

The Dynamics of Algeria's Natural Gas Exports to Europe: Evidence from ARDL Bounds Testing Approach with Breakpoints

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Abstract : The purpose of the study is to examine the dynamics of Algeria's natural gas exports through the Autoregressive Distributed Lag (ARDL) bounds testing approach with break points. The analysis was carried out for the period from 1967 to 2015. Based on imperfect substitution specification, the ARDL approach reveals a long-run equilibrium relationship between Algeria's Natural gas exports and their determinant factors (Algeria's gas reserves, Domestic gas consumption, Europe's GDP per capita, relative prices, the European gas production and the market share of competitors). All the long-run elasticities estimated are statistically significant with a large impact of domestic factors, which constitute the supply constraints. In short term, the elasticities are statistically significant, and almost comparable to those of the long term. Furthermore, the speed of adjustment towards long-run equilibrium is less than one year because of the little flexibility of the long term export contracts. Two break points have been estimated when we employ the domestic gas consumption as a break variable; 1984 and 2010, which reflect the arbitration policy between the domestic gas market and gas exports.

Keywords : natural gas exports, elasticity, ARDL bounds testing, break points, Algeria

Conference Title : ICEEEP 2018 : International Conference on Energy Economics and Energy Policy

Conference Location : Dubai, United Arab Emirates

Conference Dates : June 21-22, 2018