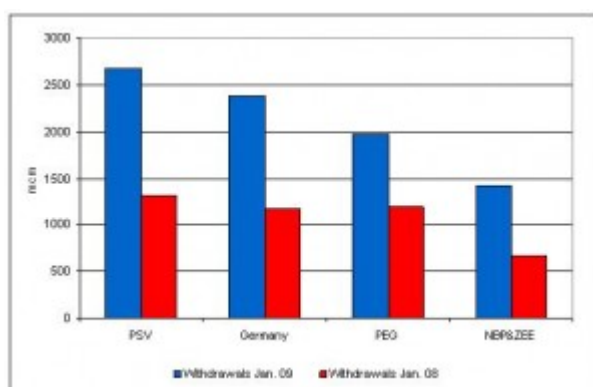


## STORAGE IN THE BACKSTAGE OF THE GAS CRISIS

di Anna Creti

The gas crisis that hit European Countries at the beginning of 2009 is now far away from our mind. Officially, the tension in gas supply due to the conflict between Russia and Ukraine ended on January 17th, with resumed deliveries and higher gas prices for Ukraine. On 20 January, supplies to Europe began to flow again. Commission President Barroso welcomed the resumption of deliveries, after a two-week standoff that left millions of East Europeans without heating in the middle of winter. Why the crisis has not been so more severe for European importing countries? Apart from (geo)political stress and diplomatic solutions, there is a bit unknown actor in the backstage of the gas crisis: storage.

Europe's storage operators have delivered significant volumes of gas stocks as the main mitigation measure. Graph 1 shows the amount of gas withdrawn from storage both in January 2008 and 2009 in millions of cubic meters, respectively in the hub areas PSV (Italy), Germany, PEG (France), and NBP&ZEE (Belgium and UK). At the beginning of the crisis, fortunately reservoirs were ready to deliver a considerable amount of gas. In fact, the lower consumption from the industrial sector in the context of the economic slowdown has offset the increase in gas demand for heating, due to quite low temperatures (for instance, the Bluenext European temperature indicator was almost 3° below its ten-year average in January).



### Gas withdrawn from storage.

Source: GSE database, 2009

As evidenced by Gas Storage Europe on 21st January, average European drawdown of gas stock was around 15% from 5th to 19th January 2009. During the same period in 2008, the average drawdown rate was 2.5% per week. Stored gas has moved across country borders, reinforcing the important role storage plays in the functioning of both the internal and regional gas markets. Interestingly, all gas consumers have so far been supplied from gas stocks and no gas has been drawn down from strategic reserves (in the countries where such measure exists, that is, Italy and

Hungary).

I believe that one of the lessons that can be drawn from the crisis is that in the current context of an evolving global market for natural gas and restructuring efforts in the European market, natural gas storage plays a crucial role for seasonal balancing, security of supply and price arbitration.

The legal discipline on storage has evolved steadily from 1998. In the first Gas Directive (98/30/EC) the regulatory regime introduced in the storage sector was unclear and lenient. To encourage market competition, in 2003 the second Gas Directive (2003/55/EC) clarified the originally ambiguous provisions for access to storage and introduced the concept of storage that is subject to third party access (henceforth TPA) or an open access regime. The third Energy Liberalisation Package (2007) further introduced legal and functional unbundling to the TPA storage sector.

However, at the EU policy level, some contradictions still affect the organisation of storage services. The Green Paper on Energy Security of Supply and the Directive 2004/67/EC encouraged Member States to take specific measures against supply shocks. Yet the message delivered by the 2007 proposal for a new liberalisation package is different: building up strategic gas stocks to deal with potential supply disruptions would be too expensive and technically difficult. But in November 2008, the Commission proposes a five-point EU Energy Security and Solidarity Action Plan that includes oil and gas stocks and crisis response mechanisms. A question arises naturally: which action should be taken and agreed upon?

In a [recent book](#) I edited on the Economics of Natural Gas Storage, I wrote a chapter with B. Villeneuve that is devoted to a dynamic stochastic model that focuses on “low probability-high impact” events, thus characterizing the nature of eventual gas supply disruption at the European level. The probability of price increase after a gas crisis provides enough incentives to private stockholders who accumulate precautionary reserves. This is in line with the EU wisdom that competition and security of supply go hand in hand. However, given the unavoidable policy dimension of gas security, government rules might interfere with decentralized stockholding decisions. The model’s simulations, calibrated on the 2006 UK gas market, point out the danger of such imperfect policies. Administrative rules that prevent price spikes have non negligible costs, but the “do nothing strategy” does not perform better. This conclusion should alert those countries who are relaxing their attention on gas stocks.

In the long term, investments in those critical infrastructures that allow supply diversification and a well functioning gas spot market are the solution to the import dependency problem. But in the short medium-run, we should not forget that storage is, and will always be, in the backstage of any predictable and unpredictable unbalance in gas demand and supply. And the EC should clarify, once for all, the importance and regulation (if any) of precautionary gas reserves.