

Market Price Report - 2020

Momentum in Supply & Demand and Prices

In 2020, global natural gas demand contracted even more sharply (-2.5%) to 3,886 billion cubic meters, following a decline in growth in 2019 (+1.5%) compared to 2018 (5.3%); this cut of unprecedented magnitude is estimated at 100 billion cubic meters or so according to the IEA¹. In Western Europe (UK, FR, NL, DE, BE, IT), demand declined by 3% from 2019 to 246 billion cubic meters, a drop of 8 billion cubic meters. Historically mild winter temperatures in the early months of 2020 are the main factor in this decline. The outbreak of the COVID-19 pandemic and subsequent containment is another factor that has further exacerbated the deterioration in gas demand.

In the first semester of 2020, global gas demand fell by an average of about 4% compared to 2019. Demand in Western Europe stood at 130 billion cubic meters, i.e. a decline of 7%. A combination of factors explains this drop, including: lower heating needs due to a mild winter 19/20, the implementation of containment measures in response to the COVID-19 pandemic causing in turn a slowdown in economic activity across all sectors in most countries and territories around the world.

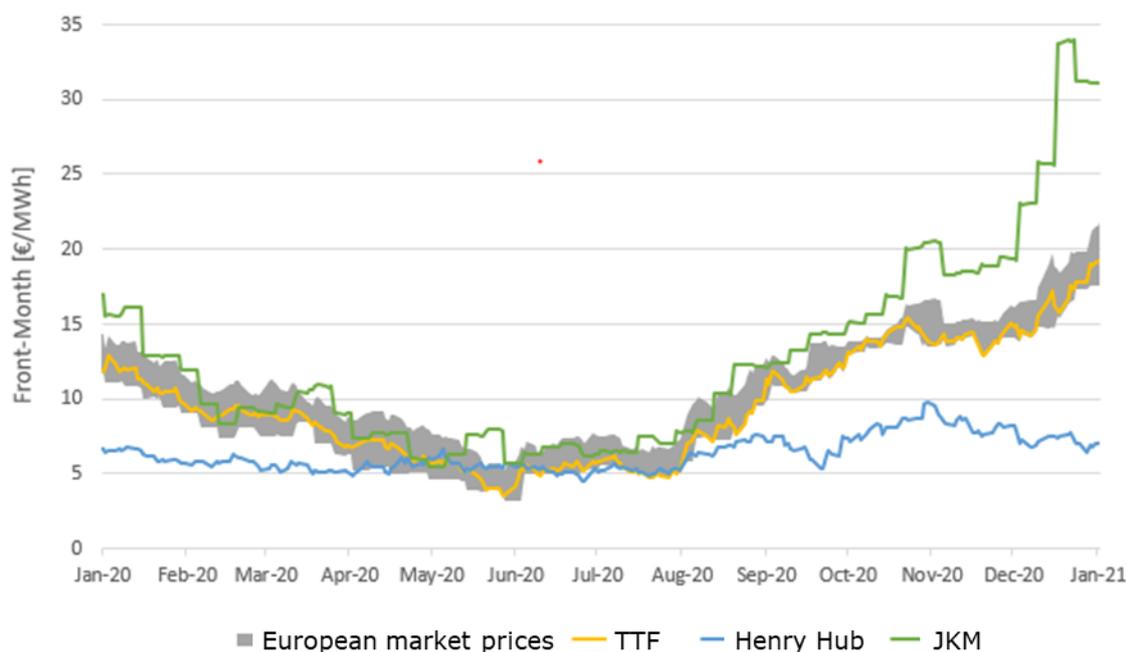
Q1 2020 shows a global natural gas supply surplus due to a growth of about 12% in LNG supply caused by exports from the United States. Further to a sharp drop in natural gas demand due to a mild winter in the Northern Hemisphere, this situation led to an increasingly oversupplied global market. This global surplus was mostly absorbed by Europe, which played its role as a market of last resort. At the same time, Russian and Norwegian gas exports to Europe via pipelines began to decline, facing competition from LNG, which was becoming more competitive.

In this context, **Q2 2020** highlighted a readjustment of the markets towards a new supply & demand balance, resulting in historic price falls on the major world gas markets, particularly in Europe, Asia and the United States. LNG supply has thus started to adjust downwards as LNG exports were no longer profitable due to the collapse of prices. This drop in LNG supply of about 22% in Q2 is the largest quarterly decline since 2015.

From April to June 2020, there was a historic convergence between the European (TTF), American (Henry Hub) and Asian (JKM) reference prices. The historical low recorded by the TTF on May 28, 2020, at €3.4/MWh, below the US and Asian reference prices on the same day, at €5.66/MWh and €5.73/MWh respectively, illustrates this observation.

¹ [IEA](#) : International Energy Agency

Natural gas reference price - 2020



Mid-2020 (June/July) saw a gradual recovery in demand for natural gas, leading to a steady and significant recovery in prices.

In Q3 2020, the progressive easing of containment measures and the accompanying gradual recovery of economic activities boosted demand for natural gas, causing gas prices to rise. As a result, global LNG supply gradually increased by about 25% compared to the first half of the year. Most LNG exporting countries saw their volumes recover, as did the United States whose exports reached record levels towards the end of 2020. This is also true for other countries such as Russia, Australia, Malaysia, Egypt and Oman, whose combined exports accounted for almost 50% of overall exports.

During summer 2020, the spreads between European, Asian and American prices gradually widened, restoring a generally favorable arbitrage for exports to Asia, where prices rose above €15/MWh at the end of September 2020. At that time, the price differential between the US (Henry Hub) and Europe (TTF) and Asia (JKM) reached €4.7/MWh and €6.9/MWh respectively. American exports, now profitable again, have risen sharply.

In Q4 2020, October, which marks the start of the heating season in Europe and North America, did not have the desired effect on prices, due to above-seasonal temperatures. At the same time however, Asia experienced a cold snap with temperatures well below seasonal norms. In combination with other factors, related to (1) power generation (unavailability of nuclear power and coal in Japan and South Korea), (2) lower gas pipeline imports into China from Central Asia and (3) logistical problems and issues in the LNG supply chain (breakdowns in a number of regional

liquefaction plants, especially in Australia and Indonesia), which led to a sharp increase in gas requirements, especially for power generation, and a spike in Asian LNG prices. This tightness in Asian LNG demand, combined with a decrease in supply, has created a perfect storm for higher prices since mid-October 2020. Between early and late December 2020, JKM prices nearly doubled (to €32/MWh) and quadrupled between December 1 and mid-January 2021 to about €84/MWh. Some cargoes were reportedly traded at nearly €115/MWh, beating the record prices after the 2011 accident at the Fukushima nuclear power plant.

In Europe, prices were driven up in the wake of Asian prices: during **Q3 2020**, they tripled on the TTF, and in **Q4 2020** they grew by almost 25% compared to the same period in 2019. In a peculiar historical development, the second half of Q4 2020 saw PSV (Italy) prices fall below TTF prices between early October and mid-November, due to weak Italian demand and the contribution of the Trans-Adriatic Pipeline (TAP) to Italian supply.

Conclusions

The average regional benchmark price for 2020 remains one of the lowest in history. In Europe, the TTF recorded €9.6/MWh while in Asia, the gas price on the JKM was only €12.6/MWh. In 2020, the Henry Hub experienced its lowest average annual price recorded since 2000.

To emphasize the growing link between world markets, it is worth highlighting the increasing correlation between them. The interdependence between European (TTF) and Asian (JKM) prices was strong in Q3 and Q4: it rocketed by about 10 points from 83% in 2019. This is the largest annual increase on record. During 2020, it peaked 95%, its highest level ever. The correlation between North America (Henry Hub) and Europe (TTF) on one side, and Asia (JKM) on the other, has been growing steadily, reaching 82% and 78% respectively from relatively low levels (40% and 24% respectively) just two years ago. The rapid rise in US LNG exports - which have more than tripled since 2017 - underscores the growing links between the Henry Hub and other regional indices.

These are some of the signals that gas markets are growing increasingly globalized; this means that prices in one geographic area are now sensitive to the supply & demand fundamentals prevailing in another region.

Sources: Platts – Market insights (2021), Global Energy Review 2020 (IEA, July 2020), Natural Gas Information Overview- Statistics report 2020 (IEA, July 2020), 69th statistical Review of World Energy (BP, 2020), Cedigaz (2021), ICE Europe (2021), ICIS-Heren (2021), Oxford Institute for Energy Studies (2021).