EUI FLORENCE SCHOOL OF REGULATION

ROBERT SCHUMAN CENTRE

POLICY BRIEF

Capping the European price of gas

Don't you have a better bad idea than this?
This is the best bad idea we have, sir. By far.
from "Argo" (movie)

Highlights

The price of gas in Europe has increased manifold over the last year. Beyond several measures adopted at Member State level to cushion the impact of high energy prices on consumers, imposing a cap on the price of gas in the EU is now being discussed. This Policy Brief proposes a strategy for implementing a cap on the price of gas in the EU, in case this is decided at political level.

The strategy is based on the assumption that the European gas market could be considered as composed of two segments: (i) the gas produced in the EU or imported into the EU through pipelines (also called 'pipeline gas') and (ii) the gas imported into the EU as liquefied natural gas (LNG). We also assume that external exporters of pipeline gas to the EU have limited opportunities to redirect this gas to the international LNG market.

The strategy is composed of two main elements: (i) the adoption of measure(s) to reduce the price of pipeline gas traded in the EU and (ii) the sourcing, on the global market, of any additional LNG volumes required in the EU through auctions organised by a Single Buyer entity (or by TSOs).

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Authors*

Alberto Pototschnig | EUI, Ilaria Conti | EUI

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The reduction of the price of pipeline gas in the EU could be achieved by (a combination of) two measures. One is based on the use of the technical functionalities employed by gas exchanges, such as the Interval Price Limits of the Intercontinental Exchange. Regulation could be applied to these technical parameters to steer the prices on the gas platforms downwards. The other measure is based on the balancing role of the TSOs and a regulatory mandate to buy and sell any quantity of balancing gas at a predefined price or price range.

1. Introduction

The price of gas in Europe has increased manifold over the last year[1], first due to a faster-than-expected recovery of gas demand after the COVID pandemic vis-à-vis an already tight international gas market and, more recently, as a result of the unprovoked Russian invasion of Ukraine and the resulting uncertainty on future gas supplies, as well as the gradual reduction of Russian gas flows to Europe.

Sky-rocketing gas prices, which also resulted in record-high electricity prices, as gas is the marginal energy source for electricity generation in most markets in Europe, attracted political attention and the debate immediately focused on the need to protect consumers, especially energy-intensive industries and vulnerable and energy-poor customers.

Beyond several measures adopted at Member State level to cushion the impact of high energy prices on consumers[2], the May European Council invited the Commission to "explore also with our international partners ways to curb rising energy prices, including the feasibility of introducing temporary import price caps for gas when appropriate"[3]. The Communication from the European Commission on 'Short-Term Energy Market Interventions and Long-Term Improvements to the Electricity Market Design – a course for action'[4] earlier in the month already flagged the possibility of introducing an administrative price for gas (equivalent to a price cap) in the event of a "sudden large scale or even full disruption of the supplies of Russian gas"[5].

The intention of the EU to implement a cap on the price of gas, or on the price of Russian gas, was reaffirmed more recently by the President of the European Commission, Ursula von der Leyen, in her statement on 7 September 2022 – "We aim at lowering the costs of gas. Therefore, we will propose a price cap on Russian gas"[6] - and, two days later, at the extraordinary meeting of the Transport, Telecommunications and Energy Council (Energy)[7].

In this Policy Brief we explore how a cap on the price of gas in Europe could be implemented. We do not claim that a gas price cap is the only way, or even the best way of addressing the current energy crisis, or that a gas price cap should be part of the policy response to such a crisis. In fact, the decision to introduce a cap on the price of gas in Europe is and should be a political one and it is currently framed in this way, to the extent that, as indicated

1 Spot gas prices recorded at the Dutch Title Transfer Facility remained below 25€/MWh in the four years to summer 2021, and therefore even before the COVID pandemic stuck early in 2020. At the beginning of September 2021, the TTF gas price passed the 50€/MWh mark and since then it has exhibit a general upward trend, but with extreme fluctuations. It sharply increased following the Russian invasion of Ukraine on 24 February 2022 – raising from around 70€/MWh in mid-February to well above 200€/MWh in early March, and then dropped again to below 80€/MWh in June 2022. Since mid-August 2022, the price returned and stayed above 200€/MWh, with a peak at 340€/MWh on 26 August 2022.

2 For a survey of the types of measures adopted by Member States to protect consumers from the effect of high energy prices, see Annex 3 to the Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, REPowerEU: Joint European Action for more affordable, secure and sustainable energy, Strasbourg, 8.3.2022, COM(2022) 108 final.

3 Conclusions of the special meeting of the European Council of 30 and 31 May 2022, point 27(a), second bullet point, on page 8.

4 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Short-Term Energy Market Interventions and Long Term Improvements to the Electricity Market Design – a course for action, Brussels, 18.5.2022, COM/2022/236 final.

5 Ibid., section 4.b), page 5.

6 Statement by the President on energy (europa.eu).

7 Extraordinary Transport, Telecommunications and Energy Council (Energy) - Consilium (europa.eu).

above, the European Commission's President is proposing that it only applies to Russian gas.

In general, we believe that markets should be allow to function unhindered, and therefore we are usually against the imposition of caps on prices unless they are justified by market failure. However, we are currently not in a normal situation. Following its unprovoked invasion of Ukraine, Russia has weaponised its gas exports to the EU. Irrespective of whether the consequences of such a behaviour have led to a situation of market failure and without prejudice to any subsequent assessment of possible instances of market manipulation, we can well see that the exceptional situation experienced by the EU gas market might warrant regulatory intervention.

In this respect, we believe that a system-wide approach, as the one proposed in this Policy Brief, would have a better chance of being agreed and implemented, and could be more effective. In fact, a measure only applying to Russian gas might be seen as a sanction, requiring unanimity in the Council, which at the moment seems difficult to achieve. Instead, a EU-wide price cap applying to all pipeline gas could be adopted under Article 122(1)[8] of the Treaty on the Functioning of the European Union, which only requires qualified majority. Moreover, a cap only applying to Russian gas might be circumvented (for example by third parties buying the Russian gas and reselling it to Europe).

If the introduction of a gas price cap is decided at the political level, with this Policy Brief we intend to contribute to the policy debate on how such a price cap could be implemented most effectively, by proposing a two-part strategy and assessing its challenges.

2. The structure of the gas market in Europe

In order to put the proposed strategy into context, it is useful to highlight some characteristics of the gas market in Europe and some assumptions on which the strategy is based.

Gas consumed in the EU is mainly imported by pipeline from Russia, Norway, North Africa and Azerbaijan (approximately two thirds of total consumption). Internal EU gas production has decreased steadily over the last decade and now covers approximately only 10% of EU gas demand. The remaining gas consumed in Europe (more than 20% of total demand) is provided by liquefied natural gas (LNG), imported into Europe through 29 LNG terminals. LNG imports have significantly increased in recent years.

Gas for consumption in the EU is traded mostly on the basis of long-term contracts (LTCs), many of which are indexed to the EU spot price. The Dutch Title Transfer Facility (TTF) is the main trading venue for gas in Europe and often appears as the spot-price reference in the more recent LTCs.

For the purpose of the strategy proposed in this Policy Brief, we assume that the European gas market could be considered as composed of two segments: (i) the gas produced in the EU or imported into the EU through pipelines (also called 'pipeline gas'); and (ii) the gas imported into the EU as LNG. The relevance of this segmentation is that the market structure of the two components is profoundly different. The LNG market is a global market where the EU competes with other consumer countries and regions in attracting LNG cargoes, which can be redirected, even at relatively short notice, towards higher prices. In the global LNG market, the EU has limited influence on the price, even though an increase in EU demand for LNG clearly puts upward pressure on the global price. On the other hand, it can be assumed that regulation is able to impact the way in which markets work and gas is traded in the EU.

A further crucial assumption on which the strategy proposed in this Policy Brief is based is that external exporters of pipeline gas to the EU have limited opportunities to redirect this gas to the international LNG market. This seems a safe assumption, at least in the short/medium term, for most of the Russian gas currently flowing to Europe, and probably also for the gas that the EU currently imports from Norway (which has now become the first source of gas for the EU). Whether the same assumption holds in the longer term and for other external suppliers (e.g. Algeria) is probably to be more carefully assessed.

8 "Without prejudice to any other procedures provided for in the Treaties, the Council, on a proposal from the Commission, may decide, in a spirit of solidarity between 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".

3. The proposed two-part strategy

The strategy proposed in this Policy Brief takes, as the starting point, the assumption, outlined above, about the segmentation of the market for the gas destined to satisfy EU demand and the different characteristics of the two segments: pipeline gas and LNG.

The two main elements of the proposed strategy are:

- The adoption of measure(s) to reduce the price of pipeline gas traded in the EU;
- The organisation of auctions for sourcing LNG for the EU on the global market.

3.1 Reducing the price of pipeline gas traded in the EU

Measures to reduce the price of pipeline gas traded in the EU towards a predefine level or range could take at least two forms.

On the one hand, it would be possible to use the technical functionalities employed by gas exchanges, such as the Interval Price Limits (IPL) of the Intercontinental Exchange[9]. Regulation could be applied to these functionalities to steer the price on the gas platforms downwards, towards the predefined price or price range levels.

On the other hand, TSOs could be mandated by regulation to provide balancing gas services, i.e. buying and selling gas in the balancing mechanism, at a predefined price or a predefined price range. In this case, market participants would know that they can always obtain or dispose gas through the balancing mechanism at the predefined price or within the predefined price range. It could be expected that, faced with the possibility of selling or buying gas as balancing gas at the predefined price or price range, shippers and other market participants in the EU would not be ready to buy gas on the short-term market at a price higher than the predefined price or price range and would not be ready to sell gas on the short-term market at a price lower than the predefined price or price range. The price at which gas is traded in the EU would therefore converge towards the predefined level or range.

While the effect of this latter measure is expected to influence the short-term price of gas in the EU irrespective of the way in which it is traded, using the technical functionalities of the gas trading platforms would mainly impact the gas price on these platforms, while the effect on short-term over-the-counter trading would be more uncertain.

The two measures outlined above could be implemented as alternatives, or in parallel and in a coordinated way (e.g. with respect to the target price level or range).

In all cases, as already mentioned, the aim of these measures is to drive down the price of the pipeline gas traded in the EU. To the extent that many long-term contracts for gas supply to Europe are indexed to the spot price in EU markets, their prices would also eventually align to the predefined price or price range levels.

It could therefore be expected that, as a result of the measures outlined above, most pipeline gas in the EU will be traded at prices reflecting the predefined price or price range. If this happens, the balancing role of the TSOs would not be substantially affected.

It is however possible that the TSOs would face higher volumes of gas to be dealt with in the balancing mechanism than would typically be the case. In particular, it might well be that, if the predefined price or price range is below the prices in the international market, shippers and other market participants end up being net buyers of gas from the balancing mechanism – i.e. they will deliberately be short on the market with respect to the volumes delivered to their customers, as being out of balance would be a cheaper option than procuring the gas on the international market. It is therefore possible that significant 'missing volumes' of gas emerge in the balancing mechanism, i.e. volumes which the TSOs would have to procure for covering the shortfall.

9 The IPL functionality, and similar devices used in other trading platforms, acts as a temporary circuit breaker on these platforms, to diminish the likelihood and extent of short-term price spikes or aberrant market moves. While it is designed to be in force throughout each trading day, the protection that these functionalities provide are likely to be triggered only in the case of extreme price moves over very short periods of time. The proposed strategy would give a more continuous role to these functionalities.

3.2 Procuring LNG on the international market

These 'missing volumes' of gas could be procured on the international LNG market through auctions. These auctions could be run by the TSOs or, more appropriately, by a EU Single Buyer entity[10]. Such an entity could organise auctions in which external LNG suppliers bid a price premium above the prevailing price of EU pipeline gas, to supply LNG to the EU. The Single Buyer entity would buy this gas at the prices, including the premium, resulting from the auctions and sell it to the TSOs, according to their needs, at the predefined price or within the predefined price range. The price premia paid by the Single Buyer entity would have to be recovered through regulation.

4. Some considerations on the proposed strategy

So far we have outlined the main features of the proposed strategy. There are clearly many design elements which would need to be further detailed and verified, as well as challenges which would need to be addressed, some of them not unique to the strategy proposed in this Policy Brief. In what follows we comment on a number of implementation aspects which would have to be addressed in further detailing the proposed strategy and highlight the challenges that such a strategy would face.

4.1 The implementation of the proposed strategy

First of all, it is clear that the strategy proposed in this Policy Brief would need to be accompanied by effective policies to promote, or enforce, a reduction in the demand for gas in the EU. These measures seem a "no-regret" component of any policy to deal with the current energy crisis and to face the reduction is supplies from Russia. This is even more the case if gas price caps are introduced which might result in some external suppliers (further) to reduce the volumes they are prepared to sell to the EU.

A second consideration relates to the level at which the predefined price or price range would be set. It is clear that, a necessary, but definitely not sufficient condition for shippers and other market participants to be prepared to trade on the market at prices aligned with the predefined level or range is that the latter be remunerative of the extraction and transportation costs to the EU. A different consideration relates to whether the predefined price or price range could be adjusted over time. This might well be possible, but the path for such an adjustment would have to be specified in advance. For example, it could be feasible initially to introduce the strategy with a higher predefined price or price range and, over time, adjust them downwards according to a specified timeline.

A third consideration relates to the gas volumes which the TSOs would have to handle in the balancing mechanism. A residual balancing role for the TSOs has been one of the objectives of the gas legislation under the Third Energy Package and in particular of the Gas Balancing Network Code[11]. Under the strategy proposed in this Policy Brief, the TSOs would still perform a balancing role, in the sense of covering mismatches between physical injections into and withdrawals from the network and the associated commercial transactions. As already commented, the proposed strategy might lead shippers and other market participants deliberately to rely on the balancing mechanism for 'sourcing' (some of) their gas, if they cannot find commercial sources at equally low prices. In this case, the volumes of gas in the balancing mechanism might end up being much larger than it has typically been the case in recent years. However, it is worth stressing again that the difference is probably more one of degree, rather than kind, as TSOs would still be the residual balancers of the gas system.

In this respect, it is to be noted that TSOs currently operate the balancing mechanisms in the short-term timeframe (on a daily or within-day timeframe), often relying on linepack. If gas volumes dealt by the balancing mechanism were to increase, TSOs might need to start procuring the needed gas in advance and over a somewhat longer timeframe.

10 The 'joint purchasing mechanism' proposed by the European Commission in the REPowerEU plan, as part of the EU Energy Platform, established by the European Commission with Member States in April 2022 to negotiate and contract gas purchases on behalf of participating Member States, could be used as, or turned into, a Single Buyer entity.

11 Commission Regulation (EU) No 312/2014 of 26 March 2014 establishing a Network Code on Gas Balancing of Transmission Network. See, for example, recital (5): "The transmission system operators carry out any residual balancing of the transmission networks that might be necessary".

In this case, this gas would be better procured by the Single Buyer entity through the LNG auction in advance and stored in the EU in the meanwhile[12].

A fourth aspect concerns the level of the premia which would emerge from the auctions. It is difficult to estimate, a priori, which premia would be required to attract the needed volumes of LNG to the EU. This would much depend on the elasticities of the supply of LNG and of the demand for LNG in other regions around the world, including China, Japan and India. Limits to the premia that the Single Buyer entity would be prepared to pay might be set, even though not necessarily made public. Beyond these limits, LNG volumes would not be bought and brought to Europe and (further) demand reductions might need to be implemented.

Finally, setting up a Single Buyer entity might take some time and therefore, if a gas price cap had to be implemented as an immediate measure, a temporary role of TSOs in procuring LNG on the global market would be inevitable. This begs the question of how TSOs could act in a coordinated way, in order to avoid competing against each other when accessing the global LNG market.

4.2 The challenges facing the proposed strategy

Beyond the implementation aspects outlined above, there would also be a number of challenges that the strategy proposed in this Policy Brief would face and which would need to be carefully considered.

First of all, it is clear that the proposed strategy would require the strong commitment of all governments and regulators in the EU. Only if the strategy is credible – the kind of credibility that the President of the European Central Bank (ECB), Mario Draghi, was able to give to the ECB's commitment to defend the euro with his "whatever it takes" speech[13] in London on 26 July 2012, it will be able to deliver a reduction in the overall cost of gas consumed in the EU. The question is: does the EU currently have the ability to express the same resolve?

A second challenge facing the proposed strategy relates to its effectiveness, i.e. the speed with which it would deliver a lower price for pipeline gas traded in Europe. In particular, to what extent and how quickly would shippers and other market participants adapt their trading behaviour and trade gas in the market at prices aligned with the predefined level or range? Moreover, to the extent that many LTCs for the supply of gas to Europe are indexed to the short-term price in the EU, how quickly would the prices in these contracts converge to the predefined price or price range?

A third challenge relates to the ability of the EU gas network to support LNG replacing any missing volume of pipeline gas. In fact, once LNG arrives in the EU and is regassified, the gas would need to be delivered across the Continent, so that TSOs in the different control area could use it for balancing purposes. The existing capacities of the current gas network might impose limitations to the flow of gas from the LNG terminals to other parts of the EU where the gas is needed. These limitations are a serious drawback for the implementation of the proposed strategy, but more generally for any scenario which would see any further reduction in gas supplies (from Russia) being compensated by a further increase in LNG imports.

These limitations, and therefore the different degrees to which consumers in different parts of the EU would be able to benefit from increased LNG import volumes, would also be relevant in deciding how the premia to be paid on LNG would be covered. In theory, such premia could be financed through an uplift applied to all consumers in the EU. However, a case might be made for exempting from this uplift the consumers in those control areas which are less able to benefit from the increased LNG imports, and this case would deserve careful consideration.

Moreover, it would be important to ensure that the implementation of the proposed strategy and the resulting lower prices of pipeline gas in the EU will not result in a reduction in the incentives for consumers to save energy and to increase energy efficiency. Therefore, any reduction in the overall cost of the gas consumed in the EU which the proposed strategy would deliver should be passed on to consumers in way that does not distort the price signals to which they are exposed. This might

12 In fact, consideration would have to be given to whether and the extent to which the gas already stored in the EU pursuant to Regulation (EU) 2022/1032 of the European Parliament and of the Council of 29 June 2022 amending Regulations (EU) 2017/1938 and (EC) No 715/2009 with regard to gas storage could also participate in the auctions.

13 "*Within our mandate, the ECB is ready to do whatever it takes to preserve the euro. And, believe me, it will be enough*".

require, in some Member States, a significant adjustment of the current consumer protection policies[14].

Finally, it is to be highlighted that the strategy proposed in this Policy Brief, as any of the other measures being considered to address the current energy crisis, to the extent that they aim at affecting the price of gas traded in the different timeframes, risks being legally challenged. An assessment of this risk is beyond the scope of this Policy Brief, but it is likely that a regulatory intervention on the balancing mechanism, operated by TSOs as regulated entities, might be better defendable, if legally challenged, that direct interventions on spot prices.

5. Conclusions

In this Policy Brief we have proposed a two-part strategy to implement a cap on the price of gas traded in the EU, in case the introduction of such a price cap were decided at political level. We do not claim that this is a strategy without uncertainties and risks. It is based on certain assumptions on the structure of the market and also on the behaviour of gas shippers and other market participants. In our views, the main advantage of the strategy proposed in this Policy Brief is that it is based on the different characteristics of the two market segments from which the gas to meet EU demand is sourced – the pipeline gas and LNG. Within these two segments, the strategy proposed in this Policy Brief is as market-based as possible, and does not discriminate between different sources of gas.

14 A mechanism to achieve this goal was proposed, for the supply of electricity, in a previous Policy Brief: Alberto Pototschnig, Jean-Michel Glachant, Leonardo Meeus and Ilaria Conti, Consumer protection mechanisms during the current and future periods of high and volatile energy prices, FSR Policy Brief Issue 2022/20, March 2022, sections 3 and 4. A similar approach could be applied to the supply of gas.

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