

Spanish government, immediate legislation, followed by a Royal Decree published in September 1996, established access to pipelines and LNG facilities for users of 1.2 million cubic metres per day.<sup>61</sup> However, not only was this a very high threshold, but the legislation was also hedged about with qualifications which would allow Gas Natural/Enagas to refuse access. This was followed in December 1997 by the Electricity Act, which provided for a significantly faster liberalization in that sector. The electricity industry is significantly more diversified than gas, with more players in generation and distribution as well as a greater mixture of public and private ownership.

First shots in the liberalization war were fired as a result of developments in the power sector. In early 1997 Repsol and Gas Natural signed a cooperation agreement with the generating company Iberdrola covering power generation, cogeneration and foreign projects (specifically in Latin America).<sup>62</sup> This was a clear challenge to the state-owned generator Endesa which, with its allies (oil company) Cepsa and Banco Central Hispano (BCH), had been attempting to form a rival consortium which could build gas-fired power plants in Spain.<sup>63</sup> The situation is further complicated by the 41.2% shareholding of the French company Elf in Cepsa, which could have given the French company a very strong position to seek access to the Spanish grid. This aspiring consortium approached Gas Natural for access and was apparently rebuffed. At that point, Endesa appears to have made efforts to join the Repsol/Iberdrola/Gas Natural consortium – a proposal which also did not appear to be well received.<sup>64</sup> By the end of 1997 Gas Natural appeared to have broken with Repsol/Iberdrola in announcing a construction programme of 10 gas-fired power stations by 2007, the first two of which will be built by 2000 at Algeiras

<sup>61</sup> The July 1996 legislation allowed much greater scope for access than the subsequent September measures. Royal Decree 2033/96, 6 September 1996. *EU Gas Directive*, House of Lords Select Committee on the European Communities, HL Paper 35 (London: The Stationery Office, 1997), pp. 72–4.

<sup>62</sup> 'Major Spanish gas/power accord sealed', *International Gas Report*, 7 February 1997, pp. 1–2.

<sup>63</sup> 'Spanish battles escalate to gas warfare', *ibid.*, 7 March 1997, pp. 1–2.

<sup>64</sup> 'Focus on Spain', *European Gas Markets*, 23 May 1997, p. 3.

and Malaga.<sup>65</sup> This programme would make Gas Natural the fifth largest generator in Spain.

Gas Natural's actions may have been triggered by the December 1997 publication of the Hydrocarbons Bill which presages a faster opening up of the market than foreseen by the EU Directive because of the structure of Spanish industrial gas consumption (see Table 4.1). The government has forecast that the customers eligibility thresholds of 25, 15 and 5 million cubic metres will, in the case of Spain, give rise to market openings of 40%, 50% and 65%, and the government will not modify these openings (as it is entitled to do under Article 18(5) (see Appendix 4.1). The Bill, which is expected to become law during 1998, may also propose a market opening in advance of the likely EU date (mid-2000).<sup>66</sup> What is still uncertain is whether the government will move to create a separate gas regulatory authority to oversee liberalization, or whether this will be added to the duties of the existing Spanish Electricity Regulatory Commission (CSEN).<sup>67</sup> What is clear is that the government's main liberalization objective is to reduce the prices of both electricity and gas to industry, and some have speculated that in pursuit of that aim, the government may opt for regulated, rather than negotiated access.<sup>68</sup> The partial privatization of Endesa and liberalization of electricity is seen as having an important role in reducing electricity prices, which in turn is important for maintaining the competitiveness of Spanish industry.

This rather brief account of the Spanish experience highlights a contradiction between a consolidation of the structure of the gas industry (a directly anti-competitive and protectionist act) followed by the relatively rapid, but admittedly relatively restrictive, introduction of liberalization legislation. Following a failed attempt by a powerful rival energy

<sup>65</sup> 'Spain's Gas Natural steps up power drive', *International Gas Report*, 9 January 1998, p. 7.

<sup>66</sup> 'Spain plans to outstrip EU', *ibid.*, p. 19.

<sup>67</sup> Sebastia Ruscalleda i Gallart, 'Regulating Gas and Electricity in a Changing Environment', a paper to the 12th Annual European Autumn Gas Conference, Barcelona, 5 November 1997.

<sup>68</sup> 'EU Gas Directive' *op. cit.*, para. 222, p. 80; Tom Burns, 'Spain's sell-off policy pays dividends', *Financial Times*, 1 August 1997; 'Spain leads the way with liberalization decree', *European Gas Markets*, 16 January 1998, p. 7.

(electricity and oil) conglomerate to gain access to pipelines, further legislation is to be introduced to open the market still further. Whether the eventual outcome of this process will be faster and more successful progress towards liberalization has yet to be seen. But the determination of the present government to drive down gas and electricity prices to industrial customers by a combination of privatization and liberalization may be decisive in determining future developments in the Spanish gas industry.

### Russia: institutional change and uncertainty

As was noted in Chapter 3, the Russian gas production and transmission company, RAO Gazprom, produces 95% of the country's gas. From Siberia westwards, Gazprom has a transmission and wholesale monopoly of all large customers, including distribution companies.<sup>69</sup> The Russian gas export company, VEP Gazexport, is a wholly owned subsidiary of Gazprom. Gazexport is the sole exporter of Russian gas outside the former Soviet Union. (Exports to former Soviet republics are handled by a different division of Gazprom.)

Gazprom is owned 40% by the Russian government, 50% by employees and Russian citizens (through a voucher privatization), 10% by the company itself (9% of which has been allocated for offer to foreign investors).<sup>70</sup> Gazprom in the person of Chairman Rem Vyakhirev votes 35% of the government's 40% share in the company and this arrangement will continue, but according to an agreement reached in April 1997 the Chairman is required to make a quarterly report to a 10-person committee headed by the Energy Minister.<sup>71</sup> Gazprom's relationship with successive Russian governments have been periodically difficult, despite the fact that the company's former chairman, Victor Chernomyrdin, has been Russian Prime Minister since 1992. Perennial disagreements have centred on:

<sup>69</sup> Gazprom's institutional evolution from Ministry of the Soviet Gas Industry to 1996 is covered in Valery Kryukov and Arild Moe, *Gazprom: Internal Structure, Management Principles and Financial Flows* (London: RIIA, 1996).

<sup>70</sup> The 50% held by Russian citizens is divided into several groups, see *ibid.*, Chapter 7 for details.

<sup>71</sup> 'Russia's reformers put squeeze on Gazprom', *Gas Matters*, May 1997, pp. 5-7.

- from the government side, constant arguments about the amount of tax which Gazprom should pay;
- from Gazprom's side, arguments about how payment arrears (often by government departments and companies) should be set against taxation.

The company's principal short-term problem is non-payment, and the volume of barter trade which has to be accepted as payment by domestic customers. Large-scale non-payment began in 1992 and steadily increased as prices were raised massively towards 'market levels'. During 1994-95, payment arrears by Russian customers were around 50% of receivables. Since 1996 this picture has been complicated by the widespread appearance (or to be strictly accurate, reappearance) of barter trade. Despite the fact that in 1996 Gazprom's accounts were for the first time published according to international accounting standards, it is extremely difficult to disentangle accurate statistics regarding receivables.<sup>72</sup> In the first quarter of 1997 Gazprom reported that it received payment for only 45% of gas delivered and only 6% of those payments were in cash. Non-payment is a highly political issue, given the unemployment and social unrest which could result from payment enforcement and a crucial financial issue, given the sums of money involved. The trade-off between how much tax Gazprom should pay, and the extent to which it should be allowed to enforce payment, has been and continues to be, a running battle between the company and the government. In June 1997 a Presidential Decree lowering industrial gas prices by 40% was published, but this price cut will only apply to those companies which have paid all of their federal and local taxes and which are up to date in their payments to Gazprom.<sup>73</sup> For our purposes, resolution of the non-payment issue will have, as we shall see, an extremely important bearing on future restructuring and liberalization of the gas industry.

<sup>72</sup> Gazprom's 1996 IAS accounts state that 57% of accounts receivable settled during calendar year 1996 were in the form of barter trade or inter-enterprise transfer.

<sup>73</sup> *Eastern Bloc Energy*, July 1997, p. 4.

### *Restructuring, liberalization and regulation*

Gazprom has eight major production subsidiaries, three of which, located in Siberia, account for around 80% of production, each centred on a single major field: Nadyngazprom (Medvezhe), Urengoygazprom (Urengoy) and Yamburggazodobycha (Yamburg). Until 1997 the company's 14 transmission subsidiaries were responsible for transportation and sales of gas throughout Russia. In the early part of 1997 a restructuring of the company was announced whereby all gas sales would be handled by a newly created marketing subsidiary, Mezhrregiongaz. This, and other reform measures (see later), mean that the transmission subsidiaries have become transportation-only companies with no merchant function.<sup>74</sup>

At the beginning of 1997 it was announced that a newly created Federal Energy Commission would set regionally differentiated gas prices for industrial and residential customers. The idea was that the Commission would eventually be responsible for regulating transmission tariffs. Gazprom then announced an internal restructuring, akin to a corporatization of the company. This was accelerated by the April 1997 changes in the Russian government which once again brought to the fore younger economic reformers intent on reining in the power of the Russian monopoly utilities and increasing tax receipts from these companies. The clearest report on the reforms envisaged by government suggested a three stage process:

- (1) reforms to be completed during 1997 include regionally differentiated gas prices; a unified system of transmission pricing for independent producers and Gazprom subsidiaries; encouraging new investors (domestic and foreign) to develop new fields and pipelines; transparency of production and transportation costs; accounting and reporting procedures for Gazprom subsidiaries; establishing tariffs and conditions for access to pipelines (including a Commission to look at

<sup>74</sup> For more details on the Gazprom reorganization, see Arild Moe, 'The Reorganization of Gazprom: Scope and Impact' and Valery Kryukov, 'Gazprom - Financial Flows and Management: the Need for Internal Transparency', proceedings of the conference, Reform in the Russian Gas Industry: Regulation, Taxation, Foreign Investment and New Export Prospects, Royal Institute of International Affairs, London, 20-21 November 1997.

- access for independent producers); tendering for rights to develop gas fields favourably located with respect to existing pipelines;
- (2) reforms to be completed during 1998 include bringing residential prices up to those paid by industrial customers; transferring authority for local transmission tariffs to regional energy commissions;
- (3) reforms to be completed during 1999-2000 include separation of production from transmission with contracts between different subsidiaries; regulation of transmission tariffs.<sup>75</sup>

Assuming these reforms are implemented, they would amount to Gazprom being transformed into a full open-access transportation company before the end of the century. But it would be unwise to make this assumption too readily. Both the scope and timetable of the reforms appear extremely ambitious, and are unlikely to be met. The institutions and personalities responsible for implementing the reforms are subject to frequent change. The roles of the Federal Energy Commission, Anti-Monopoly Committee, Ministry of Fuel and Energy, and the offices of the Prime Minister and Deputy Prime Minister seem to become more and less influential on a monthly basis. By early 1998 conventional wisdom seemed to suggest that Gazprom's leadership had 'seen off' the latest group of economic reformers who were the authors of the utility reforms and whose political longevity seemed to be in doubt. It would, however, be wrong to be cynical about the future reform of Gazprom. Not only has a degree of liberalization already taken place in Russia, but the way in which this develops will have an extremely important impact on European gas markets.

### *Likely restructuring and liberalization reforms: the relevance for European gas markets*

Although the reform programme is likely to prove overly ambitious, some progress has been made towards the creation of corporatized production and transmission units trading by means of transfer prices. The key question in the first stage will be the extent to which the transmission

<sup>75</sup> 'Russia sets monopoly restructuring programme to year 2000', *Interfax Petroleum Report*, 2-9 May 1997.

companies will turn over all of their sales functions to the newly created marketing division (Mezhregiongaz) thereby becoming transmission-only companies. To the extent this does happen, transmission tariffs will need to be devised and implemented which will be a major step towards restructuring and liberalization.

Almost irrespective of the progress of internal restructuring, government pressure for Gazprom to be demerged (rather than 'broken up') into smaller entities is likely to continue and intensify in the coming years. This will be due less to any likely government conversion to the tenets of competition and liberalization, and more to the increasing threat which successive Russian politicians will perceive arising from the financial and political power of Gazprom. The current liberalization and restructuring programme will assist any eventual demerger into separate production and transmission companies.<sup>76</sup>

Yet the political, financial and institutional complexities of such a restructuring should not be minimized. Production is highly concentrated, both geographically and corporately (in the hands of three production associations) in Siberia. A structure of demerged production companies selling their gas through an open access transmission system (controlled by either a single company or multiple companies) would place significant power and wealth in the hands of three new companies in the Yamal-Nenets region of Siberia. This may not be attractive to Moscow politicians who, despite their problems with Gazprom, at least live in the same city as its senior management. Moreover, until the problem of non-payment and non-cash payment by Russian customers is resolved, or at least reduced to manageable proportions, the effect of demerger could be to plunge many of the newly independent production and/or transmission companies into immediate bankruptcy. The production companies would depend on a form of payment sufficiently liquid to allow them to cover their costs, plus payment of tariffs to the transmission company (or companies) and emerge with a tangible profit. A production-only company (or companies) would be much less well equipped than Gazprom to deal with large-scale

<sup>76</sup> There are, of course, a number of different options depending on how many production and transmission companies eventually demerge from the current structure.

non-payment, late payment, and/or a large proportion of barter goods exchanged for gas. These difficulties would almost certainly lead either to their inability to pay their transmission tariffs (with dire consequences for the transmission companies), and/or to serious financial problems within their own organizations.

However, when non-payment and barter problems have been resolved, or reduced, demerger will become a viable option. Competition and liberalization will be accelerated due to the reduction in gas demand within Russia, arising from bankruptcy and the start of conservation and efficiency measures which will greatly inflate the existing 'bubble' of excess supply.<sup>77</sup> Competition between producers for a shrinking market – and potentially between transmission companies competing to utilize available pipeline capacity – would provide ideal conditions for a strongly competitive market. Given the geographical concentration just noted, however, the potential for collusion between existing producers may be equal to, or greater than, the potential for competition.

But if Russian and foreign companies are given opportunities and incentives to open up smaller gas fields, and perhaps revisit older fields (where recovery could be increased with more advanced technology), with the prospect of delivering their production direct to consumers in Russia and beyond, competition between suppliers could rapidly become fierce. This would also be a major opportunity for Central Asian gas producers – freed from the embrace of a vertically integrated Gazprom – to negotiate directly with a range of customers, Russian and non-Russian, with their gas being delivered by transmission-only successor companies.

But if the demerger of Gazprom's production and transmission units could be considered positive for the Russian domestic gas market, it would hugely complicate existing exports to Europe.<sup>78</sup> All of the current long-term contracts are held by Gazprom (with Gazexport being the negotiating partner), and stretch into the next decade and beyond. In terms

<sup>77</sup> Jonathan P. Stern, *The Russian Gas 'Bubble': Consequences for European Gas Markets* (London: EEP/RIIA, 1995).

<sup>78</sup> Exports to former republics are not as complicated since they are negotiated on an annual basis.

of revenue earnings, these are the crown jewels of Gazprom's current assets valued at \$185bn by the company.<sup>79</sup> The demerger of Gazprom would cause immense difficulties in terms of which entity would continue to hold the contracts. If a residual Gazprom company still existed after the production and transmission assets had been demerged into different companies, there would be no guarantee that the entity will have sufficient financial means to purchase sufficient gas from production companies for the management of 150–200 BCM/year of long-term contract gas. If there were no residual Gazprom company, the existing long-term contracts would presumably be allocated between the successor production companies. Such an allocation might amount to a complete renegotiation of contracts for around one-third of European gas demand – a highly destabilizing prospect for European markets. It is this prospect, probably more than concerns about a supply disruption for political or technical reasons, which would give rise to major security of supply fears in Europe in respect of Russian gas. While this is not an argument for indefinite retention of Gazprom's current vertically integrated structure and *de facto* export monopoly, structural change within the company raises problems which require careful consideration. Proponents of restructuring Russia's gas industry will need to ensure that the proposals which they are advancing take these considerations into account and provide convincing solutions to potential contractual problems with European gas companies. This will not be an easy task.

### Norway: institutional challenges

One of the curiosities of the Norwegian gas industry is that this major European supplier has not used any gas in its domestic energy balance for 25 years. While this situation will change in the future, the institutional structure of Norwegian gas export sales is coming under strain as competitive pressures mount.

<sup>79</sup> Presumably this figure is a valuation of the revenues which will be received from current long-term contracts over their remaining contractual life. 'Gazprom to use 2–3% of investment shares as convertibles', *Interfax Petroleum Report*, 28 November – 4 December 1997, p. 11.

Aside from major international companies operating in the Norwegian offshore sector, the Norwegian participants are Statoil – the state oil and gas company; Norsk Hydro – a company with private investors but with 51% state ownership; Saga Petroleum – a private company owned mainly by Norwegian interests (in which the Norwegian state owns a 'golden share', in order to prevent unwelcome takeovers). A further important aspect is an accounting distinction between resources held by state-owned companies and the 'State's Direct Financial Interest' (SDFI), established at the beginning of 1985. The SDFI in all fields and pipelines is operated by Statoil, but gives the Norwegian state an immediate and important interest in decision-making.<sup>80</sup> SDFI interests are considerable:

The SDFI alone has 4700 million barrels of proven oil reserves and 1200 BCM of proven gas reserves spread in 21 fields. It also has interests in 7 oil and gas pipelines (50% of the total). In 1992 the SDFI alone accounted for 45% of all offshore investments. If the SDFI and Statoil's interests are combined, the state's share is 50.3% in fields already earmarked for development and 51.8% for all fields that are at the planning stage. Their combined control of commercial reserves is 68% and their share of total petroleum production between 1994–97 is 63%.<sup>81</sup>

This state dominance of gas resource ownership has been reinforced by gas (export) sales arrangements which, since 1986, have been dominated by the Gas Negotiating Committee or GFU – a tripartite body under the leadership of Statoil consisting of that company, Norsk Hydro and Saga Petroleum.<sup>82</sup> The guidelines for the GFU were set out as follows:

<sup>80</sup> The essence of the arrangement is that a part of Statoil's gross income from each individual project is transferred directly to the State, while a corresponding part of Statoil's expenses on each individual project is covered by the State through SDFI; Ministry of Petroleum and Energy, *Norwegian Petroleum Activity*, Fact Sheet 97, p. 10.

<sup>81</sup> Javier Estrada et al., *The Development of European Gas Markets: Environmental, Economic and Political Perspectives* (Chichester: John Wiley, 1995), p. 228; see Table 2.1 for SDFI gas production.

<sup>82</sup> For pre-1986 arrangements, see Javier Estrada et al., *Natural Gas in Europe: Markets, Organization and Politics* (London: Pinter, 1988), pp. 223–29.

The Committee is to act as a permanent advisory body for the Ministry of Petroleum and Energy in questions associated with the disposal of natural gas reserves and evaluations of which fields can most expediently be developed or exploited to deliver natural gas under new contracts ... Preparation and implementation of gas sales negotiations are to take place under the direction of the committee under Statoil's supervision ... It is the authorities' task to decide which fields are to be developed. Clarification with potential buyers concerning which fields are to be included in a gas sales agreement can therefore take place only after the authorities have decided on this.<sup>83</sup>

This centralization of decision-making in Norwegian state hands, with no serious opportunity for any outside input, caused widespread resentment among foreign companies operating in Norway. In 1993 decision making was widened with the creation of the Gas Supply Committee or FU whose role would be to 'function as an advisory body to the government with regard to the development and exploitation of gas fields and pipelines.'<sup>84</sup>

The Norwegian government regards the GFU/FU system as the chosen agent of the nation's sovereign control over its resources, and essential for optimising the management of those resources. The GFU negotiates sales contracts, the FU then recommends which fields should be developed to fulfil these contracts, and these recommendations are then passed to the Ministry. The Norwegian Parliament is asked to endorse the final decision. The issue of whether this system can survive in a competitive European gas markets and will eventually be replaced by a more liberal system, will be significant for the development of competition in European gas markets. There are three specific issues:

- (1) whether the GFU/FU system can be considered anti-competitive within the framework of the European Economic Area Treaty,<sup>85</sup>

<sup>83</sup> *Petroleum Activity in the Medium Term*, Report to the Storting No. 46 (1986-87), Chapter 11.

<sup>84</sup> The FU consisted of the ten largest gas resource holders in the Norwegian sector - the three GFU members and seven foreign companies. This was subsequently expanded to 12 companies. Report to the Storting No. 2 (1992-93), Chapter 2.

<sup>85</sup> With the Norwegian people's (second) rejection of EU membership in the 1993 Referendum, it is Norway's membership of the European Economic Area, which has a Treaty of Association with the EU, that is relevant here.

- (2) whether a bureaucratic and slow-moving decision-making process whose stated purpose is to contribute to the management of resources, defined as optimization of the totality of the Norwegian oil and gas resource base from a variety of fields, can cope with a market in which decisions are increasingly likely to be needed within days (and possibly within hours) if existing market share is to be defended and new customers to be won
- (3) whether the role of Statoil as representative of the state's direct economic share (SDFI) in the fields is still appropriate and tenable, given the size of the state as a potentially independent player in Norwegian gas sales.

The first of these issues was raised in June 1996, following a complaint from the German company Wintershall arising from its inability to purchase gas from the Norwegian company (and GFU member) Saga Petroleum, because of GFU objections. The complaint alleged a price-fixing cartel which led to a joint investigation by DG IV (the EU Competition Directorate) and the EFTA Surveillance Authority (ESA) into the activities of the three members of the GFU: Statoil, Norsk Hydro and Saga.<sup>86</sup> Since all of the gas is sold to companies in EU member states, the matter lies within the Competition Directorate DG IV's powers, but it was required to request the ESA to investigate Norwegian companies. The European Economic Area (EEA) Agreement, to which Norway is a party, incorporates EU competition rules.

The Norwegian government does not consider that the EEA Agreement is applicable to the GFU as a resource management institution. However, the ESA may disagree and may find the GFU/FU arrangements to be fundamentally anti-competitive and indeed consider the prevention of gas-to-gas competition as one of their main aims. In the event of such an outcome, the Norwegian government would come under severe pressure to abandon GFU/FU system.<sup>87</sup> It may, in any case, find that the commercial

<sup>86</sup> For background see 'Gas joint selling deals: DGIV, Britannia and the GFU', *FT, EC Energy Monthly*, 15 November 1996, pp. 7-8; 'Did the Norwegian dawn raids presage a new dawn?', *European Gas Markets*, February 1997, p. 6.

<sup>87</sup> Presumably Norway could withdraw from the EEA if the decision were to go against it, but this would be a very major step to protect a system which may in any case prove untenable in the future.

requirements of a competitive market make the present system untenable.

Given their resistance to changing institutional arrangements for gas sales, it is not surprising that successive Norwegian governments have been among the most implacable opponents of EU gas liberalization initiatives. This is curious from a policy perspective, given that Norwegian liberalization initiatives in the electricity sector are the most advanced in Europe.<sup>88</sup> While it may be relatively easy from an internal Norwegian perspective to separate the gas and electricity industries – because of the lack of a domestic gas market – from an international perspective, its policies appear completely contradictory. This may be yet another factor which weakens the Norwegian government's case for retaining the GFU.

Concern about European liberalization initiatives has prevented the unitization and liberalization of the Norwegian offshore pipeline network – an essential step towards optimising the throughput of an increasingly complex set of pipelines delivering gas from an increasing number of fields. The 'GasLed' concept was first advanced in late 1995 as a way of 'unitizing' the ownership of the offshore gas pipeline systems, and producing a single transmission tariff for gas delivered to Continental Europe.<sup>89</sup> Different variants were discussed, with the idea that the some of the systems – Ekofisk, Statpipe, Norpipe, Zeepipe, Norfrapipe and Europipe – might not initially be included in the GasLed concept.<sup>90</sup>

A White Paper was expected on the concept in the Spring of 1996, but government apparently considered that GasLed would undermine the present GFU system and Norwegian arguments against liberalization, and refused to allow any further discussions. This must be seen as a lost opportunity to prepare for a more competitive market conditions which will require more transparent and straightforward calculations of capacity availability and charging in Norwegian transmission systems.

It is difficult to understand how the Norwegian authorities can genuinely believe that the GFU/FU system has a long-term future. From the point of

<sup>88</sup> Atle Midtun and Steve Thomas, *Theoretical ambiguity and the weight of historical heritage: a comparative study of the British and Norwegian electricity liberalization*, Centre for Electricity Studies, Norwegian School of Management, Report No. 1, 1997.

<sup>89</sup> 'Oslo mulls pipe system plans', *Financial Times International Gas Report*, 24 November 1995, p. 15.

<sup>90</sup> 'Focus on Norway', *European Gas Markets*, January 1996, p. 3.

view of Norwegian national interest, it would be better to replace this system with something which appears less all embracing, rather than be faced with an adverse judgment from European competition authorities. While the abandonment of the GFU/FU system would probably not threaten ongoing contractual arrangements, it would increase the pressure from individual producers – both Norwegian and non-Norwegian – to market gas discoveries on an accelerated timetable.<sup>91</sup> However, such pressure could be strongly resisted by the Norwegian Parliament whose approval of individual field and pipeline developments, hitherto regarded as a 'rubber-stamping' exercise, would immediately become a much more serious element of the process. In a small country where a majority of the population and the political classes regard environmental and sustainability issues as matters of genuine priority, it is entirely possible that new development requests might be denied.

The other consequence of abolishing the GFU might be further to strengthen the pre-eminent position of Statoil, both in its own right and as operator of the SDFI. If the Norwegian government were to be deprived of its chosen resource management vehicle, it might respond by reinforcing the position of both Statoil and the SDFI in terms of licence awards and field development approvals, and carrying out its long-expressed 'threat' to limit new gas development.<sup>92</sup>

Either of these responses would curtail expansion of Norwegian gas exports, beyond what has already been contracted. This would be good news for other suppliers to European gas markets, but not necessarily good news for Norwegian Continental Shelf sellers. By contrast, dismantling of the GFU/FU system with no corresponding government restrictions would almost certainly lead to an increase in Norwegian gas exports by individual license holders, both Norwegian and non-Norwegian. In that scenario, the market power of Statoil, particularly if granted free rein to operate the SDFI, could be so overwhelmingly dominant that the

<sup>91</sup> There is no reason why the GFU should not be allowed to hold the existing contracts which have been signed. New contracts would simply be on a different basis.

<sup>92</sup> For an account of Norwegian gas export history in which these threats have surfaced periodically, see Jonathan P. Stern, 'Norwegian gas exports: past policy, current prospects and future options', *Energy Policy*, January/February 1990, pp. 55–60.

differences between the new and existing structures might not be so great.

**Institutional developments in a wider European context**

The gas markets which have received a relatively lengthy treatment in this chapter seem to the author to be those where significant change has occurred, and still is occurring which is both important in its own right and may trigger significant developments elsewhere. This is not to suggest that important changes are limited to these countries. Indeed an important part of the argument advanced in this study is that change is occurring everywhere in Europe. The following brief overview is an attempt to highlight significant developments elsewhere on the Continent.

*Italy: privatization with limited liberalization*

The privatization of ENI has been fundamentally anti-liberalization in its failure to demerge the main corporate components of the conglomerate AGIP and SNAM – into separate entities. However, significant changes are on the horizon in the Italian gas industry, although one of the principal drivers is similar privatization and liberalization in the electricity industry. As early as 1995 the gas transmission company SNAM was required to publish a transmission tariff, although the definition of those eligible for access to the system was limited to (electricity generator) ENEL and independent power producers operating on its behalf.<sup>93</sup>

In November 1996 the Autorità per l'energia elettrica e il gas was established as an independent public body and started work in April 1997.<sup>94</sup> The regulatory authority is responsible for ensuring access to networks, setting tariffs, service quality, all aspects of concessions and dispute resolution. At the same time, the long-standing exclusive right of ENI to conduct exploration, production and storage in the Po Valley (the main producing area in the country) was abolished.<sup>95</sup>

<sup>93</sup> 'SNAM's transport tariff can be cheaper than Britain's', *Gas Matters*, March 1995, pp. 23–25

<sup>94</sup> 'Italy cleans up its gas laws: hello regulator, goodbye monopoly', *ibid.*, January 1997, pp. 1–4.

<sup>95</sup> Oliveira Bernadini, 'The Italian Authority for Electricity and Gas Regulation', a paper to the 12th European Autumn Gas Conference, Barcelona, 5 November 1997.

During the debates on the EU Gas Directive, the Italian government tended to be in the camp of the conservatives, but in the wake of agreement on the text, there seemed to be some new enthusiasm with indication that the government would allow smaller industrial users to combine the volumes in order to become eligible for direct purchase. Whether this type of activity will be linked to a finding by the national anti-trust authority that SNAM is in an unacceptably dominant position in the industry, remains to be seen.<sup>96</sup>

*Belgium and Austria: privatization without liberalization and competition*

In both Belgium and Austria the sale of equity in transmission companies Distrigaz and OMV was carefully managed to exclude major European gas and energy companies. In Belgium an all-Belgian 'buy-out' was implemented, while in Austria a Middle East investor was finally allowed to purchase equity in OMV. Neither government has shown anything other than opposition to liberalization, despite the fact that the geographical position of both countries (but especially Belgium) would leave their companies ideally placed to take advantage of gas-to-gas competition.

*Elsewhere in Europe*

In much of former communist Europe, restructuring and privatization of energy and gas industries has been widespread.<sup>97</sup> In gas, the fastest change has been in Hungary where both MOL (production and transmission) and the gas distribution companies were privatized, the latter with substantial foreign shareholdings. These companies were regulated by the Hungarian Energy Office, the region's first specialized energy regulatory authority, established in 1994. A similar pattern of privatization has been seen in the Estonian and Latvian gas industries. Privatization has also taken place in the former Yugoslav republics of Croatia and Slovenia, but without substantial foreign ownership.

<sup>96</sup> 'Rome urges small firm links', *International Gas Report*, 9 January 1997, p. 18.

<sup>97</sup> For a general overview of change in these countries, see John Leslie, *Central European Energy: Markets in Transition* (London: Financial Times Energy Publishing, 1996).



Elsewhere, the pace of change has been slower. In the *Czech Republic* the privatization of gas distribution companies should be on the government's 1998 agenda, but plans to change the status of the immensely profitable (transmission company) Transgas continue to recede into the future. In *Romania*, the privatization of Romgaz is scheduled for 1998 and restructuring of the industry seems likely as part of that process. Romania is the only country in the region where liberalized access to gas networks is under way with Romgaz transporting gas for Wirom (the Romgaz/WIEH joint venture) among others. In *Poland*, privatization and restructuring of PGNiG has been on the agenda for some time, but progress has been painfully slow. In *Bulgaria*, the restructuring of the gas market has been immensely difficult and in early 1998 the outcome of disagreements over the future of (the Gazprom/Bulgarian joint venture) transmission company Topenergy were still not clear.<sup>98</sup>

In the emerging markets of southern Europe, gas industries in *Turkey*, *Greece* and *Portugal* are showing rapid growth, but with a traditional structure of dominant transmission and distribution companies. Understandably, the priority of these new industries is growth rather than liberalization.

The picture that emerges here is one of diversity and uncertainty, but in the context of rapid change. There is virtually no gas industry in a European country in which some major event is not occurring. However, this event is as likely to involve privatization and restructuring as it is liberalization, competition and regulation. This does not mean that the one may not lead to the other, it is only to point out that it is difficult to be certain as to the details and timing of such developments.

### Conclusions

Most European gas industries, with the notable exception of Germany, have anti-competitive transmission structures featuring single transmission companies with de facto monopolies of transportation and imports. As far as distribution is concerned, the British structure was particularly anti-

<sup>98</sup> Reports in early 1998 suggested that Topenergy had broken up and would be replaced by a new joint venture. *Eastern Bloc Energy*, January 1998, pp. 25–26.

competitive in having a single monopoly of distribution as well as transmission. Most Continental European gas industries feature a number of gas distribution companies with monopoly franchises (often as part of a range of services provided by municipalities). In this respect, the development of competition may be encouraged by the existence of multiple players in distribution.

However, in Continental Europe there seems little keenness to introduce competition legislation and support this with an aggressive and proactive regulatory authority. Indeed there is significant opposition within many European countries to setting up the type of regulatory institutions which are required to implement and police competition, and great fear of the complexity which inevitably results when competition is introduced. A large part of this opposition includes the major gas transmission companies which show few signs of mirroring British Gas' incisive defence of its interests. They have already mounted a ferocious defence of the status quo in their own countries and in Brussels. However, in the Netherlands where, after being one of its fiercest opponents, the government suddenly embraced liberalization at the beginning of 1996, and in Spain where the same process was repeated later that year, there are plans to open markets to competition faster than the demands of the EU Directive. Furthermore, in Continental Europe there is significantly greater government sensitivity towards public service obligations, and security of supply – neither of which has been satisfactorily resolved in Britain (at least thus far). On a macroeconomic level, the huge reduction in the labour force in both the British gas and electricity industries, resulting from privatization and liberalization, may be a greater cause for concern in Continental Europe than it appeared to be in Britain. For these reasons it seems highly unlikely that the driving forces for liberalization and competition in the British market – government and regulatory interventions into the business of a relatively compliant dominant player – will be repeated on the European Continent.

The other feature of the British experiment has been the determination to extend competition to the smallest, residential gas customers. Even in North America, where competition and liberalization commenced nearly a decade earlier than in Britain, competition experiments at the residential