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The economics of global LNG trade: the case of Atlantic and Pacific inter-basin arbitrage in 2010-2014

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Chi-Kong Chyong and Roman Kazmin

Abstract We examine the economic and strategic implications for gas supply security and diversity of Europe's reliance on global LNG markets. In particular, we carry out a detailed assessment of LNG trade between Atlantic and Pacific basins in 2011-2014, focusing on why there was not as much LNG arbitrage as might have been expected given the large price differential between these two regions in that period. By explicitly modelling a counterfactual scenario, in which LNG can be diverted to follow price differentials between Europe and Asia, we found that: (a) it is not the demand shock in Asia (driven by the Fukushima incident) *per se* but the high oil price in that period, as well as decoupling of European spot prices from oil-linked contract prices that created the huge natural gas price differentials between Asia and Europe; (b) amongst the largest LNG suppliers who could arbitrage between the Atlantic and Pacific regions, Qatar would have received the highest net benefit from diverting cargoes to Asia, however, these benefits are highly sensitive to the possibility of contract price renegotiations with Asian buyers (similar to what happened to large pipeline gas suppliers in Europe in the recent past); (c) furthermore, diverting contractual volumes from Europe to Asia would have required lengthy negotiations with European buyers who, as our modelling results suggest, did not necessarily have compelling commercial interests in sending contractual cargoes to Asia after taking into account that the surplus of LNG created in North-West Europe allowed these buyers to reduce high oil-linked contract prices with traditional pipeline suppliers. Thus, contrary to the currently prevailing view that European importers have largely 'overinvested' in LNG import capacity, these investments should be seen as a strategic bargaining option that European importers have developed to counterbalance the otherwise potentially larger pricing power of pipeline suppliers. Thus, investment in LNG import capacity reduces the need to invest in *'strategic and special relationship'* with traditional suppliers to ensure against 'unfair' pricing practices.

Keywords: Liquefied natural gas, LNG, security of supply, natural gas, pipelines, long-term contracts, spot transactions, Asia, Qatar, Russia, gas pricing, arbitrage

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Contact kc335@cam.ac.uk
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