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THE GEOPOLITICAL CHALLENGES OF THE EUROPEAN GAS SECTOR

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Overview

The recent tensions occurred between Russia and the neighbouring Countries, and the fear for a “gas cartel” between Moscow and Algiers have underlined the vulnerability of the European gas supply, mostly based on a cross-border pipelines system.

International crisis, high prices and a reduction of domestic gas production are the emergent problems affecting the European gas sector. The import of natural gas by pipeline is no longer sufficient to tackle the increase of gas demand in the medium and long run. Moreover, the pipeline system revealed its dangerous vulnerability to geopolitical setbacks, by setting up a debate where the key issue is to define whether pipelines guarantee the security of supply or it's preferable to bolster other form of transportation like LNG and CNG.

Mainly, what does concern in this paper is the weakness of the European gas supply system, particularly susceptible to geopolitical risks as demonstrated so far.

Methods

The main purpose of this paper is to analyze the Achilles' heel of the European gas sector, the security of gas supply, especially by focusing on what consequences might be generated by a system based preponderantly on pipelines.

The study starts with an overview of European gas supply system with the purpose of detecting its weaknesses. Subsequently, the investigation identifies all the significant geopolitical factors that can affect the import system, basing the analysis on the recent crisis evolved between Russia and its neighbouring Countries.

Mostly, new solutions have to be taken in order to ensure a stable and continuous flowing of natural gas in Europe. The main task of this study is to define which measures should be implemented to balance the current disproportion of gas imports by pipelines. Thus, the paper will propose a series of measures intended to resolve the European chronic dependence from pipelines:

1. Enhance the use of **LNG technology** and stimulate the increase of LNG entry-points all over Europe with particular incentive policies;
2. Strengthen the LNG long term-contracts with an increase of **interdependence** with gas exporters, with the purpose of stabilizing gas flows and ensure a strong dealing power;
3. Improve a European integrated system of gas **storage**, in order to minimize unexpected interruptions and guarantee a minimum availability of natural gas.

Results

These measures have been tested on empirical basis, referred mainly to the US and Japanese experiences.

The first case shows how the US energy sector overcame unpredicted gas shortages, occurred on winter 2000/2001, due to a distortion of the natural gas demand cycle. With a decisive shift to the LNG technology, publicly sustained by the former president of Federal Reserve, Alain Greenspan, the US gas sector is now able to diversified gas exporters,

increase gas supply and control prices. In this context, it will be taken into account the role that physical gas hubs might play in the European gas sector, by following the Henry Hub case.

The second experience deals with the role of interdependence in securing the LNG long-term contracts. For this purpose, the study analyzes the case of Japan. An increase of interdependence with the Persian Gulf gas-exporting Countries helped Japan to secure its natural gas importation from '70s until now. In particular, the strategy adopted by Japan to protect its contracts was the exportation of its high-tech products and know-how. This obliged gas exporters to rely exclusively on Japanese firms for infrastructure and maintenance, ensuring a long standing Japanese presence on the Gulf soil.

Conclusion

After having established that the geopolitical factors play a crucial role in the European gas importation system, the study considers the diversification of gas exporters by the enhancement of LNG industry, the increase of interdependence's quality and quantity with gas exporters and the creation of an integrated gas storage system a more reasonable and suitable solution to stabilize the security of gas supply.