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Policy Note

## Vulnerability and Bargaining Power in EU-Russia Gas Relations

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### Abstract

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This report contains three separate papers, each addressing selected issues concerning natural gas policy and security of gas supply in Europe. The over-arching themes are vulnerability (to supply disruptions, to supplier pricing power) and fragmentation; and measures designed to overcome them, namely interconnection and consolidation of bargaining power. The first paper contains a review of some of the economic effects of, and subsequent policy reactions to, the January 2009 cut of Russian gas supplies through the Ukraine Corridor, with a particular focus on Bulgaria and on EU policy. The second paper provides an analysis of the current state of gas relations between Ukraine and the Russian Federation, with a focus on the Ukrainian perspective and on recent political developments in that country. The third paper provides an analysis of the case for consolidating buyer power in line with the concept of an EU Gas Purchasing Agency.

**Keywords:** Natural gas, security of supply, supply disruption, interconnector, Russia, Ukraine, Bulgaria, European Union, energy policy, fragmentation, bargaining power, countervailing power, gas purchasing agency

**JEL classification:** C78, L11, Q34, Q48

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## Policy Brief

*Summarising the findings of:*

# Vulnerability and Bargaining Power in EU-Russia Gas Relations

A study financed by the Austrian Federal Ministry of Economy, Family and Youth<sup>1</sup>

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## Introduction

The study consists of three separate papers, each addressing selected issues concerning natural gas policy and security of gas supply in Europe. The over-arching themes are vulnerability (to supply disruptions, to supplier pricing power) and fragmentation; and measures designed to overcome them, namely interconnection and consolidation of bargaining power.

The first paper contains a review of some of the economic effects of, and subsequent policy reactions to, the January 2009 cut of Russian gas supplies through the Ukraine Corridor, with a particular focus on Bulgaria and on EU policy.

The second paper provides an analysis of the current state of gas relations between Ukraine and the Russian Federation, with a focus on the Ukrainian perspective and on recent political developments in that country.

The third paper provides an analysis of the case for consolidating buyer power in line with the concept of an EU Gas Purchasing Agency.

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<sup>1</sup> The study was commissioned by the Austrian Federal Ministry of Economy, Family and Youth (BMWFJ) within the scope of the Research Centre International Economics (FIW) and funded out of the Austrian Federal Government's "Internationalisation Drive".

## Paper 1

### The 2009 Russia-Ukraine gas supply cut: economic effects and policy reactions

- 1.1 The January 2009 gas supply cut had severe economic consequences for Bulgaria, but little or no discernible economic effect on other EU Member States.
- 1.2 The shortage in Bulgaria's domestic gas supply was about 66% for the 14-day period of the supply cut. Rationing was imposed, including wide-spread disconnection of industrial customers.
- 1.3 Bulgaria's industrial production fell, in seasonally-adjusted terms, by 10.6% in January 2009. This is in line with the share of natural gas in the energy product mix in Bulgarian industry, namely 23% for the 14-day period of the cut.
- 1.4 The economy-wide effect is estimated to be 0.35% of 2009 GDP, corresponding to a 9.1% GDP shortfall for the 14-day period of the cut.
- 1.5 Most EU Member States suffered no measurable shortage in terms of final domestic supply of natural gas over the month of January 2009 as a whole.
- 1.6 Storage withdrawals and redistribution of piped gas between European net importer countries, through interconnectors and reverse flow operation, played the most important roles in alleviating the effects of the crisis.
- 1.7 Increased external supplies were also important, notably liquefied natural gas (LNG). In 2008 LNG accounted for 10% of gas imports to the OECD Europe region. In January 2009 the *increase* in LNG supplies covered 24% of the import gap.
- 1.8 A substantial response is taking shape in Central and Southeast Europe, primarily driven by EU co-financing<sup>2</sup> of several gas interconnector projects. The Hungary-Romania and Hungary-Croatia interconnectors were completed in 2010.
- 1.9 EU co-financing is available for the Romania-Bulgaria and Bulgaria-Greece interconnector projects. A Bulgaria-Serbia interconnector project could also benefit from EU support. The prospects for these projects are positive.
- 1.10 The development of a comprehensive network of interconnectors across Central and Southeast Europe, in combination with potentially higher (future) LNG import capacity, effectively leads to the creation of a '*virtual pipeline system*'.
- 1.11 This will contribute to long-term supply source diversification and to increased gas market integration – in addition to improved resilience against supply disruptions.
- 1.12 The findings confirm the usefulness of EU co-financing for cross-border projects that generate positive external benefits – in this case security and market integration.

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<sup>2</sup>The European Union's European Energy Programme for Recovery (EEPR).

## Paper 2

### Ukrainian gas security after the January 2009 supply cut

- 2.1 The new administration of President Viktor Yanukovich has proceeded with a comprehensive revision of Russo-Ukrainian relations.
- 2.2 Ukraine has secured a reduction in gas import prices by extending the presence of the Russian Navy's Black Sea Fleet on Ukrainian territory. That deal suggested that Ukraine was trading its independence for short-term economic advantage.
- 2.3 In general, Ukraine remains subject to strong ambitions of "integration" on the part of the Russian Federation; however its leadership has declined many other offers in that direction in line with a mostly reasonable understanding of the national interest.
- 2.4 An analysis of a series of political decisions made by the Yanukovich administration suggests the dominance of a 'realist' pursuit of Ukraine's national interest, while evidence of a 'pro-Russia' motive is limited. However authoritarian tendencies and the influence of private business interests are also important drivers.
- 2.5 Ukraine's emerging energy policy seems more rational than suggested by the 'gas-for-fleet' deal alone. The country has signed up to the Energy Community and is moving towards gas price and gas market reform in spite of Russian objections.
- 2.6 Ukraine's other gas policy goals are: to hold down gas import prices; to promote the use of its infrastructure for transit of Russian gas to Europe; to encourage the cancellation of the South Stream project; to secure a trilateral (EU-Ukraine-Russia) agreement for managing and upgrading its gas transmission system; and to decrease dependence on Russian gas imports by building an LNG terminal and by increasing domestic production.
- 2.7 For Russia an outright merger (de facto an acquisition) of Naftogaz remains the goal, but the Ukrainian leadership is unlikely to accept.
- 2.8 For Ukraine the cancellation of the South Stream project and a confirmation of its long-term role as a major transit corridor would be seen as a major victory.
- 2.9 That outcome will partly depend on the success of Ukraine's trilateral approach for its transit infrastructure, as well as on the level of genuine commitment there is to the South Stream project on the part of Gazprom and its partners in that project.
- 2.10 More broadly, analysis suggests that conditionality on the part of the European Union could be a feasible approach towards securing further domestic reforms and a moderation of authoritarian tendencies.

## Paper 3

### The potential for an EU Gas Purchasing Agency

- 3.1 The essentially national approach taken by EU Member States in external energy policy is seen as increasingly unsatisfactory within the EU's institutions. One example is the uncovering of large gaps in import prices for Russian gas, notably between the Baltic States and Germany.
- 3.2 The proposal for a European Energy Community supported by Jacques Delors and Jerzy Buzek suggests the formation of gas purchasing groups and/or the creation of an EU Gas Purchasing Agency in order to consolidate bargaining power.
- 3.3 An analysis is carried out using an established game-theoretic model of bilateral bargaining for industries with a monopoly supplier and isolated buyers.
- 3.4 Simplified 'surplus functions' representing the interests of the supplier and of a set of buyers are constructed using trade, energy and corporate data. The functions are stylised representations of Gazprom and of mid-sized EU gas companies. These functions are then used in the context of numerical simulations.
- 3.5 The results of the simulation suggest that buyer alliances can bring about a fall in the average import price for alliance members, but this does not necessarily lead to a fall in price for all allied buyers.
- 3.6 Gas importing companies may furthermore experience a loss in profits from joining a buyer alliance, although the import price may have fallen. This suggests that downstream consumers could be better off at the expense of the importer's profits.
- 3.7 The import price may fall for all members of a buyer alliance if one member company simultaneously starts to diversify its sources of imports. The positive effect of diversification experienced by one buyer can be de facto shared with buyers with no diversification through the introduction of a buyer alliance.
- 3.8 The results suggest that the combination of a buyer alliance with diversification measures could be a useful measure for overcoming the isolation of some Member States and third countries, particularly in Central and Eastern Europe.
- 3.9 As a buyer alliance may be profitable for consumers but not for all of the companies in that alliance, policy-makers would have to consider mandatory solidarity rules, and whether compensation mechanisms would be necessary.
- 3.10 Legislation on a possible EU Gas Purchasing Agency (and/or gas purchasing groups) should take into account the existing degree of diversification, and possibly encourage further diversification in coordination with the creation of buyer alliances.