

Gas price cap

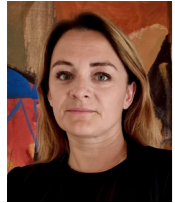
Feasibility, impacts
and consequences

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Introduction



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The increasing uncertainty in the Eastern Europe scenario related to the war in Ukraine and the growing threat of inflating gas prices are reverberating across the continent, materially damaging the economic and social stability. Pressured by these threats, EU countries have been actively discussing the implementation of multiple temporary measures, identifying the adoption of a common price cap for buyers as a potential backstop measure. In response to this highly debated measure, this paper aims to provide an analysis of the possible approaches to the operationalization of this “instrument,” outlining both risks and consequences.

In brief:

- ▶ **Provide an overview** of the mechanisms characterizing the EU Energy market, and of the price cap as a tool to fight the increase in gas prices.
- ▶ **Assess possible approaches and relative consequences** on the EU economy.
- ▶ **Highlight EY point of view** on the different possible scenarios.



Chapter 1

Reasons for a gas price cap

In the short term, the EU is expected to find measures to limit the economic damages that Member States are experiencing, whose causes are mainly due to gas price trends and the current energy market mechanisms.

Towards the end of 2021, as COVID-19 restrictions began to ease and the demand for energy consumption raised, oil and gas prices peaked in the market at record levels. As of September 2022, the energy price inflation scenario has not improved but rather intensified, also considering the recent escalation in the eastern scenario related to the war in Ukraine, *de facto* leading this overwhelming trend to price levels never seen before. Notably, this unstoppable increase in prices stems from a general condition of fear and anxiety conditional on the possible arrest of gas supplies from Russia.

As outlined in a previous paper published by EY teams in July 2021 (“The International Energy Crisis Impacts on decarbonization strategies”), the Russian Federation is one of the major suppliers of natural gas, providing

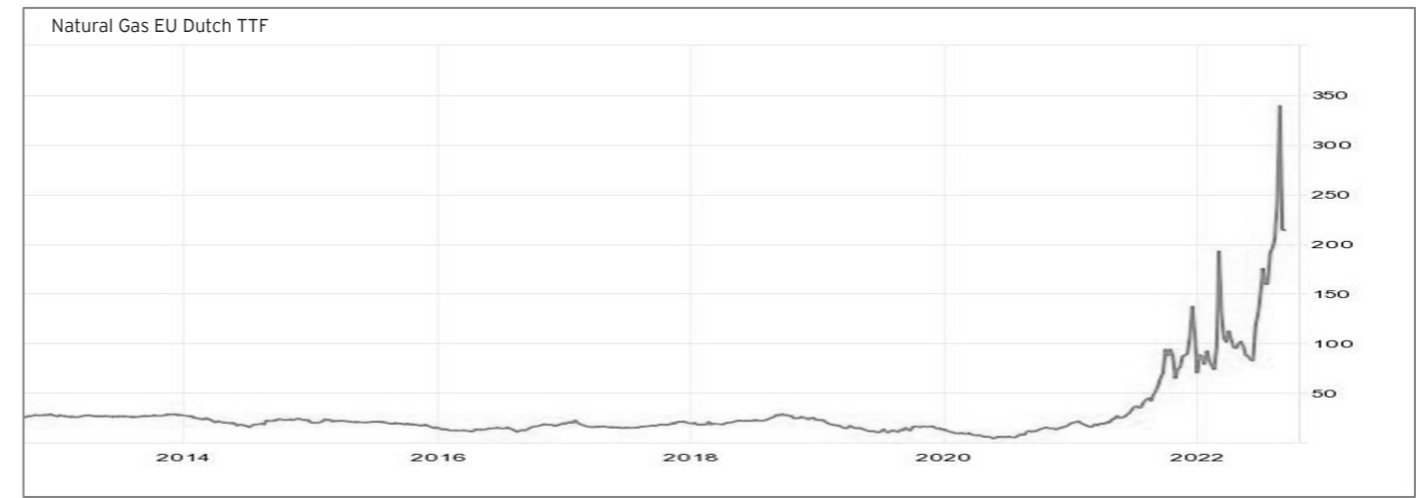
EU countries about 40% of their total consumption (as per pre-crisis levels). Recently, however, reliance on Russian supplies decreased, reaching a considerable overall 9%, although not homogeneously on each EU territory. While countries like France (24%) and the Netherland (11%), which import relatively low quantities of gas from Russia, have been able to counter gas price increases, others, such as Germany and Italy, which rely heavily on Russian exports (respectively importing 49% and 46% of their total consumption), are still at its mercy and are facing considerable threats, especially ahead of winter.

To better understand the possible impacts, it is useful to take into consideration the trend registered in the EU: “the Title Transfer Facility (TTF)

spot price rose from €20/MWh at the beginning of 2021 to more than €200/MWh on average in last August, with spikes in the last weeks above €300/MWh. In turn, in countries exposed to the marginal gas prices also in the electricity sector, the inflation resulted in increasing power prices from €50/

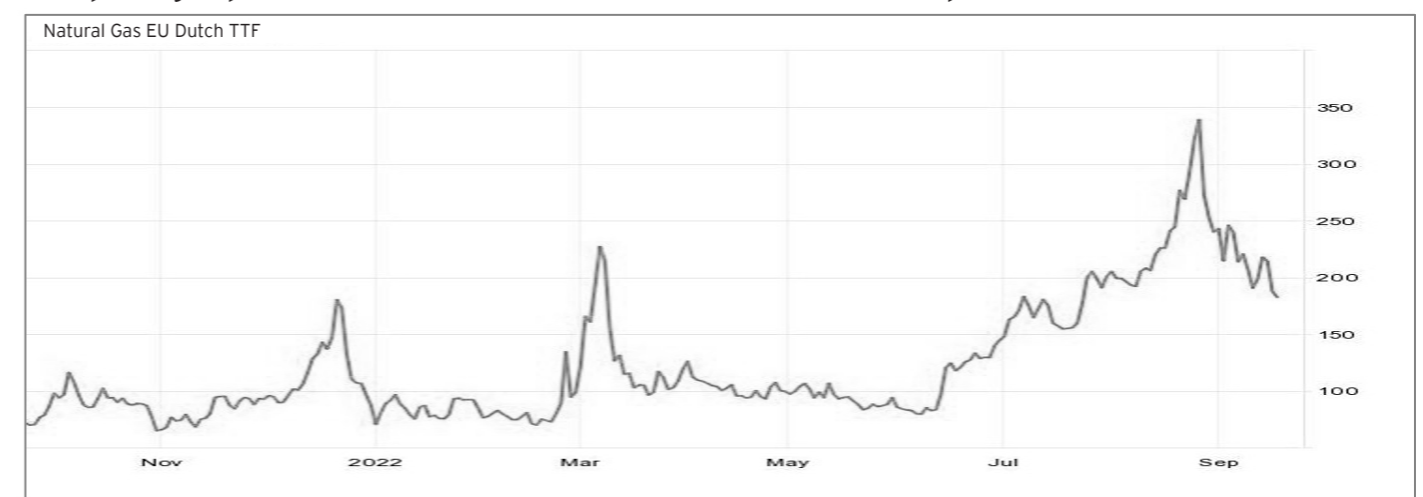
MWh-60 €/MWh up to above €600/MWh.”¹ Damages will be reflected by incredibly high consumption costs for companies, leading to loss of competitiveness and, in the worst cases, bankruptcies.

European gas price trend at the TTF from the end of 2012 to September 2022



Source: Tradingeconomics.com

European gas price trend at the TTF from the end of 2021 to September 2022



Source: Tradingeconomics.com



TTF Explanation²

The TTF is a system recording the ownership of gas delivered into the Dutch gas system. The Dutch gas transmission system operator, Gasunie Transport Services (GTS) is the main operator of the TTF. Exchanges on the Dutch system are organized either bilaterally between traders or through organized energy exchanges (such as The Intercontinental Exchange - "ICE"). By arranging physical gas delivery notifications, GTS makes it easier to buy and sell on TTF. Although it is a purely national installation, the importance of TTF goes far beyond the Dutch system. The prices displayed for TTF are a reference for the rest of Europe. Shippers often manage price risk by trading on the TTF or by tying their contracts to the price of the TTF even if they deliver gas elsewhere in Europe. This has made TTF the most liquid gas market in Europe. When a long-term gas contract is signed, the TTF price is also often part of the price formulas. Considering all transactions, including derivatives, the annual transaction volumes are more than 100 times the gas consumption of the Netherlands and are 10 times higher than the total gas consumption of the Netherlands. About 80% of these transactions are arranged by ICE, with the rest being arranged by brokers. Most of this gas is traded as derivatives.

These variations have two main consequences: critical economic damages for the EU economy, especially for the main importers of Russian gas (i.e., Italy and Germany), and growing revenues for gas exporters, such as Gazprom, despite reductions in volumes. Price volatility is also being generated by speculative trading, resulting in an even higher uncertainty into the gas market.

It is worth noting that, given the period of growth in inflation, the gas price also has a role in this increase. This is because an increase in the price of gas affects the price of electricity. Currently, the price of natural gas

affects that of electricity, as gas is widely used as a source of energy, but it also determines the price of electricity produced from other sources, including renewable ones. This correlation gas price-electricity price depends on how EU energy market works, having several players positioned along the whole value chain (i.e., producers, traders, suppliers and end-consumers typologies) with different wholesale prices. The wholesale market in the EU follows a marginal pricing system, also known as a pay-as-clear market, where energy producers are accorded the same price for electricity, sold at any given time. Electricity producers (from national utilities to individuals

who produce and sell their renewable energy) bid on the market, setting the price based on the cost of production. Tenders range from the cheapest to the most expensive (renewable energy is produced at zero cost, so is always the cheapest). Once full demand is met, all parties receive the price of the last producer to buy electricity. Experienced EY professionals look favorably on this model, as it provides efficiency, transparency, and incentives to keep costs as low as possible in a steady environment, highlighting that the marginal model is the most efficient one in a liberalized electricity market. This model was already in use in most EU countries, even before it was imposed by the EU legislation, and it opposes the pay-per-bid model, where generators simply bid what they expect the market to offer, instead of zero or the cost incurred for generating the electricity. Overall, consumers should have a transparent model that shows the true cost of energy and provides incentives for individuals to actively participate in the generation.³

However, with the gradual rise in gas prices over the past year, and particularly during the past several weeks, the system benefits for energy consumers quickly vanished. The current system resulted in a huge rise in energy prices that is mostly unjustified by production costs. The problem was made worse by the concurrent drought in last summer, which decreased the output of coal-fired

electricity, hydroelectric energy and nuclear energy, which are all sources that require large amounts of water to operate. To “detach” the price of gas from that of energy, and sell the power produced from renewable sources at more equitable prices, several EU countries, including Spain, Portugal, Italy and Greece, have been asking for a reform of the energy market.⁴

To achieve this decoupling, the establishment of distinct energy markets based on the utilized sources for production seems needed. In a newly decoupled system, the possibility for wind and solar energy producers to offer lower prices to final consumers could favour the exploitation of renewable sources, which up until now has been encouraged by higher profit margins. As a result, contracts that call for the supply of energy produced from renewable sources would become much more affordable. However, EY teams experience suggest that the effectiveness of the reform would be highly reliant on the system’s structure and regulation, and, considering that the draft and development of a new market structure is a complex and lengthy process, alternative quicker solutions should be evaluated. A reduction in energy demand (or an increase in energy savings) is one of the most immediate instruments: the binding target for energy efficiency has been raised by the EU Commission from 9% to 13% in the Member States; in addition, an “EU Save Energy

Communication” has been published by the Commission suggesting short-term behavioral changes to cut the gas and oil demand by 5% and encouraging the Member States to start specific communication campaigns. Still, large energy consumption and rising prices are not just a recent phenomenon. The record-breaking dry during the months of July and August of 2022 increased demand for air conditioning and reduced hydropower energy production from rivers and water reservoirs for agricultural needs, resulting in additional constraints to electricity supply.

Beyond these possible solutions, there is also a much-discussed alternative which consists of a temporary price cap on gas imports. This policy is based on the imposition of price limits on providers and it is usually linked to a restricted market (e.g., a natural monopoly). Through this paper, EY teams propose their point of view on the advantages and disadvantages of placing a price cap on gas imports, which are flowing through the pipelines to EU countries, which are actively considering this measure. The introduction of a ceiling on the price of Russian oil already presents a precedent for measures that EU countries can assume through collaboration and by referring to common interests.



Chapter 2

Possible approaches, feasibility and consequences

The introduction of a European gas price cap is one of the measures that EU is considering to solve this difficult situation. Certain conditions should be met to allow the gas price cap to be truly effective.

Some other measures are currently under discussion, a national gas price cap, already introduced in Spain and Portugal, and a Windfall tax.

A reform of the EU energy market seems a necessary milestone which needs to be emplaced to allow a better future cost-reflective system. Yet, in the short-term, there are other urgent needs to be addressed, such as the adoption of measures, such as the proposed price cap, to counter growing inflation and manage market operators' expectations.

Albeit its positive effects, the following seems needed for the price cap to be effective:

- ▶ The EU should commit to the policy and be ready to change strategy in the possibility that Russia and the main sellers reject the cap.
- ▶ The price cap level should be designed appropriately, appealing to Russian exporters to continue the gas delivery, at least from an economical convenience point of view, maintaining higher incentives to produce and export gas compared with pre-war levels.



Between 2014 and 2020, (as stated in graph 1 from Tradingeconomics.com), the price always remained under €50/MWh (except for the last weeks when it almost reached €300/MWh) and, specifically, it fluctuated between €5/MWh and €35/MWh. According to this, EY professionals suggest that the design of a price cap should be higher than this range, to adequately overcome the marginal cost of production in Russia. The level, which would have to be regularly reviewed, should also take into consideration the LNG price observed on the international market: a price too cheap against other hubs may drive LNG cargo ships towards more profitable destinations. Furthermore, it should encourage Member States to continue their lookout over energy savings and renewable solutions. In addition, this measure should address all physical and financial transactions of natural gas in Europe. Therefore, it should concern, not just the imports from Russia, but also all the other transactions occurring in Europe, including those related to internal production, TTF and other hubs.

It looks like a dedicated regulation should be implemented to avoid speculative opportunism, such as the sale on extra-EU markets of gas purchased, thanks to the imposed price cap. The enforcement of the measure is also crucial and requires a legal basis. This could be represented by an Act which does not necessitate national transposition. A case would be that of a Regulation of the Council, which, for the Art. 122.1 of the TFEU, *“on a proposal*

*from the Commission, may decide, in a spirit of solidarity between the Member States, upon the measures appropriate to the economic situation, in particular, if severe difficulties arise in the supply of certain products, notably in the area of energy.”*⁵ The criticality of the approval of the gas price cap measure will require a qualified majority, at least 15 Member States in favour, representing an equal or more than 65% of the EU population.

A different solution to price cap, to battle rising gas prices, would require, for each Member State, the ratification of a national gas price limit. Still, the adoption of this measure will require a green light from Brussels. Two countries have already implemented this measure: Spain and Portugal. Regarding the Iberian Exception, a 12-month temporary mechanism sets a reference price for gas of €40/MWh against the current market price, which, as seen before, peaked at almost €300 in the last weeks. For the first six months of the period, the cap was set at €40/MWh, and it then rose by €5/MWh per month until it reached a maximum of €70/MWh. The legislation *“uses a mathematical formula to limit the price of gas consumed by thermal power plants, which are then transmitted to the offers that define the price of the wholesale electricity market,”* explained Teresa Ribera, Spanish Minister for Energy Transition.⁶

Italy as well began discussions about the possible introduction of a national ceiling on the price of national gas.



This strategy is promoted by different political parties and would represent a quick solution to the issue. Still, for other Italian parties, the only possible structured solution will rely on the implementation of an EU-level ceiling.

Other measures are being considered, such as the so-called *“Windfall Tax,”* which would aim at setting a ceiling to the revenues of certain types of energy producers. With this measure, the EU would focus on the extra margins generated from companies which are experiencing high increases in the revenues, thanks to the increase in the price of energy, without facing equivalent growths in the cost of production. Through the EY teams experience, this phenomenon happens when an energy producer uses resources whose price is not linked to the one of natural gas (e.g., renewable sources or other sources not related to gas and oil). Companies operating in the energy sector usually block gas prices related to contracts that often last 10 years. In addition, companies that cover both the entire oil and

gas energy chain and the upstream phase, did not experienced cost increases in mining activities, or at least not significant ones, in the last year. When these companies sell the extracted gas, they follow the logic of the market regulated by the TTF stock exchange in Amsterdam, thus benefiting considerably given the increase in the price of gas. The Windfall Tax, focusing on extra-profits, would be designed with the aim of creating a solidarity fund, which could be used by Member States to implement aid policies for companies and consumers who are the most affected by the increase in the gas price. Calculation of the extra profits shall consider two main elements: the reference year, as a benchmark, against which current profit must be compared with and the profits (or losses) gained (or sustained) through normal trading activities to hedge against variation in volumes and exchange rates fluctuation. Regarding the possible amount of the fund, the EU president mentioned a €140b proposal during her State of the Union address.⁷

Chapter 3

Final considerations

EY teams closely follow the development of gas price crisis. The EU is considering making a bold move to break away from Russian gas. However, a balance will have to be reached taking into consideration the competitive LNG market and the existing contracts. The EU will have to decide whether to support a move toward a radical reform of the energy market.

EY teams are currently monitoring the possible scenarios on price cap, which might arise shortly, focusing particularly on the EU Commission's possible policies and decisions.

If the goal is to radically change the functioning of the market, then it is necessary to apply the price cap on all gas imports, taking into consideration that compensation mechanisms will have to be studied for the LNG, as well as for existing contracts. Due to concerns that the EU would lose bargaining power to nations willing to pay more in the highly competitive LNG market, the EU Commission is

not keen on this proposal. On the contrary, presenting only a cost cap for Russian gas, as mentioned by the EU Commission leader, Ursula von der Leyen, seems a reasonable approach since Russia has enormous advantages such as controlling and limiting stocks to increase costs, and the introduction of a limit could reduce these benefits.⁸

The summit happening from 6-7 October in Prague, will help understand what strategy the EU will take on and if Member States' national interests will prevail over a common policy, therefore outclassing the price cap one.

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