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An unsure future for natural gas: How risks could derail the current boom

Evidence suggests that the natural gas market boom is likely to continue in the short-to-medium term. Natural gas is a convenient way to produce energy, due to its abundant supply, versatility, and the fact that it pollutes less than other fossil fuels. Moreover, its derivatives are used as raw inputs in a wide range of industries, notably in petrochemicals. However, this commodity market is not free of challenges. The energy industry is quickly evolving: as renewable energy sources increase in popularity compared to fossil fuels, their costs are plummeting. New forms of electricity conservation have recently become the focal point of widespread international attention, resulting in heavy investment and research. Furthermore, natural gas is increasingly losing its reputation as a cleaner energy source in the battle against climate change, as it pollutes more than renewable alternatives.

Natural gas - ahead of the pack...

Demand and supply are expected to remain steady

According to the International Energy Agency¹, natural gas demand will continue to grow, forecasting an annual growth of 1.6% between 2017 and 2023. While the growth in demand for electricity generation will likely be more constrained in India and Japan (the latter is slowly returning to nuclear energy for power generation following the 2011 Fukushima Daiichi nuclear disaster), Asia will certainly be at the forefront of consumption growth. China will be increasingly reliant on gas in order to comply with its environmental policies, and will account for nearly 33% of all gas demand growth between 2017 and 2023 (**Graph 1**). In fact, the “Blue Skies” policy requires the country to meet stringent air quality targets². This policy will thus impose stricter rules on power generation due to the mandatory switch from coal to gas.

On a global scale, the industrial sector will also have a huge impact on demand growth, as the chemical sector requires large amounts of ethane, a natural gas by-product. The abundance of relatively cheap natural gas in the US is boosting the prospect of using ethane as a raw material in the chemical manufacturing process. According to the US Energy Information Administration (EIA)³, ethane production will rise in the US by 29%, from 1.71 million barrel a day (mbd) to 2.2 mbd in 2020.

Supply of natural gas is expected to rise to meet growing demand. The US will see a major increase in its production capacity, with six LNG⁴ plants expected to be operational during 2019⁵. Australia and Russia will take the second and third places respectively. Globally, supply is forecast to grow by 1.6% per annum between 2017 and 2022, adding 300 billion cubic meters (bcm) to the 3,736 bcm already being produced⁶.

1 - IEA (2018) *Gas 2018: Analysis and forecasts to 2023*.

2 - China Dialogue (2018). *China releases 2020 action plan for air pollution*.

3 - Energy Information Administration (2019). *Short Term Energy Outlook*.

4 - LNG, or liquefied natural gas, is natural gas cooled down to be easily shipped and for safety concerns.

5 - Australian Department of Industry, Innovation and Science (2018). *Resources and Energy Quarterly September*.

6 - McKinsey (2018). *Global Gas and LNG Outlook to 2035*.