



GECF

COVID-19
and its Implications on the
Italian Natural Gas Market

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Introduction

The year 2020 started with a shocked market by an unprecedented spread of a virus that took birth in Wuhan, Hubei province, China in December 2019 and spread across many countries in the world. It is the Coronaviruses known as COVID-19, which is a virulent virus, that caused death of people in a very short period.

On 31 December 2019, the Chinese specialists revealed an instance of pneumonia with an unclear reason in Wuhan, Hubei province, to the World Health Organization (WHO).

Starting from China while ending the lives of 3331 people and affecting 82 802 people as of the date this report is written (3rd April 2020), the virus migrated to other countries challenging the frontiers and barriers.

Other countries have declared cases of the virus and travel precautions among other measures were taken by governments, with the aim to limit the spread of the virus.

The WHO characterized COVID-19 as a pandemic and declared it as such on March 11th 2020. This reflects the severity of the case and its potential expanded risks on the humans and economies. This calls upon solidarity and cooperation among nations and governments to mitigate the risk of catastrophe and its potential irreversible consequences.

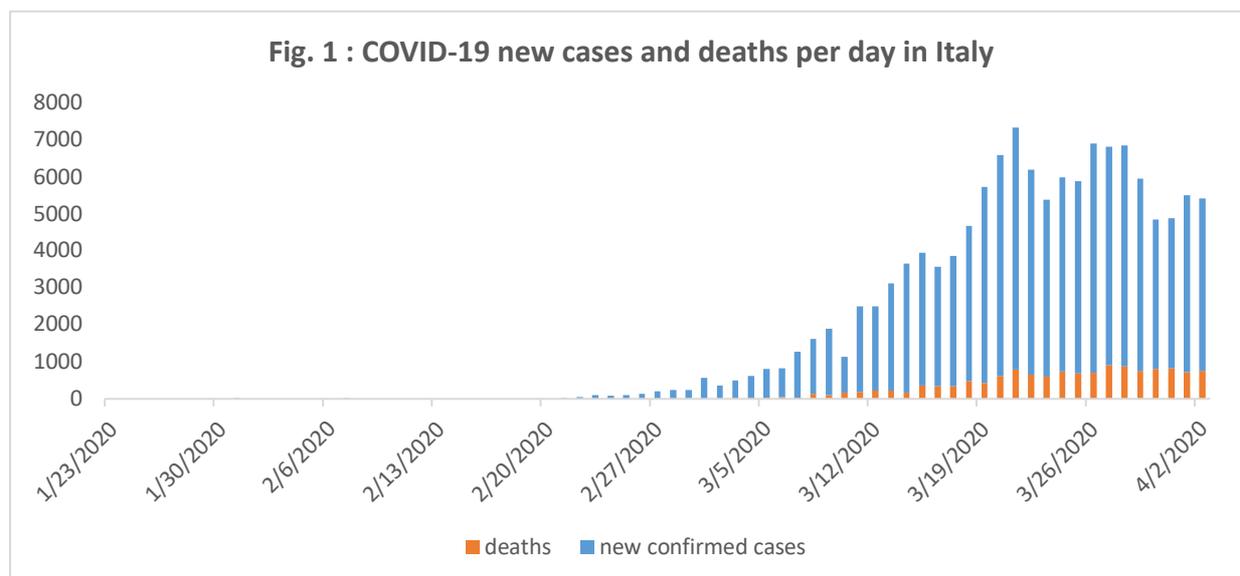
Indeed, the second quarter of March 2020 has seen an unprecedented impact of the coronavirus crisis worldwide. In front of such situation, many preventive measures and crisis management actions have been considered by governments to contain the situation such as: quarantine and self-isolation measures, locking down the affected cities, level of warning for corona virus to severe, health measures for travelers and reduced aerial and maritime movements. Such pandemic has not only affected human lives all over the world, but also the global economy driven by a deceleration of the industrial, power and distribution sector.

The epicenter of the pandemic moved directly from China to Italy which is suffering huge challenges to face this unprecedented inclement crisis, without the EU and UK being able to do anything as the interpellation alarm was ringing across all the old

continent particularly in its leading economies (France, Germany, UK) in addition to Spain and Italy.

Moreover, by the beginning of April, the concentration of the pandemic moved to the United States where they recorded 213, 600 confirmed cases and total death of 4793 people as of April 3rd 2020 (as per WHO situation report). The cases of Spain and USA will be examined in separate reports.

As far as Italy is concerned, the country registered more deaths than anywhere else in the world and accounts for more than a third of all global mortalities from the virus with a total confirmed cases 115, 242 and 13, 917 deaths based on 3rd April 2020 figures from World Health Organization (WHO) (see figure 1).



Source: GECF, WHO

1. Main Actions Taken by the Italian Government Against the Spread of Covid-19

Italian government has taken many measures to lessen the spread of the coronavirus in all the country. However such measures were not taken at an early stage to flatten the curve and mitigate the risk of a chaotic situation they reached now. Among the measures that have direct and indirect impact on the gas and power sectors, we can mention the following:

- 31st January :
 - Two first cases confirmed in Italy
 - The Italian government declared a state of emergency to fast-track efforts to prevent the spread of the deadly coronavirus strain.
 - Direct flights to and from China suspended
- 22nd February :
 - Lockdown across 11 provinces in Northern Italy.
 - Government confirms first two coronavirus (COVID-19) deaths.
- 25th February :
 - Movement restrictions implemented nationwide.
- 4th March :
 - All schools and universities closed until March 15.
- 8th March :
 - Lockdown across all of Lombardy and 14 other northern provinces, covering around 16.5 millions people.
- 10th March :
 - Lockdown across all of the country covering around 60.5 millions people.
- 12th March :
 - Prime Minister announces more nationwide lockdown measures (Non-essential services closed down).
- 23rd March :
 - Government enacts further restrictive measures due to COVID-19 (Non-essential industry closed down).
- 1st April :
 - Lockdown extended until April 13.

The above measures resulted in a paralysis of all sectors of activities of the country, thus increasing the vulnerability of the energy sector and affecting therefore the demand for energy of the nation.

2. COVID-19 Impact on the Italian Natural Gas Consumption

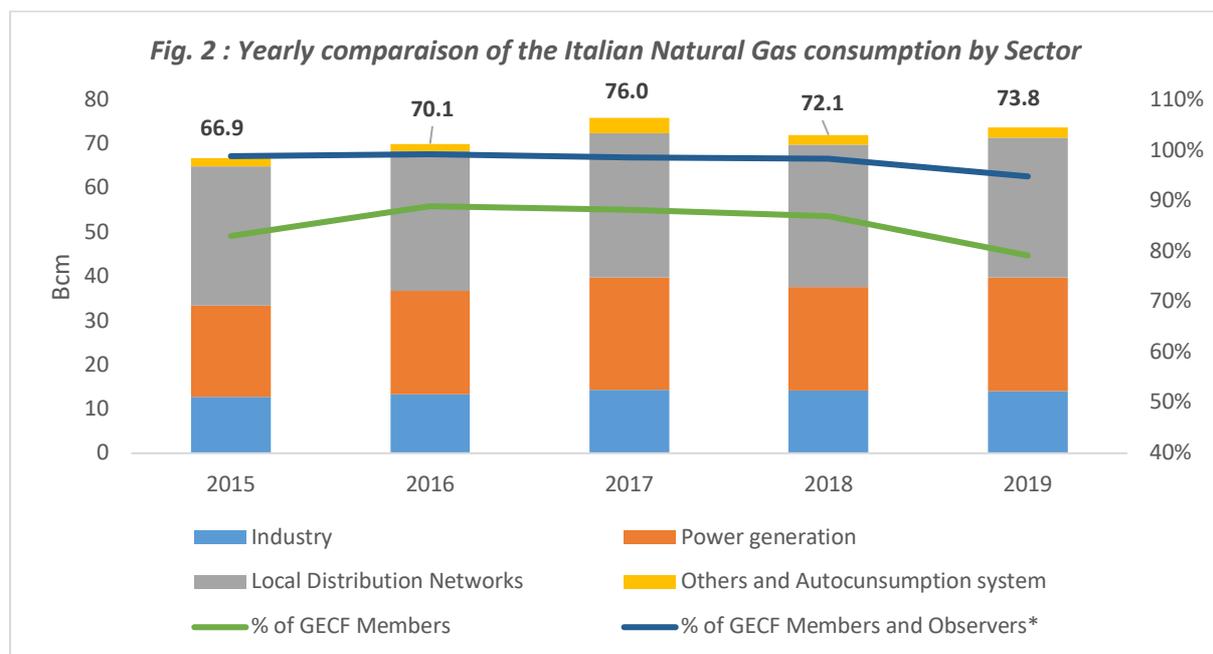
A retrospective analysis of the Italian natural gas market for the last 5 years reveals that Italian market gas demand has averaged 71 Bcm, with a peak of 76 Bcm in 2017. The consumption for natural gas in 2019 averaged 73.8 Bcm, an increase by 1.7 bcm (2.3%) compared to 2018 level, driven by a rise in natural gas consumption of the power generation sector (10%) and offsetting the fall of the gas consumption in both residential and industrial sectors (-2%) and (-1.8%) respectively. This augmentation is due to the increased calls upon natural gas in the power sector motivated by low gas prices as a consequence of an oversupplied year. The competitiveness of natural gas increased considerably compared to coal and hydroelectric energy in the Italian

market. In addition, 2019, was characterized by a particularly mild winter compared to normal temperatures, with high storage levels and higher than usual regasification rates averaging 85% (97% in Rovigo (Qatari gas), 94% in LNG Toscana (US gas) and 64% in Panigaglia (Algerian gas)) when compared to less than 25% in previous years.

Data from the transporter Snam Rete Gas show that natural gas consumption in Italy, over the last five years, experienced two phases:

The first phase from 2015 to 2017, when natural gas consumption increased approximately by 9 Bcm in two years (from 66.9 to 76 Bcm);

The second phase was more characterized by a decline by 2 to 3 Bcm as illustrated in figure 2 below.



*Assumption that all gas entering by Passo Gries is considered as Norwegian gas, while part of the volumes come from the Netherlands

Source GECF, SNAM

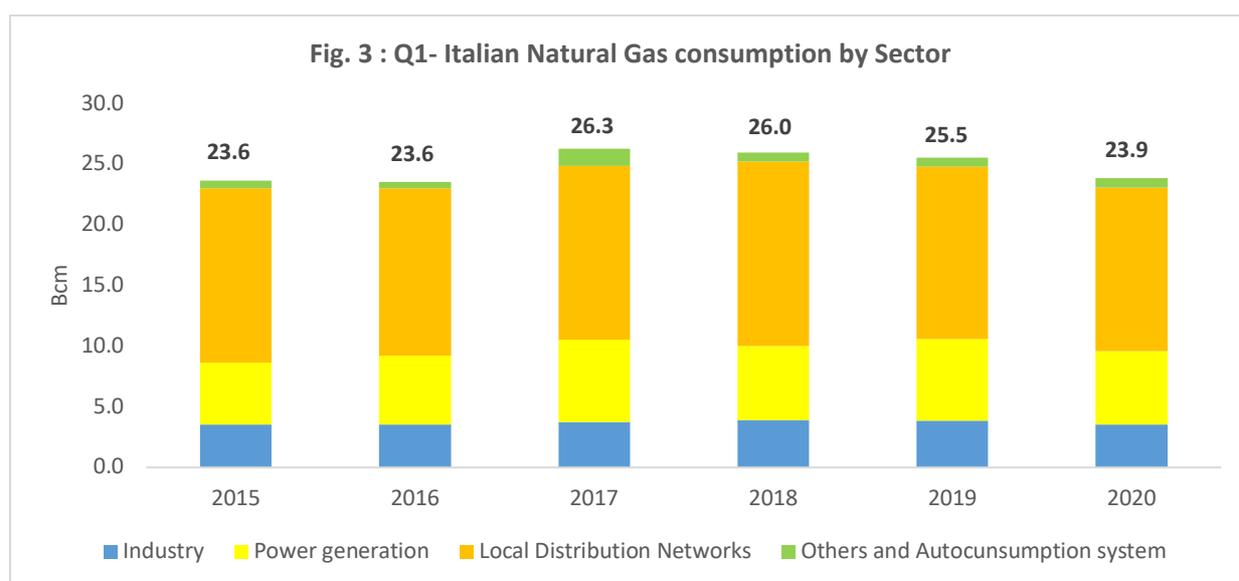
This retrospective analysis shows also the dominance of GECF Countries on this market with 95% of Italian natural gas consumption satisfied by GECF Countries (with 80.4% by pipelines and 14.6% in LNG form). This is if we consider that all the gas entering by Passo Gries is coming from Norway.

GECF Member Countries (excluding observers) accounts for 79% of Italian natural gas consumption, which reveals again the prominence of GECF on this market.

Pushing forward the analysis for 2020, as it is sad a year full of turmoil, driven by the COVID-19 pandemic, we don't expect signs of quick recovery of the economy of the country. The country has been harmed by a severe crisis, with pessimistic prognostic of a very likely recession, a recession that is threatening the global economy.

Figure 3 below illustrates that Italian natural gas consumption for Q1- 2020 recorded a drop of (-6.5%) and (-8.1%) compared to 2019 and 2018 respectively.

The main sectors affected by the measures taken by Italian government and directly attributed to COVID-19, are the power sector which consumed 6 Bcm in Q1-2020, down by 10% y-o-y from the first quarter 2019 level, followed by the industrial sector with a fall of 8.8% (-0.3 bcm).



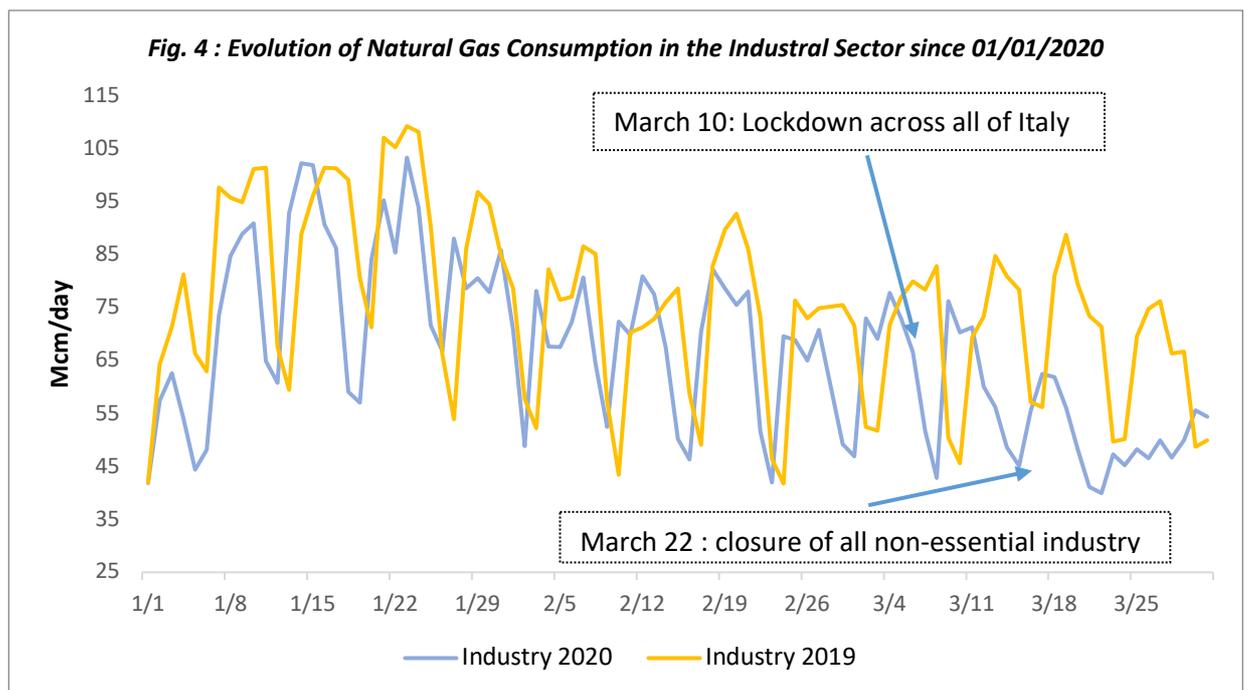
Source GECF, SNAM

For the full year 2020, we do not see a recovery in such a way to make Italian natural gas demand ascent to a level comparable to 2019 one. Rather we foresee no more than 70 Bcm in response of aftershocks effect that will continue to threaten the economic recovery in 2020 as well as the combined reasons of milder weather than expected, slow pace of recovery of the activities despite the continuous descending trend of natural gas/LNG prices in Europe.

Let us examine the correlation between the measures taken by the Italian government and their impacts on natural gas consumption by sector.

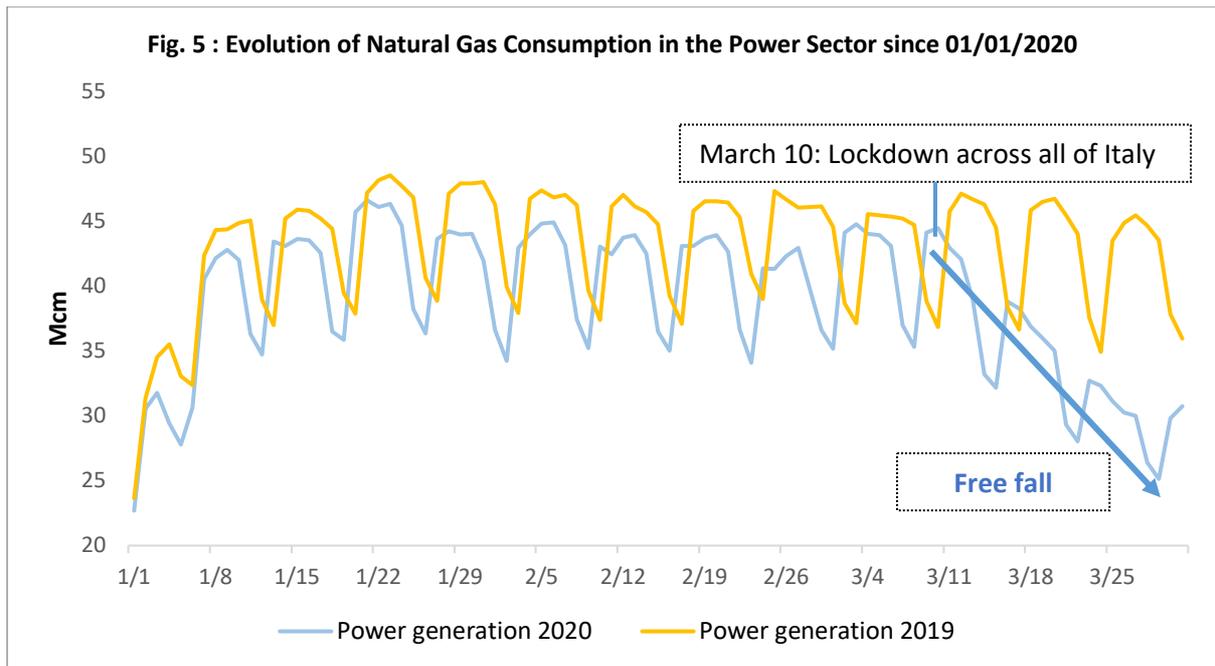
In the industrial sector, the impact was harder since Italian government imposed firm restrictions on industries from 12 March with the lockdown across all the country where counting more than 60 million people, in addition to the announcement of more nationwide lockdown measures for non-essential services. On 10th and 11th March the average consumption was 71 mcm/d. Two days later (March 13th, which is not a weekend), 20 mcm/d were withdrawn from the Italian industrial consumption which averaged around 50 mcm/d.

On March 23rd the Italian government announced further restrictions with a closure of all non-essential industry, those actions affected further the industrial sector with natural gas consumption reaching around 40 mcm/d as shown in figure 4 below.



Source GECF, SNAM

In the power generation sector, the impact was also strongly felt. Since the implementation of the “anti-COVID-19” measures adopted by the government, the consumption fell from its initial level pre-COVID-19 of 47 mcm/d to around 36 mcm/d by the end of the month, that is a drop of 24% (11 mcm/d) as shown in figure 5 below.



Source GECF, SNAM

As mentioned above, the recovery will depend on the length of the lockdown, to what extent the COVID-19 will be contained and any risk of recidivism, in addition to what policies the government will implement for the usage of natural gas vs. other energy sources immediately available to the country. One fact is likely, is that the recovery will be timid.

3. Covid-19's Impact on the Italian Natural Gas Imports

Italy's natural gas market is the third-largest in Europe, characterized by long term supply contracts and by the predominance of natural gas for domestic heating and for industrial activities in the energy basket.

In 2019, natural gas imports were on an ascending trend with a 4.8% y-o-y growth compared to 2018. Imports originated mostly from GECF Countries from Russia (42.1%), Algeria (17.9%), Libya (8.1%), Netherlands¹ & Norway (15.7%), Qatar (11.2%) and others (Figures 6). The reason of that increase is the positive spread between TTF and PSV prices, which led to a higher gas flow coming from the north (Passo Gries) which is mainly supplied by Norway. The second reason is the increase

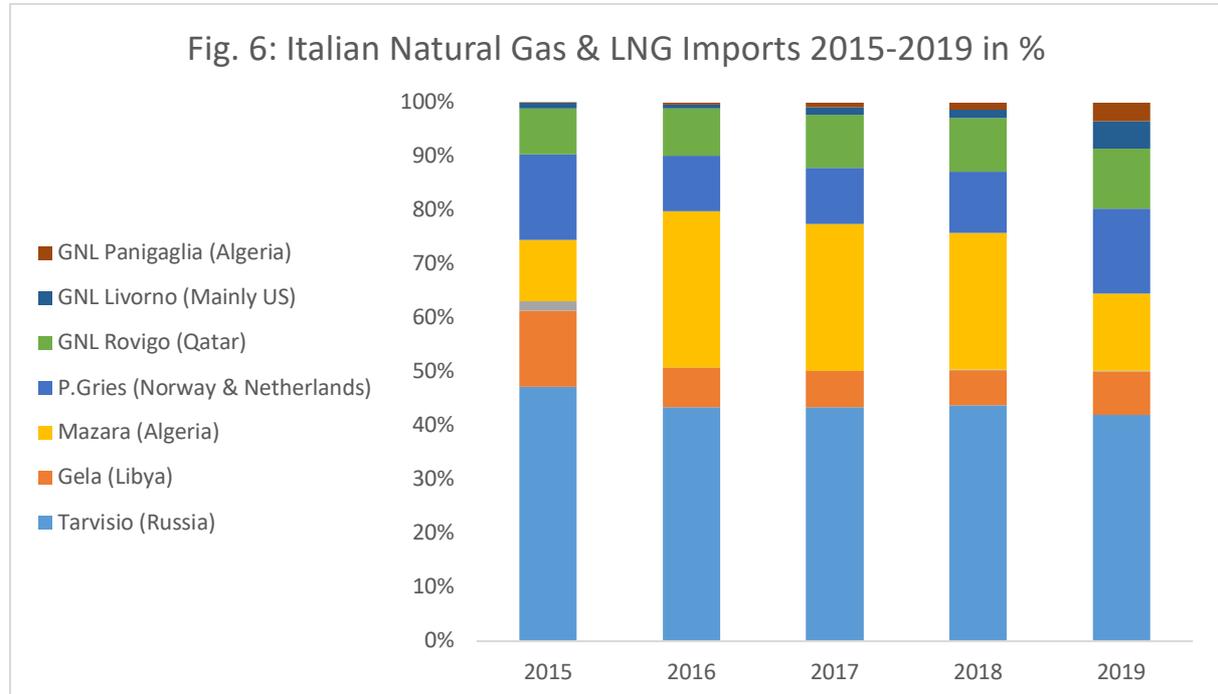
¹ In 2018, the Netherlands has withdrawn from the GECF as an Observer Country, as its status became net importer.

of LNG supply to Italy following a production glut situation that made Europe as a market of last resort during the year 2019.

A new LNG supplier emerged since 2015 on Italian market where US LNG exports started to take shy position in the total Italian imports in 2015, through few spot cargoes mostly not coming from the domestically produced LNG, but rather from re-exports of LNG volumes as US started to become self-sufficient in natural gas usage following the shale gas boom.

Meanwhile, in 2019 essentially domestically produced US LNG landed on the Italian market, with 3.55 Mtpa, accounting for 5% of the total natural gas/LNG imports of the country and 3% of its total natural gas consumption.

However, in 2020, with low gas and LNG prices, coupled with low demand due to COVID-19, LNG imports from US are expected to face challenging time since it becomes uneconomic for US producers to export LNG to Europe in general and to Italy in particular.



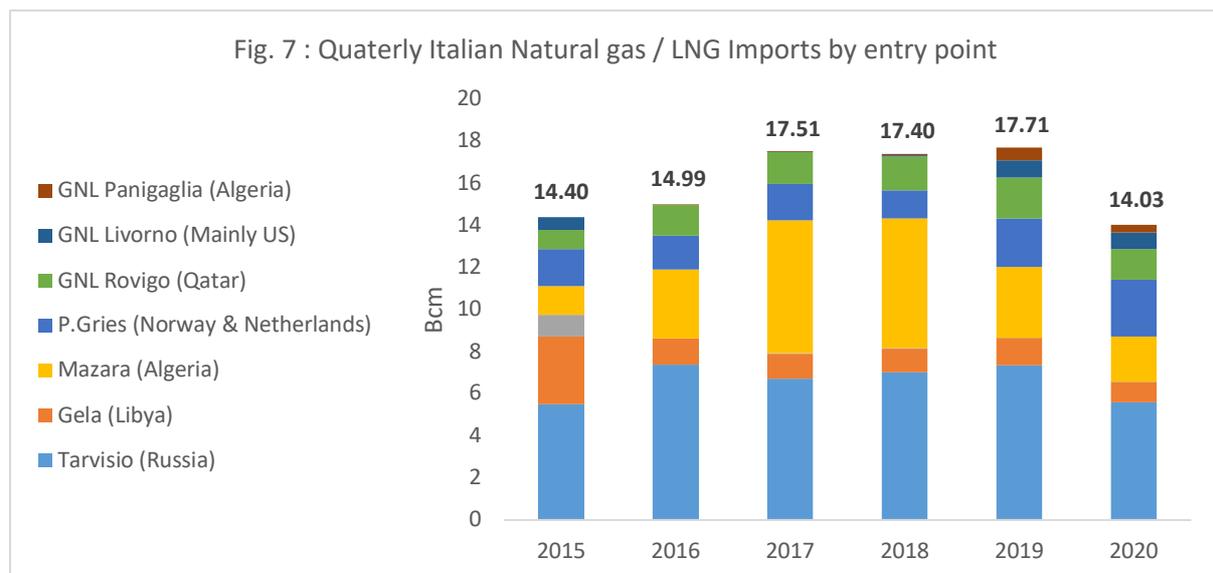
Source GECF, SNAM

As mentioned above GECF Countries are a key partner to Italy and contributed for approximately 95% of the total natural gas and LNG imports of the country.

This position will be further strengthened with the entrance of the TAP pipeline in 2021 that will bring an additional 10 Bcm of Azeri gas to the Italian import mix.

Let us examine the situation during Q1-2020, when the country is experiencing an unprecedented crisis touching not only lives of people but also all its sectors of activities.

Such slowdown of the country’s economy combined with a warmer than expected weather in the first months of the year, caused a significant contraction of Italian natural gas imports for the first quarter 2020, by (-21%) and (19%) compared to 2019 and 2018 respectively. This is illustrated in Figure 7 below, where we compared the imports in the first quarters since 2015.



Source GECF, SNAM, ICIS

In line with our prospects for 2020 mentioned in the section 3 of this report, the Italian natural gas consumption being expected not to recover at a level that is higher than 2016 natural gas consumption, we believe that the imports post COVID-19 will not peak significantly.

Moreover, the expected probable recession may harm the imports, and the imported volumes will depend on when the coronavirus will be contained, the prices of natural gas and LNG, the pace of recovery of the economy (which is unlikely to be in 2020), and weather conditions among other factors.

4. Concluding Remarks

To conclude, significant and prolonged lockdown measures will further depress industrial and power generation demand for natural gas. The assessment of the impact of Coronavirus on the main gas sectors will be to some extent measurable in the following weeks.

The vulnerability of Italian natural gas market may weaken the structure of natural gas/LNG supplies in the short term, posing a difficulty for cargoes diversion, with the situation of lockdown observed across the world.

Of course the global impact on natural gas /LNG demand will be greater with the effects of COVID-19 on other European countries (Spain, France, Germany, UK), but also on Asian market where India, which was giving hopes of a future destination market, is under lockdown.

Some questions can be raised here: will importers declare Force Majeure cases? Are we going to see arbitration cases and thus animosities among the producers and the consumers thus weakening the long-term partnership among countries?

What about the government's climate agenda that necessitates huge amount of money for the energy transition and carbon neutral economy. Will Italy face a dilemma of reallocating money for environmental issues or reconstruction of the damages caused by COVID-19?

One matter is certain: an issue of rebalancing natural gas market is raising and this needs the involvement of all market players through an inclusive dialogue among all producers, consumers, lending organizations and banks. It is time for a deeper cooperation and concrete coordination to address the common issues and come up with a Win-Win approach for all.

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