LONG-TERM NATURAL GAS CONTRACTS EVOLUTION IN THE CHANGING INDUSTRY ENVIRONMENT

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Overview

The aim of the paper is to empirically analyze the effect of numerous developments unfolding around global natural gas markets such as market liberalization, economic recession, technological change and flexibility in contractual terms and increase in LNG fleet capacity to the period of long-term contracts.

The results may offer some insights in terms of public policy for gas exporting developing countries as the length of long-term contracts affect sellers in terms of planning for future cash flows stability, provision of the security of demand for produced gas, minimizing transaction costs for renegotiation and enforcement of long-term contracts and foreseeing proper distribution of market risks during planning for new asset and relationship specific investments.

Methods

Two stage least squares (2SLS), generalized method of moments (GMM), which accounts for heteroscedasticity of error distributions and limited information maximum likelihood (LIML) instrumental variable regression methods are utilized in order quantitatively analyze the determinants for the duration of contracts.

Results

Our findings suggest that long-term pipeline and LNG contracts concluded after the triggering of the liberalization process in Continental Europe were 3-4 years shorter, however aftermath of global recession they become 4 years longer than those closed in the preceding period. The estimation of the second model showed that availability of FOB delivery terms in the LNG long-term contracts led to a 1.5 years longer agreements on average, while the increase in fleet size and technological development has resulted on 0.5 and 2-3 years duration decrease.

Conclusions

The results imply that ongoing technological development along gas value chain and planned gas market liberalization in other significant markets, such as Japan along with increasing demands from importers for more flexible contract terms may further lead to the decrease in the contract duration. In this context gas exporting developing countries should work on elaboration of the other options to complement their gas export contracts on the way to ensure gas export revenue stability, demand security and lessening contract renegotiation and enforcement transaction costs in the longer-term future.