Directorate-General for Competition's sector enquiry, were the stepping stones for the energy discussions leading to the Strategic Energy Review 2007 (SER 2007), also referred to as the 'energy package'. On 10 January 2007, the Commission presented 'An Energy Policy for Europe' (European Commission 2007c). With this energy package the Commission calls on the member states to tackle the triple challenge of future energy security and an environmentally sound energy system, while also embracing the Commission's view on how to realise or complete the internal energy market. These proposals include wider competences in energy for the EU both in internal and external energy policymaking. From the EU presidency conclusions of 8-9 March 2007 we learn that the competency issues have not been resolved and that the Council continues to take a much more evolutionary approach.

The EU market model is not yet set in stone. Policymakers, politicians, regulators, academics, companies and other organisations differ in what they see as the preferred market structure or market model and the way in which security of supply and environmental policies and the costs they incur should fit into this framework. More importantly, member states are still uncertain how the framework will deal with the asymmetric security of supply risks and different energy mix preferences.

The differences of opinion are strengthened by the different national interpretations of the directives on national market models. Among the member states and other stakeholders, the preferences vary between those that are proponents of de-integration of the value chain and those that favour more integration of the value chain, and they vary between those that prefer a national champion and those that do not. Very often in the EU debate, those that are proponents of a certain level of integration of the value chain are denounced as being anti-competitive, thus denying the merits of models of competition in which, for instance, vertically integrated firms compete for markets. The level of integration or de-integration (or unbundling) can be particularly important for the efficiency and reliability of the European energy sector. Particularly with regard to the dependency on foreign supplies in markets that are very concentrated and/or suffer from resource nationalism, a certain degree of purchasing power on the part of companies can help secure flows for the European market. Such a model, with larger companies competing for international resources and markets, is possible within the rules and regulations of the EU. It is clear that some member states prefer this model over a market structure that is more atomised.

The discussion about the preferred organisational structure of the market also reflects the desire to capture both short-term and long-term benefits in an industry that has typically longer-term cycles. The outcome of this struggle also impacts on the way external energy relations are conducted because of the apparent attempt to move the long-term costs on to third countries. Both consumer and producer countries are engaging in rent-seeking behaviour. The producer countries are aware of this process of offloading the long-term costs of security of supply onto them and respond with strategies that secure their return on investment in production and transport. Forward vertical integration and producer cooperation become options in the face of developments in consumer markets which suggest that the costs and benefits of energy trade are becoming unbalanced.

In order to understand the longstanding debate about a European energy policy, it is important to understand the national interests of the member states, but more importantly also the role of the state in the organisation of the (international) energy sector. In energy, the state (or government) has always been involved, often as an owner but also as a regulator. Regulation of the energy sector is not only about creating a level playing field, efficiency, a certain market structure or about the lowest possible prices for consumers, but is also important from a national security perspective. Energy is a sector with high economic rents that not only attract companies but also governments (van der Linde 2000). Energy is a major contributor to tax incomes of producer, transit and consumer countries. For that reason alone, governments will continue to intervene in the energy sector. Before turning to energy policy

developments, the role of government (the state) and the role of companies in the political and social construction of the member states should be analysed.

State versus market

In energy, the state and the market cannot easily be separated. Energy touches on the core functions of the state. Energy is not only a crucial and basic input to our economies, determining the competitive position of nations and its industries and welfare, but also a crucial element in the security of the state (law and order, international, foreign and security interests). The intervention in the market to reduce market imperfections by way of regulation or ownership (for instance to overcome natural monopolies), is different from state intervention for national security reasons (for instance to guarantee energy supplies for military purposes and in general to promote geopolitical and geo-economic prominence). Often these functions can be combined when sufficient energy supplies can be delivered to the consumer markets without the political threat of supply disruptions. However, in a situation where geopolitical and geo-economic tensions are increasing, or where energy resource regions are deemed unstable, the security of the state imperative will compel the government of consumer countries to intervene to secure supplies.

Even in resource-rich countries the security of the state can compel the government to take charge of the energy sector. In Russia, for instance, the oligarchs were deemed a risk to the interests of the Russian state when they challenged the government (and in the eyes of certain elites, the integrity of the state) with their amassed riches. Since the intervention in the oil sector in the Yukos affair, but also with the restructuring of Gazprom, the government has consistently reduced the grip of the first generation of oligarchs on the economy and replaced them with managers considered more loyal to the state's interests. (Finon and Locatelli 2007, Stern 2005) Moreover, energy riches can also promote a state's geopolitical importance, as is currently evidenced by the countries in the Middle East, the Caspian Sea region and Russia. For this reason, states will not easily leave security of supply to the market.

After the limits of the centrally planned economies were reached in the late 1980s, a general sense of optimism about a global market-led economic system prevailed. At the end of the cold war, free trade and free capital movements were expected to include the previously non-integrated nations into the world economic market system. The foundation of the World Trade Organisation (WTO), as a successor organisation to the General Agreement on Tariffs and Trade (GATT), underlined this expectation of global integration. In a world where international relations can become

economised and as a result fairly de-politicised, an economic or market approach would also deliver an efficient model for organising the (international) energy sector. The drive to liberalise the energy sector in Europe is, in addition to specific internal EU dynamics, part of this wider international political and economic process. However, recent energy-related geopolitical conflicts suggest that the economisation of international relations has been arrested and security of supply risks have increased.

More often than not, energy is part of the political and strategic function of the state where the market approach (partly) fails to deliver the type of security the state needs or wants to achieve. Governments can then opt to play an active role, to varying degrees, in tweaking market players to produce security for the state. The state, for instance, can facilitate deals for its domestic companies with friendly producer countries (and conversely the producer state can facilitate access for its companies to markets of friendly consumer countries), the state can subsidise domestic companies to create a competitive edge in investments, a state can deliver substantial fringe benefits to resource-rich countries ranging from roads, telephone networks, technologies and military equipment, a state can bestow preferential political and economic treatment on another country, and a state can facilitate inclusion of another state in the international community despite human rights or other political failings. A state will thus opt to use the full range of economic, political and strategic instruments. Energy policy, both in producer and consumer countries, is therefore about balancing the economic and political-strategic interests of different stakeholders across national borders. In our market-oriented societies this reality is often forgotten, or at least not openly acknowledged.

Energy is also a high economic rent industry in which governments have been successful in capturing rents through taxation or ownership. In return, market players in the energy sector need governments to secure their long-term investments at home and abroad. The energy industries are for that reason an important part of the political and socio-economic model of the member states (Finon and Locatelli 2007). An economic approach to energy policymaking will leave important issues of security of the state unaccounted for and explains the ongoing reluctance to bundle energy interests in the EU. It is in the strategic and symbiotic relationship between energy (and the players) and the state that the EU must convince the member states that it can deliver. But even if the EU is kitted out with all the necessary competences in energy, the absence of competence in the foreign and security policy field, and the absence of strong state institutions, prevents the EU from performing as a state. The EU was simply not designed to perform as a state but is rather an economic project with institutions for removing barriers to trade and the free flow of production factors. The question is, therefore, how much sovereignty and which powers

could or should be elevated to the EU level and which policy instruments can be used to optimise the value of EU policies to the member states, without giving up control over the security of the state?

The rationale for a common energy policy

With the implementation of Economic and Monetary Union, the final stage of economic integration, it is logical to include sectors of the economy that had remained largely in the realm of member states' policymaking. The energy sector was one of those sectors where national policies prevailed. In particular, the gas and electricity sectors were public utilities, mostly run by local authorities. Large efficiencies were possible with a different organisation of the sector, not only in individual member states but also in the EU. In a period where government intervention was reduced to regulatory functions in many public utility or (previous) natural monopoly sectors and where competition across EU borders was introduced, the gas and electricity sector also became part of this effort. This process of implementing the internal energy market began in earnest the 1990s. In this period energy supplies were amply available in Europe and on world markets and security of supply risks were considered low.

Early on in the internal market implementation process, member states first tackled the reorganisation of their domestic sectors, in order to ready themselves for opening to EU competition. The approaches and choices governments made in reorganising the sector differed widely among the member states. In the UK, public utilities were first privatised and only later was the market liberalised, while in most other countries the process was exactly the other way around. In France, the sector was already centralised in two large companies, while in other member states assets first needed bundling into larger entities to gain the economies of scale and scope for this effort. The market structure and the size of the companies were first and foremost geared towards domestic market needs. Moreover, the restructuring process was part and parcel of the political and socio-economic model of the member states and, although the European market played a role in the choices about how best to shape the sector, they were still national choices. In Germany, for instance, the unification of the country also played a role in the efforts to restructure the sector. The previously East German assets were bundled with West German interests and readied the newly formed companies for a strong European position. National choices thus play a major role in the discussion about market design today, and competition among member states to push their market model for copying at the EU level is understandable. The current unbundling discussion is promoted by the UK, where the sector and its regulators would gain an edge in competitive

information and experience over other member states if they were to follow that model. Understandably, larger member states resist certain changes to their market model, particularly when the measures are unpopular with the domestic players and voters appear reluctant to embrace [more] changes. Moreover, the appetite for change depends on a proper balance between benefits and costs.

The Strategic Energy Review 2007, however, failed to show clearly enough how to strike the balance between competition, sustainability and security, except by stating that this balance is important. The fact that the Council embraced the 20-20-20 goal (20 percent reduction in CO₂ and a 20 percent share of energy production from renewables by 2020) reflects political direction but the devil in this case is in the detail of implementation and distribution of cost. Insufficient analysis is included to show exactly what trade-offs exist between the approaches to the internal market, environmental policies and external energy relations. For instance, high prices are helpful in energy saving and the introduction of cleaner fuels, but do not serve the consumers' short term interests. A stable and intense relationship with a large energy supplier which supplies a large share of the market may help security of supply, but may limit diversity of resources and competition on the market. Member states are aware that the internal market approach alone will not secure results in the other policy areas. The market is a coordination mechanism for scarce resources but cannot by itself produce the transition to a larger sustainable fuel base nor generate a consistent crisis policy mechanism or other public goods such as long-term security of supply (Helm 2006). The large time lag between investment and consumption, the dedicated assets in an energy system and the life of the capital goods creates a different market organisation and development than a market for consumer goods (Helm 2005a). The interaction between the market and government intervention should reflect these dynamics.

EU energy policy must seek positive trade-offs among these policies rather than approaching them predominantly from the angle of internal market powers alone. Just as competition policy does not suffice as a single all-encompassing solution, the strategic energy review does not provide alternative answers (Helm 2005b, Henningsen 2006). The current proposals do not reflect sufficient awareness that internal energy policy and external policymaking require a fundamental willingness to weigh the costs and benefits of balancing the policies, to consider adapting policies to developments in international markets, to accept that there are more models of competition and that policymakers should also attempt to synchronise policy with sector developments in order to let markets evolve. On weighing the costs and benefits of policymaking, the past, rather unyielding, approach to long-term contractual arrangements, for example in the interests of the consumer, is at vari-

ance with the cost of obliging all member states to maintain strategic gas reserves. Other flexible options, such as stimulating dual-firing capacities, are considered for security of supply policies but are not considered to be part of crisis management policies. It all comes down to creating a proper mix of market and government instruments to optimise the balance between the market and public interest issues, such as security of supply, and understanding that the asymmetries in fuel mixes and import dependencies require different local policy mixes. In a recent study, an attempt was made to quantify security of supply measures in a market environment (de Jong *et al.* 2006). Although this approach and discussion is only a beginning in tackling this complex issue, it is clear that a more thorough understanding of the interlocking dependencies within our energy systems, the costs and benefits of various policy options, and the impact at the member state level will greatly help in finding balanced trade-offs.

Progress in the implementation of the internal energy market since the 1990s has created interdependencies among the member states that require coordination of the security of delivery policies.¹ Obviously, the increase in transborder energy trade and the more intense linkage of networks creates new vulnerabilities when the system fails. The recent electricity disruption originating in Germany managed to spread very quickly through large parts of the European market. Technical and operational cooperation among system operators on protocols and early warning systems can help reduce the impact of a power failure somewhere in the system. With more interconnections, supplies can more easily reach other member states' markets, while prices will converge to the marginal connected power plant in the larger system, reducing the price differences between national markets.

The targets of the Kyoto Protocol regarding CO₂ emission reductions are another major reason to cooperate. In general, coordination or perhaps harmonisation of energy policies regarding renewables is logical because these industries are in an early stage of development.² Like the Euratom Treaty, which was concluded before the nuclear sector got off the ground in Europe, it was relatively easy with few embedded interests and the wish to create a level playing field to agree on a common framework. The new sustainable energy industries are not yet as embedded in the socio-economic structure of member states. The window of opportunity will close rapidly when initiatives get underway. However, policymaking at the EU level should not yet be seen by governments and companies as a threat to existing policies. With the sense of urgency driving achievement of a low-carbon economy, policies at the EU level are attractive to create a level playing field among the member states and the main stakeholders.

With regard to security of supply, coordination is more difficult, particularly where gas is concerned. Gas depends on dedicated infrastructure and gas trade is part of long-term commercial and diplomatic relations between producer and consumer countries. In oil, the nationalisation of the upstream oil assets by OPEC countries had already enforced a fundamental restructuring of energy relations, and therefore paved the way for a coordinated oil crisis policy in the IEA. Because such a crisis has not materialised in the international gas business, member states are much more reluctant to trade their long-term bilateral energy relations with relations managed from Brussels, particularly when pressure to change the relations is mounting, as is the case with Russia. EU enlargement is currently driving a more assertive relationship with Russia than certain member states would like.

Finon and Locatelli (2007, p.28) eloquently emphasise the essence of the dispute among the member states and the Commission about the market model and security of gas supply by stating:

'[...] But if the major gas companies would be weakened in the name of the principles of short-term competition, their bargaining power and their financial capacity to handle larger import operations would be reduced. This is the basic conflict between the Community's objective of promoting competition at all costs and its goal of guaranteeing long-term security of supply. There is undoubtedly a certain logic in wanting to disperse gas company assets in the name of market principles on the one hand and to create a single European negotiating authority on the other. But member states are bound to wonder how such institutional choices might improve their national gas supply when local buyers would be able to achieve his more easily by falling into line with government objectives.'

For a common energy policy to emerge, member states must become convinced that energy policymaking at the EU level is more effective in achieving results in all three priorities of energy policy – reasonable prices, security of supply, and environmental sustainability – than policymaking at member state level. In the face of rising resource nationalism and more intense competition for resources from other consuming countries, the argument for the bundling of external energy policies is that it would lend more traction to the EU's position in the world, representing a large consumer market. For the EU to make a difference in international energy relations it must have something to offer in negotiations. The problem is that access to the EU market is already open to third-country companies and reciprocity in opening up thus cannot be used as a market power tool to negotiate access to supplies. Moreover, the EU no longer represents a dynamically growing consumer market for

oil and gas, particularly not given the enhanced efforts to achieve sustainable energy, reduced CO₂ emissions and energy efficiency. The importance of the EU market for oil and gas producers has weakened compared to other more dynamic markets. And given the rising share of other consumer countries in world energy demand, the EU's importance will continue to weaken.

The EU's market power exists by virtue of its efforts to reduce the carbon content of its energy mix. The speed at which the EU is prepared to generate, and the cost it is willing to incur to replace cheaper oil and gas with initially more expensive fuels, does create a position of power in energy diplomacy. The low-carbon economy is a direct threat to producer countries that eventually stand to lose market share to new fuels and new companies that compete for their traditional markets. Many producer countries are also dependent on oil and gas export income and feel threatened. The intense debate about security of supply and demand is about the security of the state and the longer term geopolitical and geo-economic landscape.

The rationale for maintaining national competence

The battle for future geopolitical and geo-economic dominance is partly played out in the international energy markets. Energy policy, both at member state and EU level, should not only be concerned with the longer-term perspectives for new energy systems and new fuels but must include the creation of circumstances in the short and medium term to make a transition away from oil and gas or to avoid such a switch. It is in this aspect of energy policy where member states are reluctant to trade their stable energy relations for more uncertain relations at the EU level, where a different agenda - the longer-term one - is being promoted. The member states realise that as long as the low-carbon economy has not materialised, their dependency on imported oil and gas (and coal) remains very large. At the same time, producers are also tied into their traditional markets, despite their maturity, in order to stabilise income from energy exports. The markets of Europe, Japan and the US cannot be replaced overnight by new consuming countries.

For the member states it is important to determine whether the international political and economic muscle of the EU, which is based on the low-carbon strategy and a competitive market structure, gains any strength when it is bundled with a unified voice in security of oil and gas supply matters or whether these issues should, for geopolitical, domestic political and socio-economic reasons, rather be separated and pursued as a two-pronged approach. This would leave those elements of energy policymaking where the interests of the state are at stake firmly in the member states' realm, and would leave the EU with partial competences in energy matters.

Competence

The EU's energy competences are incomplete, in particular security of supply policies, but management of domestic resources and the energy mix also fall within the realm of the member states. In reality, the EU's competence in energy is mainly based on internal market and competition powers. In the fifty years of the European integration project, energy has always managed to stay within the domain of member states' national policymaking. The Commission's Green Paper 'Towards a European Strategy for the Security of Energy Supply' had already concluded in 2000 that: 'The European Union must take better charge of its energy destiny. We are obliged to acknowledge that, despite the various crises besetting the European economy in the last thirty years, there has been no real debate on the choice of energy resources and even less an energy policy regarding security of supply.' (European Commission 2000b, p.3) The March 2006 green paper made a renewed attempt to elevate energy policy to EU level. When European leaders called for 'an energy policy for Europe' after discussing the March 2006 green paper (European Commission 2006e), which at least suggests that national energy policies should be made more coherent, they were reluctant to move on the competence issue. From the Austrian EU presidency's statement at the conclusion of the meeting, it was clear that the energy policy for Europe had to be realised within the confines of the current competences of the EU. Furthermore, the Austrian presidency³ stressed that national sovereignty on key strategic decisions such as the choice of energy mix – including nuclear – would be preserved at the member state level. The member states evidently wished to keep the right to intervene in the fuel mix, in addition to their right to employ their own depletion policies. The consequence is the absence of a real and open debate about a common energy market framework. Such a debate is a prerequisite for understanding the current and future dilemmas at the EU and member state level, which in turn should be an important input for policy-makers to make the trade-offs between market, security and environment and between the national and the supranational levels. Despite the reservations of the Council, the Commission has again proposed to widen the competences of the EU, in particular with regard to external energy policy and oil and gas crisis mechanisms in its strategic review (European Commission 2007c).

The issue of sovereignty over energy policy has cropped up repeatedly in the history of European integration.⁴ A 1994 EU directive allows member states the right to deny access to upstream activities in the member states to third countries or third-country nationals on the grounds of national security. Moreover, the primary energy mix of the EU member states varies substantially and member states also differ widely on what their preferred energy mix is for the power sector. Moreover in terms

of import dependency there are persistent structural differences among the member states, which have also led to different approaches to security of supply. Diverging energy systems have made energy discussions at the EU level a delicate and intricate issue, which has only been further complicated by the different foreign policy approaches after EU enlargements. How do member states thus intend to shape energy policy in the context of the new internal and external challenges? And how does this relate to the Commission's latest proposals laid down in the strategic review?

Europe's long road towards a common energy policy

The European energy debate and attempts to agree on a European energy policy have a long history (Lefebvre and van der Linde 1987, 1988). In the run up to the establishment of the European Economic Community [EEC] at the Messina conference in 1956, negotiators from the six original member states discovered an important flaw in the draft Treaty of Rome. The Suez crisis of 1956 had uncovered the growing dependence of the founding member states on oil imports. Yet neither oil nor gas were specifically covered by the Treaty of Rome, nor was there a separate treaty in the making covering oil and gas, such as the European Atomic Energy Community Treaty and the existing European Coal and Steel Community Treaty. The founding fathers of the EEC, taking perhaps a too technologically confident view of the future, believed that the EEC would rapidly develop from a coal-based economy into a nuclear economy. They had not envisaged that both oil and gas would become dominant contributors to the European fuel mix. Neither could they have foreseen that in the future a variety of sustainable energies would enter the energy picture, each with its own value chain management and international peculiarities that also need to be accounted for by energy policy.

However, when the Spaak Committee indicated that oil would become important for the European economy, the treaty negotiations were too far advanced to include a part on those energy sources which were not yet covered in the sectoral treaties. It was thus decided that, immediately after the Treaty of Rome was ratified and when the implementation process had started, negotiations to remedy the situation would commence. However, the six member states never managed to overcome the deep differences in make-up and interests in their energy sectors. The importance of the coal sector for the economy in Germany and the choice of France, Italy and the Netherlands, with smaller and less efficient coal sectors, to switch rapidly to oil-based economies in the late 1950s, could not be translated into a coherent European energy policy. The discovery of gas in the Netherlands and the development of the gas market in the 1960s based on these resources further separated

the member states on energy policy issues. These issues have persisted ever since.

The preference for intergovernmental crisis management

When the member states, except for France, decided in 1974 to join the International Energy Programme (IEP) of the IEA and run their oil crisis policies through this new agency, the need for a common external energy policy dissipated. The decision to join the IEP (November 1974) was made just prior to a Council meeting in which a common energy policy was to have been adopted (December 1974) and member states had expressed a preference for intergovernmental over intragovernmental policymaking in the energy field.⁵ Thus the common energy policy as imagined by some in 1974 never got off the ground and, in 1984, the Commission announced that it would no longer pursue this policy.

In the 1980s, governments began to review their role in the economy. The recession of the early 1980s, after the second oil price crisis, left many member states' public finances in arrears. Governments ran up against the limits of the demand-management model of the economy. Cutting public expenditure would rule out investments in an economy that needed to be revitalised in order to compete effectively with newcomers on the international trade and investment scene. Liberalisation and privatisation became the new mantras of besieged governments. The demand-management model of government began to give way to more market-based models of the economy or, perhaps more accurately, regulation-based economies, because governments never really withdrew from the scene.

In the market-oriented economy, the role of government as an owner and producer had to be replaced by a government that would define and manage markets, including sectors that were natural monopolies or had natural monopoly segments in the value chain, through regulation. This process of redefining the role of the government in the economy was, and still is, uneven in pace and scope among the member states, because the reinvention of the economy was not so much a European but a predominantly national process with European influences.

The EU was often no more than a tool in the national process, and was designed to be a determining factor in the national outcomes. The fact that leaders such as Margaret Thatcher in the UK, François Mitterrand of France and Helmut Kohl of Germany were united under the market model banner should have been a warning that, when it came to the detail of implementation, the inevitably huge ideological differences would surface about how exactly this internal market would be defined and would work.

Nevertheless, in its resolution of 16 September 1986⁶ the Council identified an integrated, barrier-free internal energy market with a view to improving security of supply, reducing costs and improving economic competitiveness as an objective of the energy policy of the EU and the member states. In the context of the mid-1980s, with energy prices rapidly declining after a period of high OPEC oil prices and with diversification away from oil starting to show in member states' energy mixes, freeing up energy trade among the then 12 member states was the next step in benefiting from the new diversity in energy mixes and thus helping security of supply. Large flows of gas had been secured from the Soviet Union by Italy, France and Germany, and France had built up a large nuclear capacity. Moreover, the UK, Norway and the Netherlands provided substantial European supplies of gas, and the North Sea also produced sufficient amounts of crude oil to limit, in the new market circumstances, the power of OPEC to set prices. In general, the security of supply risk at that time was predominantly a security of oil supply risk. Diversification into gas, coal and nuclear, in addition to diversification of oil suppliers, was deemed a successful solution for the strategic dependence on oil in the 1970s.

However, the gap between freeing up energy trade among the member states and creating an internal market with some organisational coherence was large, because organisational structure varied widely among the member states and among the various parts of the energy sector, such as gas, coal, oil and electricity. Not only the size and scope of the energy companies varied but also public ownership structures. In some countries regional and/or city authorities owned local gas and electricity companies, while in others ownership rested with the central government. Freeing energy trade required not only removing barriers between member states but also a certain degree of reorganisation of national sectors, while arguably oil trade was already free. Particularly member states with small, locally organised gas and electricity companies realised that they needed some rebundling of their energy sectors which would allow the new, larger entities to participate in cross-border trade and benefit from economies of scale and scope. This rebundling took place predominantly at a national level. At the same time gas imports already required companies of substantial size, or close cooperation among the smaller entities, in order to conclude large long-term contracts with gas exporters such as the Netherlands, Norway, Russia and Algeria.

It is clear that the initial concept of the internal market was designed in an energy buyers' market, which with hindsight created favourable conditions for the structural changes envisaged. At the time, domestic oil and gas production levels were substantial and in electricity production spare capacity was available. In such circumstances, it is easy to imagine that with ample supplies available, energy industries

could become more efficient by removing barriers to trade and by ensuring competition in and between member states. However, ample supplies are a precondition for competition in the mid- and downstream to produce the price levels for consumers that reflect the efficiency gains. It is in this context that there is a call to break up long-term contracts and destination clauses arise, because consumers do not have to pay for long-term security of delivery and supply, nor for the investment risks. However, in a sellers' market, particularly when at the same time domestic supplies are declining, ample supplies are no longer available and competition for scarce resources can actually produce higher prices when security and investment risks become priced in again. An important precondition for the internal market, as it was politically imagined, is now missing from the equation. The gas market, like oil, has also changed into a sellers' market, and gas-producing countries seem careful to avoid investing in speculative export capacities. Competition has now moved from the mid- and downstream part of the value chain to the upstream part of the value chain and has changed from competition for consumers to competition to secure enough supplies to the market. It is in such a market that the conditions which suppliers wish to attach to their deliveries become important again, particularly when certain consuming parties are keen to secure long-term supplies and it is harder to play producers off against each other.

Ownership of reserves is significant too because national depletion policies, investments and demand and supply developments do not necessarily match the needs of the EU market. Most of the oil and gas reserves in the world are preserved for development by national oil/gas companies and only about a third is available for foreign direct investments. The current debate between the EU and its external suppliers is a debate over who can capture the economic rents, where end-user taxes compete for the consumers' wallet with premiums on prices. In a buyers' market, it is usually the consuming countries that capture these rents (through taxes and excise duties and the benefit of low prices) and in a sellers' market it is usually the producer country that can capture a large share of these rents.

The producer countries have no interest in creating oversupply, which is very costly, and therefore wish to assure market access for their product, security of demand, either through long-term contracts or the ability to vertically integrate into the consumer market. The (partial) state ownership of many producer-country oil and gas companies, and the idea that foreign governments will use their ownership to further national interests, run counter to the idea of open markets with a level playing field (European Commission 2006f). The resistance to mergers and takeovers by (partly) state-owned companies can be explained by the fear of foreign political pressure. The paper of the Commission/SG/High Representative for

the European Council (European Commission 2006f) states their fears in the following way: 'Increasing dependence on imports from unstable regions and suppliers presents a serious risk. Some major producers and consumers have been using energy as a political lever. Other risks include the effects on the EU internal market of external actors not playing by the same market rules nor being subject to the same competitive pressures domestically'. Although not specifically articulated in such terms, this citation summarises the discussion about Russia after the gas crisis at the beginning of 2006. The distrust of Russia was further kindled by the recent oil and gas disputes with Belarus and does not bode well for a positive and expedient outcome of the discussions on the new partnership and cooperation agreement between the EU and Russia. From this perspective, long-term gas contracts between upstream suppliers and mid- and downstream companies in the EU, endorsed by member state governments, and where price and volume risks are shared, could suddenly become an attractive alternative to the potential political arm-wrestling between the EU and Russia.

Steps towards an internal energy market

Ironically, declining energy prices in the late 1980s and 1990s created new pressures on governments to restructure their energy industries to improve their competitive strength and reduce government costs. Oil by then was predominantly used in the transport and chemical industries, while gas was rapidly replacing coal as a competitive and clean feedstock in new power plants. In Germany, the government continued to protect the coal industry to maintain a certain market share, while in the UK the growth of the domestic gas industry was used to break the political hold of the coal industry on the economy (Helm 2003). Both commercial and environmental arguments were used to phase out domestic coal when privatisation of the British electricity sector came with the freedom to choose the input fuel. The outdated coal industry very quickly lost its market share to gas, which was coming on stream massively in the North Sea. The efficiency gains in the British power sector were large, although it was never clear how much of these efficiency gains were due to the different organisation of the sector and how much was due to the switch to gas. In France, with its large nuclear capacity, the discussion about restructuring the energy sector was not really an urgent issue. After the accidents in Harrisburg and later in Chernobyl, the urge to place the nuclear industry on the market was low, and only the oil industry was restructured and privatised. In Italy, the state oil company ENI was also privatised with 63 percent of the shares on the market and Spain also privatised its oil industry. Germany followed a national approach to energy restructuring, underpinned by German energy and industrial policy. As a result, Eon Ruhrgas, RWE and Vattenfall emerged as dominant companies on previously very localised electricity

markets. Both RWE and Eon Ruhrgas have also developed dominant positions in the German and European gas markets through acquisitions. With national expansion exhausted, electricity companies have embarked on European expansion.

European electricity companies are expanding their interests in mid- and downstream gas markets, including in eastern Europe, while some have also moved downstream in both Europe and abroad to create a certain percentage of own supplies. The consolidation in the European gas and electricity markets is still underway. The consolidation of energy interests in large, often multi-energy companies, thus creating an oligopolistic market model, and the efforts of the European Commission to promote competition in gas and electricity markets, have not converged yet in a shared vision of the internal and external energy policy needs of the EU. While German, French, Dutch and Italian companies, with mostly open or implicit support from their governments, have secured long-term gas supplies from Russia in partnership deals along the value chain with Gazprom, and while Norway has bundled Norske Hydro oil and gas interests in Statoil, further underpinning the oligopolistic and vertically integrated market structure, the EU Commission is, according to the recent strategic review, still focusing on horizontal unbundling of the mid- and downstream part of the value chain to promote competition.

Companies and some member states governments have apparently already decided that competition in the coming years will predominantly be focused on securing third-country supplies. In this, the renewed focus of governments on security of supply and the companies' efforts to spread their risks by gaining a wider European market share and diversifying their supplies through both vertical and horizontal integration, seem to converge. Government-to-government relations are used to secure business-to-business deals on both supplies and the infrastructure to facilitate these supplies, as both the Nordstream and Bluestream II projects show. That said, the active role of government required in these deals is a far cry from the ideal expressed in the 1990s that only markets would provide sufficient flows of energy.

The energy sector is a typical example of where government and markets meet continuously, for instance to issue permits for pipelines, generation capacity, LNG terminals, influence the energy mix and negotiate complex gas trade deals with governments and companies from third countries. The market and government do not have strictly defined spheres of operation but rather function in a dynamic relationship, where the market is introduced where government previously ruled and *vice versa*, depending on the prevailing political and economic conditions. The boundaries are therefore unclear and need to be confirmed or adjusted continuously, while at the same time maintaining a stable and predictable investment climate.

European energy in a new international context

Paradigm change

As we have seen, the current European energy discussion must take place against a different background than the discussions in the 1990s leading to the process of energy market liberalisation. In the 1990s energy markets were amply supplied and, after the break up of the Soviet Union and with the weakness of the OPEC economies, optimism reigned about the chance to renew the link between the upstream and downstream markets in oil and gas through foreign direct investment. Globalisation would reduce government involvement in the energy sector and help advance an internationally competitive market structure. It was against this backdrop that the member states, with varying degrees of enthusiasm, embraced the internal energy market.

The privatisation of the European oil sector was largely completed in the 1990s. Majority holdings in large international oil companies, such as BP, Total and ENI, were sold in the latter part of the 1980s and 1990s. Yet liberalisation of the EU energy market has never focused on the oil industry. Access to oil pipelines and refineries was never an issue in the policy debate, partly because oil (product) transport is less dependent on one mode, as in the case of gas and electricity, although the cost structure of certain modes of transport could arguably pose a barrier to entry. The consolidation of some American oil companies and the subsequent sale of refinery capacities and distribution networks in Europe allowed newcomers, including national oil companies from producing countries, to enter the market.

Cross-border trade in oil and oil products in the EU was not a problem. Traditionally the oil industry has been an international, vertically integrated industry, with companies active in many countries. After the large reserve assets in the OPEC countries were to a large extent nationalised, international trade in crude oil replaced the traditional long-term contracts and inter-company crude oil flows. Trade in oil products among the vertically integrated oil companies became increasingly competitive when capacities in refining and petrochemicals were reorganised in the 1980s and companies began to run the distinct parts of the value chain much more as separate profit centres.

From 1984, international competition for crude oil was quite strong, despite OPEC's efforts to manage the market. Oil prices are internationally arbitrated and the international oil and oil product markets are very liquid. Backward integration in foreign upstream activities was welcomed as an efficient way to provide sufficient and

secure supplies. Vertical integration of European oil companies was seen as useful for the EU and other consuming countries. Moreover, the EU and member state governments actively supported initiatives to open up the upstream sectors in Russia, the Caspian Sea region, the Middle East and other producing countries to foreign direct investment. At the same time, the market for new refinery and pipeline capacity was limited, initially due to overcapacity and later because of cumbersome licencing and permit procedures for greenfield petrochemical sites, and companies from third countries could in principle only enter the downstream market through mergers or takeovers. Such operations took place to a limited extent in the 1980s through national companies from Venezuela, Kuwait and Saudi Arabia and some independent refiners. Yet these national companies pursued only a limited forward vertical integration strategy, which was predominantly focused on the US market.

Developments in the oil value chain, and particularly in the way companies managed their own oil interests, offer interesting insights that can be valuable for understanding the gas value chain, despite the differences between these two fossil fuels. Currently, there is renewed interest on the part of producing countries in forward integration in both oil and gas markets. In an attempt both to manage the large investment risks and secure the benefits from these investments, producer countries or their national companies are interested in accessing the main consumer markets. In the oil industry, the maturity of the traditional markets has made further forward integration less attractive in comparison to the expanding markets of the emerging economies. Also, the process of forward integration into the US and European markets by national oil companies was arrested in the 1990s when oil prices were low, and some governments required their companies to increase domestic (non-oil) investments to compensate for lower government income and expenditures. Tight government budgets in producer countries from 1985 to 1999 also led to the expectation that international private oil companies would increasingly regain access to oil reserves through joint ventures with the national oil companies. In the 1990s, Iran and Kuwait's offshore developments were opened for foreign direct investment, and Venezuela, until Hugo Chavez became president, was making similar moves. After 1999, when crude markets became tighter, this process was arrested and national companies are once more in a process of overseas expansion, concluding long-term contracts with countries such as India and China. Their focus is mainly on gaining access to the new Asian markets, where greenfield developments are possible and where governments are open to investment by national companies from large net exporting countries in order to underpin their security of supply policies. Concurrently, national companies from these same Asian countries are also actively seeking access to upstream developments in producer countries.

The rationale for the strategy of producer and certain consumer countries to meet in long-term contracts and forward and backward integration strategies of their national companies is to be found in the large investment costs. Security of supply and demand concerns are thus matched without having to address ownership issues that the private international oil companies bring with their investments. At the same time, the investment opportunities for large international oil companies in new oil fields are in decline, reducing not only their future prospects of profitability in oil, which are mainly in upstream activities, but also their role in safeguarding the supplies of consumer countries such as EU member states. Increasingly they will face competition in downstream markets from vertically integrated national companies. The dependency of the transport sector on oil is far from resolved, and will increasingly put pressure on governments in turn to push energy and car and truck companies to reduce reliance on oil products.

In the gas industry, long-term take or pay contracts fulfilled the role of sharing risks and benefits between the producer and consumer, until these contracts were questioned by the authorities of consuming countries when they engaged in the opening of their energy markets. The rapid expansion of LNG in recent years, combined with the prospect that these new LNG projects would be developed by the international oil companies, often in joint ventures with national companies, stimulated the belief that new and diversified flows of gas would reach the market and that the terms of pipeline flows could increasingly be adjusted to the new supply reality. The development of some large LNG projects in the late 1990s without underlying contracts in consumer markets fed this optimism. However, the modularity of LNG projects and their limited size compared to large export pipelines, and the emerging tight market for gas, very quickly dampened the optimism that LNG could rapidly break the long-term supply contracts open without risking supply security. The fact that LNG terminals in consumer countries fell under the third party access (TPA) regime made it hard for LNG suppliers to link up the various parts of the value chain. Suppliers that developed new LNG projects began to worry that consumer countries would not be able to provide the required gasification capacities to match their upstream developments. In the US, the Hackberry decision has removed this obstacle for investors that want to bring their own gas to the market and in the EU exemptions have helped the first projects on their way.

Nevertheless, the EU cannot expect LNG to be a panacea for its gas market liberalisation or its security of supply problems. Dependence on imported pipeline gas will continue to grow⁷. Uncertainty about long-term contracts for gas and potential competition from LNG has stimulated the traditional pipeline gas suppliers to the EU, Gazprom of Russia and Sonatrach of Algeria, to look closer into forward integration

options to maintain their share of the EU market - a tried and tested strategy in oil. The political uproar surrounding a rumour that Gazprom was interested in buying Centrica of the UK in February 2006 was telling for the state of relations between the EU and Russia, but also for the growing wider distrust between certain consuming and producing countries. In Norway, developments are underway to maximise gas and oil export options by creating internal arbitrage between oil and gas export prices through both pipeline and LNG options and the ability to inject gas into oil fields when oil fetches a higher price in the market. This is designed to provide the country with more security of demand and reduce the position of being a captive producer to the UK and Continental Europe. The recent bundling of oil and gas assets by merging the gas assets of Norske Hydro into Statoil will help to realise this strategy of optimising their oil and gas assets in the longer term. In the run up to the G8 meeting in St Petersburg, where energy security was prominent on the agenda, security of supply and security of demand interests could not have been further apart. In the conclusions of the meeting on energy the wording of the statement can be seen as a reflection of consensus among the countries but, in reality, the wording delicately leaves room for individual interpretation.

Thus, at the turn of the century, it became clear that the expected international competitive market structure was not going to come about. The buyers' market that had prevailed since the mid-1980s turned into a sellers' market when investment levels, both foreign direct investments and domestic investments in producing countries, had not kept up with increasing demand. Low energy prices, uncertainties about the investment climate in producing countries and surging demand in certain emerging economies such as India and China quickly reduced spare capacity in the international energy market. As a result, energy prices began to increase and producer governments were in such circumstances less keen to embrace the globalisation-inspired energy policies in order to promote their national interests.

A new sense of urgency began to develop in Europe about managing the energy agenda as a result of the higher oil and gas prices, the race with other consuming countries for scarce resources, the changing geopolitical climate, the emerging resource nationalism in some producing countries, the continued instability of the Middle East (a resource-rich region), the expected decline in non-OPEC production after 2010 and the consequent greater dependence on OPEC, and the EU's increasing import dependency in oil and gas (CIEP 2004, Hoogeveen and Perlot 2005, van der Linde 2005). The 2000 EU Green Paper on security of supply and the subsequent conclusions had already unearthed many of the challenges that lay ahead for the member states. Any subsequent green paper would have to respond to the raised expectations of an integrated approach to the internal market, security of

supply and the environment, and inconsistencies of approach in these three policy areas would have to be tackled. An intense energy debate was then suggested to help overcome member states' reluctance to create a common energy framework that would be equipped with the necessary competences. Such a debate would not only have to involve discussing internal market design and would have to include a thorough analysis of the value chain of energy, its organisation, the dynamics within and between the various energy resources and the interaction with demand and supply management. With more and more energy imported from third countries (International Energy Agency, 2005), energy policy in the member states and the EU would increasingly require an external relations approach with regard to securing non-EU primary energy supplies for the EU. The lack of a consistent external energy policy and the weaknesses still prevalent in EU foreign policy pose additional challenges to the Commission's recent energy policy initiatives (AER/AIV 2006). These issues have not become easier to tackle following the 2004 and 2007 EU enlargements, with the entry of the eastern European countries that were highly dependent on Russian resources.

At the same time, third countries also have reason to worry about the developments in the EU and about their ability to manage their own interests. In many ways, the new strategies of gas-producing countries to reduce their position as a captive producer of the EU market on the one hand and the interest in vertical integration in the EU market on the other hand are ways of deflecting the impact which EU policies may have on them (van der Linde *et al.* 2006).

Third-country producers that mainly derive their political and strategic importance from their energy resources seem, at the moment, particularly sensitive to energy policy measures by consumer countries that could thwart their ambition to play a more prominent role in managing the value chain. At the same time, consumer countries are sensitive to changes in the organisation of the upstream sector that would increase security of supply risks. The latter's call for more access for FDI is not only based on their belief that competitive conditions throughout the value chain create efficient energy industries, but is also derived from their preference for suppliers without political affiliations. The reality is that the international political and economic system, and the rules of the game belonging to that system, are less a given than previously thought (van der Linde 2005). It is not certain that important producer countries, under more uncertain international relations, will soon fully embrace the market as the coordination mechanism but may prefer for the time being a more politically controlled attempt at reforming the economy. The political experience in Russia with liberalisation of the oil sector is, among other things, likely to have resulted in a backlash against market reforms in the energy sector and the

wish of the central government to exert greater control. In this sense, the proposed strategic partnerships offer opportunities for dialogue that bridge these different approaches in the coming years. Building trust and recognition of sometimes opposing interests in value chain management must be an important element in EU external energy policymaking. The wish 'to build up a wide network of countries around the EU, acting on shared rules or principles derived from the EU energy policy' (European Commission 2007c, p.18) could, if trust is lacking, easily be seen as a way to impose a regulatory and market structure model on third countries which does not lead to 'mutual benefits'.

With EU oil and gas production declining and the consequent growing dependency on third-country energy supplies, a new approach to matching internal and external energy policy is required (AER 2005). Merely bolting on external energy policy to the existing internal energy policy, which is basically competition policy, will not overcome the existing inconsistencies but, on the contrary, risks reinforcing them. Internal EU energy policy has up till now been mainly concerned with facilitating efficient distribution, conversion and sales of energy, which really implies a focus on the mid- and downstream part of the value chain, while upstream policies - and more importantly connecting the upstream and downstream parts of the value chain in terms of organisation and regulation - have not been addressed. Upstream policies were either left to national member state level, at the member states' insistence, or left to international market developments, in other words relying on large international oil companies to supply the market. But international oil companies encounter increasing difficulties accessing new reserves and, even if successful, access comes at a much higher cost than before. Unfortunately these issues were tackled neither in the 2006 green paper nor in the 2007 strategic review, leaving crucial inconsistencies in the proposed policy approaches unaddressed.

Globalisation and national approaches to energy security

In autumn 2006 the Japanese government first expressed its concern about the changing role of international oil companies in their security of supply policies. As a result the Japanese government intends to promote Japanese energy companies or a Japanese national energy company to gain a share in upstream developments elsewhere in the world, a strategy similar to Chinese and Indian companies. These companies offer, in addition to upstream investments and access to the domestic market, a wide-ranging package of investments in producing countries which are actively supported by the government. These consumer governments thus engage in government-to-government bilateral deals to facilitate both private and national companies' access to oil and gas. This more specific support for certain companies

replaces the more general support of OECD consumer governments to international oil companies to gain access to upstream developments as part of the globalisation drive of the last two decades.

In the EU, there is also movement in the security of supply strategy, the most prominent example being German involvement in the Nordstream pipeline project. This project also involves the forward and backward integration of the activities of partner companies along the value chain. This development seriously challenges the role of international oil companies in member states' future security of supply policies. The French and Italian governments have recently moved in a similar direction, concluding long-term supply contracts for Russian gas. The Dutch are expected to follow soon. The contracts for gas, transport etc all involve companies rooted in the domestic market of these countries and governments negotiating on behalf of their (joint) domestic companies interests. Efforts to include international oil companies have failed because this would have run counter to the interest of the producer country company seeking access to the market themselves. The inclusion of a direct upstream competitor would not have made any strategic sense.

European governments have not yet openly admitted that they are beginning to doubt their own reliance on international oil and gas market principles alone to provide security of supply. But the recent bilateral deals can certainly be seen as a hedging strategy in case globalisation or the free market approach fail to deliver this public good. This is particularly true for the gas market but in the international oil market bilateralism is also increasingly being used to match security of supply to security of demand.

Moreover, from the IEA projections we learn that OECD energy supplies are expected to decline, and that resources that can be developed through FDI elsewhere cannot be expected to compensate for this. Instead, oil and gas supplies are increasingly offered on the international market by national oil/gas companies. The latter's assertions of sovereignty over energy resources was one issue, but increasingly they also assert value chain management through forward vertical integration. This is most pertinent in the gas sector, but national oil companies also engage in these practices. It is therefore important to review the approach to internal and external energy policies in this new context.

Competition and market structure

Part of the 'crisis' in EU energy policymaking that has emerged in the past year or so is a crisis in the belief that competitive energy markets would provide lower prices

but would also provide security of supply by offering an attractive market for energy. The fact that prices have increased rather than declined as a result of liberalisation is usually seen as proof of the incompleteness of liberalisation and competition. The discussion on interconnection capacity but also on deep unbundling are based on this notion. However, the diversity of cost to generate electricity and the fact that electricity prices are set at the level of the marginal producer is a better explanation for rising electricity prices. The cost of electricity generated in new electricity capacity is high compared to existing capacity. The incumbents have a large stake in the older, low-cost capacity (despite CO₂ pricing), while new competition must come from higher cost (gas-based) producers. Prices for electricity are determined by the marginal supplier to cover final demand, in the case of EU gas-based electricity. The higher prices for gas therefore greatly benefited the producers of nuclear, coal and hydro-based production, because the price of gas sets the electricity price. The reality that liberalisation itself has increasingly decoupled production costs from price formation in electricity is, according to Henningsen (2006), not properly addressed.

The re-emergence of security of supply as an important policy issue, together with growing concerns about the environment, has refocused energy policy on these public goods. In addition to national strategic industrial interests, the realisation that the market alone cannot produce these public goods has taken some of the zeal away from those supporting the efforts of the Commission to break up national incumbent interests. The deal, as it appears now, is that the Commission can pursue the longer-term goal of the low-carbon economy, within the constraint that the member states remain free to pursue of their own security of supply policy in the widest sense of the word. Some of the proposals in the strategic energy review are at variance with member states' preferences. For instance, the continued emphasis on transport and distribution unbundling immediately led to firm opposition from France but admittedly led to a somewhat more subtle answer from Germany. The solution is to be found in the recommendation to work with independent system operators. Also, the recommendation to unbundle storage facilities, without providing any clarity about what type of storage is meant (seasonal or not), and to re-regulate access to these facilities, will be very unwelcome for those companies that have built the facilities to store their long-term gas or domestically produced gas. Moreover, these proposals go against the grain of the complex long-term German, French and Italian arrangements with Gazprom.

The Commission's conclusion that regulators are not equipped with sufficient independent powers and are sometimes seen as too close to incumbent interests could be true from a market perspective. The Commission's drive to unbundle the

electricity and gas value chain into the smallest possible unit of organisation in order to deplete the rents and manage the profits at every stage in the value chain, thus using competition policy as the only energy policy instrument, is however flawed in the current context of international energy markets. The short-term approach that competition policy entails runs counter to the new long-term strategies of some large member states to serve the public interest to secure supply and protect the environment in this new international context. Although every government is interested in capturing energy rents through taxation, and has been successful in doing so, managing the rates of return on transport and storage reduces the incentive of energy companies to invest if they are no longer allowed to mix high-risk investments with lower-risk investments. These risks are usually balanced along the value chain.

The fact that the upstream and part of the transport sector in third countries does not fall under EU regulatory control is a fundamental flaw in the Commission's approach. Rents can shift in the value chain as world energy markets have found to their cost in recent years. Third-country producers and their companies are now focused on strategies that prevent too many rents from being captured in the mid- and downstream part of the value chain. Producer, transit and consumer governments are involved in rent-seeking behaviour, which has led to somewhat irritated debates at the EU level and has perhaps been an additional stimulus for the recent intensified national approaches. In an approach where security of supply policies rest on a complex system of government-to-government agreements to facilitate the business-to-business deals with multi-faceted commercial paybacks, the conflicting recommendations of the Commission in the strategic energy review will be fortunate to survive the internal discussions in the February 2007 Energy Council meeting and the March 2007 European Council meeting.

Oil and gas value chains

The point of departure in creating the internal energy market has been the gas and electricity end-consumer market as it was organised in most member states by local public distribution companies. Taking the relatively small public distribution companies as a point of departure for regulation, the gas value chain in particular – as far as that chain falls under the jurisdiction of the EU, ie foreign production and sovereignty over production and depletion policies in member states – is completely different than the one prevalent in other fossil fuel markets.

The oil value chain is largely self regulating. Risks, investments and competition are managed through international vertical and horizontal integration, and mergers and

take-overs along the value chain. Why gas is not treated like the other fossil fuels, particularly because international oil companies also perceive gas as their core business and develop business models based on their experience in the oil industry, is increasingly hard to understand against the background of the development in the international gas market. The differences between the power sector and the gas sector are also interesting from a market organisation point of view.

Electricity production is relatively local to the market it is to serve and can take gas, oil, nuclear, bio-fuels and coal as an input. Some plants have dual-firing capacities. The markets for input fuels, except for gas, are largely self regulating or at least are not part of the internal energy market regime. The inputs can compete for access to the power market. This competition depends on the price, CO₂ emissions, investment cost and output flexibility, depending on which market segment the plant seeks to serve. Electricity networks were and are mainly a national affair, with few interconnections. These interconnections are and need to be enlarged to allow electricity to be traded across member state borders and increase efficiency. Other differences that warrant special regulatory treatment of electricity are that electricity cannot be stored, and therefore requires a different value chain management, and electricity cannot be transported over long distances as compared to primary fuels.

The 'revolution' in the organisation of the electricity sector in the past thirty years is that local, sometimes city-specific, companies were linked in larger national networks and are now increasingly integrated in cross-border networks to capture economies of scale and scope. TPA helped to connect consumers to markets for power production outside the local and, increasingly, the national network. In this case, taking the end-consumer as a point of departure increased efficiency.

Gas is increasingly produced outside the EU and the value chain of gas has many similarities with the oil value chain, albeit with oil at an earlier stage of development of the oil market. Gas has recently been developing, because of the growing importance of LNG, into an international market. Prices will increasingly be determined at international level. At current prices, LNG from any source can be delivered anywhere in the world, although producers will remain sensitive to the length and cost of the trading route. This sensitivity exists because the cost of setting up an LNG train is still high compared to oil tanker trading. The flexibility of oil trading is partly due to the availability of oil tankers and existing widespread capacity for oil processing. Any tanker can be diverted to any market to fetch a higher price.

In the oil sector, the value chain is to a large extent part of vertically integrated com-

panies that prospect, produce, transport, process and distribute oil products in many countries around the world and thus also manage their risks in the oil value chain. The international oil sector is considered competitive and there is, rightly, no intention in the EU to separate oil production and export transport from processing. Crude oil is traded before and after processing, and refineries can be built without asking the Commission for exemptions, at the risk of the investor. Furthermore, the international oil companies are considered important market participants that help secure flows of oil to the EU market and that have become experts in dealing with oil market-related risks. As a matter of fact, access to the reserves of these companies is a main issue in external energy relations in relation to supporting the efforts of international oil companies.

Compared with oil, gas is still a relatively young international market and LNG a very young offshoot. Gas transport used to be very inflexible and depended largely on pipeline routes from gas fields to regional markets. Only recently has LNG added to the flexibility of sources with the possibility of transporting gas overseas at a competitive price. However, LNG terminal capacities are only developing. In future, when more shipping and terminal capacities are available around the world, trading before and after the terminal can take place on a wider scale than currently possible. The question is how these capacities are best allowed to materialise, through the international market or through regulation? Currently, the European Commission for instance treats LNG terminals as part of the pipeline network on which a TPA regime rests (as for electricity). The Commission has already had to acknowledge (for political and economic reasons) that export pipelines and terminals were best exempted from TPA in order to attract investors into these capital-intensive projects. The fact that the Commission has opted to continue the exemption policy and not apply a general rule that any investor who wishes to build a terminal may build one subject to local planning permission, despite its proposal in the 2007 review to develop clear and transparent criteria, shows that government and Commission wish to keep their options open for management of the market in LNG terminals. Apart from the question whether they are equipped sufficiently to synchronise their decisions with international gas market developments, exemptions can also make governments and Commission susceptible to lobbying for specific stakeholder interests. The Commission could, on this relatively small issue, have shown its intention to create a positive investment climate and, like the US authorities in their Hackberry decision, could have announced that TPA is not applicable to LNG terminals. Moreover, such a signal would have been important for public and private foreign stakeholders too and could have taken away some of the concerns of third-country exporting countries on access to the EU market.

The boundaries of the EU and external relations

Energy policymaking increasingly includes foreign policy issues. A strategic partnership with Russia cannot be considered without firm ideas about the foreign policy approach to the Caspian Sea region, the Caucasus, Belarus and Ukraine. Also, the discussions with Turkey about EU membership, however far away from completion, also influence the foreign policy approach to Russia. Moreover, the issue of where the EU begins and where its membership will end are at the root of any successful partnership with Russia. Europe must be able to define and present itself to any potential partner. And again competence plays a role.

In the paper from the Commission/SG/High Representative for the European Council [European Commission 2006f], the legitimate right of member states to pursue their own external relations for guaranteeing security of energy supplies, in addition to their rights over supplies and the energy mix, is confirmed. This greatly limits the possibilities of identifying a common energy structure in which solid external energy relations can be embedded and which goes beyond voluntary and, sometimes, menu-driven cooperation. Large member states will consider their external energy policy as part of their foreign and security policy, and prefer different outcomes from member states that pursue only an external energy policy. In this respect larger member states are no different from the US, China and Russia. The different approaches of member states to Russia are telling in this regard. Some are clearly seeking to secure energy supplies and other political and economic interests through strong bilateral ties, while others are indifferent because they rely less on these relations.

Since the 1990s, foreign relations on the post-cold war European continent have exhibited somewhat binary characteristics – a country is either a potential EU member state or not. This approach to relations on the continent has replaced the more diverse relations among European countries in the period prior to 1990, when free trade agreements and other types of alliance reflected more tailored foreign relations. Apart from the internal difficulties that enlargement has brought the EU (institutional and redistributive), the fact that the (politically inspired) enlargement strategy was not sufficiently backed up by a strategy for relations with important non-potential member states now haunts policymakers, particularly when they are important energy resource holders (van der Linde 2005).

The proposals for the 'long-term framework for the external energy dimension' in the SER 2007 or in the March Council's conclusions are not more concrete than those voiced in the European Commission/SG/High Representative paper and ensuing

communication (European Commission 2006g). The Commission's statement that 'energy must become a central part of all EU external relations' and that 'effective energy relations with all its international energy partners should be based on mutual trust, cooperation and interdependence' (SER 2007) sounds completely different from the type of communication with Russia we have witnessed in 2006.

Moreover, the EU continues to attempt to export its *acquis communautaire* in energy matters to these same non-potential member states without showing the positive trade-offs, both in energy and in the wider political and economic relations, to those third countries. The proposals concerning the neighbourhood energy policy, including a neighbourhood energy investment fund, only emphasise this drive to engage in regulatory exportation. The positive trade-off for the EU of such an approach, realising that it did not have jurisdiction over the upstream and some parts of the mid stream of the value chain, is clear. The EU and Russia are openly engaged in regulatory and control competition over the mid stream assets in transit countries. How this competition fits into an external energy policy where mutual trust, cooperation and interdependence must flourish is unclear. The Commission's proposals are unlikely to satisfy the potential partner countries that strategic partnerships with the EU are based on equality or win-wins for both sides of the partnership. It is no wonder that, in his summary of the G8 Summit, Vladimir Putin refers to the interests of producers in sharing risk in the face of the huge investment requirements:

"We also stressed the need for better risk-sharing between all stakeholders in the energy supply chain through economically sound diversification between different types of contracts, including market-based long-term and spot contracts, timely decision-making and appropriate adherence and enforcement of contractual agreements." (G8 Summit 2006)

Moreover, the Commission now proposes to use its competence in trade negotiations in external energy relations and thus wishes to discuss reciprocal liberalisation of trading conditions and investments in upstream and downstream markets. How far this will complicate WTO entry for Russia and other energy producers is unclear.

Interestingly enough, the SER 2007 also calls for an Africa-Europe energy partnership. Both the United States and China are already very active in Africa's oil and gas sectors. Not so long ago, Africa was considered part of the EU backyard. Given the drive of all consuming countries to diversify resources, the EU cannot, for more reasons than energy alone, leave Africa aside. The proposal to offer Africa new energy

technologies and to use all the policy instruments available to the EU heralds a new round of competition for Africa's resources. A strategic energy partnership with the continued weak governments of Africa sounds like a foreign policy nightmare for the coming years, where issues of human rights and energy will make an easily combustible cocktail for EU policymaking.

The EU stresses that the regular talks with various producer groups, such as OPEC, should be continued. They should be seen as important instruments to create trust among producers and consumers. The main aim of these discussions should be to create more transparency in terms of investments, production capacity, state of infrastructure, contracts, etc, to meet predictable supply and demand expectations. Creating transparency would also be an impetus for intra-European transparency in these matters.

The Commission is right in stressing the importance of the relations with producer countries. Yet, these discussions can also stimulate producer coordination. Discussions with oil exporting countries cannot be conducted without discussing with OPEC. The context of the EU-OPEC talks is changing, with the OPEC countries bound to capture a larger share of world oil trade in the coming years. This will elevate these talks to a more strategic and political level when competition for oil among consuming countries increases. Also, in these discussions, market access and downstream development of state oil companies and other energy-related companies will feature. But discussions about oil are further developed than those on gas. The structure of the International Energy Foundation (IEF) is well established, and most regional or bilateral discussions can easily be fitted into the structure of the IEF. Trust-building in oil relations has been going on for much longer than in gas, which is still a predominantly regional business. Only with the growing share of LNG will the international gas market gain in international importance. Discussions on gas have been included in the framework of the IEF meetings but the bilateral nature of most relations continues to predominate. In recent years, gas-producing countries have oriented themselves towards closer cooperation in an attempt to prevent 'divide-and-rule' approaches by large consuming countries/blocs. The unhappiness of the producer countries with the Commission's position on long-term contracts and market access and the EU's attempts at regulatory expansion could have sparked the producer countries into considering a producer cartel, despite the different approaches of Russia and the other main gas-exporting countries, such as Algeria and Qatar.

Discussions between the EU and producer-country groups, however, only go so far. At some point, the EU's discussion partners expect to be able to talk with mandated

delegations and it is in its mandate that the EU's external energy relations remain weak. In a world where the economy talks, the construction of the EU is strong. In a more politicised world, the construction of the EU, which is not a state, can be a weakness. Together with the EU's undefined borders, the construction of the EU itself is the main hindrance to external energy relations. The EU's strongest card is the large consumer market it can offer to producers, both private and public. Market access and the ability to earn a decent return on investment in this fairly mature market for fossil fuels, further exacerbated by the low-carbon economy strategy, is crucial.

In a mature market barriers to entry are generally high. It is likely that mergers and acquisitions can play an important role in the future EU energy market. Not only within the EU market but also involving third-country companies engaging in takeovers. The current uncertainty about whether such takeovers will be accepted by the Commission and by member state governments lies at the core of the current debate about security of supply and demand. The member states promote EU companies to engage in backward integration to gain access to resources with the idea that these resources can then easily flow to the EU market, and producer governments are keen to promote forward integration of their companies to gain market access. The political importance of ownership of the energy value chain (and the ability to capture the rents) is obvious in the current stressed energy relations.

The EU and its member states show, by their reluctance to open their markets to third-country national or hybrid public-private companies, little faith in their own competition rules and governance structures. Moreover, the recent outcry over certain joint ventures allowing companies to integrate along the value chain and create cross-interests in each others' energy sectors is, against the background of fifty years of integration, a strange strategy to create wealth and defuse conflict. Much of this debate is geared towards the fear of Russian dominance of the European energy sector. Too little of this debate has been about Russia's ability to produce sufficient oil, gas and coal to supply both the domestic market and the European markets and thus its capacity to dominate. The transition to a low-carbon economy, where fossil fuels are increasingly replaced by sustainable energies, will be a long process that will barely have begun in 2020. The member states should therefore continue to pursue robust policies to secure the flow of fossil fuels to the EU market. In the current international energy market context, even with its higher prices, it is clear that Europe and other OECD countries cannot rely on sustainable energies providing the same quick escape as North Sea oil, Alaska and nuclear power did in the 1970s. This is the big difference now. Moreover, the fossil reserve base and production capacity do not rest with the large international energy companies that are

headquartered in OECD countries. These companies nevertheless play an important role in supplying the marginal oil barrel and gas molecules. These supplies could determine the coordination power of producing countries, the space for market domination and thus the future structure of international energy markets. The outcome of this change in the market structure will provide the preconditions and context for a low-carbon economy to emerge.

The recent rivalry between the EU and producing countries can be best summarised as a struggle over rents in both the traditional fossil fuel value chains and the future ones. But it is also as a 'system' struggle, in which regulatory regimes, ownership, supply routes, trade, and neighbourhood policy are all part of the external relations toolset.

Conclusion

EU energy policymaking must create benefits for member states that override the incentives to adhere to a national approach. Creating benefits is an important precondition for the member states to agree to transfer sovereignty to the EU level. These benefits lie in a proper balancing of the three priorities of energy policy at the level of the individual member states and at the EU level, but also in the avoidance of radical market structure changes that have a large impact on the political and social contract of society. The EU has to create benefits for all member states, although they differ widely in terms their energy mix, import dependencies, energy resource endowments, and the structure (organisation) of their energy markets. These different energy structures function within different political, economic and social systems and are derived from the dominant political-economic model in the member states. These differences not only reflect past preferences for a certain economic model of society or the organisation of the sector, but they also reflect to a large extent current differences in approach.

Preferences are not easily changed, although there has been a strong belief among proponents of globalisation that 'the market' as an ideological concept would also change the political, social and legal mores of a country (van der Linde 2005). Despite nearly fifty years of European integration, member states still function mainly within their own political-social models and the relationship between the state and the market is still largely shaped by their own model (centralist or decentralist; social compromise model or corporatist). Of course integration in the EU has forced member states to adapt their systems but they have not been forced fundamentally to change them yet. European integration is thus in many ways both a prime example of the success and, to some extent, the limits of the economy as the

main tool for political and social change. In areas where the EU touches the core competences of the state, beyond its economic competences, decision-making has been very difficult indeed. This complicates the discussion about EU energy policy-making because the member states are now not only invited to agree on a common energy framework in which the public interests of security of supply and the environment are secured at the EU level but, at the same time, they are also challenged to agree on restructuring their energy markets beyond the economic efficiency rationale alone. Member states are reluctant to give up their sovereignty to the EU because they are not convinced that the EU can deliver to their societies either a desirable political and social contract, or external relations that suit the strategic interests of the member states. This is particularly true for securing oil and gas flows, where government-to-government relations are a crucial part of business-to-business deals. Because the EU is not a government, member states doubt that the EU will be able to deliver security for their societies.

The EU must address the fact that the switch of the international oil and gas market from a buyers' to a sellers' market requires different management of the value chain. In a buyers' market, economic rents can more easily be captured by consumers, whether they are consumer governments, companies active in consumer markets or end-consumers themselves. The liberalisation of the EU energy market was inspired by the notion that competition in the EU energy market, ie in the mid- and downstream segment, would deliver more benefits to end-consumers in the form of lower prices when inefficiencies were competed away, while governments could continue to capture energy rents through taxation. In a buyers' market, the cost of security of supply is very low because of overcapacities in supply over demand. Third party access is an efficient manner for a company to obtain a price for unused transport capacity, with the possible loss of market share when newcomers compete for the same customers. Companies will engage in asset-sweating and will be reluctant to make capacity expansion investments when they cannot pass the investment costs onto consumers. In a sellers' market the economic rents are captured at the upstream end of the value chain. End-consumers are exposed to the price effects of scarcity and the costs of security of delivery and supply, while governments continue to capture their rents through taxation. Competition for consumers shifts to competition for supplies, which in Europe implies that competition on the European market becomes less significant for end-consumer prices. Because parts of the value chain have been regulated (TPA and regulated tariffs) competition cannot play a role here, while tight supplies determine world prices for oil and gas. Long-term supply contracts can reduce the cost of security of delivery (eg by not having to pay spot prices) and supply because the contract balances cost and benefits over a longer period of time and over the entire value chain.

Energy is both part of the economic and the political realm. This is true both for the member states and for other consuming and producing countries. The fact that countries and regions are not self sufficient automatically introduces foreign policy aspects into energy relations. As long as member states disagree on the security and foreign policy agenda, it will be very difficult to agree on an external energy policy agenda. The weakly developed proposals in the energy package are proof that this part of the strategic energy agenda is not ready for implementation yet.

How then to move forward on EU energy policy? It is clear that the external relation proposals are not sufficiently developed to convince the member states that they can safely abandon pursuit of their strategic external energy interests to the supra-national level. This implies that the balance between internal and external policy-making will not easily be achieved in the short run. The geopolitical importance of oil and gas, and to a lesser extent coal, in the context of diverging energy mixes and import dependencies will imply continued member state involvement in managing these relations.

The Commission carefully proposes to use its trade competence and coordination of bilateral relations with both producers and consumers to negotiate equal terms for all member states rather than propose outright new competences in external energy relations. The drive for a more sustainable energy economy in the EU will slowly align the external energy interests when new fuels gain a more prominent place in the EU energy mix. Managing the internal market for renewables offers new opportunities for the Commission to take the lead in setting a proper framework for such fuels to be produced, transported and consumed. The fact that member states are more willing to 'speak with one voice' in climate change policy matters offers the prospect of future cooperation in all energy matters. However, the long-term view cannot replace the immediate stresses and strains in energy policymaking. The current determination to reduce CO₂ emissions, increase energy efficiency and increase non-fossil energy could in the short and medium term, with carbon capture and other necessary breakthroughs unavailable at commercial terms, lead to increased dependency on imported gas. How that squares with the strategy to reduce structural dependence on certain producer countries and regions remains unanswered. The debate about an energy policy for Europe has only just begun.

Notes

- 1 Security of delivery is fundamentally different from security of supply. Security of delivery is the ability to technically and physically satisfy, every day, energy demand at reasonable prices and without interruption. To this end, sufficient infrastructure and production capacity must be available and investment failures must be avoided. Companies must also be healthy enough to deliver

energy resources to their clients. Security of supply refers to the long-term certainty that sufficient supplies are available to satisfy demand. Security of supply refers to economic and geopolitical risks of a supply failure. The two notions are used interchangeably in the Commission's paper 'An Energy Policy for Europe'.

- 2 Given the member states' insistence on maintaining national competence in the energy mix, unification of policy is however unlikely when it comes to including nuclear in the CO₂ emission reduction policies.
- 3 Presidency conclusions 23-24 March 2006, 7775/1/06 Rev 1.
- 4 For example, in the so-called 'upstream directive' 94/22/EC, OJ L 164, 30 June 1994, pp.3-8, the issue of sovereignty of member states was addressed. In this directive the sovereignty over hydrocarbon resources on the member states' territories was confirmed and allowed member states to determine their own depletion policy.
- 5 At the same Council meeting, the nine member states also decided to engage in the Euro-Arab Dialogue, which was strongly promoted by France.
- 6 See Official Journal C241, 25 September 1986, p.1.
- 7 ExxonMobil, 2005 Energy Outlook.