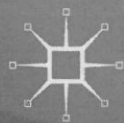
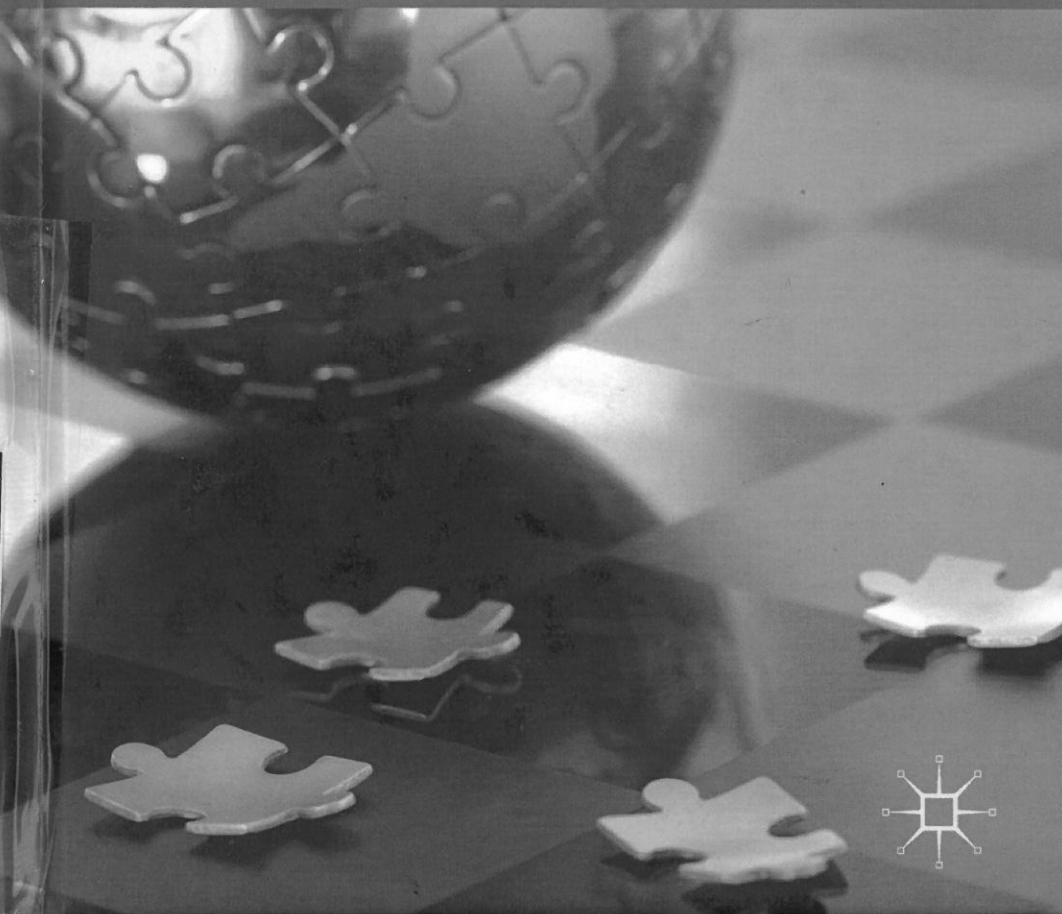


International Political Economy Series

# Dynamics of Energy Governance in Europe and Russia

Edited by

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# 8

## Russo-Ukrainian Gas Wars and the Call on Transit Governance

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### 1. Introduction

This chapter will argue that in the Russo-Ukrainian 'gas wars' of 2006 and 2009, the dynamics of post-Soviet transition, economic events, and shifting commercial relationships were more significant than political factors. The ways in which the 'gas wars' exposed the limitations of both international governance mechanisms (specifically, the Energy Charter Treaty) and of European Union energy policy (which was divided in its approach to them) will be discussed. Finally, factors that may influence the Russo-Ukrainian gas relationship in future will be considered.

The 'gas wars' had four groups of causes: first, mutual dependencies (Russia on Ukrainian transit, Ukraine on Russian gas imports) and, second, other legacies (including the disproportionate role of gas in Ukraine's economy) inherited from the Soviet Union; third, tensions generated by the oil boom of 2002–08, corresponding changes in Russian economic policy and the economic crisis that followed in 2008–09; and fourth, political factors and specifically the widening gap between Russian and Ukrainian foreign policies.

### 2. Post-Soviet legacies

The tension between Russia and Ukraine that culminated in the 'gas wars' was heightened by mutual dependencies – Ukraine on Russian gas, Russia on Ukrainian transit – that originated in the Soviet period. These mutual dependencies made conflict likely, regardless of the political relationship between the two sides. That is why Russia has fought 'gas wars' not only with Ukraine but also with Belarus, despite its political relationship with Belarus being much warmer.

The gas export business established by the Soviet Union was inherited by Russia, and gas remains second only to oil among earners of export revenue. Almost all of Russia's gas exports are to Europe (in round numbers, reaching 160 billion cubic metres (bcm) in 2008 and falling to 140 bcm in 2009 and 2010) and to CIS countries, mostly Ukraine (70–80 bcm in the early 2000s, falling to 60 bcm in 2009 and 2010). Of the exports to Europe, about three-quarters are transported through Ukraine and the remainder through Belarus.

Ukraine played a key role in the genesis of the Soviet gas industry. In the 1950s, Ukraine accounted for nearly half of total Soviet gas output; Ukrainian production peaked in 1975 at 68.7 bcm (nearly half of the Soviet total in that year). But by then, the large western Siberian fields had begun producing. For the 15 years until the Soviet Union collapsed, Siberian output rose, and Ukrainian output fell constantly, to about 20 bcm/year. Late Soviet history played a cruel trick on Ukraine: the more gas-intensive its economy became, with consumption rising to 118.8 bcm in 1990, the more it substituted gas produced locally with gas transported from western Siberia and central Asia. This laid the basis for post-Soviet Ukraine's heavy dependence on imported gas. The proportion of imports in Ukraine's gas balance increased from 56% in 1985 to 81% in 1992. (Pirani 2007: 17–18.) It has fallen since then, but is still very high: in 2006–08 it was 70–72%.

In the early post-Soviet period, Ukraine and Russia faced shared problems: economic slump, stimulation of 'shock' reform by international institutions and the emergence of especially parasitic forms of capitalism. Ukraine bore the extra burden of dependence on imported energy. The new, relatively weak Russian state, for its part, relied heavily on revenues from gas sales to Europe, especially since Gazprom, the national gas company, remained under state control (albeit tentative at times), while most oil and metals companies moved rapidly into the private sector.

A cycle of problems between Russia and Ukraine persisted through the 1990s: large-scale deliveries to Ukraine of relatively cheap gas; accumulation of Ukrainian debts to Russia, linked to domestic non-payment; theft of gas from the transit system; and Russian pressure on Ukraine to hand over infrastructure in return for debts. Ukraine's largest debts for Russian gas were accumulated immediately after independence (\$4–4.5 billion in 1991–94) – and they would have been larger still, but for the slump, which caused a sharp decline in gas consumption (by 29% from 118.8 bcm/year in 1990 to 85.0 bcm/year in 1996). The problem of debts was exacerbated by the ubiquity of barter arrangements, that is mainly

payment by Russia with gas for transit services but also payment by Ukraine with manufactured goods for central Asian gas. Whereas barter in general receded from former Soviet economies after the 1998 rouble devaluation, the Russo-Ukrainian gas-for-transit arrangement persisted until 2006. (IEA 2006: 62–64; Krasnov and Brada 1997: 828; Pirani 2007: 18–21.)

From 1994, Ukraine's economy and state finances were stabilised. But little progress was made in energy sector reform. The gas sector was dominated by increasingly powerful privately owned trading companies. In the import business, the main player from 1996 was Itera of Russia, which from 1998 supplied all imported gas except that supplied by Gazprom in lieu of transit fees. From 1999 Itera shipped Turkmen gas to Ukraine (Pirani 2007: 20–22). In the chaos that followed the break-up of Soviet industrial organisations, control of gas inputs gave a powerful advantage; some of the traders that competed with Itera in the gas market became the founders of Ukraine's most powerful business empires. The gas trading concession system, established in 1996 with support from the World Bank, under which selected traders were awarded exclusive rights to import and sell gas, benefited such traders. It was abandoned after two years, and a vertically integrated state-owned company, Naftogaz Ukrainy, established embracing almost all gas and oil production and transport, and gas supply and distribution. (Balmaceda 2006: 45–61.)

### 3. Ukraine as a gas-dependent state

Ukraine's economic recovery began in 1999–2000, stimulated by consumer demand growth both domestically and in Russia, its main export market, and by the increase in the world prices of steel, chemicals, and other exports. But Ukraine remained one of the world's most energy-intensive economies. Moreover, gas has the largest share of total primary energy supply: 47%, compared to 23.6% for coal, 16.2% nuclear, 12.4% for oil and 0.9% for renewables. (Government of Ukraine 2006: 9; IEA 2006: 75–77.)

Ukraine's gas demand averaged 73.6 bcm/year in 2003–08. Roughly, 24–29 bcm/year was consumed by industry, including metals (9–10 bcm/year) and chemicals (8–9 bcm/year); 6–9 bcm/year by the power sector, supplementing coal, the main fuel; 12–13 bcm/year by the district heating sector; and 19–22 bcm/year by residential and public sector consumers. A further 7–8 bcm/year was used for technical purposes, that is mainly as fuel for pipeline compressor stations. Demand fell slightly

from 2006, as gas prices rose, but really sharp falls came only in 2009, and only in industry, which contracted in the recession.

There are essentially two sources of supply: (1) Ukraine's own production of around 20 bcm/year, which will remain secondary to imports even if it were to rise in line with the most optimistic projections. (2) Gas imported from and through Russia. Gas from Turkmenistan, and small quantities from Uzbekistan, were imported to Ukraine until 2005. These volumes have to be transported via Russia, and sales can only be arranged with Russia's agreement. They were ended on Russia's initiative and are unlikely to be resurrected soon.

Ukraine inherited from the Soviet Union not only one of the world's largest gas transport networks (with annual nameplate input capacity of 280 bcm and output capacity of 175 bcm) but also a gas storage system with a capacity (34 bcm) second only to Russia's and equal to half of the EU's total. Much of this storage is close to Ukraine's western border and could in future serve central European markets. Fees paid by Russia for the transit of gas to Europe are a significant source of revenue for Ukraine: between 2005 (when the gas-for-transit barter scheme was ended) and 2008, these fees amounted to \$1.5–2.2 billion per year, that is between a quarter and a third of its gas import bills of \$3.2–8.4 billion.

From the mid-1990s, Russia sought to gain ownership and/or management control of the gas transit network in Ukraine and other neighbouring states. This policy reflected both Russia's political aim of maintaining a sphere of influence in the former Soviet Union and the commercial aim of minimising costs and increasing efficiency of gas transit. Some Ukrainian governments were tempted to agree to such proposals, but all ultimately rejected it as strategically risky (as it would deprive them of an important bargaining counter in relations with Russia) and politically unpopular. However, they also failed to manage the transit fee income effectively and left insufficient funds for maintaining and upgrading the system.

Following an attempted compromise which came to nothing – the formation of a Russo-Ukrainian pipeline consortium in 2002 – and Ukraine's 'Orange revolution', opinion in Moscow moved in favour of diversifying gas transit away from Ukraine. The 2006 dispute with Ukraine redoubled Russian determination to press ahead, and the Russian and German governments swung strongly behind the construction of the Nord Stream pipeline, which will carry Russian gas to Germany via the Baltic Sea, without transiting any other country. The final investment decision was taken, and construction began in 2009, shortly after the 'gas war', in spite of the prevailing economic

uncertainty. The first 27 bcm/year string of the pipeline will be commissioned in 2012.

In 2007, Russia cancelled transit of about 14 bcm/year of gas to southern Russia via eastern Ukraine, rerouting it across its own territory. This reduced the total volumes transited via Ukraine to 115 bcm, from an average of 129 bcm/year in 2000–06. Ukrainian transit volumes rose again to 120 bcm in 2008 and crashed to about 93 bcm in 2009 and 99 bcm in 2010, due to the collapse in European demand.

#### 4. Drivers for Russia's changing approach to gas exports: New policy priorities

The context for the first Russo-Ukrainian 'gas war' in 2006 was the relentless rise in oil prices in the decade up to 2008, and the concurrent economic recovery in Russia and Ukraine. Oil prices rose steadily from about \$15/barrel (bbl) in 1998, with a brief pause in 2002, to \$60/bbl in 2006; thence they soared to a peak of more than \$140/bbl in 2008 before falling steeply and then stabilising at about \$70/bbl, in 2009. European gas prices, which are tied to oil prices by contract terms, followed a similar trajectory. In Russia the commodities export revenues on the one hand made possible the economic recovery, but on the other, gave it a one-sided character, as Russia was – and still is – over-dependent on these revenues.

The recovery underpinned the Russian government's assertion of increased control over the oil sector. Whereas in the 1990s the weak Russian state had struggled even to tax the oil sector effectively, the 2000s were characterised by an aggressive drive to return some privatised oil assets to the state, culminating in the Yukos affair of 2003–05, and by increased taxation. This shift was underpinned by an ideology of state-guided capitalism that repudiated the extreme 'free market' enthusiasm of the 1990s while embracing liberalisation and privatisation. The corollary of this was a more assertive geopolitical stance, articulated in opposition to NATO expansion in central Europe and culminating in the military conflict with Georgia in August 2008.

The new economic approach influenced Gazprom, Russia's state-controlled gas company that accounted in this period for five-sixths of production (now about three-quarters) and all exports. Gazprom, Russia's largest company, was transformed into a flagship for state-directed capitalism. In 2006, after Gazprom's share structure was regularised with a 50.1% state holding, ownership rules adjusted and additional shares sold on international markets, its market capitalisation

rose several times over to more than \$250 million, making it at that time the world's third largest company by that measure. Its management moved further towards using commercial methods prevalent in the oil and gas industry internationally.

This drive to turn Gazprom into an energy company funded on, and integrated with, international markets, implied ending heavily discounted gas sales, not only to Ukraine, but also to other net importers (most significantly Belarus, which had 'gas wars' with Russia culminating in brief supply interruptions in 2004 and 2007) and to Russian domestic customers. Gazprom managers had lobbied government on this issue since the early 2000s, in the face of political pressure against removing discounts both from industrial lobbies, for which cheap energy is an important subsidy, and from politicians who fear that rapid changes might trigger unrest. (Overland and Kutschera 2011: 311–31.)

In the mid-2000s, as European gas prices (which in the long-term contracts that dominate the market are linked to the prices of oil products, and thereby to oil) rose rapidly, the yawning differential between European netback levels and Ukrainian import prices was treated by market-minded Gazprom managers as an implicit loss. By the mid-2000s, political leaders in both Russia and Ukraine acknowledged the principle that former Soviet importers should pay European netback prices, that is prices equal to the levels in the European market, minus additional transport costs. In November 2006, the Russian government adopted the same principle for the Russian domestic market, and set out a timetable for its implementation by 2011 (subsequently postponed, most recently to 2015). The 2006 'gas war' was, in the first place, driven by a dispute about how, when and at whose expense the differential between Ukrainian import prices and 'European netback' levels would be closed. The issue was not resolved in 2006 but was aggravated still further by the sharp rise in European gas prices in 2006–08 and climaxed in the supply interruption of January 2009.

Table 8.1 shows how, as European prices galloped up and political haggling continued to affect the bargaining process, Ukrainian prices remained far below the European netback level and by 2008 were wider than ever. The differential was only closed as a result of the 2009 dispute, and a discount restored – funded by the Russian government instead of Gazprom – in 2010.

## 5. Ukrainian political factors

The 'gas wars' were not just a price dispute. Political factors were also at work, especially after the Orange revolution of December 2004. Prior

Table 8.1 Annual average Ukrainian and Belarussian gas import prices

\$/mcm	2003	2004	2005	2006	2007	2008	2009	2010
Ukraine import prices	50	50	44–80	95	130	179.5	232.54	257
Belarus import prices	34.37	46.68	55.08	55.08	118	126.5	148	188
European border price	147.6	157.8	213.7	285.2	294.1	418.9	307.8	323.7

Note: As a rough guide, extra transport costs between Ukraine or Belarus and the European border are \$30–40/mcm.

Source: OIES estimates, company announcements, press reports.

to it, the political leadership in Moscow – which saw President Leonid Kuchma of Ukraine as an ally, albeit a difficult one at times – was unwilling to turn its perennial gas dispute with Kiev into a confrontation. Afterwards, Moscow's attitude shifted. Firstly, the street demonstrations unnerved many in the Russian political elite, who feared social unrest. Secondly, Moscow was displeased by the accession to the presidency of Viktor Yushchenko, who advocated distancing Ukraine from Russia and seeking closer ties with NATO and the EU. In February 2005, Yushchenko was appointed as his first prime minister Yulia Timoshenko, a multimillionaire gas trader and former energy minister, who made no secret of her determination to disrupt the gas import scheme devised by Gazprom and Kuchma's energy officials. At this point Moscow's political objectives, of putting Yushchenko and Timoshenko on the back foot, fell in line with Gazprom's commercial objective, of recouping the implied losses from CIS sales.

One way of measuring the importance of the political factor is to compare the implementation of the European netback principle in Ukraine and Belarus. In 2007, Russia conceded to Belarus a longer timetable for implementation, largely in return for the sale to Gazprom of a 50% stake in the Belarussian transport system. But Belarussian import prices have been consistently lower even than those implied by this timetable. In 2009, when both Ukraine and Belarus were timetabled to pay 80% of European netback, average Belarussian import prices for the year were more than \$80/mcm (1000 cubic metres) lower than Ukraine's. (See Pirani 2009: 21–23, 39.)

The main causes of the 'gas wars', commercial and political, often became intertwined with a set of issues about arrangements for gas to be imported and transported, and the companies involved. In October 2001 Russia and Ukraine had signed an intergovernmental agreement

on gas, the last of a series of such agreements made since the break-up of the USSR. This formalised the gas-for-transit arrangement and the supply of the remainder of the gas Ukraine needed by Turkmenistan. Gazprom continued effectively to sub-contract to Itera the job of buying Turkmen gas, transporting it to Ukraine (via Gazprom's pipelines) and selling it there. While in the 1990s, this may have relieved Gazprom of the headache of collecting payment in Ukraine, in the 2000s, as prices and payment levels rose, it simply provided a handsome revenue stream to Itera – whose opaque ownership structure, unclear links with some Gazprom managers and success in asset-stripping gas production companies attracted criticism. Itera's role in the Ukrainian gas trade was reduced from trader to shipper, and in 2003 it was replaced entirely by Eural Trans Gas (ETG), headed by Dmitry Firtash, who later became known as one of Ukraine's richest billionaires. ETG's ownership structure was as opaque as Itera's, but it had the support of the new Gazprom management. (Pirani 2007: 26, 31–34.)

## 6. The oil boom and the 2006 'gas war'

In 2005, the year after the Orange revolution, Gazprom's stance on import prices and the import scheme toughened. First, Gazprom replaced ETG, to which it had no obvious ownership links, with Rosukrenergo, a Russo-Ukrainian joint venture of which it controlled 50%, and Firtash and another Ukrainian businessman controlled 50%. Second, Gazprom elicited from Ukraine an agreement to buy Turkmen gas only via Gazprom's export division, Gazprom Export, and not directly. By thus severing direct Turkmen-Ukrainian contractual relationships, Gazprom strengthened its control over the CIS's largest-volume gas trading nexus and prevented Kiev and Ashgabat playing each other off against Moscow. Finally, Gazprom adopted a more aggressive stance in the annual negotiations on import prices, prior to contract expiry on 31 December. Gazprom representatives suggested that prices had to rise from \$50/mcm to \$160/mcm or further. But hours before the year end, Russia provoked a stand-off, insisting that its gas would be sold at no less than \$230/mcm. The dispute's economic driving forces were now aggravated by the political tensions between Moscow and Kiev: reportedly, the then president Vladimir Putin personally intervened in the negotiations at this point. (Paniushkin and Zygar' 2008: 160–62.)

Negotiations broke down and a crisis erupted, during which pressure was reduced in the transit pipelines for two days (1–3 January). Russia stopped delivering gas destined for Ukrainian customers but continued

to deliver volumes for transit to Europe. Ukraine diverted some of these volumes for its own use, causing shortfalls in deliveries of Russian gas to central European customers. This demonstrated the real constraint on Russia when it came to ending discounted gas sales: Ukraine showed that to slow down price increases it was prepared to exploit Russia's dependence on its transit services. Although Ukraine appeared to be in breach of its obligations under the Energy Charter Treaty, some European politicians – perhaps still inclined to sympathise with Ukraine after the 'Orange revolution' – largely ignored the dispute's origins and blamed the supply problems on Russia.

The crisis was resolved, and pressure in pipelines restored, with a corporate agreement between Gazprom, Naftogaz Ukrainy and Rosukrenergo, which amounted to an all-round improvement of the terms of trade for Russia and a strengthening of Firtash's position. (The agreement was published by *Ukrainska Pravda* 2006. See also Konoplianiuk 2006; Stern 2006.) The increase in Ukrainian import prices for 2006 was relatively modest: Ukraine paid \$95/mcm to Rosukrenergo, for a 'cocktail' of gas almost entirely from central Asia. More significant were the changes in trading arrangements. The agreement ended the gas-for-transit barter system. It confirmed Rosukrenergo, Gazprom's ally and part-subsiidiary, as the sole importer of gas to Ukraine and gave it a base in the domestic market through the trader Ukgaz-Energo (a joint venture between Rosukrenergo and Naftogaz Ukrainy). Ukgaz-Energo acted as the wholesaler to industrial customers in 2006 and to the whole Ukrainian market in 2007. And while fees paid to Ukraine for transiting Russian gas to Europe were raised by roughly 50%, the agreement provided for storage services to be sold to Rosukrenergo and Ukgaz-Energo at bargain-basement rates, frozen for 30 years.

For the next 2 years, European gas prices rose relentlessly; the European netback level, to which everyone agreed import prices should be tied, followed. For many energy sector professionals, this underlined the urgency of demand reduction, primarily by energy saving. But a national strategy was lacking: political attention was instead concentrated on the battle over trade flows. Timoshenko, who returned as prime minister in December 2007, sought to deprive Firtash, whose main allies were in Viktor Yanukovich's Party of Regions, of both the lucrative Turkmen shipping contract and the foothold he had in the Ukrainian gas market. Firtash lost the battle – crucially, because Moscow soon indicated that he had served his purpose and that Gazprom would sell gas directly to Naftogaz, instead of using Rosukrenergo as an intermediary.

Commentary on Ukrainian politics tended to foreground the battle between Timoshenko and Firtash, and it has even been claimed that it was one of the main causes of the January 2009 gas dispute. However, although this and other shifting alliances among business groups has been a significant influence on the Ukrainian government, it is best understood as a secondary element in the larger picture of boom turning to slump and of the end of discounted gas sales.

In 2008, negotiations over import prices dragged on and were settled only after a brief reduction in import volumes by Gazprom on 3 March. An agreement between presidents Putin and Yushchenko provided for Rosukrenergo's trading role to be ended from 2009, and for Ukrgaz-Energo to be abandoned straightaway. In October 2008, the principle of direct Gazprom-Naftogaz sales, at prices linked to those in Europe, was reiterated at a meeting between Putin, now prime minister, and then Ukrainian prime minister, Timoshenko, Timoshenko. (*Gas Matters* 2008a, b.) As the economic crisis crashed down upon both Russian and Ukraine, the agreement to sideline Firtash held, but the move towards European netback broke down. Within three months, the partial thaw in relations gave way to the most serious 'gas war' of all, in January 2009.

## 7. The economic crisis and the 2009 'gas war'

Negotiations on import prices in December 2008 were conducted under the shadow of the financial crisis that had erupted in September in the US. Russia, whose economy had been growing at 6–8% annually for 6 years, was heading into recession. Oil prices had fallen from their July peak of \$143/bbl to \$30–40/bbl, with drastic consequences for Russia's export revenues. Gazprom knew that in 2009 its income would be slashed, as both gas prices and sales volumes fell. These conditions swept away any inclination in Russian government to avoid confrontation with Ukraine over gas import prices. So when contract negotiations remained unresolved by 31 December, and Ukraine failed fully to pay penalties for previous late payment, Moscow cut off volumes for export to Ukraine.

The impact of the financial crisis on Ukraine was greater even than on Russia. GDP would fall by an estimated 15% in 2009. Much of the steel and chemical industries – on whose export revenues Ukraine is heavily dependent – had been stood down. The IMF identified Ukraine as one of the states most at risk of banking sector collapse and sovereign default and in October 2008 provided it with a \$16.4 billion emergency

loan programme. The industrial collapse meant that gas demand had fallen steeply from industry, that is from the best-paying customers. To Ukraine's political leaders, the prospect of a stand-off with Moscow, during which customers would be supplied from gas in storage, probably looked more appealing than a climbdown on price.

The gas dispute in January was the most serious ever, with supply to 16 EU member states and Moldova being reduced or stopped completely. Several Balkan countries suffered severe fuel shortages. The course of events, briefly, was as follows. (A detailed account is in Pirani et al. 2009. The Brussels view is European Commission 2009. See also Westphal 2009.) From 1 January, Russia delivered gas for transport to Europe but none for Ukraine's own consumption. Ukraine transported these volumes for Europe, but a dispute arose over the fuel gas for the pipeline system. Ukraine argued that its obligation to supply this was void in the absence of a contract and took it from the transit gas; Russia denounced this as theft and withheld corresponding volumes. On 6 January, Russia reduced supplies further, without explanation. On 7 January, deliveries of gas for Europe stopped entirely, with both sides blaming each other. Ukrainian engineers then switched the pipeline system to work in reverse, to transport gas stored mainly in western Ukraine to the largest population centres in the east and south. For 12 days neither side worked pro-actively to solve the dispute, and protests from Europe grew louder. On 19 January, negotiations between Putin and Timoshenko were followed by the signing of a 10-year supply and transit contracts between Gazprom and Naftogaz. (For leaked but undisputed versions of the contracts, see *Ukrainska Pravda* 2009a, b.)

These contracts amounted to another step away from post-Soviet political haggling, towards market-based commercial relationships. Crucially, Ukrainian import prices would no longer be set by annual negotiations but instead would be linked to the price of oil products in a manner similar to European contracts. (Prices were set at 80% of an agreed European netback level for 2009, and 100% of that level for the remaining 9 years of the contract.) The transit fees paid by Russia to Ukraine would also be linked to those in Europe. The conclusion of the direct contracts between Gazprom and Naftogaz confirmed Rosukrenergo's exit from the Ukrainian market and thus ended the involvement of intermediary traders that had complicated Russo-Ukrainian relations since the mid-1990s.

Nevertheless, the contracts were disadvantageous to Ukraine and proved unsustainable. Firstly, the 'base price', a proxy for European netback from which import prices were calculated, appeared to be at least

10% higher than it should have been. Secondly, the import contract included not only take-or-pay clauses similar to those used in Europe, but further onerous penalties on Ukraine for failing to offtake agreed volumes in any given month; the transit contract, by contrast, provides for negligible penalties if transit volumes are reduced. (See Pirani 2009: 22–24, 39.)

An opportunity to renegotiate the contracts came after Ukraine's February 2010 presidential election, which brought to an end the period of poor diplomatic relations with Russia that had characterised Yushchenko's presidency. In April 2010 the new president, Yanukovich, negotiated an agreement with his Russian counterpart Dmitry Medvedev that provided a discount not from Gazprom, as had been the case in the past, but directly from the Russian government, amounting (broadly speaking) to \$100/mcm off import prices in return for a directly political concession, that is a 30-year extension on the lease of the Black Sea naval base in Crimea to Russia. (For details, see Pirani et al. 2010.) Despite this discount, import prices – and Ukraine's total import bill – were the highest ever in 2010.

In the year after the 'gas war', the Ukrainian economy experienced its sharpest recession since the early 1990s. This, together with rising prices, began to reshape its gas sector. In 2009, total Ukrainian gas consumption fell to 52.8 bcm, from 67.3 bcm in 2008. But this aggregate 21.8% fall was concentrated almost entirely in industry: demand there (excluding the power sector) fell by 41.9%, while demand among residential and district heating customers who pay heavily discounted prices fell by 2.3%. In 2010, total Ukrainian demand recovered to 57.6 bcm, still far short of the 2008 level. (All consumption statistics are from the energy ministry, as published in *Energobiznes*.)

The sharp fall in sales to industrial customers (who pay prices correlated with import prices) exacerbated the financial crisis of Naftogaz Ukrainy, while below-cost sales to district heating companies and households continued at roughly the same level. The IMF has treated Naftogaz Ukrainy's operational deficit, which it estimated at 2.7% of GDP (nearly \$3 billion) in 2009, and 1.4% of GDP in 2010, as part of Ukraine's fiscal deficit. (IMF 2011.) The outlines of the Russo-Ukrainian gas trade are presented in Table 8.2.

The 'gas war' resulted in the implementation of the principle of European netback in Ukraine when European gas prices were at their highest. This combined with the economic recession (i) to produce the financial crisis at Naftogaz, (ii) to increase the economic burden on Ukrainian industry (leading, significantly, to a consolidation of

Table 8.2 The Russia–Ukraine gas trade

	2005	2006	2007	2008	2009	2010
<b>Imports</b>						
Volume imported, bcm	55.8	53.3	50.1	48	26.8	35.8
Average price (\$/mcm)	44–80	95	130	179.5	232.54	257
Value of imports, \$ billion	3.2	5.1	6.5	8.6	6.24	9.23
<b>Transit</b>						
Volume transited to Europe, bcm	121.5	113.8	112.1	116.9	92.8	98.7
Volume transited to CIS, bcm	14.9	14.7	3.1	2.7	3	3
Cost of transit (\$/mcm/100km)	1.09	1.6	1.6	1.7	1.7	2.83
Value of transit services, \$ bn (OIES est.)	1.5	2.2	2.1	2.34	1.88	3.31

Source: Energy ministry statistics, company announcements, OIES estimates.

chemical fertiliser producers), and (iii) to force into the political arena a discussion of market reforms and price increases. Collectively these events mark the beginning of the end of economic policies reliant on discounted gas sales and are significant for Ukraine and a harbinger of similar changes across the former Soviet Union.

## 8. The limitations of international governance mechanisms

The 2009 'gas war' highlighted the limitations of international governance mechanisms, and in particular the Energy Charter Treaty. The economic forces at work in the dispute also proscribed the EC's ability to act in solidarity with individual member states whose energy security was endangered, as envisaged in European Union treaties.

The Energy Charter Treaty (ECT) was conceived by the European Commission (EC) in the early 1990s, as a legal framework for energy supplies flowing from former Soviet states to Europe, and the 2009 'gas war' was precisely the type of dispute it was designed to forestall. The treaty, which covers investment, trade, transit and dispute settlement, entered into force in 1998; by 2008 it had 51 member countries. Gas transit was potentially an important area for its application. However the treaty's effectiveness was blunted because Russia, Europe's largest energy supplier, did not ratify it. (There is an extensive literature on the treaty. An important introduction is Walde 1996. Its application in the gas sphere is discussed in Mitrova et al. 2009; Yafimava 2011, chapter 9.)



Negotiations between the EC and Russia in the early 2000s on Russian ratification foundered on the issue of domestic pipeline access rules. On the one hand, it was assumed in Russia that acceptance of the transit protocol would require that Russian pipelines be made accessible to third parties; to deal with this, Russia proposed that at the expiry of any transit contract the current shipper be offered right of first refusal on pipeline capacity. On the other hand, Russia opposed the EC proposal for a clause concerning Regional Economic Integration Organisations, which would mean the EU being treated as a single economic entity rather than as a series of national entities. These issues were potentially close to resolution, but unresolved, when the 2006 'gas war' took place. The lack of response from Europe to Ukraine's apparent breach of the treaty hardened Russian political opinion against the treaty. (Mitrova et al. 2009: 427–30.)

In between the two 'gas wars', Russian relations with both the EU and the US deteriorated, and little progress was made on Russian ECT ratification. The Energy Charter secretariat, set up to oversee the treaty's implementation, thus played only a minor role in the dispute. It drew attention to Ukraine's obligation under the treaty to transit gas even if its own volumes were withheld, and made an offer to arrange mediation that went unheeded. A few days after the dispute ended, Prime Minister Putin argued that the Energy Charter 'had failed to become a working instrument' and proposed that work begin on a new international legal framework for energy security (Belyi et al. 2011).

Given the years of diplomatic effort put into the ECT, it seems unlikely that either Russian proposal will achieve swift results. (See Energy Charter Secretariat 2011.) The question remains as to why the ECT was unable to defuse the gas dispute. One reason was that the ECT was already weakened by the failure by Brussels and Moscow to overcome the obstacles to Russian ratification. Another was the precedent set by the 2006 dispute. It was perhaps not surprising that in December 2008, Ukrainian political leaders who faced the challenges of the recession opted for a dispute with Russia about fuel gas – the final trigger for the supply interruption – rather than prioritising treaty obligations. The economic imperatives on all sides proved stronger than the still-incomplete legal framework.

## 9. Outcomes

*For Europe*, the 2009 supply interruption highlighted the limits of the solidarity to which the EU aspires. The energy security of EU member

states in Eastern Europe and the Balkans was severely breached. The EC reacted to the crisis, first, by arranging monitoring of gas flows through Ukraine, and second, with diplomatic approaches to the Russian and Ukrainian governments. But neither initiative made much headway.

The EC's efforts were hampered by divisions in European attitudes to Russian gas imports. On the one hand, Gazprom's large European customers (i.e. energy companies such as Eon-Ruhrigas and ENI) perceived the 'gas war' as a failure of Ukrainian transit, which they looked to Gazprom, their contractual counterparty, to resolve. Import contracts provide for gas to be purchased at or west of Ukraine's western border, leaving the responsibility for managing transit risk up to that point with the seller, Gazprom. The companies saw no reason to transfer transit risk away from Gazprom. On the other hand, the EC and politicians in member countries tended to see the 'gas war' as part of a much larger geopolitical problem, that is the EU's excessive dependence on Russia's energy resources and the perceived danger that Russia would use this to its geopolitical advantage.

*For the gas companies*, the 2009 'gas war' hastened investment in two types of gas transport infrastructure: (a) the Nord Stream pipeline, essentially a transit diversification project; and (b) a series of relatively small projects in eastern and south-eastern Europe designed to mitigate the impact of any future supply interruption: constructing interconnectors, refurbishing storage or giving pipeline links reverse flow capacity.

There is no serious prospect that gas currently transported via Ukraine to central and southern European destinations will be diverted to the Nord Stream pipeline: that would be needlessly costly. Rather, Ukraine will lose bargaining power. With Nord Stream operational and the extra interconnections and storage, a suspension of transit through Ukraine could be mitigated more easily. Further in the future, after 2015, the South Stream pipeline could be built, which *would* be a direct alternative to Ukrainian transit.

In short, while 'gas wars' are possible during the next two years, after that the effect on Gazprom of Ukrainian threats to disrupt European transit will be diminished and could eventually be eliminated.

*For the gas market*, the recession of 2009–10 – which formed the background to the 'gas war' – marked a turning point in the economic conditions and in the development of gas markets. Factors that could shape relationships in the next few years include the following:

- (i) *The movement in the European gas market away from oil-linked prices, and away from the predominance of long-term contracts.* Impetus has

been given to this process by the sharp fall in gas demand in 2009–10. This coincided with a surge upwards of oil prices, and a wide differential opened up between the oil-linked prices used in long-term contracts and gas prices on spot markets. European utility companies began to urge a more widespread use of spot prices. This may mean a movement in the coming years towards a market in which spot sales and exchange-based trading play a greater role and possibly also away from the widespread use of long-term contracts. The implications for Russian imports, which have been almost entirely on the basis of long-term contracts with oil-linked prices since their inception, are profound. A change would imply a completely new basis for investment in Russian gas production and a painful transition for Gazprom. (Stern and Rogers 2011.) For Ukraine, it would throw into question the suitability of the ten-year import contracts signed in 2009, since these use an oil-linked formula designed to reflect European conditions.

- (ii) *Progress towards gas market liberalisation in the former Soviet Union, and the continuing movement of sales prices upwards, towards levels reflecting those paid in Europe.* The price increases in Russia, Ukraine, and other CIS countries will eventually reach a point at which the premium on export sales to Europe will be significantly eroded and, over the long term, this will change the economic imperatives that drive Russian gas policy.

## 10. Conclusions

The context for the Russo-Ukrainian ‘gas wars’ was formed by the mutual dependencies inherited from the Soviet period. The oil boom of the early 2000s, high oil prices, and the resulting changes in Russian economic policy, all played a part. In 2009, high oil prices (and consequently high European gas prices) combined with a recession that impacted Ukraine even more seriously than Russia. Political factors exacerbated these conflicts but were not a primary cause.

The unprecedented supply interruption of January 2009, unleashed by this clash of economic interests, exposed the limitations of international governance mechanisms. The Energy Charter Treaty, designed to stop threats of this kind to energy security, was unable to do so. In the background lay not only the failure of Russo-European diplomacy, but also different approaches within Europe to Russian gas imports. The big energy companies, Gazprom’s contractual counterparties, saw the issue

of Ukrainian transit in business terms and looked to Gazprom to resolve it. The EC and many European politicians saw the dispute in terms of the perceived unreliability of Russia as an energy supplier and the desirability of diversifying away from it.

Since the dispute, little progress has been made towards diversifying gas supply from Russia, but the Nord Stream pipeline, essentially a transit diversification project away from Ukraine and Belarus, is being completed with support from the Russian and German governments. This will reduce Ukraine’s bargaining power in its disputes with Russia, mitigate the effect of supply interruptions arising from disputes between Russia and Belarus or Ukraine and make such disputes less likely in future.

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## Part III

# Contemporary Transformations

# 9

## Energy Policy in Transition: Sustainability with Security

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### 1. Introduction

There is a growing debate in academic, political and NGO circles about paradigm change within energy systems. This chapter will deal specifically with those works which have focused on paradigm change within EU and UK energy policy (Helm 2005; Jegen 2009; Mitchell 2008). Many of these analyses suggest that the starting point against which to measure policy change is a generalisable EU energy policy paradigm which has been largely influenced by ideas about liberalisation, deregulation and competition over a period of decades. These ideas are understood to have constrained policy responses to emerging issues such as climate change, a political position which has been referred to as the 'compromise of liberal environmentalism' (Bernstein 2001: 4), as well as re-emerging issues such as energy security (Carter 2001; Mitchell 2008; Scrase et al. 2009).

Somewhat different conclusions regarding actual policy changes have, however, been reached. These range from suggestions that a paradigm shift has already taken place (Helm 2005), via those that understand key elements of the policy process to have been changing (Jegen 2009), to those that conclude that little or no change has occurred (Mitchell 2008). What can be read from such analyses of energy policy paradigms is some similarity in the consideration of the *objectives* to which energy policy is set (Helm 2005: 2; Jegen 2009: 2; Mitchell 2008: 2).<sup>1</sup> Objectives appear to have been re-ordered such that the security and sustainability of energy supplies have now emerged as primary objectives, ahead of the creation of liberal and competitive energy markets (Helm 2005; Jegen 2009; Kuzemko 2011).