ZEW policy brief

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Price Subsidies May Impair Competition in Retail Market for Natural Gas

Policymakers have been discussing various potential measures to cushion the impact of skyrocketing gas prices and prevent supply shortages. On 10 October 2022 an expert commission in Germany proposed a plan to keep natural gas affordable while also preventing shortages. The main element of the plan is a direct subsidy for gas-consuming households. This ZEW Policy Brief aims to warn that price subsidies in the retail market for natural gas could impair competition between providers by reducing incentives for customers to search for cheaper service plans.

POLICY RECOMMENDATIONS/KEY MESSAGES

- Households face significant inconvenience (in terms of search and transaction costs) when switching gas providers.
- Subsidies would likely reduce ¬incentives to search out and switch to a cheaper provider.
- When fewer consumers search for alternatives, providers can increase prices. The costs that accrue to consumers when searching for and switching to a new provider must therefore be considered in the policy discussion.
- Policies that reduce switching costs or strengthen incentives to switch to cheaper providers should be considered.

CURRENT POLICY DISCUSSION

The German government plans to pay a monthly subsidy to households consuming natural gas.

Energy markets have been at the forefront of policy discussion in Germany since the start of the Russian-Ukrainian war in early 2022. On 10 October 2022, a German expert commission shared a plan to prevent a shortage of natural gas whilst keeping it affordable for households.[1] This plan may have a negative competitive impact on the retail market natural gas, as it might reduce customers' incentives to switch providers.

The commission's plan consists of two parts: to provide monetary aid from December 2022 onward and to adopt price subsidies starting from March 2023 until at least April 2024. The subsidy would take the form of lump-sum payments that are calculated based on the retail price paid by the household. Households will receive a monthly payment equal to 80% of their monthly consumption of gas in September 2022 multiplied by the difference between their individual retail price and €0.12 per kilowatt-hour (kWh). For example, if a 2-person household would have consumed 1,000 kWh of gas in September 2022 and would pay €0.37/kWh next year, the household would receive 800 kWh * (€0.37 – €0.12)/kWh = €200 as a subsidy on a monthly basis. While the proposal does not specify what happens when a customer switches providers, it is likely and in line with the goal of the proposal, that the subsidy would be calculated based on the current contract. Importantly, the monthly payment does not depend on actual gas consumption.

There are two economic arguments behind this plan. Gas providers are permitted to freely adjust their retail prices based on fluctuations in wholesale prices in order to remain financially solvent. Households will decrease their gas consumption if prices increase, since changes in consumption still affect the total cost of gas, and every kWh saved reduces the total costs by the amount of the individual retail price, without impacting the lump-sum subsidy. This should reduce the risk of gas shortages.

THE RETAIL MARKET FOR NATURAL GAS

Some households face substantial costs when switching gas providers

The subsidies may, however, soften competition between gas providers by lowering the rate at which households switch to cheaper suppliers. The economic literature predicts that switching rates will be suppressed if it is costly for customers to search for and switch to cheaper providers. There is evidence for this dynamic in the German retail market for natural gas. For instance, Germany's utility regulator, the Federal Network Agency, reports that in 2021, 17% of households kept their default contracts although cheaper options were available.[2] A possible explanation is that some customers find it inconvenient to find a price-comparison website, [3] to compare contracts, and to sign up with a new provider. Indeed, the perceived cost of searching and switching may be higher than the benefit of a cheaper contract, such that some customers simply prefer to stay with their current provider.

1 Expert commission "Gas und Wärme" (2022) "Sicher durch den Winter." Last accessed on 12 October 2022 at https://www.bmwk.de/Redaktion/DE/Publikationen/Energie/expertinnen-kommission-gas-und-waerme.pdf?__blob=publicationFile&v=12

2 Bundesnetzagentur and Bundeskartellamt (2021) "Key findings and summary: Monitoring report 2021." Last accessed on 11 October 2022 at https://www.bundesnetzagentur.de/SharedDocs/Downloads/EN/Areas/ElectricityGas/CollectionCompanySpecificData/Monitoring/KernaussagenEng_MB2021.pdf?__blob=publicationFile&v=2

3 It is conjectured that provider-switchers searched online (Gugler et al. [2022] "Incumbency Advantages: Price Dispersion, Price Discrimination and Consumer Search at Online Platforms." Working paper).

THE NEGATIVE COMPETITIVE EFFECT OF PRICE CAPS

We argue that the proposed monthly subsidy could soften competition by reducing customers' willingness to switch to cheaper providers. In this connection, it is important to note the relationship between customers' switching behaviour and providers' prices. For example, if all providers charge similarly high prices because of an increase in wholesale prices, it may not be worthwhile for customers to search for a cheaper service plan. At the same time, if customers do not search and compare prices, providers are in a better position to charge higher prices.

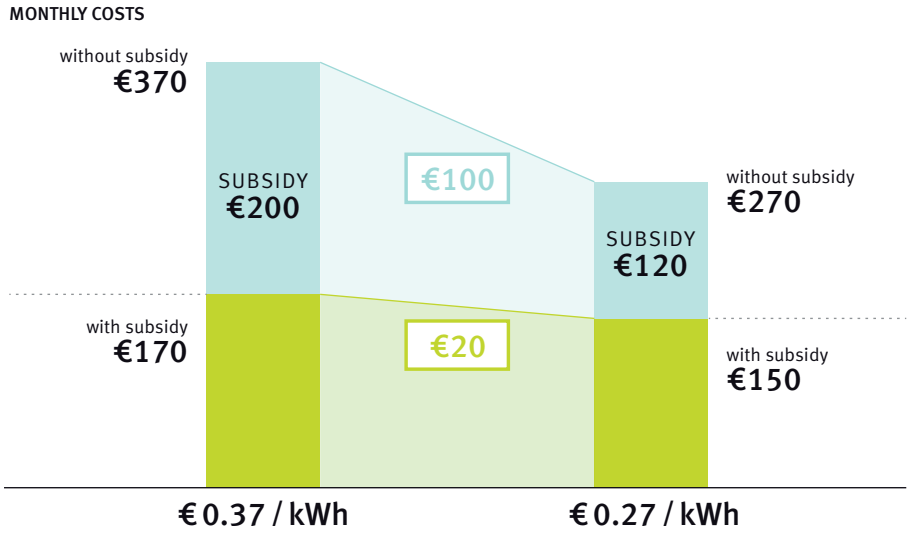
The subsidy would reduce the incentive to search for a cheaper provider, and might even have a counterintuitive effect, in which consumers seek out more expensive providers. Consider the above example of a household paying €0.37/kWh and consuming 1,000 kWh and assume that the household cannot adapt their gas consumption to higher prices (because, for example, they have a newborn baby and need to keep the temperature high). Suppose they anticipate the availability of a price as low as €0.27/kWh.

Without the subsidy, searching for a cheaper contract could save them €370 – €270 = €100 per month. With the subsidy, the expensive contract costs them €370 – €200 = €170 (€200 is the subsidy), while the cheaper contract costs €270 – €120 = €150, and thus the benefit of switching is €20. Clearly, the incentive to go through the hassle of searching for a cheaper provider is strongly decreased when the subsidy is in place.

When fewer customers search for cheaper providers, we can expect an upward pressure on prices.

The subsidy makes consumers less sensitive to price changes and thus reduces the incentive to search for a new provider.

FIGURE: THE SUBSIDY MAKES CONSUMERS LESS SENSITIVE TO PRICE CHANGES



Source: ZEW

Yet households may actually have an incentive to search for expensive service plans if they can reduce their consumption as prices increase. Assume that the household in our example does not have a baby and is thus able to reduce their gas consumption in line with price changes. Suppose that, in addition to a current contract at €0.37/kWh, a more expensive contract at €0.47/kWh is available. Imagine the household switches to the expensive contract and manages to reduce consumption to 790 kWh (a 21% decrease), such that the total monthly payment is around €370, i.e. the same amount as under the former contract. However, under the new contract, the household would receive a €280 subsidy, and thus only bear net monthly costs of €90, compared to €170 under the former contract.

Thus, subsidies may prevent customers from switching to cheaper providers.

In this way, the subsidy might reduce the willingness of consumers to search for cheaper providers. This change in consumer behaviour would create additional room for providers to increase prices, as they would not have to fear losing consumers to cheaper competitors. Although providers may sell less gas due to wholesale price increases, they would enjoy a higher profit margin on each kWh of gas sold.

Gas providers may earn high profits due to the subsidy.

We argue that the current plan disregards consumers' incentives to switch providers, thus overlooking its potential to impair competition in the retail market. While subsidies would likely help regulators to achieve the goal of preventing gas shortages while reducing the burdens placed on households from high prices, it would also lead to potentially significant windfall gains for gas providers, due to a less competitive retail market.

Policies should be considered to increase incentives to switch, e.g. by reducing associated search and transaction costs.

To address these issues, steps could be taken to increase the incentives to switch providers, e.g. by reducing associated search and transaction costs. Potential soft measures to encourage switching behaviour could be to distribute informational materials about how to switch providers when informing customers about the planned 'gas price brake' (Gaspreisbremse). Another measure could be to reduce the bureaucratic hurdles associated with switching. More drastic measures could be to allow customers to withdraw from contracts before the end of the contract term, or to introduce a bonus payment when switching to a cheaper contract.

At a minimum, the introduction of the subsidy should not introduce further bureaucratic hurdles to switching providers. Accordingly, transferring information needed for the payout of the subsidy should be easy, and switching providers should not delay subsidy payout.

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