

## Author(s):

Zsuzsa R. Huszár;



Balázs B. Kotró;



Ruth S.k. Tan

**Institute of  
Finance**

# Dynamic volatility transfer in the European oil and gas industry

## Energy Economics

### Abstract:

The study examines dynamic volatility transmissions among European energy industry participants along the production lines of Upstream, Midstream, Downstream, and Integrated Oil Gas (IOG) segments. Using Diebold-Yilmaz (2012, 2014) spillover index, during the sample period of October 2006 to June 2022, we find significant internal volatility spillover among the European energy sector participants, primarily emanating from Upstream companies. In subsamples, we show that Downstream and Midstream segments can also become volatility transmitters under certain conditions. More importantly, the large Russian IOG companies became significant volatility transmitters after 2022 with the onset of Russia's war on Ukraine, potentially causing major system instability because these IOG firms were traditionally volatility absorbers in the network. Overall, we provide insights about the interconnectedness among European energy companies during normal and extreme market conditions and highlight important system dynamics that could be useful for policy makers and investors.

### Journal ranking:

SJR 2022: D1, Alp 2022: 93

[Full text](#)

