GAZPROM PRICING IN THE BALTIC STATES

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Overview

The Baltic countries have historically been deemed an “energy island” when it comes to natural gas, having been solely dependent on Russian supplied natural gas and having no pipeline connectivity to Western Europe. The region’s dependence on a sole supplier has resulted in these countries paying some of the highest prices for natural gas in Europe, despite their relative close proximity. In 2014, the FSRU Independence LNG terminal opened in Lithuania and the region subsequently experienced a 23% price decrease in 2015. While commodity prices in general were changing during this period, I show in a previous paper that the introduction of a new supplier to the Lithuanian gas market explains a significant portion of this price decrease.

Latvia is currently considering investing in an LNG import terminal of its own, where it would pipe imported gas to its Inculkans storage facility. Understanding Gazprom’s likely response to the introduction of a new LNG import terminal will help determine the feasibility of the project and future diversification efforts. This paper provides an in depth analysis of the mechanisms that determine Gazprom pricing in Latvia, Estonia and Lithuania.

Methods

I estimate a nonlinear demand function for Lativa, Lithuania and Estonia to find that Gazprom does not charge monopolist prices for its natural gas to these three countries. I then use kernel density estimates to provide evidence that Gazprom uses the price of fuel oil as a ceiling on the prices it charges these countries. Finally, I develop and calibrate a Nash Bargaining Limit Pricing model to explain natural gas prices charged by Gazprom to Latvia, Lithuania and Estonia.

Results

I find evidence that Gazprom does not act as a monopolist with its Baltic clients. Rather, the relationship is best described by a Nash bargaining model with limit pricing, where the importing countries possess some bargaining power during negotiations and the threat of fuel oil as a substitute to natural gas limits the prices Gazprom can charge its clients. These findings provide evidence that further supply diversification efforts are likely to result in price decreases in the Baltic natural gas markets.

Conclusions

Price decreases in the Baltic region for natural gas imported from Russia are likely to occur due to economically feasible diversification options. I provide evidence that Gazprom does not act as a pure monopolist when pricing natural gas with its Baltic clients; Gazprom prices below optimal monopoly prices. This is most likely due to the importing countries’ bargaining power, which can be explained by the Kalinigrad region’s dependence on the Baltic states, and the threat of competition from alternative fuels. Diversification efforts are rendering alternatively sourced natural gas the new competitive threat for Gazprom’s piped gas. This is like to put pressure on Gazprom’s pricing strategy and to result in further price decreases for Gazprom’s natural gas.