The dynamic of the world’s crude oil market has drastically changed over the last decade. Discoveries and exploitation of large new oil fields of good quality combined with the engagement of states in developing low-carbon alternative energies have led to a situation where the global market is no longer demand-driven but shaped by the drive for supply. In other words, the global market of crude oil today is at a tipping point of its existence, where it has to reinvent its organization. In that context, analyzing the dynamic correlation between global and regional characteristics is important to understand the stability/instability of the market and associated spill-over effects.

This special issue, “Global market for crude oil”, addresses a wide spectrum of issues related to the challenges associated with the current reshaping of the world market. The first paper, by J. An et al. [1], focuses on the strategy of South Korea in the global oil market. It provides an analysis of South Korea’s strategy through the adoption of a new political stance towards the north, for which the state establishes relations with the Democratic People’s Republic of Korea and the Russian Federation. It also focuses overall on the set-up of an oil cooperation strategy at the world level. The second paper, by S. Xu et al. [2], looks at the correlation between crude oil and the stock index in China, with comparison to other major developed countries. The key finding is that crude oil can be conditionally used as a hedging asset for underlying securities. The third paper, by Y. Liu at al. [3], proposes a comprehensive analysis of the relationship between energy prices and green energy innovation in China. The results show a positive impact of energy prices on green energy innovation in central and western China, but not in eastern China due to price distortion. The fourth paper, by P. Hou et al. [4], investigates the relationship between energy prices and energy efficiency in China. If the effect of energy prices on energy efficiency in China is positive in general, differences in energy efficiency exist. Moreover, the effect of energy prices on energy efficiency increases with the rise of the environmental regulation level and economic growth rate of the regions. The fifth paper, by F. Li et al. [5], investigates the way in which geopolitical factors are crucial for the fixation of crude oil prices. Results show that during periods of political tensions, geopolitical factors and crude oil prices present a strong correlation associated with a strong volatility of prices. The sixth paper, by J. Pen et al. [6], is complementary to the previous paper. It proposes an analysis of the impact of the uncertainty in the evolution of crude oil price on economic stability. Empirical results indicate that crude oil price fluctuations tend to strengthen over time, with a strong correlation between such a fluctuated trend and the source structure of the oil price. The seventh paper, by S. Kim and S. Oh [7], examines vertical price dynamics between ethylene from crude oil and horizontal price dynamics at the regional level. Key results show that in the United States, the feedstock structure of ethylene is moving from crude oil to natural gas. The eighth paper, by C. Floros and G. Galyfianakis [8], highlights the fact that the Commodity Energy Index follows Brent crude oil prices and as such, energy policymakers and investors should incorporate it into their analyses and forecasts. The last paper, by I. Tambari and P. Failler [9], observes links between renewable energy investment and oil prices, oil price volatility, and GDP growth. Key results show that renewable energy investment responds positively to oil shocks, negatively to oil price volatility and fluctuates negatively in response to GDP.
Overall, the papers of this SI provide strong inputs for policy makers in the areas of both oil and renewable energies. They show that price volatility generates uncertainty that negatively affects decision-making processes in all energy sectors. Crude oil price is still, despite recent exploitation of large offshore gas reservoirs, the referential unit for investment and development of alternative energy sectors. In that regard, the implementation of national determined contributions, within the context of the Paris Agreement on climate change, should attenuate the strength of the impact of crude oil price on alternative energy development. This can be investigated in another SI!

Conflicts of Interest: The author declare no conflict of interest.

References