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Research Report

Germans' Willingness to Pay for Gas and Heating

ECONtribute Policy Brief, No. 030 (English Version)

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Germans' Willingness to Pay for Gas and Heating

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Executive Summary

Most Germans would be willing to pay even more for gas and heating

According to a representative briq survey, two-thirds of the German population would be willing to pay higher prices for gas and heating if this were to increase pressure on the Russian government. Four out of five Germans would lower their room temperature to save energy. And more than half of higher-income households would be willing to spend some of their income to help poorer households cope with higher energy prices.

Based on average fuel prices of about €2.20 per liter, two-thirds of the 2,000 respondents said they would accept higher prices to increase pressure on Russia. Around one-third would even accept a further increase of 30 cents or more. Surprisingly, the willingness to pay is largely independent of individual car use. However, there are clear differences along party lines. While 88 percent of Green Party supporters would accept higher fuel prices, this only applies to around 35 percent of AfD (right-wing party) supporters.

To reduce dependence on oil and gas imports from Russia, two-thirds of those surveyed would also accept a further increase in monthly heating costs. Around 58 percent of Germans would accept at least 10 euros in additional costs; 31 percent would be willing to pay at least an extra 20 euros per month. Germans' willingness to pay in order to put pressure on Russia tends to increase with higher income and is more pronounced in western Germany. Household income matters less for people's willingness to engage in energy-saving behavior. A large majority of respondents said they would be willing to lower their thermostat setting.

Moreover, half of respondents with an annual gross income of more than 50,000 euros would be prepared to contribute part of their income to support households that are more vulnerable to price increases. Almost 30 percent of high-income households would even give up more than two percent of their income to help low-earners.

Results

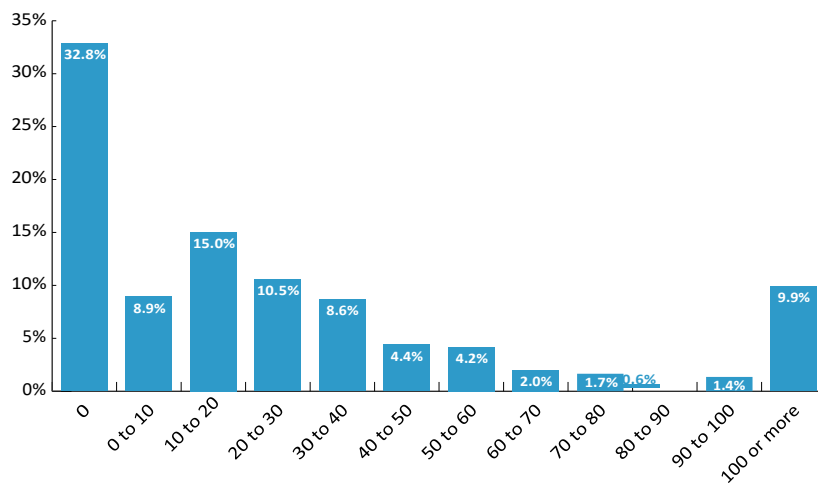
Willingness to pay for higher fuel prices

Gasoline prices have recently risen sharply across Germany. A complete or partial embargo on Russian energy could lead to a spike in prices but also increase pressure on the Russian government. Would Germans be willing to accept rising fuel prices to increase pressure on Russia?

To measure the individual willingness to pay, we administer a survey to a representative sample of 2,000 German adults. We used a price list format to elicit the surcharge people are willing to pay to increase the pressure on the Russian government, based on average gasoline prices as of March 10, 2022, e.g., 2.17 euros per liter of Super E10.

67% of the respondents would accept an even higher fuel price if this were to increase pressure. 58% are willing to pay 10 cents or more per liter. Around one-third would even accept a further increase of 30 cents or more.

Fig. 1: Willingness to pay for higher gasoline prices



Share of respondents willing to accept higher gasoline prices to increase pressure on the Russian government (in additional cents per liter, based on March 20, 2022 prices of e.g. €2.17/liter E10).

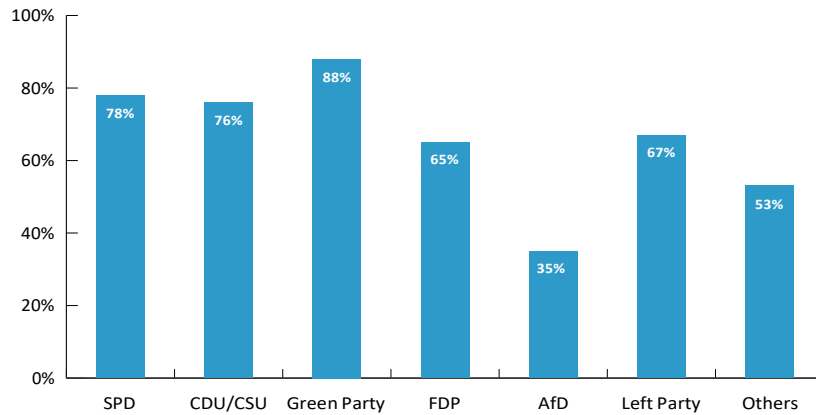
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The willingness to pay for higher gasoline prices is independent of individual car use: 57% of respondents who use their car daily or at least several times a week are willing to pay 10 cents or more per liter.

Willingness to pay is systematically related to party preferences, respondents' altruistic disposition, gross household income, and region.

Respondents who vote for the right-wing party AfD show the lowest willingness to pay: Only around 35% of AfD supporters would accept higher fuel prices (see figure 2). Willingness to pay is highest among Green Party voters, of whom 88% would accept even higher fuel prices to increase pressure on the Russian government.

Fig. 2: Willingness to pay for higher gasoline prices, by party preference



Share of voters willing to accept higher gasoline prices to increase pressure on the Russian government.

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Households' financial resources influence the willingness to pay (see Table 1). However, even among respondents with a gross household income below 20,000 euros per year, a majority would be willing to pay higher prices if this were to increase pressure on the Russian government. On average, willingness to pay is more pronounced in the western part of Germany (see Table 2).

Tab. 1: Willingness to pay for higher gasoline prices, by household income

Gross annual income	no willingness to pay (%)	10 cents or more (%)	30 cents or more (%)
Up to EUR 20,000	38.08	53.65	28.85
EUR 20,000 to 40,000	33.62	57.79	32.61
EUR 40,000 to 60,000	29.47	59.19	32.75
More than EUR 60,000	27.89	64.07	37.69

Tab. 2: Willingness to pay for higher gasoline prices, by region

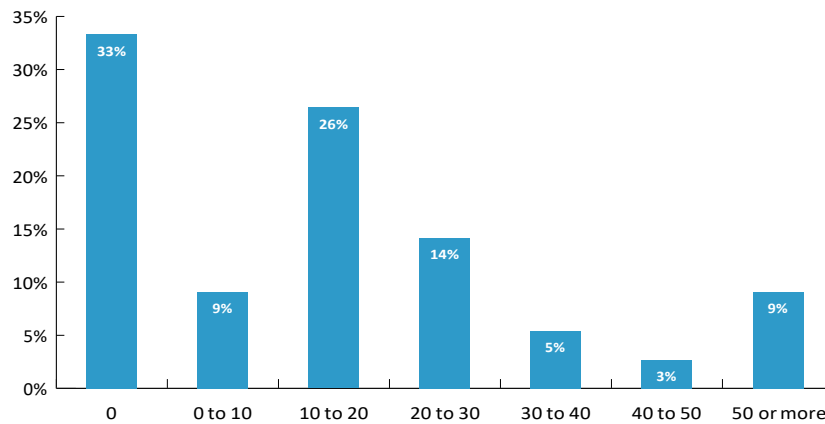
Region	no willingness to pay (%)	10 cents or more (%)	30 cents or more (%)
East	40.43	50.36	25.63
West	29.90	61.26	35.36

Willingness to pay for higher heating costs

Germany obtains more than half of its gas imports and about one-third of its oil imports from Russia. A complete or partial embargo on Russian energy could lead to a spike in prices but could also be an effective measure to increase pressure on the Russian government. Would Germans be willing to pay higher heating costs if this were to increase pressure on Russia?

We employ a price list to elicit the surcharge people are willing to pay. 67% of respondents would accept a further increase in heating costs. Around 58% are willing to accept at least 10 euros in additional monthly costs. 31% would even pay an extra 20 euros or more per month if this were to increase pressure on the Russian government. Calculating with average monthly costs of 120 euros, about one in three households would be willing to pay at least 16% more to put more pressure on the Russian government.

Fig. 3: Willingness to pay for higher heating costs



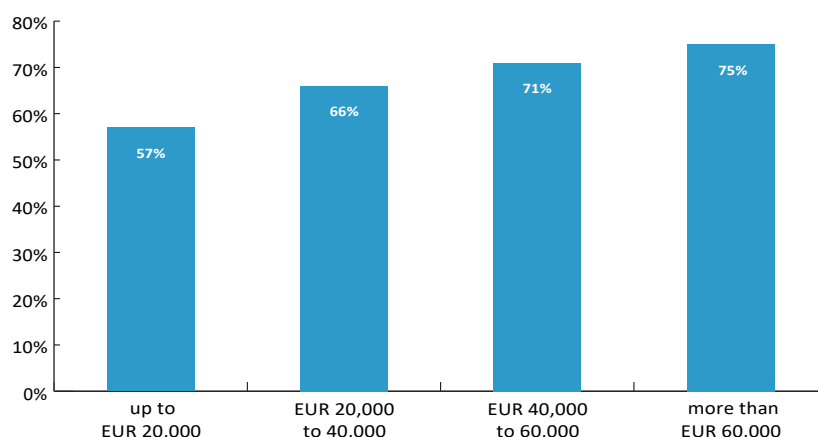
Share of respondents willing to accept higher heating costs to increase pressure on the Russian government (additional monthly costs in EUR).

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We document heterogeneity in individual willingness to pay for higher heating costs. Similar to the fuel price results, a positive willingness to pay is systematically related to party preferences, respondents' altruistic disposition, gross household income, and region.

The willingness to pay increases as household income rises. However, even among respondents with a relatively low gross household income (below 20,000 euros per year), 57% are willing to pay more for heating if this were to increase pressure on Russia (see Figure 4).

Fig. 4: Willingness to pay for higher heating costs, by household income



Share of respondents willing to accept higher heating costs to increase pressure on the Russian government (additional monthly costs in EUR).

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We observe differences along party lines. Supporters of the right-wing party AfD show the lowest willingness to pay: Only 31% would pay more. The share of respondents with a positive willingness to pay among supporters of the other parties represented in the German Bundestag ranges from 65% to 89% (see Table 3). Overall, the willingness to pay is less pronounced in the eastern part of Germany (see Table 4).

Tab. 3: Willingness to pay for higher heating costs, by party preference

Political party	no willingness to pay (%)	EUR 10 or more (%)	EUR 20 or more (%)
SPD	22.20	68.43	37.27
CDU/CSU	24.42	67.00	36.63
Green Party	11.15	82.16	55.39
FDP	28.76	63.40	34.64
AfD	69.23	20.24	6.48
Left Party	35.47	56.40	26.74
Others	48.50	40.87	18.26

Tab. 4: Willingness to pay for higher heating costs, by region

Region	no willingness to pay (%)	EUR 10 or more (%)	EUR 20 or more (%)
East	43.50	47.65	25.45
West	29.42	61.46	33.43

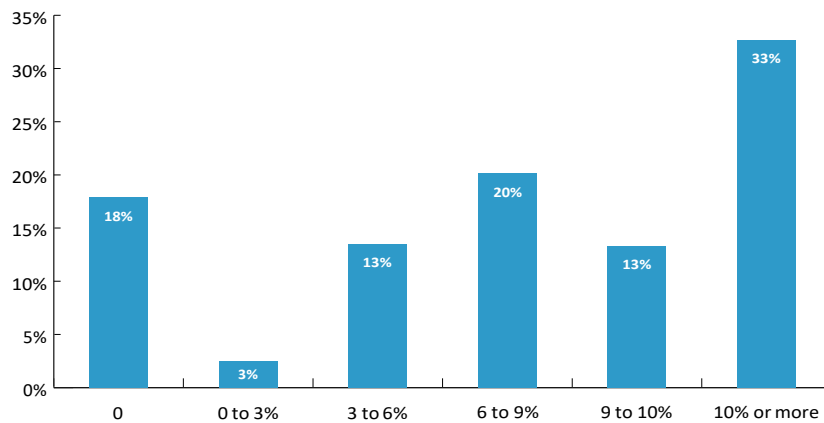
Willingness to engage in energy-saving behavior

Saving energy is another way to reduce dependence on oil and gas imports from Russia. We therefore elicited people's willingness to adapt their energy consumption. Would Germans lower their room temperature in order to reduce dependence on Russian energy imports?

82% of respondents said that they would be willing to adjust their heating habits if this were to increase pressure on the Russian government. Two-thirds (66%) would be willing to adapt their thermostat settings to an extent that would lower the average room temperature in their homes by at least one degree Celsius.

While household income matters less for people's willingness to engage in energy-saving behavior, political preferences and the altruistic disposition of respondents again play an important role.

Fig. 5: Willingness to adapt heating behavior



Share of respondents willing to consume less heating energy (in %) to increase pressure on the Russian government.

Note: A reduction of 6% in heating energy consumption roughly corresponds to a 1°C lower room temperature.

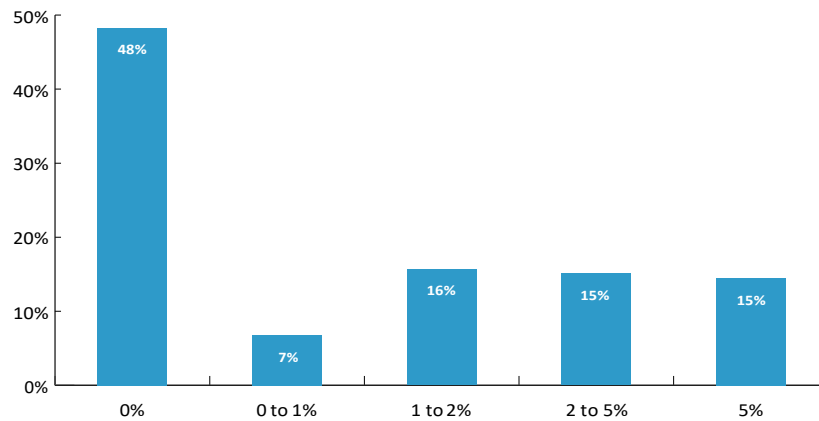
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Solidarity with lower income groups

Would high-income households be willing to support those who suffer most from price increases?

52% of respondents with an annual gross income of more than 50,000 euros would be prepared to contribute part of their income to support households that are more vulnerable to price increases. Almost 30 percent of high-income households would even give up more than two percent of their income to help low-earners.

Fig. 6: Willingness to compensate low-income earners



Share of respondents from high-income households (gross annual income > EUR 50,000) willing to contribute part of their income (in %) to support households more vulnerable to price increases.

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Methods

We collected survey data from a representative sample of 2,000 study participants in Germany. To be eligible to participate in the study, respondents had to reside in Germany and be at least 18 years old. We collected the data in collaboration with the survey company Pureprofile. The experiment was computerized using the Qualtrics online survey tool. The data was collected between March 11 and 15, 2022. To ensure the highest possible quality of answers, all participants have to pass an attention check.

We used a stratified sampling approach to ensure that the samples represent the adult German population in terms of age, gender, and education. 51.10% are female, the average age of the respondents is 51 years, the average gross household income is between 30,000 and 40,000 euros. 27.67% of respondents live in eastern Germany (including Berlin).

Survey items: Willingness to pay

We used a price list format to determine the exact willingness to pay. Respondents were repeatedly asked the same question with varying amounts. Wording (translated to English) and answer scale of the questions:

	Question	Scale
Gasoline prices	Would you be willing to pay X cents more per liter if this were to increase the political pressure on the Russian government?	0 cents to "more than 1 euro"
Heating	Would you be willing to spend X euros extra per month on your heating costs if this were to increase the political pressure on the Russian government?	0 euros to "more than 50 euros extra a month"
Energy-saving behavior	Would you be willing to lower your energy consumption by X% if this were to increase the political pressure on the Russian government?	0% to "more than 10%"
Solidarity	Would you be willing to contribute X% of your household income to support households that are particularly affected by price increases?	0% to "more than 5%"

Additional measures

We collect detailed information on individual background characteristics. These include age, gender, education, employment status, household income, the number of children, party preferences, and state of residence. We further elicit if participants own and how often they use a car. In addition, we obtain an individual-level measure of altruism following the methodology in the Global Preferences Survey.¹

¹ Falk, A., Becker, A., Dohmen, T., Enke, B., Huffman, D., & Sunde, U. (2018). Global evidence on economic preferences. *Quarterly Journal of Economics*, 133 (4), 1645–1692.