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Tax and Transfer Policy Institute

Public Preferences for Economic Reforms Are Shaped More by Design Than Cost

Working Paper 11/2026
June 2026

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Abstract

Public opposition is a major barrier to economic reforms, such as subsidy removal. Using multilayered, randomized survey experiments with 10,000 respondents across ten surveys in five countries, this paper shows that opposition to energy price reforms is shaped more by design and communication than by cost. Around 70 percent of respondents strongly opposed a 100 percent immediate price increase, but resistance was nearly halved when reforms were phased in, targeted at high-energy consumers, or paired with compensation. Informational messages also reduced opposition by as much as halving the price increase. An expert prediction survey revealed systematic misunderstandings: specialists underestimated the influence of design features and greatly misperceived coping strategies and compensation preferences. These findings demonstrate that behavioral biases—such as present bias, loss aversion, and fairness heuristics—are as influential as economic costs in shaping people's opposition to economic reforms, underscoring the importance of careful design and communication of politically sensitive reforms.

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CRICOS Provider No. 00120C

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Public Preferences for Economic Reforms Are Shaped More by Design Than Cost*

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JEL Classification: D04, D80, D90, H20, H30, H50

Keywords: Political Economy, Public Finance, Subsidies, Climate Change, Energy Policy

*AEA RCT Registration Numbers: AEARCTR-0015325 and AEARCTR-0014535. This study was prepared with support from the World Bank's Energy Sector Management Assistance Program (ESMAP). ESMAP is a partnership between the World Bank and over 20 partners to help low- and middle-income countries reduce poverty and boost growth through sustainable energy solutions. ESMAP's analytical and advisory services are fully integrated within the World Bank's country financing and policy dialogue in the energy sector. Through the World Bank (WB), ESMAP works to accelerate the energy transition required to achieve Sustainable Development Goal 7 (SDG 7) to ensure access to affordable, reliable, sustainable, and modern energy for all. It helps to shape WB strategies and programs to achieve the WB Climate Change Action Plan targets. We are also grateful for funding from GIZ and the World Bank. We are incredibly grateful for the support, input, and guidance provided by many colleagues, including Luis-Felipe Lopez-Calva, Gabriela Inchauste, and Benu Bidani. We also greatly appreciate the comments provided by Kevin Carey, Matthew Wai-Poi, and Elcin Akcura on an earlier version of this paper.

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1 Introduction

Economic reforms often fail not because of their fiscal or environmental merits, but because the public strongly opposes them. Yet it remains unclear whether opposition stems mainly from the economic costs or from how reforms are designed and communicated. Behavioral science suggests the latter: present bias, loss aversion, and fairness heuristics can influence preferences more strongly than actual economic costs. While these dynamics are well established in laboratory and individual decision-making contexts, we know much less about how they influence collective responses to large-scale economic reforms. It is possible that the way reforms are designed—such as their sequencing, targeting, or framing—may influence public opinion more than the economic costs of the reforms.

We test this using the highly relevant case of energy price reforms, one of the most politically sensitive economic reforms around the world. Governments face pressure to reduce energy subsidies and increase prices, but such measures often provoke strong public opposition (McCulloch et al., 2022). Therefore, policy makers generally try to make reforms more publicly acceptable by gradually raising energy prices over time, targeting only high-energy consumers, and providing various forms of compensation (Inchauste and Victor, 2017; Mukherjee et al., 2023). However, doing so can lessen the intended fiscal and environmental benefits of energy price reform.[1] This trade-off raises important questions: how much does designing energy price reforms that appeal to behavioral biases influence public opposition, and how does this compare to reducing the economic costs of reform?

We answer these questions by conducting a cross-country, multi-layered randomized survey experiment that investigates how design features, price increases, and information influence public preferences for energy price reforms. Data is drawn from 10 nationally rep-

[1]The main environmental advantages of reducing energy consumption include improved air quality and lower carbon emissions. Delaying or augmenting the designs of reforms is likely to limit the extent of these benefits, at least in the short term.

resentative phone surveys with 10,000 respondents across five countries, four of which are the most populated in their region (the Arab Republic of Egypt, Indonesia, Mongolia, Nigeria, and Uzbekistan).[2] Respondents were randomly assigned to one of four energy price increase scenarios (10, 25, 50, or 100 percent) and an information experiment, where they were informed about either the opportunity costs of low prices, how richer households benefit disproportionately, or the environmental consequences. They were asked about their support for energy price reforms with different design features (e.g., price increases immediately, over three years, targeting high energy consumers, or with compensation[3]), their preferred type of compensation (e.g., cash transfers to households or increased investment in public infrastructure), and their households' coping strategies. Additionally, 66 experts from academia and international organizations provided predictions of the survey results, which helped us demonstrate how the findings add to the existing knowledge base.[4]

Around 70 percent of respondents strongly oppose reforms that immediately increase energy prices by 100 percent, but levels of opposition can be almost halved if prices are gradually increased over three years, compensation is provided, or reforms are targeted at high-energy consumers. In contrast, the share of respondents that strongly opposed reform would only be lowered by a quarter if energy prices immediately increased by 10 percent (relative to a 100 percent price increase). As such, respondents' preferences were more sensitive to the design features of energy price reforms than to the rate of price increase. This is consistent with respondents exhibiting the behavioral patterns of present bias (preferring gradual reforms), loss aversion (desiring compensation), and fairness heuristics (favoring targeting). For example, as many people are present-biased, they are far more willing to

[2]Nigeria, Indonesia, Egypt, and Uzbekistan are the most populated countries in Sub-Saharan Africa, Southeast Asia, the Middle-East, and Central Asia, respectively.

[3]This scenario stated the reform included "a program to compensate households significantly impacted by the reform."

[4]We used the Social Science Prediction Platform to solicit predictions from experts about the study's findings, which allows us to systematically illustrate the knowledge generated (see DellaVigna et al., 2019).

accept much higher energy prices in the future to avoid any immediate price increase.

These results suggest that policy makers can reduce strong opposition from the public toward energy price reforms to a similar extent by either altering the design features to reflect behavioral biases or having much smaller price increases. Governments would face comparable levels of opposition and improve their fiscal position if they increased energy prices by 100 percent instead of 10 percent, and either: provided compensation costing less than 90 percent of the fiscal savings from the price increase; increased prices gradually over three years and borrowed more at standard market rates, or targeted reforms at high-energy consumers who make up more than 10 percent of the market share.

The surveys also suggest that larger energy price increases can be implemented without increasing strong opposition when information is provided. Information treatments about the rationale for the reforms reduced the share of respondents who strongly oppose energy price reforms by about nine percentage points on average across countries. This decrease is comparable to the reduction in strong opposition seen when the energy price increase is lowered from 100 percent to 50 percent. As such, the provision of information appears to be financially worthwhile if the cost is less than half of the extra revenue gained from the price increase.

Experts systematically underestimated how much design features influence opposition and held significant misperceptions about coping strategies and compensation preferences. They thought opposition to energy price reform would be highly responsive to the level of price increases and would not vary much based on how they were designed. This is potentially because experts greatly underestimated how much people plan to change their behavior to help "cushion" price increases. Most respondents said they would cope by reducing energy consumption or finding additional sources of income. Whereas almost half of the experts predicted respondents would mainly reduce non-energy consumption. Most respondents favored compensation through public services, infrastructure, or other subsidies,

while about half of the experts believed respondents would prefer universal cash transfers.

This study contributes to two strands of the existing literature. First, we build on existing country-specific work discussing the factors that made energy price reforms successful by quantifying how much citizens value key design features—sequencing, targeting, and compensation—relative to price levels, using nationally representative survey data across countries. Country case studies have suggested that the design features of reforms may have reduced opposition, such as by the provision of cash transfers prior to energy price increases or redirecting energy subsidies toward public services (Guillaume et al., 2011 McCulloch, 2023). While qualitative, country examples provide compelling insights (Inchauste and Victor, 2017; Yemtsov and Moubarak, 2018; Mukherjee et al, 2023), they do not provide causal evidence about how the design of reforms influences public acceptability. We add considerably to this prior work by finding similar patterns about preferences for design features relative to economic costs across a diverse set of countries.

Second, this study extends the recent research using cross-country survey experiments to understand policy preferences (e.g., see Stantcheva 2022) by analyzing design features rather than headline support, using nationally representative phone samples, and utilizing expert predictions. Existing work has examined a range of related policies (Dechezleprêtre et al. 2025; Hoy et al., 2021; Fabre et al. 2025; Maestre-Andrés et al. 2021; Woerner et al. 2024), but only a small number of online surveys focused on energy subsidy reforms (Hoy et al. 2023, Harring et al. 2023, Vieites et al. 2023). These studies did not focus on the design of reforms and could not assess how behavioral biases compare to cost-based reasoning in political economy contexts. Further, we present a novel use of an expert prediction survey, completed by many policy makers and academics who regularly advise governments about energy price reforms, illustrating how the results add policy-relevant insights to the existing knowledge base.

2 Methods

2.1 Hypotheses

The hypotheses that this study examines were pre-registered with the American Economic Association RCT Registry before data collection began. There were three groups of hypotheses. The first focused on how the overall opposition to energy price reform would vary depending on price levels, timing, compensation, targeting, and information treatments (Hypotheses A, B, and C). The second is related to heterogeneity in the opposition to reform across the dimensions of income, trust in the government, and existing energy consumption, as prior work suggests these are important dimensions in which support for subsidy reform varies (Hypotheses D, E, and F). The third centered on preferences regarding coping strategies and common types of compensation (Hypotheses G, H, and I). The list of hypotheses is provided in Appendix A.

2.2 Country selection

This study draws on data collected from Egypt, Indonesia, Mongolia, Nigeria, and Uzbekistan. These countries were selected based on a three-step process. First, estimates from the IMF (2024) were used to identify all middle-income countries in which electricity and/or gasoline prices were less than half of what they would be if all types of subsidies were removed (i.e., in settings where a 100 percent energy price increase is potentially warranted). Second, this list of countries was reduced by focusing on settings where active energy price reform policy dialogue was taking place so that the findings could potentially inform the reform process. Third, we further narrowed the sample to contexts where nationally representative phone surveys were conducted by or with support from the World Bank, and where the survey design allowed for the inclusion of additional modules. Among the remaining five countries, the surveys focused on electricity in Mongolia and Uzbekistan, and gasoline in

Egypt, Indonesia, and Nigeria.[5] Further details about energy access and prices for these countries are available in Appendix B.

2.3 Data

The data used in this study are sourced from 10 rounds of nationally representative phone surveys that were conducted between October 2024 and June 2025. Each survey round was in the field for less than four weeks. The sampling frame in Indonesia, Nigeria, and Uzbekistan is based on an existing nationally representative household (i.e., in-person) survey, while in Egypt and Mongolia, random digit dialing is used with quotas based on age, gender, and location. The sample size in each country is as follows: the Arab Republic of Egypt (N=2,500), Indonesia (N=1,420), Mongolia (N=2,000), Nigeria (N=2,714), and Uzbekistan (N=1,275). The exact sample size varied due to budget and context limitations.

The surveys included questions about opposition to reform based on scenarios (varying price levels, timing, compensation, and targeting) and about coping strategies as well as preferences for compensation. A randomized information experiment was integrated into the survey, whereby respondents were provided information about the opportunity cost of lower energy prices (e.g., less revenue due to subsidies), and/or problems with low energy prices (e.g., disproportionally benefiting richer households). Due to practical constraints and variation in the country context (e.g., if gasoline or electricity were primarily subsidized), not every question and information treatment was included in each survey. Details about country-specific questions and treatments are in Appendix C. An example of a full survey instrument is provided in Appendix G.

At the start of each survey, respondents were informed about the scope, purpose, and possible risks associated with participation and asked to provide their consent. Consistent

[5]The randomized survey experiment was also originally intended to include the Kyrgyz Republic, however, the programming of the randomization was not correctly implemented and this data had to be discarded.

with World Bank data privacy and protection processes, those who did not provide consent did not participate. Respondents were allowed to end their participation at any point and could skip questions. No personally identifiable information was collected for this study.

2.4 Empirical analysis

Descriptive analysis of the survey data is reported along with the results of the cross-country, multi-layered randomized survey experiment, which provides causal evidence about the elasticity of respondents' preferences. The body of the paper presents the aggregate results across countries, and robustness checks along with country-specific results are presented in Appendix D. As part of the survey experiment, respondents were randomly allocated in equal proportions across different scenarios of energy price increases (10%, 25%, 50%, or 100%), information treatments, and sequencing of questions. We examine the interaction of each of these dimensions individually, and to maximize statistical power, we pool the analysis across price levels and/or information treatments when appropriate.

The first step of the empirical analysis was to examine how attitudes toward energy price reforms varied by specific design features (price levels, timing, compensation, targeting) relative to an immediate, universal price increase without compensation (this analysis is within subjects). The second step was to examine how levels of strong opposition in the general population varied by price levels (this analysis is between subjects) and how the overall results differed between respondents based on their trust in the government, household income, and the share of their income spent on energy consumption. The third step was to compare the relative impact on preferences due to price levels, design features, and information treatments, which allowed us to calculate the price-equivalent reduction in opposition generated by each design feature. The fourth step was to examine respondents' use of coping strategies and preferences for compensation, and whether any heterogeneity existed across price levels, countries, and between respondents based on their trust in the government, household

income, and the share of their income spent on energy consumption.

2.5 Estimation

To test the hypotheses, we used independent-sample two-sided t tests and ordinary least-squares regression models with robust standard errors and country fixed effects (full results reported in Appendix D). Hypotheses were supported if the null hypothesis was rejected, and the estimates are statistically significant (based on the standard $p<0.05$ criterion) and have the expected signs and directions. In the tables, we present Benjamini–Hochberg adjusted p-values in square brackets below the corresponding unadjusted p-values to account for multiple hypothesis testing. The dependent variable was coded as one if respondents selected "Strongly oppose" as their answer to a reform scenario question along a five-point scale (and zero otherwise). We focus on levels of strong opposition as our main outcome variable because this is a major concern of policy makers when designing energy price reforms, given the risk of protests. As a robustness check, we conduct an analysis where the dependent variable is support for reform and find very similar results.

2.6 Expert prediction survey

An expert prediction survey was conducted to complement the main study and provide a quantitative illustration of how the results contribute to the existing knowledge base. The survey was hosted on the Social Science Prediction Platform (SSPP) for a six-week period in April and May 2025. Experts were invited to complete the survey from an existing pool of researchers that SSPP maintains, through social media advertisements and emails from the authors. A total of 66 experts accepted the invitation and participated in the survey. Among those that participated, 88 percent had advanced university degrees, 43 percent worked in academia, 38 percent worked for international organizations, 42 percent had detailed subject

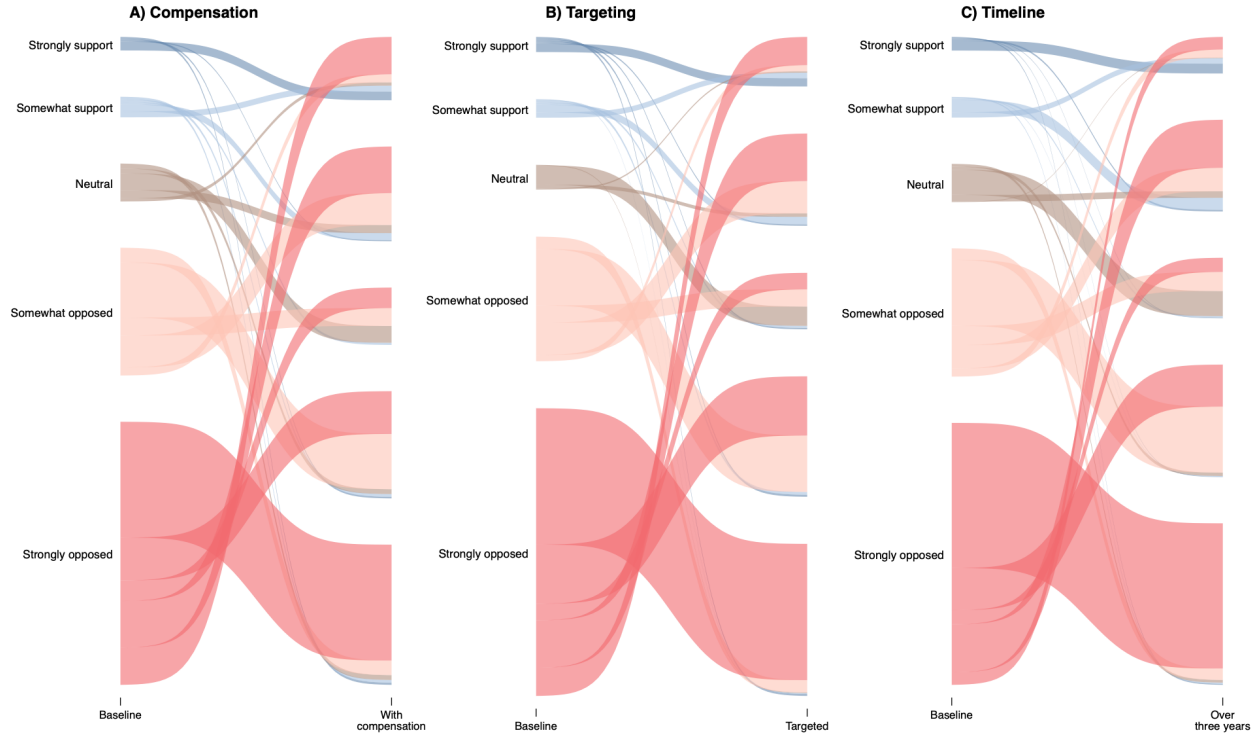
matter and/or country knowledge, and all experts selected economics as their primary area of expertise. Details about the experts and the survey are in Appendix E. The full expert survey instrument is provided in Appendix H.

3 Results

3.1 Changes in attitudes to reform due to design features

Opposition to energy price reforms can be dramatically reduced if compensation is provided, reforms are targeted at high-energy consumers, or prices are increased gradually over three years. Figure 1 shows how the share of respondents who support and oppose reforms changes based on design features compared to a baseline scenario where there is an immediate price increase for all consumers (without any compensation). The level of strong opposition is nearly halved if compensation is provided (Figure 1A), price increases are targeted to high-energy consumers (Figure 1B), or prices are increased gradually over three years (Figure 1C). Likewise, strong support for reform also increases dramatically when these design features are implemented, especially when compensation is provided, increasing the share of respondents who strongly support reform by 11 percentage points. There is a slight variation in respondents' preferences for design features across countries, but these differences are largely insignificant (see Appendix D).

Figure 1 – Changes in attitudes to reform due to design features



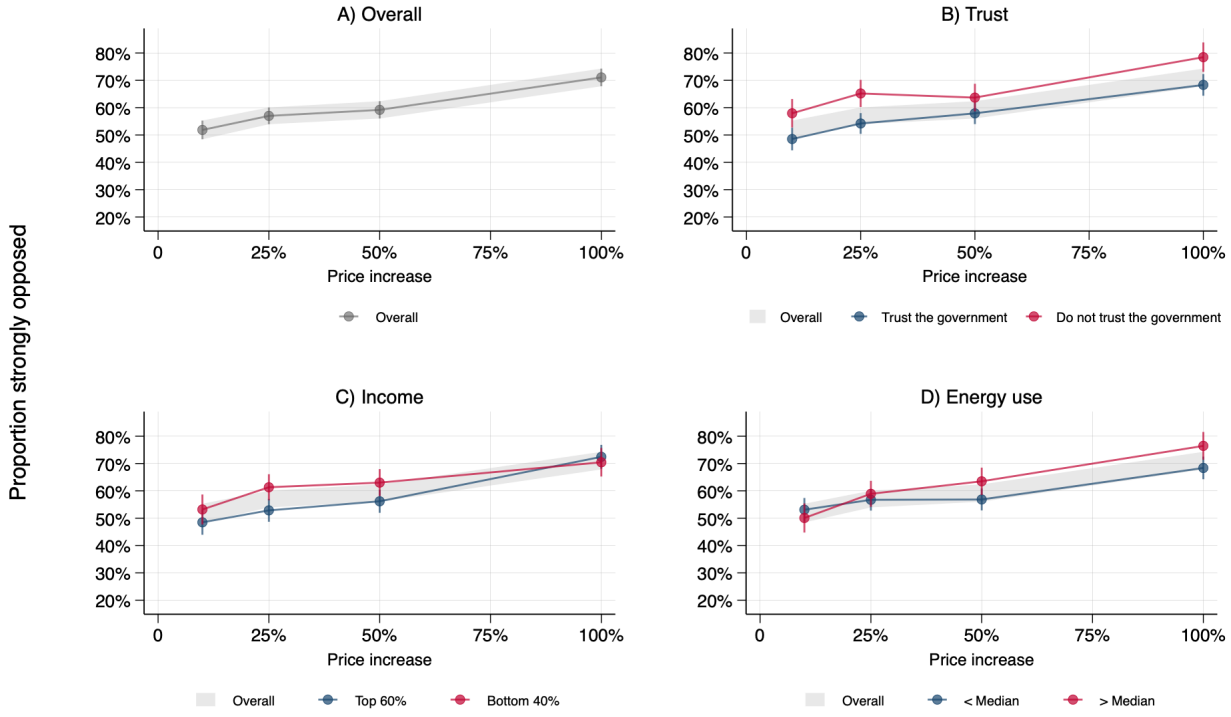
Note: This figure shows how the share of respondents that strongly opposed energy price reforms changed when compensation is provided (Figure 1A), reforms are targeted towards high energy consumers (Figure 1B), or prices increase gradually over three years (Figure 1C).

3.2 Levels of strong opposition to reform by energy price increases

There is widespread opposition among survey respondents to immediate reforms that increase energy prices, even by relatively small amounts. Figure 2 shows the share of respondents who were randomly allocated to a specific price level increase (10, 25, 50, or 100 percent) that strongly opposed an immediate reform. On average across countries, around 50 percent of respondents would strongly oppose a 10 percent price increase, around 55-60 percent of respondents would strongly oppose a 25 or 50 percent price increase, and around 70 percent of respondents would strongly oppose a 100 percent price increase (Figure 2A). There

were only small, insignificant differences in levels of strong opposition between immediate price increases of 10 to 25 percent and 25 to 50 percent. However, levels of opposition to a 100 percent price increase were around 10 percentage points higher than a 50 percent price increase, and this difference was strongly statistically significant (see Appendix D). On average across countries, strong opposition was consistently and statistically significantly higher for respondents who did not trust the government, and there were mixed results between respondents based on income and energy consumption (Figure 2B, 2C, and 2D). The sensitivity of public attitudes to reform (i.e., the rate of change in levels of strong opposition) by price did not vary greatly by respondent characteristics. For example, regardless of whether respondents trusted the government or not, the share of respondents who strongly opposed reform increased at a similar rate with higher price increases.

Figure 2 – Share of population who strongly opposed reforms by price increase



Coefficients absorb country x survey round fixed effects. 95% confidence intervals constructed using standard errors clustered by household, shown as spikes for subgroups and shaded area for overall estimates.

Note: This figure shows the share of respondents that strongly opposed energy price reforms by the level of price increase (Figure 2A), and the results are disaggregated by respondents' trust in the government, income, and energy use as a share of income (Figures 2B, 2C, and 2D).

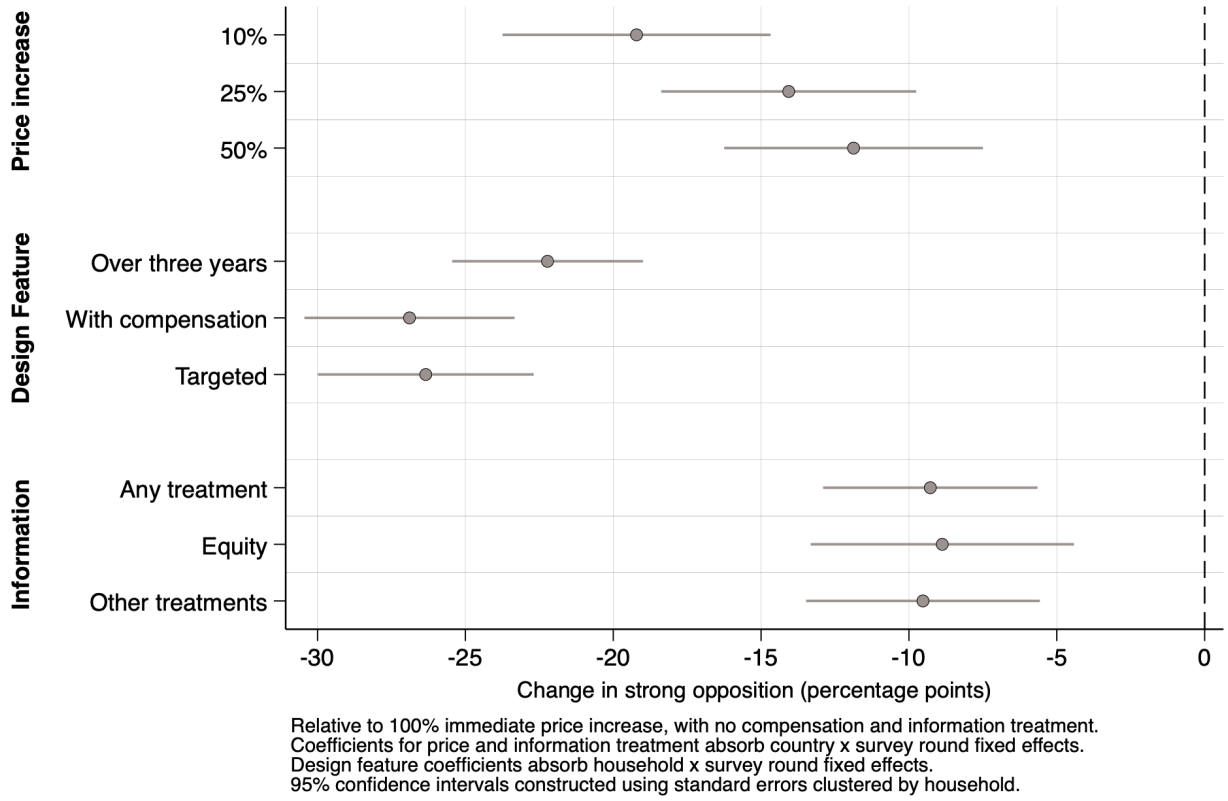
3.3 Relative impact of prices, design features, and information

The reduction in strong opposition achieved through the specific design features of reforms was substantially larger than the reduction achieved by lowering the immediate price increase from 100 percent to even 10 percent on average across countries. Figure 3 shows the percentage point reduction in the share of respondents who strongly opposed reforms by price levels, design features, and information treatments relative to a 100 percent im-

mediate price increase.[6] The reductions in support due to design features and information treatments are directly comparable to reductions in the share of respondents who strongly oppose reforms at different price increases. An immediate price increase of only 10, 25, or 50 percent relative to an immediate 100 percent increase reduced the share of respondents who strongly oppose reforms by 19, 14, and 12 percentage points, respectively. Providing compensation, targeting reforms towards high energy consumers, or increasing prices gradually over three years reduced the share of respondents who strongly oppose reforms by 27, 26, and 23 percentage points, respectively, relative to an immediate, universal price increase without compensation. In all countries, the reduction in strong opposition to reform due to design features was equivalent to or greater than a 10 percent price increase (relative to an immediate 100 percent price increase) (see Appendix D). Information treatments also decreased the share of respondents who strongly opposed reform by around 9 percentage points on average across countries, and there was little difference in the impact across alternative types of information (e.g., treatments focusing on an equity or environmental rationale for reform).

[6]Specifically, regression coefficients are presented for each of these scenarios, where the reference category is an immediate 100 percent price increase. Regression tables and specification details are in Appendix D.

Figure 3 – Reduction in strong opposition by reform feature



Note: This figure shows the reduction in the share of respondents who strongly oppose energy price reforms relative to a 100 percent immediate price increase by price level, design feature, and information treatment.

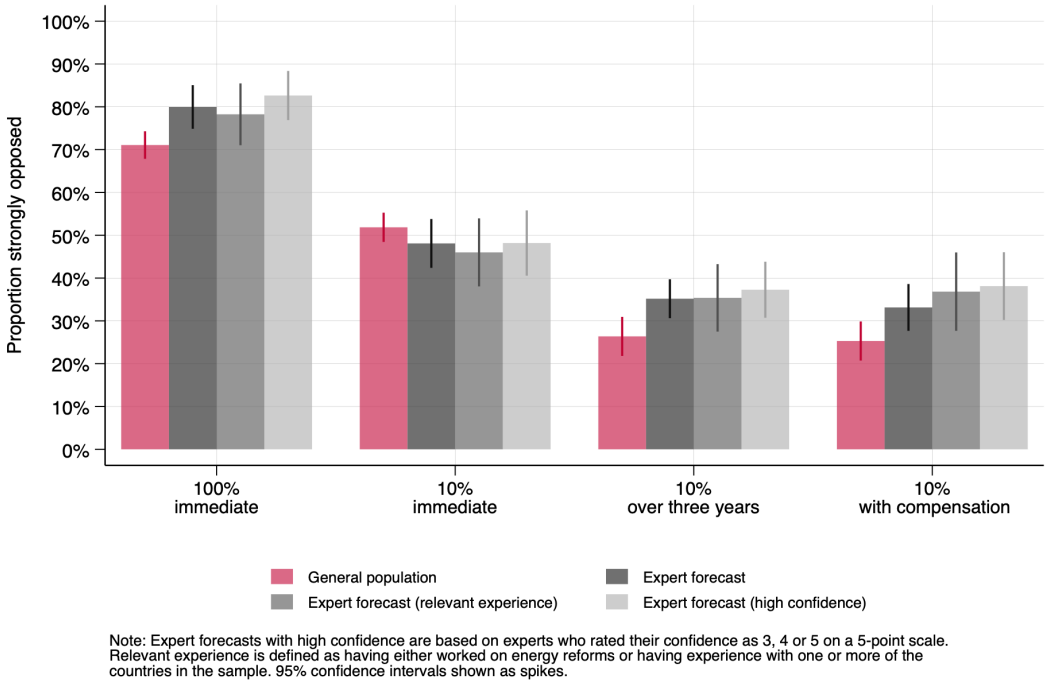
These results mean governments can often achieve the same level of public acceptability at much higher fiscal gain by altering the design rather than reducing the size of price increases. To estimate the financial implications for the government of different approaches to energy price reforms, we compare the reduction in strong opposition due to design features and price changes, which allows us to calculate the price-equivalent reduction in opposition generated by each design feature. There are lower levels of strong opposition for a 100 percent price increase with compensation compared to a 10 percent price increase without compensation, suggesting that the government would be financially better off pursuing a

reform with compensation if the costs are less than 90 percent of the fiscal savings from the price increase. Similarly, a 100 percent price increase for high-energy consumers (e.g., private car users) faces lower levels of strong opposition than a 10 percent universal price increase, which means the government would be financially better off pursuing targeted reforms if these consumers represent more than 10 percent of the market share. Additionally, a 100 percent price increase over three years would decrease opposition more than an immediate 10 percent price increase, indicating that the government would be financially better off implementing reforms over three years, provided their borrowing costs are less than 22 percent annually (assuming no price increase will occur until 12 months after the reform is announced). Appendix F has a detailed discussion of these calculations.

3.4 Misalignment between experts' and respondents' attitudes

Most experts thought that respondents' opposition to energy price reform would be very responsive to the level of price increase and would not vary as greatly by the design of reforms (see Figure 4). On average, experts overestimated the share of respondents that would strongly oppose a 100 percent increase, a 10 percent price increase with compensation, and a 10 percent price increase over three years by around 10 percentage points. Experts' predictions of the share of respondents that would strongly oppose a 10 percent price increase immediately were somewhat accurate. There were no meaningful differences between experts based on their relevant experience (in any of the countries or on the topic) and confidence in their answers.

Figure 4 – Expert predictions of strong opposition to different types of reforms



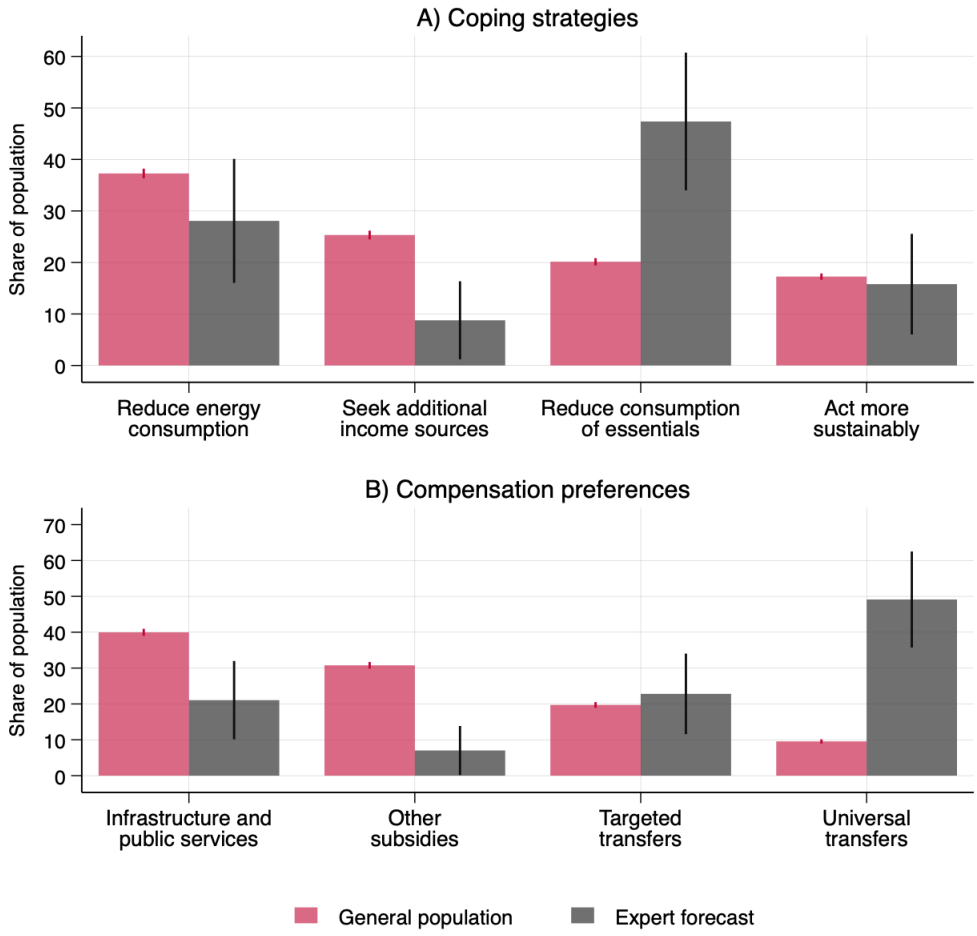
Note: This figure shows the average share of respondents that all experts (and disaggregated for experts with high confidence and relevant experience) predicted would strongly oppose each type of reform, compared to the actual share of respondents strongly opposing reforms.

3.5 Popularity of types of coping strategies and compensation

The popularity of the types of coping strategies and compensation preferences is largely consistent across price levels, countries, and subgroups of respondents (Appendix D presents these disaggregated results); however, the expert predictions are largely inaccurate. Figure 5 shows the share of respondents who selected the types of coping strategies (Figure 5A) and compensation (Figure 5B) that they would prefer in response to energy price increases, along with expert predictions. Over one-third of the respondents would reduce their energy consumption to cope with price increases, around 25 percent would seek additional sources of income, around 20 percent would reduce non-energy consumption, and only around 17

percent stated they would adopt more sustainable practices (like using public transport or energy-efficient appliances). In contrast, experts mainly thought that people would reduce non-energy consumption and dramatically underestimated how much people plan to seek additional sources of income.

Figure 5 – Preferences for coping strategies and compensation



Note: This figure shows the share of respondents who selected each coping strategy and compensation option, normalized so that it adds to a total of 100 percent, as well as the share of all experts who selected each option.

Similarly, there was a large misalignment between respondents' preferences for different types of compensation and expert predictions. Around 40 percent of respondents stated they would prefer the savings from energy price increases to be invested in the provision of public services and infrastructure, around 30 percent selected other subsidies (such as on food), almost 20 percent selected targeted cash transfers, and less than 10 percent selected universal cash transfers. This is in stark contrast to expert predictions, around half of whom thought universal cash transfers would be the most popular, and less than 10 percent thought that other subsidies would be the most popular.

4 Discussion

This study provides novel insights about how behavioral biases systematically outweigh economic cost considerations in the public acceptability of economic reforms. The key finding is that strong opposition from the general population is more responsive to how energy price reforms are designed, as opposed to the exact level of price increase. In particular, strong opposition is reduced the most when reforms take place over a three-year period, are targeted towards high-energy consumers, or when compensation is provided. Greater public acceptability for reforms with these design features is consistent with established behavioral patterns, as people's preferences are shaped by how price increases are framed, distributed, and justified. If respondents were purely acting as rational economic agents, we would expect their preferences to be primarily driven by the economic cost of higher prices. Rather, they appear to be exhibiting present bias (preferring higher price increases in the future as they disproportionately weigh immediate losses), loss aversion (viewing compensation packages as a means to offset immediate losses), and fairness heuristics (the targeting of high energy consumers appeals to their intuitive notions of equity).

We show that governments are more likely to achieve the intended fiscal and environmen-

tal benefits from energy price reforms by taking into account that the general population's preferences are primarily shaped by behavioral biases. Specifically, the results show lower levels of strong opposition from respondents and fiscal savings for the government when reforms are designed with compensation less than 90 percent of the fiscal savings from the energy price increase, targeted consumers make up more than 10 percent of market share, or there are multi-year price increases (assuming borrowing costs are at standard market rates). Even if the governments cannot credibly provide compensation or target reforms, they can still achieve a similar reduction in opposition to reform and improve their fiscal position by increasing energy prices over multiple years. In addition, we show that providing information to the general population (e.g., through a communication campaign) is likely to be financially worthwhile if the cost is less than half of the price increase.

The surveys also revealed that there is a substantial amount of strong opposition to any immediate energy price increase in all countries. On average, half of respondents expressed strong opposition even in the scenario where energy prices only increased immediately by 10 percent. As such, while the design features of reforms matter in terms of avoiding further increases in opposition from the general population, the underlying level of opposition to immediate reforms is already non-trivial. The surveys provide some insights as to why this might be the case, as by far the most common coping strategy for energy price increases that respondents report is that they would plan to reduce energy consumption and seek additional income. This suggests that households plan to adjust their behavior in response to price increases but prefer to be cushioned from the full impact, either through having lead time or the provision of compensation (or for reforms to be targeted to consumers with greater absorptive capacity). However, this reported reliance on generating additional income may be unrealistic given weak labor market conditions.

The results suggest important misperceptions between the coping strategies and types of compensation that experts think are popular, relative to what respondents prefer. This

is particularly striking when considering that around two-thirds of experts thought people would prefer cash transfers and cope with price increases by reducing non-energy consumption and acting more sustainably, whereas in both instances, only one-third of respondents selected these options. The divergence between respondents and experts regarding compensation preferences suggests that policy makers do not appreciate how much people want the government to provide more and better-quality public goods relative to just cash. After all, many respondents were optimistic about their ability to generate further income to cope with an increase in energy prices, but it is not possible for any single individual or household to improve public services or infrastructure.

This misalignment between the predictions of experts and the general population's preferences is likely to lead to challenges with designing more publicly acceptable energy price reforms and may cause implementation issues. For example, if universal transfers are provided by governments (even though they are unpopular), or if policy makers do not factor in the extent to which households reduce energy consumption (which may impact the profitability of energy suppliers). These findings highlight that there is an underinvestment in understanding people's preferences for the design of reforms, in contrast to the focus that is often placed on estimating the level of price increase that is technically appropriate.

It is important to recognize that the general population's opposition to energy price reforms may depend on factors beyond those focused on in this study. Prior work suggests that when global prices are lower (e.g., for oil), in times of crisis, or when governments have recently been elected, there may be a window of opportunity for pursuing energy price reform without raising levels of strong opposition (e.g., see Inchauste and Victor, 2017). Opposition to energy price reforms may also be influenced by the linkages of the energy sector with the economy, such as through low electricity prices supporting manufacturing growth or low gasoline prices boosting connectivity of isolated regions (e.g., see McCulloch, 2023). This may partly explain why we observe a divergence between expert predictions

(which could factor in more nuance) and respondents' answers. However, while there are broader considerations influencing the popularity of reforms, there is still substantial value in policy makers designing energy price reforms in more publicly acceptable ways.

There are several limitations of this study that future research can improve on. First, this analysis focused on the preferences of the general population, while it is possible in some contexts that governments primarily care about minimizing opposition from special interest groups. It is beyond the scope of this paper to explore this, but we recognize that policy makers may not always seek to design energy price reforms that are popular with the general population. Second, a limitation of this study, which is common across all randomized survey experiments, is that the answers provided are self-reported and based on hypothetical scenarios. We cannot rule out that people may not respond in the same way if energy prices actually increase,[7] however, the results focusing on differences in levels of opposition between design features and price increases are likely to still be relevant. Third, the surveys took place in middle-income countries, and the results may not hold in substantially different contexts. Future studies could explore other settings or attitudes towards price reforms related to different energy sources.

More broadly, our findings show that opposition to economic reform is not determined primarily by cost, but by design features and the behavioral responses they trigger. Phase-ins, targeting, compensation, and information consistently reduced strong opposition, often more effectively than lowering price increases. Experts underestimated these effects, misjudging both preferences and coping strategies. These results highlight the central role of behavioral biases in shaping collective responses to reform. Beyond energy pricing, they suggest that governments can substantially increase the political acceptability of economic reforms—from subsidy removal to tax restructuring—through careful design and communication.

[7]However, we present evidence in Appendix D from a follow-up survey in Uzbekistan showing that almost all respondents who reported they would reduce energy consumption actually did following substantial price increases in the first half of 2025.

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Appendix

A) List of Hypotheses

B) Additional Country Context

C) Survey questions and country-specific details

D) Additional results

E) Expert survey details

F) Conceptual framework

G) Example of full survey instrument

H) Full expert survey instrument

A List of Hypotheses

A) Lower levels of opposition to energy price reform will exist when there are lower energy price increases.

B) Lower levels of opposition to energy price reform will exist when there are gradual or targeted energy price increases or if compensation is provided.

C) Information about how low energy prices restrict government spending on alternative policies and/or disproportionately benefit richer households or harm the environment will lower levels of opposition to energy price reform.

D) Relatively richer respondents will have lower levels of opposition to energy price reform.

E) Believing the government can be trusted will lead to lower levels of opposition to energy price reform.

F) Relatively low consumption of energy will lead to lower levels of opposition to energy price reform.

G) Higher energy price increases are more likely to change reported behavior.

H) Higher energy price increases will make cash transfers more appealing relative to other policies the government could spend the additional resources on.

I) Higher energy price increases will make cash transfers targeted to larger shares of the population more appealing relative to targeted transfers to lower–income households.

B Additional Country Context

Table B1: Details about energy use and prices in each country

Country	Energy reform focused on	Energy use (% of population)	2025 retail price (USD)	Price incl. direct subsidies (USD)	Price incl. direct + indirect subsidies (USD)
Egypt	Gasoline	8.7%	0.38	0.49	1.26
Indonesia	Gasoline	12.6%	0.79	0.93	1.59
Mongolia	Electricity	83%	0.08	0.20	0.22
Nigeria	Gasoline	9.3%	0.55	0.71	1.38
Uzbekistan	Electricity	100%	0.03	0.08	0.10

Note: This table shows country-level context for the type of energy considered for reform. We report energy use for gasoline as the share of households with ownership of a private vehicle, while in the case of electricity we report the share of households with connection to the electricity grid. Energy use figures for gasoline are drawn from the most recent Demographic and Health Survey (DHS) available for each country, while electricity access figures are taken from representative household survey or World Bank internally reported figures. Average retail prices for 2025 are sourced from Global Petrol Prices (2025). Subsidies are based on the IMF's latest available estimates, which are forecast forward to 2025 and adjusted for current prices. Explicit subsidies are calculated as a percentage of the retail fuel price, while implicit subsidies are added as a fixed dollar amount, owed to their relative stability with respect to fuel price changes. Prices for gasoline are reported per liter, and prices for electricity are reported per kilowatt-hour (kWh).

C Survey questions and country specific details

Our cross-country study is based on harmonized household survey data collected from five middle-income countries: Indonesia, Mongolia, Uzbekistan, Egypt, and Nigeria. All survey instruments were adapted to local contexts, but nearly all included a randomized information experimental module that our team developed and added to ongoing national surveys. In this section, we describe the process used to standardize these datasets across countries. Figure C1 illustrates the flow of a typical survey, though minor variations exist in each country.

Dealing with multiple rounds

We typically use only one round of survey data per country, with the notable exception of Indonesia, where we use four rounds of household panel surveys. In other countries such as Uzbekistan, demographic information and a few other background variables were imputed from an earlier round (Round 77), while all key variables related to opposition to reform and experimental treatments are taken from the later round (Round 78), effectively making it a cross section. We make similar imputations for relative time-invariant demographic variables in Indonesia.

Opposition to reform

As shown in Table C1 below, the survey design varied across countries in terms of the specific price increases, information treatments, and reform scenarios presented to respondents. Each country implemented a localized version of the experiment, in local languages, and using contextually appropriate policy references.

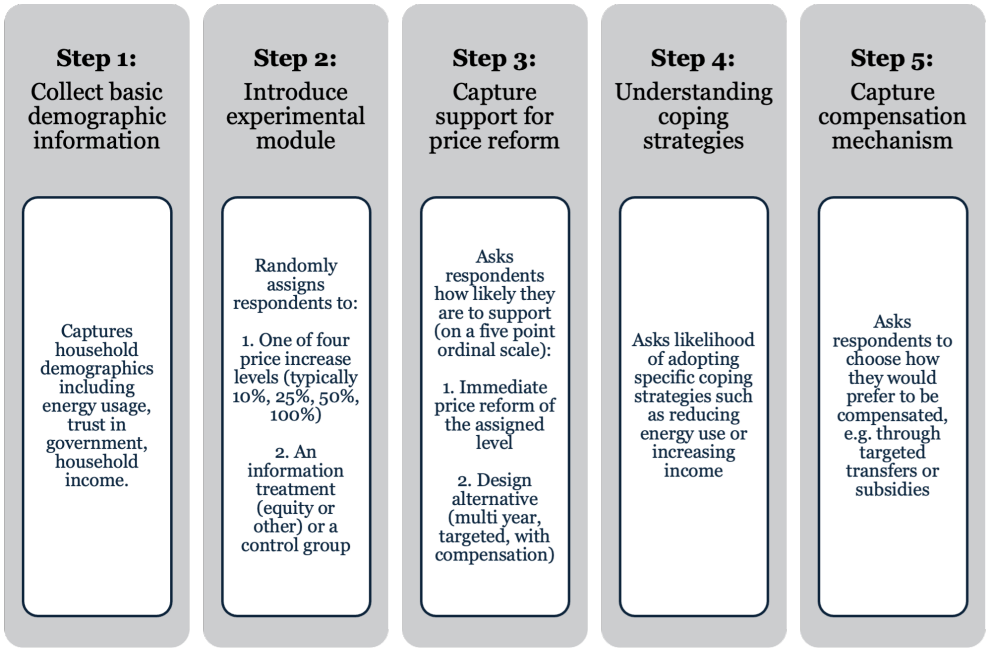

Figure C1: Typical flow of survey

In Egypt, Indonesia, and Nigeria, the reform scenarios focused on gasoline price reform, whereas in Mongolia, and Uzbekistan, the reforms centered on electricity tariffs. Despite contextual differences, the underlying logic of randomization and scenario framing remained by and large consistent across countries.

When harmonizing responses, we focused on the share of respondents who selected the most extreme point on the response scale ("Strongly oppose"). This helps us maintain conceptual equivalence across different country survey designs and minimize the distortions that may arise from differences in ordinal scales. This also helps us tie the analysis to our theoretical model for reform equivalence where the level of strong opposition is treated as the probability of reform reversal.

Nigeria did not include any randomized price increases or information treatments in its experimental design. Respondents were only asked to evaluate two types of reform: immediate elimination of the petroleum subsidy and immediate

elimination, but with compensation. As such, Nigeria is excluded from all cross-country analysis involving comparisons across price level or treatment variation and is only included in comparisons that evaluate strong opposition across these two reform types (immediate vs immediate with compensation).

As detailed in Figure C1, each respondent in the survey was asked to evaluate multiple reform scenarios (such as an immediate price increase, a gradual increase, or a reform with compensation, etc.). In the raw dataset, these responses are recorded as separate variables in different columns for each respondent. For the purposes of analysis, including Figures 1 and 2 in the main text, we restructure the data so that each reform scenario becomes its own observation. In other words, rather than having one row per respondent with multiple columns for different reforms, we convert the data into a long format where each row represents a respondent's evaluation of a single reform scenario. This allows for more flexible modeling and allows us to analyze variation in support or opposition within the same individual across different scenarios (by using household fixed effects).

Subgroup characteristics

For core demographic subgroup characteristics, such as household income, energy usage, and trust in government, the variables are largely comparable across countries, with mostly minor variations in wording or measurement. Any notable differences are flagged in Table C2, which shows the coverage of each subgroup variable by country. The most notable cross-country variation lies in whether household economic status is measured using income or consumption. Some countries, such as Uzbekistan, collected detailed income data, while others such

as Egypt relied on total consumption as a proxy for living standards, yet others such as Mongolia only asked for the income as ordinal categories, instead of amounts. However, these distinctions should account to negligible impact on our analysis, as we consistently collapse respondents' economic status into the broad, binary classification of bottom 40% and top 60% of the distribution within each country.

Coping and compensation

There are only minor differences across countries in how questions related to coping strategies or compensation mechanisms are framed in the survey instrument. In Egypt, the question on reducing energy consumption is asked only to gasoline users, who constitute just 13% of the sample. Among those who did receive the question, 62% reported they would reduce car use in response to petroleum price reform.

Instead, most cross-country differences in these variables arise due to two main reasons. First, the structure of the question varies: in Uzbekistan, respondents are allowed to select multiple compensation strategies, whereas in other countries, they are asked to choose only one. Second, the number of available options for both coping and compensation strategies differs by country. For example, Mongolia presents respondents with four compensation mechanisms, while all other countries offer up to six options (after consolidating similar responses). Direct cross-country comparisons of these raw binary indicators could be unbalanced and potentially misleading.

To simplify presentation and improve comparability, we first group electricity

services, infrastructure spending, and public services into a single category, given their conceptual overlap. We also exclude the catch-all "other" option from analysis of compensation preferences, as its open-ended and undefined nature makes cross-country interpretation difficult. Given differences in how many options were offered, even after consolidating similar categories, we applied a simple normalization procedure to make pooled comparisons more balanced. This is given as:

$$\tilde{\mu}_k = \frac{\mu_k}{\sum_{k=1}^{K} \mu_k}$$

Where $\tilde{\mu}_k$ and μ_k are the adjusted and unadjusted proportions respectively, and K is the total number of options in that group (e.g., four coping mechanisms or four compensation types). To operationalize this, we first calculate the unaltered proportion for each option among respondents with complete data. Then, we sum these proportions and divide each variable by that total. After this adjustment, the overall proportion across all coping or compensation variables adds up to 1 ($\sum_{k=1}^{K} \tilde{\mu}_k = 1$). This means we can interpret each adjusted mean as the share of total responses that went to that option. This prevents options from appearing less important in countries where respondents were presented with more choices.

Post-stratification weight construction

To adjust for sample–population imbalances in age and gender, we construct post-stratification weights based on the joint distribution of gender (male/female) and

age group (20–44 vs. 45+) within each country. We calculate the proportion of each demographic subgroup in both the sample and the national population and define the weight for each subgroup as the ratio of population share to sample share, given as:

$$Weight_i = \frac{Probability[Population(g, a|c)]}{Probability[Sample(g, a|c)]}$$

Where $g \in \{male, female\}$, $a \in \{age\ 20{-}45, age\ 45{+}\}$, and c indexes country. We include robustness checks by post-stratification inverse probability weights in Tables D11 and D12.

Table C1: Randomization and outcome variables in each country

Country	Step	Dimension	Levels	Values
Egypt	1	Price	Randomly assigned to one of 4 levels of Gasoline 92 price increase	10%, 25%, 50%, 100% (absolute prices per liter: EGP 19, 21, 26, 24)
	2	Information treatment	Randomly assigned to one of 4 levels	**Pure control:** *No information.* **Placebo:** Recent research shows increasing gasoline prices could save the government of Egypt up to 150 billion EGP a year. This means more money could be spent improving roads, schools, and hospitals, and creating better employment opportunities. **Equity:** Recent research shows increasing gasoline prices could save the government of Egypt up to 150 billion EGP a year. This means more money could be spent improving roads, schools, and hospitals, and creating better employment opportunities. Higher gasoline prices primarily impact richer households as they mainly use cars, as opposed to public or shared transport. Estimates suggest that around two-thirds of gasoline in Egypt is consumed by the richest half of households.. **Environment:** Recent research shows increasing gasoline prices could save the government of Egypt up to 150 billion EGP a year. This means more money could be spent improving roads, schools, and hospitals, and creating better employment opportunities. Higher gasoline prices will improve air pollution and help to address climate change. Estimates suggest that the negative environmental impacts from low gasoline prices cost Egypt around 1,500 billion EGP a year.

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Country	Step	Dimension	Levels	Values
	3	Reform scenario	Within-subject (same respondent answers multiple)	**Immediate:**: Imagine the government of Egypt were to IMMEDIATELY increase Gasoline 92 prices to `<randomized price>` EGP per liter... **Gradual:** Imagine the government of Egypt were to GRADUALLY increase Gasoline 92 prices to `<randomized price>` EGP per liter by the end of 2025... **Multi-year:** Imagine the government of Egypt were to VERY GRADUALLY increase Gasoline 92 prices to `<randomized price>` EGP per liter over the next 3 years... **Targeted:** : Imagine the government of Egypt were to IMMEDIATELY increase Gasoline 92 prices to `<randomized price>` EGP per liter ONLY FOR CARS... **With compensation:** Imagine the government of Egypt were to IMMEDIATELY increase Gasoline 92 prices to `<randomized price>` EGP per liter AND at the same time implement a program to COMPENSATE HOUSEHOLDS significantly impacted by the reform...
	4	Respondent task	5-point scale for each scenario	... Do you support or oppose this gasoline price reform? A Strongly support; B Somewhat support; C Neither; D Somewhat oppose; E Strongly oppose
Indonesia	1	Price	Randomly assigned to one of 4 levels of *pertalite* price increase	10%, 25%, 50%, 100% (mapped to Rp. 11,000–20,000)

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Country	Step	Dimension	Levels	Values
	2	Information treatment	Randomly assigned to one of 4 levels	**Pure control:** *No information.* **Placebo control:** Recent research shows increasing pertalite prices could save the government of Indonesia up to 110 Bio IDR a year. This means more money could be spent improving roads, schools, and hospitals, and creating better employment opportunities. **Equity:** Recent research shows increasing pertalite prices could save the government of Indonesia up to 110 Bio IDR a year. This means more money could be spent improving roads, schools, and hospitals, and creating better employment opportunities. Higher pertalite prices primarily impact richer households as they mainly use cars, as opposed to public or shared transport. Estimates suggest that around two-thirds of pertalite in Indonesia is consumed by the richest half of households. **Environment:** Recent research shows increasing pertalite prices could save the government of Indonesia up to 110 Bio IDR a year. This means more money could be spent improving roads, schools, and hospitals, and creating better employment opportunities. Higher pertalite prices will improve air pollution and help to address climate change. Estimates suggest that the negative environmental impacts from low petalite prices cost Indonesia around 1,300 Bio IDR a year.

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Country	Step	Dimension	Levels	Values
	3	Reform scenario	Within-subject	**Immediate:** Imagine the government of Indonesia were to IMMEDIATELY increase pertalite prices to `<randomized price>`,- per liter... **Gradual:** 2. Gradual: Imagine the government of Indonesia were to GRADUALLY increase pertalite prices to `<randomized price>`,- per liter by the end of 2025... **Multi-year:** Imagine the government of Indonesia were to GRADUALLY increase pertalite prices to `<randomized price>`,- per liter by the end of 2027... **Targeted:** Imagine the government of Indonesia were to IMMEDIATELY increase pertalite prices to `<randomized price>` per liter ONLY FOR CARS ... **With compensation:** Imagine the government of Indonesia were to IMMEDIATELY increase pertalite prices to `<randomized price>` per liter AND at the same time implement a program to COMPENSATE HOUSEHOLDS significantly impacted by the reform...
	4	Respondent task	5-point scale	... Would you support or oppose this reform? A Strongly support; B Somewhat support; C Neither; D Somewhat oppose; E Strongly oppose
Mongolia	1	Price	Randomly assigned to one of 4 levels of electricity price increase	+30%, +60%, +100%, +150% (interpreted as a 30% to 150% increase on top of the household's average monthly winter electricity bill, i.e., total bill = 100% base + randomized increase)

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Country	Step	Dimension	Levels	Values
	2	Information treatment	Randomly assigned to one of 3 levels	**Pure control:** *No information.* **Equity:** Recent research shows that Mongolia's energy sector will face a loss of over 800 billion next year, which is mainly funded by the government through subsidies. Almost half of these subsides go to the richest 20 percent of households. By increasing electricity prices to remove these subsidies, the government can reduce this unfair advantage and ensure that resources are mainly spent on low- and middle-income families. **Electricity:** Recent research shows that Mongolia's energy sector will face a loss of over 800 billion next year, which is mainly funded by the government through subsidies. These subsidies prevent essential investments in the energy sector, which leads to frequent electricity outages. By increasing electricity prices to remove these subsidies, the government can ensure reliable electricity for families and businesses and support economic growth.
	3	Reform scenario	Within-subject	**Immediate:** : If the government were to raise the electricity price such that your electricity bill increased to `<household bill + randomized increase>` MNT per month in November... **Gradual:** : If the government were to raise the electricity price such that your electricity bill increased to `<household bill + randomized increase>` MNT per month in May next year... **Multi-year:**If the government were to raise the electricity price such that your electricity bill increased to `<household bill + randomized increase>` MNT per month gradually over the period of 3 years... **With compensation:** Imagine that the government raised the electricity price such that your electricity bill increased to `<household bill + randomized increase>` MNT per month in November. If they implemented a program to compensate households significantly impacted by the reform at the same time...

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Country	Step	Dimension	Levels	Values
	4	Respondent task	Respondent rates each reform scenario on 5-point scale	... Would you support or oppose this reform? A Strongly support; B Somewhat support; C Neither support nor oppose; D Somewhat oppose; E Strongly oppose
Nigeria	1	Price	N/A	No explicit price scenario
	2	Information treatment	N/A	No information treatments
	3	Reform scenario	Within-subject (same respondent answers multiple)	**Immediate:** A petrol subsidy is said to be provided when the government REDUCES the price of petrol by paying a share of the cost. Therefore, a petrol subsidy makes it CHEAPER for households and businesses to use petrol. Do you support or oppose the Government of Nigeria's stance on the elimination of petrol subsidies? **With compensation:** If the Government would commit to invest a substantial part of the resources saved by the elimination of petrol subsidies into your selected [preferred compensation] option, would you support or oppose Immediate elimination of the petrol subsidy ?
	4	Respondent task	Respondent rates each reform scenario on 5-point scale	*(Wording varies by reform scenario)* A Strongly support; B Somewhat support; C Neither support nor oppose; D Somewhat oppose; E Strongly oppose
Uzbekistan	1	Price	Randomly assigned to one of 4 levels of electricity price increase	10%, 33%, 50%, 100% (Phrased as an absolute amount per kWh of UZS 500; UZS 600; UZS 700; and UZS 900.))

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Country	Step	Dimension	Levels	Values
	2	Information treatment	Randomly assigned to one of 3 levels	**Pure Control:** *No information.* **Treatment A (Equity):** By removing energy subsidies that disproportionately benefit wealthier households and providing a 270,000 soum cash transfer to low-income families, the government can better support those who need it the most. This transfer represents the first step in helping households manage the rising energy costs. With increased tariffs, the government is committed to improving energy services and their reliability for all. **Treatment B (Electricity):** Recent research shows that Uzbekistan's energy sector will face a loss of ten billion next year, which is mainly funded by the government through subsidies. Energy subsidies divert resources from other critical areas like healthcare, education, and infrastructure. By removing these subsidies, the government will be able to fund essential services that benefit all citizens. This reform is necessary to ensure the long-term financial stability of the country.

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Country	Step	Dimension	Levels	Values
	3	Reform scenario	Within-subject design (same respondent answers multiple)	**Immediate:** Imagine the government of Uzbekistan were to IMMEDIATELY increase electricity prices to UZS `<randomized price>` kWh per month. . . . **Gradual:** Imagine the government of Uzbekistan were to GRADUALLY increase electricity prices to UZS ¡randomized amount¿ kWh per month by the end of 2026. . . **Multi-year:** Imagine the government of Uzbekistan were to GRADUALLY increase electricity prices to UZS `<randomized price>` kWh per month over the period of 3 years. . . **With compensation:** Imagine the government of Uzbekistan were to IMMEDIATELY increase electricity prices to UZS `<randomized price>` kWh per month. The increase would be accompanied by an additional cash one-time transfer of 270,000 soums to compensate low-income households . . . **Targeted:** : Imagine the government of Uzbekistan were to IMMEDIATELY increase electricity prices to UZS `<randomized price>` for households who consume more than 200kwH while they keep the same electricity prices to households who consume less than 200kwH. . . .
	4	Respondent task	Respondent rates each reform scenario on 5-point scale	. . . Do you support or oppose this electricity price reform? A Strongly support; B Somewhat support; C Neither support nor oppose; D Somewhat oppose; E Strongly oppose

Table C2: Variable coverage by country and notes on harmonization

Theme	Variable	Values	Egypt	Indonesia	Mongolia	Nigeria	Uzbekistan	Notes on harmonization
Identification	Three-digit country code		✓	✓	✓	✓	✓	
	Household ID		✓	✓	✓	✓	✓	Assignment ID is used as a proxy for Household ID in Mongolia.
	Survey round		✓	✓	✓	✓	✓	Egypt survey is labeled as round 1
	Unique ID		✓	✓	✓	✓	✓	Unique identification for each observation. String combination of Code + Round + HH ID
	Household weights		✓	✓	✓	✓	✓	
	Population weights		✓	✓	✓	✓	✓	
	Inverse probability weights		✓	✓	✓	✓	✓	Based on gender and age group
Demographic	Age (years)		✓	✓	✓	✓	✓	Age of household head for Indonesia, Nigeria, and of respondent for Mongolia and Egypt
	Gender is male	0 “Female” 1 “Male”	✓	✓	✓	✓	✓	Gender of household head for Indonesia, Nigeria, and of respondent for Mongolia and Egypt
	Has university education	0 “Less than university education” 1 “University education”	✓	✓	✓	✓	✓	Education of household head for Indonesia, Nigeria, and of respondent for Mongolia and Egypt
	Household size (no.)		✓	✓	✓	✓	✓	
	Household location is urban	0 “Rural” 1 “Urban”	✓		✓	✓	✓	
	HH energy use (rationalized over income)	0 “Below median energy use” 1 “Above median energy use”	✓	✓	✓		✓	Constructed as the fraction of household expenditure on relevant fuel or energy over the total monthly household consumption. This variable is drooped for Egypt, where only 13% of households report any expenditure on gasoline.
	Relative income level	0 “Top 60%” 1 “Bottom 40%”	✓	✓	✓		✓	Constructed using income or consumption quintiles. Actual income values are used for Indonesia; income categories for Mongolia; and consumption data for Egypt and Uzbekistan.
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Theme	Variable	Values	Egypt	Indonesia	Mongolia	Nigeria	Uzbekistan	Notes on harmonization
	Trust in government	0 "Trust government" 1 "Does not trust government"	✓	✓	✓		✓	Respondents are coded as not trusting the government if they disagree or strongly disagree that it can be relied upon to implement policies. Wording varies by country. For multi-round surveys (e.g., Uzbekistan), we use data from the latest round.
Experimental	Assigned any information treatment (1 if true)	0 "Control" 1 "Any treatment"	✓	✓	✓		✓	
	Assigned equity treatment (1 if true)	0 "Control" 1 "Equity treatment"	✓	✓	✓		✓	
	Assigned information treatment other than equity (1 if true)	0 "Control" 1 "Other treatment"	✓	✓	✓		✓	"Other" includes environment benefits, alternative budget uses for electricity, or placebo controls.
	Randomly assigned price increase (%)		✓	✓	✓		✓	Harmonized to 10, 25, 50, or 100. Near values (e.g., 30) recoded to nearest standard. 150% levels (Mongolia) excluded.
Support for reform	Support for immediate reform (ordinal)	1 "Strongly support" 2 "Somewhat support" 3 "Neither support nor oppose" 4 "Somewhat oppose" 5 "Strongly opposed"	✓	✓	✓	✓	✓	
	Support for gradual reform (ordinal)	same as above	✓	✓	✓		✓	
	Support for multi year reform (ordinal)	same as above	✓	✓	✓		✓	
	Support for targeted immediate reform (ordinal)	same as above	✓	✓			✓	
	Support for immediate reform with compensation (ordinal)	same as above	✓	✓	✓	✓	✓	
Opposition	Strongly opposed to immediate reform	0 "No" 1 "Yes"	✓	✓	✓	✓	✓	Strong opposition dummies use only "strongly oppose" as 1.
	Strongly opposed to gradual reform	0 "No" 1 "Yes"	✓	✓	✓		✓	
	Strongly opposed to multiyear reform	0 "No" 1 "Yes"	✓	✓	✓		✓	In a few surveys described as a reform over three years.
	Strongly opposed to targeted immediate reform	0 "No" 1 "Yes"	✓	✓			✓	

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Theme	Variable	Values	Egypt	Indonesia	Mongolia	Nigeria	Uzbekistan	Notes on harmonization
	Strongly opposed to immediate reform with compensation	0 "No" 1 "Yes"	✓	✓	✓	✓	✓	
Coping	Will act more sustainably in face of price reform	0 "No" 1 "Yes"	✓	✓	✓	✓	✓	
	Will reduce energy consumption in face of price reform	0 "No" 1 "Yes"			✓	✓	✓	In Egypt asked only of gasoline car users (13% of sample).
	Will reduce consumption of essentials in face of price reform	0 "No" 1 "Yes"	✓	✓	✓	✓		
	Will seek additional income sources in face of price reform	0 "No" 1 "Yes"	✓	✓		✓		
Compensation	Compensation preference is targeted transfers	0 "No" 1 "Yes"	✓	✓	✓	✓	✓	
	Compensation preference is universal transfers	0 "No" 1 "Yes"	✓	✓	✓	✓	✓	
	Compensation preference is improvement in electricity services	0 "No" 1 "Yes"			✓		✓	
	Compensation preference is public services	0 "No" 1 "Yes"	✓	✓		✓	✓	Public services in Egypt = health or education.
	Compensation preference is infrastructure spending	0 "No" 1 "Yes"	✓	✓		✓	✓	In Nigeria, green investments grouped as infrastructure.
	Compensation preference is other subsidies	0 "No" 1 "Yes"	✓	✓	✓	✓	✓	Defined as tax reductions on goods and services in most countries.
	Compensation preference is infrastructure or public services	0 "No" 1 "Yes"	✓	✓	✓	✓	✓	True if either infrastructure, public services, or electricity service improvement.
	Compensation preference is other	0 "No" 1 "Yes"	✓	✓		✓		In Egypt includes employment programs; in Mongolia a "government should save money" option means totals need not sum to 100%.

D Additional results

D.1 Empirical estimation

To estimate the level of strong opposition (SO) at different price increase levels across key subgroups g (trust in government, income level, energy use), as shown in Figure 2, we first estimate a linear model with all two- and three-way interactions between price level, design, and information treatment, controlling for country × survey-round fixed effects.[1] [2]

$$SO_{i,c} = \beta_0 + \sum_{p,d,t,g} \beta_{p,d,t,g}\, \mathbf{1}(\text{Price} = p,\ \text{Design} = d,\ \text{Treatment} = t,\ \text{Group} = g)_{i,c} + \gamma_c + \varepsilon_{i,c} \quad \text{(Equation. 1)}$$

Where i indexes households, c indexes country × survey round, g indexes subgroup of interest, $\mathbf{1}(\cdot)$ is an indicator function equal to 1 when the condi-

[1] **Longer equation:**

$$\begin{aligned} SO_{i,c} = \beta_0 &+ \beta_1 Price_{i,c} + \beta_2 Design_{i,c} + \beta_3 Information_{i,c} \\ &+ \beta_4 (Price \times Design)_{i,c} + \beta_5 (Price \times Information)_{i,c} \\ &+ \beta_6 (Design \times Information)_{i,c} + \beta_7 (Price \times Design \times Information)_{i,c} \\ &+ \beta_8 Group_{i,c} + \beta_9 (Price \times Group)_{i,c} + \beta_{10} (Design \times Group)_{i,c} \\ &+ \beta_{11} (Information \times Group)_{i,c} + \beta_{12} (Price \times Design \times Group)_{i,c} \\ &+ \beta_{13} (Price \times Information \times Group)_{i,c} + \beta_{14} (Design \times Information \times Group)_{i,c} \\ &+ \beta_{15} (Price \times Design \times Information \times Group)_{i,c} + \gamma_c + \varepsilon_{i,c}. \end{aligned}$$

[2] For Indonesia, which is the only country in our sample with multiple survey rounds fielded using different sets of features, we restrict analysis to the most relevant round for each specification to ensure comparability across countries.

tion inside is true (and 0 otherwise), and γ_c denote country $\times$ survey-round fixed effects, and $\varepsilon_{i,c}$ is the idiosyncratic error term, capturing all unobserved, individual-level factors affecting strong opposition that are not explained by the included regressors.

To isolate the average level of strong opposition at each price level for each subgroup g, holding policy design and information treatment fixed (at immediate implementation and no information treatment, respectively), we compute post-estimation marginal predictions based on the fitted model:

$$\mathbb{E}[SO \mid \text{Price}_p, \text{Design} = 0, \text{Treatment} = 0, \text{Group} = g] \qquad \text{(Equation. 2)}$$

In Figure 3 we show the marginal change in strong opposition associated with each policy feature relative to a fixed baseline. This is done by estimating Equation (1) but on the full sample, with no distinction for subgroups. For price and treatment dimensions, causal identification is supported by the random assignment across households. The coefficients on the corresponding indicator variables, $\beta_{p,d,t}$, should therefore be interpreted as causal effects or price of treatment relative to a baseline scenario of a 100% immediate price increase with no information treatment.

For design features, however, randomization was not applied in the same way. Instead, each household is shown multiple vignettes with varying design. This allows us to estimate within-household responses to different design scenarios, and

when estimating the effects of design features, we include household fixed effects to control for unobserved heterogeneity across households. The coefficients on design features should be interpreted as the average within-household change in strong opposition associated with that design element, relative to the baseline design.

Cross-country results

Table D1: Overview of key demographics: national vs. survey sample

	Egypt		Indonesia		Mongolia		Nigeria		Uzbekistan	
	Sample	Pop.	Sample	Pop.	Sample	Pop.	Sample	Pop.	Sample	Pop.
Female	0.48	0.50	0.46	0.50	0.52	0.50	0.50	0.49	0.49	0.50
20–44 years old	0.61	0.63	0.36	0.38	0.65	0.60	0.30	0.33	0.36	0.39
Household size	4.72	4.79	3.66	4.41	3.98	4.34	6.25	7.06	5.66	5.10
Urban	0.49	0.43	0.60	0.59	1.00	0.69	0.39	0.55	0.17	0.51
University	0.24	0.21	0.09	0.09	0.57	0.60	0.02	0.03	0.08	0.17
Below 40%	0.32	0.40	0.69	0.40	0.27	0.40	0.33	0.40	0.63	0.40

Note: This table compares characteristics of the survey sample and general population ("Pop.") in each country. Population figures are sourced from the World Development Indicators (WDI), except for the Below 40 share and household size, which are sourced from nationally representative household surveys conducted by the World Bank. In Egypt and Mongolia, the survey instrument does not record full household rosters, but instead collects basic demographic information such as gender, education, and age only about the respondent, who is always an adult aged 18 or older. To ensure comparability, population age groups in these countries are also calculated as a proportion of adults instead of the entire population. The Below 40 variable represents the share of the survey sample that falls below the 40th percentile of national income or consumption, defined using national welfare thresholds. In Uzbekistan, peri-urban areas are classified as rural in the survey, which leads to a lower urban share. In Mongolia, the survey only aims to sample from the urban population, and any rural households are filtered out in the screening stage. For Indonesia, due to inconsistent classifications of urban and rural areas across different sources, the survey share of urban population is fixed at approximately 0.6 to align with external benchmarks. University education figures in Egypt and Mongolia are compared with the population share of adults who have completed post-secondary education.

D.2 Baseline characteristics by treatment assignment

Table D2: Means of baseline covariates across information treatment arms

Variable	(1) **Pure control**	(2) **Any treatment**	(3) **Equity treatment**	(4) **Other treatment**	(5) **Δ Any treatment − pure control**	(6) **Δ Equity treatment − pure control**	(7) **Δ Other treatment − pure control**
Age (years)	43.85	43.92	43.75	44.03	0.066	-0.108	0.178
					(0.057)	(0.133)	(0.095)
Gender is male	0.671	0.667	0.669	0.666	-0.004	-0.002	-0.005
					(0.008)	(0.009)	(0.008)
Has university education	0.205	0.209	0.206	0.210	0.004	0.001	0.005
					(0.004)	(0.008)	(0.004)
Household location is urban	0.564	0.582	0.564	0.594	0.018	0.001	0.031
					(0.010)	(0.012)	(0.014)
Bottom 40% income group	0.412	0.422	0.421	0.422	0.009	0.009	0.010
					(0.009)	(0.007)	(0.017)
Greater than median energy use	0.411	0.404	0.394	0.411	-0.007	-0.017	0.000
					(0.007)	(0.014)	(0.009)
Don't trust government	0.369	0.369	0.367	0.370	-0.001	-0.002	0.000
					(0.007)	(0.011)	(0.004)
Believe government influences energy prices	0.294	0.303	0.304	0.302	0.008	0.010	0.007
					(0.010)	(0.014)	(0.008)
Concerned about prices	0.430	0.422	0.415	0.425	-0.008	-0.014	-0.005
					(0.005)	(0.004)	(0.009)

Note: * p<0.10, ** p<0.05, *** p<0.01. Standard errors clustered by country in parentheses. All specifications include country fixed effects.

Table D3: Means of baseline covariates across randomized price increases

Variable	(1) **10%**	(2) **25%**	(3) **50%**	(4) **100%**	(5) **Δ (10%–100%)**	(6) **Δ (25%–100%)**	(7) **Δ (50%–100%)**
Age (years)	44.74	44.43	44.53	44.27	0.471	0.163	0.259
					(0.293)	(0.437)	(0.286)
Gender is male	0.707	0.705	0.694	0.701	0.006	0.004	-0.007
					(0.004)	(0.006)	(0.010)
Has university education	0.182	0.191	0.191	0.182	0.001	0.010	0.010
					(0.006)	(0.010)	(0.009)
Household location is urban	0.558	0.531	0.528	0.546	0.011	-0.015	-0.018
					(0.014)	(0.010)	(0.011)
Bottom 40% income group	0.405	0.427	0.408	0.410	-0.005	0.017	-0.002
					(0.009)	(0.011)	(0.015)
Greater than median energy use	0.421	0.408	0.402	0.407	0.014**	0.000	-0.005
					(0.003)	(0.006)	(0.015)
Don't trust government	0.362	0.367	0.374	0.353	0.009	0.014	0.021
					(0.010)	(0.009)	(0.014)
Believe government influences energy prices	0.314	0.296	0.292	0.300	0.014	-0.004	-0.009
					(0.009)	(0.011)	(0.010)
Concerned about prices	0.417	0.401	0.401	0.420	-0.003	-0.019*	-0.019
					(0.004)	(0.003)	(0.004)

Note: * p<0.10, ** p<0.05, *** p<0.01. Standard errors clustered by country in parentheses. All specifications include country fixed effects.

D.3 Results from regression analysis

Table D4: Tabular version of Figure 2 (based on Equation. 2): predicted probabilities of strong opposition to price increases by subgroup, evaluated at immediate implementation and without information treatments.

DV: Strong opposition	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Panel A: Overall										
10%	0.519***									
	(0.017)									
25%	0.570***									
	(0.016)									
50%	0.592***									
	(0.016)									
100%	0.711***									
	(0.016)									
Panel B: Trust in government										
		Trust	Don't trust	P-value (Δ)						
10%		0.485***	0.579***	0.00						
		(0.021)	(0.027)	[0.016]						
25%		0.542***	0.652***	0.00						
		(0.019)	(0.025)	[0.005]						
50%		0.579***	0.637***	0.07						
		(0.020)	(0.026)	[0.108]						
100%		0.683***	0.785***	0.00						
		(0.020)	(0.027)	[0.016]						
Panel C: Income										
					Bottom 40%	Top 60%	P-value (Δ)			
10%					0.485***	0.532***	0.18			
					(0.023)	(0.028)	[0.239]			
25%					0.529***	0.613***	0.01			
					(0.021)	(0.024)	[0.022]			
50%					0.562***	0.630***	0.03			
					(0.022)	(0.025)	[0.069]			
100%					0.725***	0.705***	0.56			
					(0.022)	(0.027)	[0.561]			
Panel D: Energy use										
								<Median	>Median	P-value (Δ)
10%								0.531***	0.501***	0.37
								(0.022)	(0.027)	[0.447]
25%								0.567***	0.589***	0.48
								(0.020)	(0.024)	[0.523]
50%								0.569***	0.635***	0.04
								(0.020)	(0.025)	[0.065]
100%								0.684***	0.765***	0.01
								(0.021)	(0.026)	[0.035]
Observations	23,631	23,521	23,521		20,254	20,254		23,479	23,479	

Note: * p<0.10, ** p<0.05, *** p<0.01. Coefficients absorb country × survey round fixed effects. Standard errors clustered by household in parentheses. In columns (4), (7), and (10), Benjamini–Hochberg adjusted p-values are reported in square brackets under the corresponding unadjusted p-values to account for multiple hypothesis testing within each subgroup dimension.

Table D5: Equation. 2 results with controls. These report predicted probabilities of strong opposition to price increases by subgroup, evaluated at immediate implementation and in the absence of information treatments, controlling for baseline covariates.

DV: Strong opposition	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Panel A: Overall										
10%	0.499^{***}									
	(0.019)									
25%	0.567^{***}									
	(0.017)									
50%	0.585^{***}									
	(0.017)									
100%	0.719^{***}									
	(0.018)									
Panel B: Trust in government										
		Trust	Don't trust	P-value (Δ)						
10%		0.472^{***}	0.540^{***}	0.06						
		(0.023)	(0.029)	[0.114]						
25%		0.537^{***}	0.632^{***}	0.00						
		(0.021)	(0.026)	[0.051]						
50%		0.577^{***}	0.616^{***}	0.24						
		(0.021)	(0.027)	[0.364]						
100%		0.691^{***}	0.779^{***}	0.01						
		(0.022)	(0.029)	[0.084]						
Panel C: Income										
					Bottom 40%	Top 60%	P-value (Δ)			
10%					0.482^{***}	0.524^{***}	0.25			
					(0.023)	(0.029)	[0.331]			
25%					0.534^{***}	0.612^{***}	0.02			
					(0.022)	(0.025)	[0.071]			
50%					0.557^{***}	0.625^{***}	0.04			
					(0.022)	(0.026)	[0.123]			
100%					0.726^{***}	0.708^{***}	0.61			
					(0.023)	(0.027)	[0.726]			
Panel D: Energy use										
								<Median	>Median	P-value (Δ)
10%								0.506^{***}	0.490^{***}	0.66
								(0.024)	(0.028)	[0.664]
25%								0.562^{***}	0.578^{***}	0.62
								(0.022)	(0.025)	[0.679]
50%								0.560^{***}	0.624^{***}	0.05
								(0.022)	(0.026)	[0.128]
100%								0.693^{***}	0.760^{***}	0.06
								(0.023)	(0.027)	[0.101]
Observations	19,146	19,146	19,146		19,146	19,146		19,146	19,146	

Note: * p<0.10, ** p<0.05, *** p<0.01. Coefficients absorb country × survey round fixed effects. Standard errors clustered by household in parentheses. In columns (4), (7), and (10), Benjamini–Hochberg adjusted p-values are reported in square brackets under the corresponding unadjusted p-values to account for multiple hypothesis testing within each subgroup dimension. Controls include age, gender, education, household size, income level, trust, energy use, and belief about government influence on price.

Table D6: Tabular version of Figure 3, based on Equation. 1. Changes in strong opposition relative to a 100% immediate price increase without information.

Dependent variable: Strong opposition	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Price increase						
	-0.192***	-0.220***				
10%	(0.023)	(0.025)				
	[0.005]	[0.004]				
	-0.141***	-0.152***				
25%	(0.022)	(0.024)				
	[0.109]	[0.098]				
	-0.119***	-0.134***				
50%	(0.022)	(0.024)				
	[0.225]	[0.305]				
Panel B: Design features						
			-0.222***	-0.232***		
Over three years			(0.016)	(0.018)		
			[0.000]	[0.000]		
			-0.269***	-0.273***		
With compensation			(0.018)	(0.020)		
			[0.000]	[0.000]		
			-0.263***	-0.264***		
Targeted			(0.019)	(0.020)		
			[0.000]	[0.000]		
Panel C: Information						
					-0.093***	-0.095***
Any treatment					(0.018)	(0.019)
					[0.000]	[0.000]
					-0.088***	-0.093***
Equity treatment					(0.023)	(0.024)
					[0.001]	[0.000]
					-0.096***	-0.097***
Other treatment					(0.020)	(0.021)
					[0.000]	[0.000]
Constant	0.711***	0.595***	0.523***	0.519***	0.657***	0.532***
	(0.016)	(0.029)	(0.003)	(0.004)	(0.016)	(0.028)
Controls	No	Yes	No	Yes	No	Yes
Observations	23631	19146	27138	21970	23861	19484

Note: * p<0.10, ** p<0.05, *** p<0.01. Coefficients show change in proportion of strong opposition relative to 100% immediate price increase, with no compensation and information treatment. Coefficients for price and information treatment absorb country × survey round fixed effects. Design feature coefficients absorb household × survey round fixed effects. 95% confidence intervals constructed using standard errors clustered by household. Benjamini–Hochberg adjusted p-values are shown in square brackets below the standard errors. Adjustments are applied jointly across all models to control the false discovery rate. Controls include age, gender, education, household size, income level, trust, energy use and belief about government influence on price. Design regressions omit the coefficients on additional controls, as household fixed effects absorb them by construction. However, we retain the control variables in the specification so that the sample is restricted to the same non-missing subset consistent with other regressions with controls.

Table D7: Results for Equation. 2, reporting predicted probabilities of support for reform (rather than strong opposition) in response to price increases, by subgroup, evaluated at immediate implementation and in the absence of information treatments.

DV: Support for reform	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Panel A: Overall										
10%	0.158***									
	(0.014)									
25%	0.128***									
	(0.011)									
50%	0.110***									
	(0.011)									
100%	0.088***									
	(0.010)									
Panel B: Trust in government										
		Trust	Don't trust	P-value (Δ)						
10%		0.184***	0.115***	0.01						
		(0.018)	(0.020)	[0.032]						
25%		0.145***	0.077***	0.00						
		(0.015)	(0.015)	[0.011]						
50%		0.108***	0.097***	0.61						
		(0.013)	(0.017)	[0.809]						
100%		0.099***	0.045***	0.00						
		(0.013)	(0.012)	[0.009]						
Panel C: Income										
					Bottom 40%	Top 60%	P-value (Δ)			
10%					0.161***	0.151***	0.71			
					(0.019)	(0.023)	[0.848]			
25%					0.119***	0.137***	0.43			
					(0.015)	(0.018)	[0.737]			
50%					0.102***	0.105***	0.88			
					(0.014)	(0.017)	[0.885]			
100%					0.069***	0.096***	0.17			
					(0.012)	(0.017)	[0.416]			
Panel D: Energy use										
								<Median	>Median	P-value (Δ)
10%								0.146***	0.182***	0.20
								(0.018)	(0.022)	[0.399]
25%								0.131***	0.116***	0.49
								(0.015)	(0.016)	[0.737]
50%								0.113***	0.105***	0.71
								(0.015)	(0.015)	[0.774]
100%								0.095***	0.070***	0.16
								(0.014)	(0.012)	[0.483]
Observations	23,631	23,521	23,521		20,254	20,254		23,479	23,479	

Note: * p<0.10, ** p<0.05, *** p<0.01. Coefficients absorb country × survey round fixed effects. Standard errors clustered by household in parentheses. In columns (4), (7), and (10), Benjamini–Hochberg adjusted p-values are reported in square brackets under the corresponding unadjusted p-values to account for multiple hypothesis testing within each subgroup dimension.

Table D8: Equation. 1 results but reporting changes in support for reform (rather than strong opposition) associated with each policy feature, relative to a baseline of a 100% immediate price increase without information treatment.

Dependent variable: Support for reform	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Price increase						
	0.070***	0.080***				
10%	(0.016)	(0.018)				
	[0.178]	[0.177]				
	0.040***	0.049***				
25%	(0.014)	(0.015)				
	[0.303]	[0.135]				
	0.022	0.031**				
50%	(0.014)	(0.015)				
	[0.914]	[0.909]				
Panel B: Design features						
			0.195***	0.199***		
Over three years			(0.015)	(0.016)		
			[0.000]	[0.000]		
			0.259***	0.259***		
With compensation			(0.016)	(0.018)		
			[0.000]	[0.000]		
			0.205***	0.202***		
Targeted			(0.017)	(0.019)		
			[0.000]	[0.000]		
Panel C: Information						
					0.046***	0.044***
Any treatment					(0.012)	(0.012)
					[0.009]	[0.005]
					0.051***	0.052***
Equity treatment					(0.015)	(0.016)
					[0.004]	[0.005]
					0.042***	0.039***
Other treatment					(0.013)	(0.014)
					[0.009]	[0.020]
Constant	0.088***	0.126***	0.146***	0.141***	0.094***	0.136***
	(0.010)	(0.023)	(0.003)	(0.004)	(0.010)	(0.023)
Controls	No	Yes	No	Yes	No	Yes
Observations	23631	19146	27138	21970	23861	19484

Note: * p<0.10, ** p<0.05, *** p<0.01. Coefficients show change in proportion of support for reform relative to 100% immediate price increase, with no compensation and information treatment. Coefficients for price and information treatment absorb country × survey round fixed effects. Design feature coefficients absorb household × survey round fixed effects. 95% confidence intervals constructed using standard errors clustered by household. Benjamini–Hochberg adjusted p-values are shown in square brackets below the standard errors. Adjustments are applied jointly across all models to control the false discovery rate. Controls include age, gender, education, household size, income level, trust, energy use and belief about government influence on price. Design regressions omit the coefficients on additional controls, as household fixed effects absorb them by construction. However, we retain the control variables in the specification so that the sample is restricted to the same non-missing subset consistent with other regressions with controls.

Table D9: Results for Equation. 2, reporting predicted probabilities of strong opposition to price increases across the full distribution of policy design and information treatment conditions (rather than evaluated only at immediate implementation and in the absence of information treatments).

DV: Strong opposition	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Panel A: Overall										
10%	0.347***									
	(0.010)									
25%	0.378***									
	(0.008)									
50%	0.397***									
	(0.008)									
100%	0.456***									
	(0.009)									
Panel B: Trust in government										
		Trust	Don't trust	P-value (Δ)						
10%		0.284***	0.526***	0.00						
		(0.011)	(0.021)	[0.000]						
25%		0.330***	0.508***	0.00						
		(0.010)	(0.015)	[0.000]						
50%		0.357***	0.503***	0.00						
		(0.010)	(0.014)	[0.000]						
100%		0.401***	0.600***	0.00						
		(0.011)	(0.014)	[0.000]						
Panel C: Income										
					Bottom 40%	Top 60%	P-value (Δ)			
10%					0.362***	0.333***	0.20			
					(0.015)	(0.017)	[0.237]			
25%					0.366***	0.381***	0.40			
					(0.012)	(0.013)	[0.432]			
50%					0.378***	0.413***	0.05			
					(0.012)	(0.014)	[0.069]			
100%					0.461***	0.450***	0.55			
					(0.012)	(0.014)	[0.551]			
Panel D: Energy use										
								<Median	>Median	P-value (Δ)
10%								0.326***	0.389***	0.00
								(0.012)	(0.019)	[0.007]
25%								0.357***	0.425***	0.00
								(0.010)	(0.015)	[0.000]
50%								0.381***	0.436***	0.00
								(0.010)	(0.015)	[0.003]
100%								0.425***	0.519***	0.00
								(0.011)	(0.016)	[0.000]
Observations	23,631	23,521	23,521		20,254	20,254		23,479	23,479	

Note: * p<0.10, ** p<0.05, *** p<0.01. Coefficients absorb country × survey round fixed effects. Standard errors clustered by household in parentheses. In columns (4), (7), and (10), Benjamini–Hochberg adjusted p-values are reported in square brackets below the corresponding unadjusted p-values to account for multiple hypothesis testing within each subgroup dimension.

Table D10: Results for Equation. 1, reporting changes in strong opposition associated with each policy feature across the full distribution of policy design and information treatment conditions (rather than relative to a baseline of a 100% immediate price increase without information treatment).

Dependent variable: Strong opposition	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Price increase						
10%	-0.108***	-0.111***				
	(0.014)	(0.015)				
	[0.000]	[0.000]				
25%	-0.079***	-0.088***				
	(0.012)	(0.013)				
	[0.000]	[0.000]				
50%	-0.060***	-0.067***				
	(0.012)	(0.013)				
	[0.000]	[0.000]				
Panel B: Design features						
Over three years			-0.216***	-0.222***		
			(0.006)	(0.006)		
			[0.000]	[0.000]		
With compensation			-0.239***	-0.235***		
			(0.005)	(0.007)		
			[0.000]	[0.000]		
Targeted			-0.170***	-0.165***		
			(0.006)	(0.007)		
			[0.000]	[0.000]		
Panel C: Information						
Any treatment					-0.047***	-0.047***
					(0.009)	(0.009)
					[0.000]	[0.000]
Equity treatment					-0.035***	-0.032***
					(0.011)	(0.012)
					[0.002]	[0.010]
Other treatment					-0.054***	-0.057***
					(0.010)	(0.010)
					[0.000]	[0.000]
Constant	0.457***	0.334***	0.531***	0.524***	0.428***	0.294***
	(0.009)	(0.025)	(0.003)	(0.004)	(0.007)	(0.023)
Controls	No	Yes	No	Yes	No	Yes
Observations	23,663	19,146	34,116	23,488	25,379	21,002

Note: * p<0.10, ** p<0.05, *** p<0.01. Coefficients show change in proportion of strong opposition across the full distribution of design and information treatment conditions. Coefficients for price and information treatment absorb country × survey round fixed effects. Unlike the baseline specification, these margins are not restricted to the reference scenario of 100% immediate increase without information treatment. Design feature coefficients absorb household × survey round fixed effects. 95% confidence intervals constructed using standard errors clustered by household. Benjamini–Hochberg adjusted p-values are shown in square brackets below the standard errors. Adjustments are applied jointly across all models to control the false discovery rate. Controls include age, gender, education, household size, income level, trust, energy use and belief about government influence on price. Design regressions omit the coefficients on additional controls, as household fixed effects absorb them by construction. However, we retain the control variables in the specification so that the sample is restricted to the same non-missing subset consistent with other regressions with controls.

Table D11: Results for Equation. 2, reporting predicted probabilities of strong opposition to price increases by subgroup, but weighted by the inverse probability of being sampled within each gender–age group across countries.

DV: Strong opposition	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Panel A: Overall										
10%	0.515***									
	(0.024)									
25%	0.544***									
	(0.021)									
50%	0.562***									
	(0.023)									
100%	0.659***									
	(0.027)									
Panel B: Trust in government										
		Trust	Don't trust	P-value (Δ)						
10%		0.499***	0.530***	0.49						
		(0.030)	(0.034)	[0.733]						
25%		0.534***	0.593***	0.18						
		(0.025)	(0.036)	[0.528]						
50%		0.550***	0.617***	0.15						
		(0.028)	(0.037)	[0.589]						
100%		0.632***	0.739***	0.06						
		(0.032)	(0.047)	[0.342]						
Panel C: Income										
					Bottom 40%	Top 60%	P-value (Δ)			
10%					0.500***	0.508***	0.88			
					(0.032)	(0.041)	[0.881]			
25%					0.514***	0.564***	0.24			
					(0.028)	(0.033)	[0.580]			
50%					0.548***	0.574***	0.56			
					(0.033)	(0.034)	[0.750]			
100%					0.651***	0.674***	0.69			
					(0.037)	(0.047)	[0.754]			
Panel D: Energy use										
								<Median	>Median	P-value (Δ)
10%								0.523***	0.498***	0.62
								(0.027)	(0.043)	[0.743]
25%								0.566***	0.530***	0.39
								(0.027)	(0.032)	[0.776]
50%								0.518***	0.641***	0.01
								(0.028)	(0.037)	[0.086]
100%								0.647***	0.687***	0.48
								(0.033)	(0.046)	[0.824]
Observations	22,711	22,601	22,601		19,336	19,336		22,559	22,559	

Note: * p<0.10, ** p<0.05, *** p<0.01. Coefficients absorb country × survey round fixed effects. Standard errors clustered by household in parentheses. In columns (4), (7), and (10), Benjamini–Hochberg adjusted p-values are reported in square brackets below the unadjusted p-values to account for multiple hypothesis testing within each subgroup dimension.

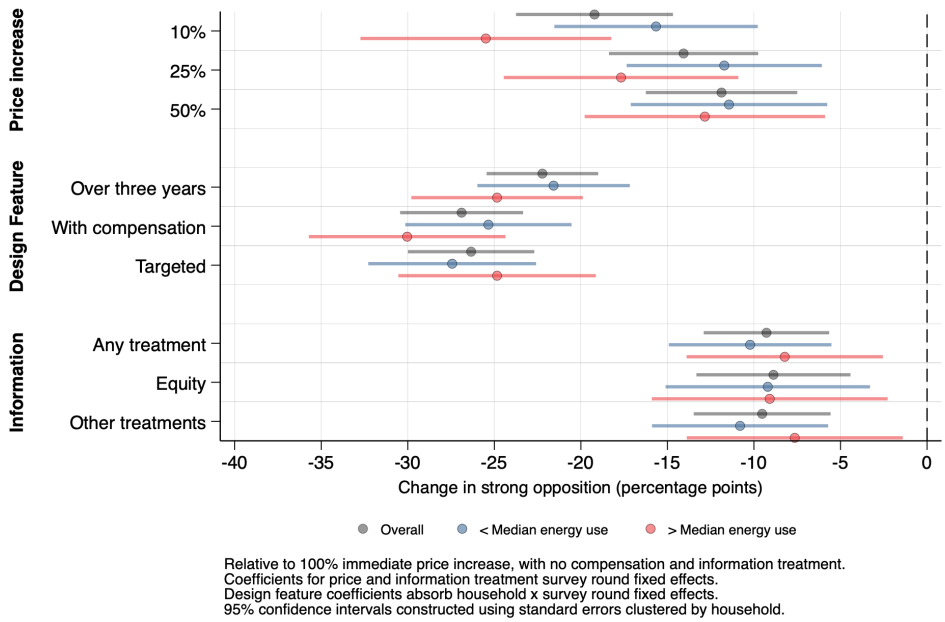
Table D12: Results for Equation. 1, but weighted by the inverse probability of being sampled within each gender–age group across countries, reporting changes in strong opposition associated with each policy feature, relative to a baseline of a 100% immediate price increase without information treatment.

Dependent variable: Strong opposition	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Price increase						
	-0.144***	-0.174***				
10%	(0.035)	(0.038)				
	[0.896]	[0.745]				
	-0.116***	-0.120***				
25%	(0.033)	(0.036)				
	[0.867]	[0.871]				
	-0.098***	-0.102***				
50%	(0.034)	(0.037)				
	[0.881]	[0.908]				
Panel B: Design features						
			-0.182***	-0.191***		
Over three years			(0.022)	(0.023)		
			[0.000]	[0.000]		
			-0.243***	-0.238***		
With compensation			(0.026)	(0.029)		
			[0.000]	[0.000]		
			-0.230***	-0.218***		
Targeted			(0.026)	(0.029)		
			[0.000]	[0.000]		
Panel C: Information						
					-0.067**	-0.067**
Any treatment					(0.028)	(0.030)
					[0.138]	[0.112]
					-0.056	-0.056
Equity treatment					(0.034)	(0.036)
					[0.333]	[0.340]
					-0.075**	-0.077**
Other treatment					(0.030)	(0.032)
					[0.075]	[0.062]
Constant	0.659***	0.511***	0.513***	0.514***	0.618***	0.466***
	(0.027)	(0.049)	(0.005)	(0.005)	(0.026)	(0.047)
Controls	No	Yes	No	Yes	No	Yes
Observations	22,711	19,146	26,173	21,970	22,951	19,484

Note: * p<0.10, ** p<0.05, *** p<0.01. Coefficients show change in proportion of strong opposition relative to 100% immediate price increase, with no compensation and information treatment. Coefficients for price and information treatment absorb country × survey round fixed effects. Design feature coefficients absorb household × survey round fixed effects. 95% confidence intervals constructed using standard errors clustered by household. Benjamini–Hochberg adjusted p-values are shown in square brackets below the standard errors. Adjustments are applied jointly across all models to control the false discovery rate. Controls include age, gender, education, household size, income level, trust, energy use and belief about government influence on price. Design regressions omit the coefficients on additional controls, as household fixed effects absorb them by construction. However, we retain the control variables in the specification so that the sample is restricted to the same non-missing subset consistent with other regressions with controls.

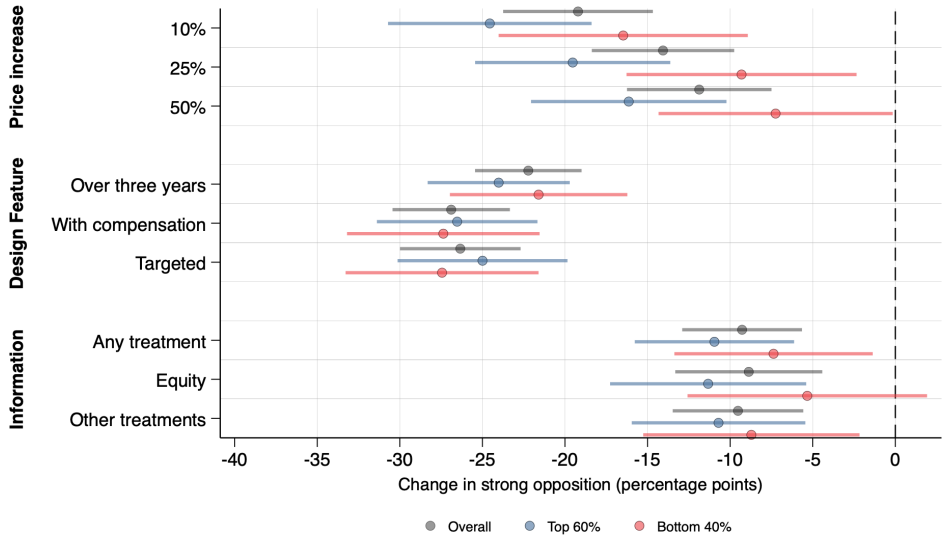
D.4 Heterogeneity in main results by subgroups

Figure D1: Changes in strong opposition for each policy feature (Figure 3), by energy usage



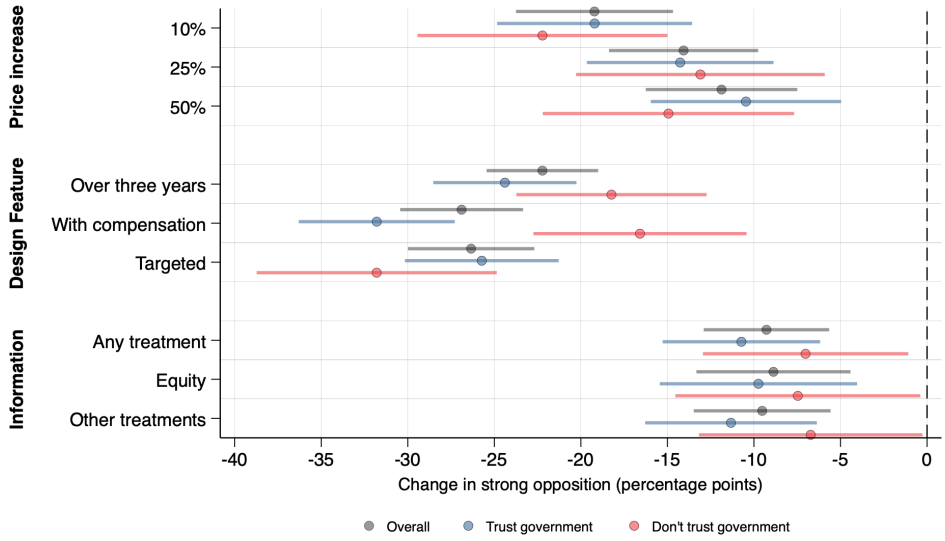
Relative to 100% immediate price increase, with no compensation and information treatment.
Coefficients for price and information treatment survey round fixed effects.
Design feature coefficients absorb household x survey round fixed effects.
95% confidence intervals constructed using standard errors clustered by household.

Figure D2: Changes in strong opposition for each policy feature (Figure 3), by income group



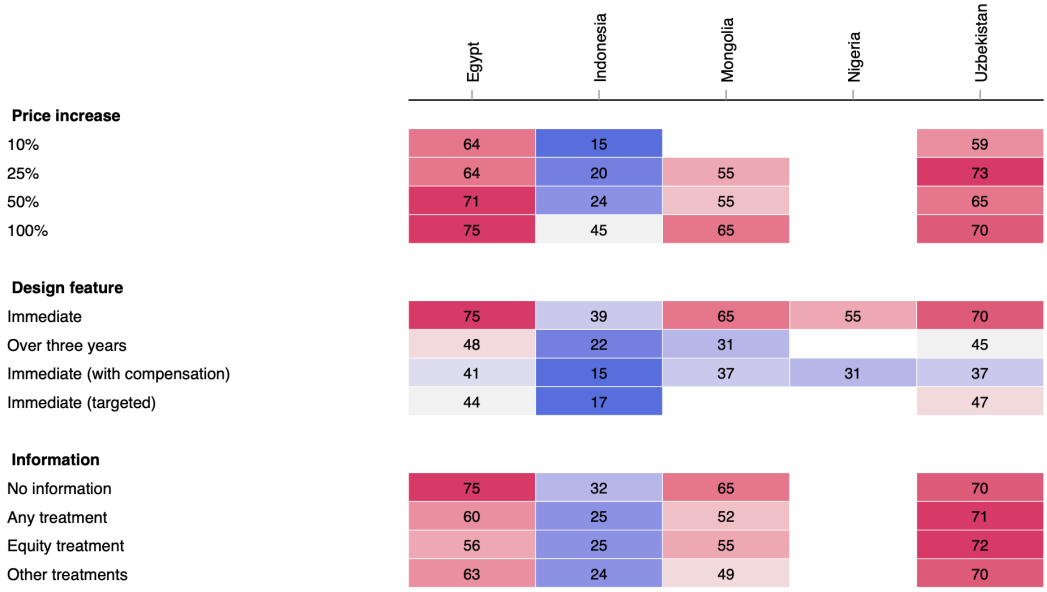
Relative to 100% immediate price increase, with no compensation and information treatment.
Coefficients for price and information treatment survey round fixed effects.
Design feature coefficients absorb household x survey round fixed effects.
95% confidence intervals constructed using standard errors clustered by household.

Figure D3: Changes in strong opposition for each policy feature (Figure 3), by trust in government



Relative to 100% immediate price increase, with no compensation and information treatment.
Coefficients for price and information treatment survey round fixed effects.
Design feature coefficients absorb household x survey round fixed effects.
95% confidence intervals constructed using standard errors clustered by household.

Figure D4: Share of respondents expressing strong opposition to reform across policy features (percentage points)



Note: Proportions are calculated conditional on baseline values of other policy dimensions: for price increases, holding design as immediate and no information; for information treatments, holding price increase at 100% and design as immediate; and for design features, holding price increase at 100% and no information treatment.

Figure D5: Coping and compensation preferences across countries (percentage points)

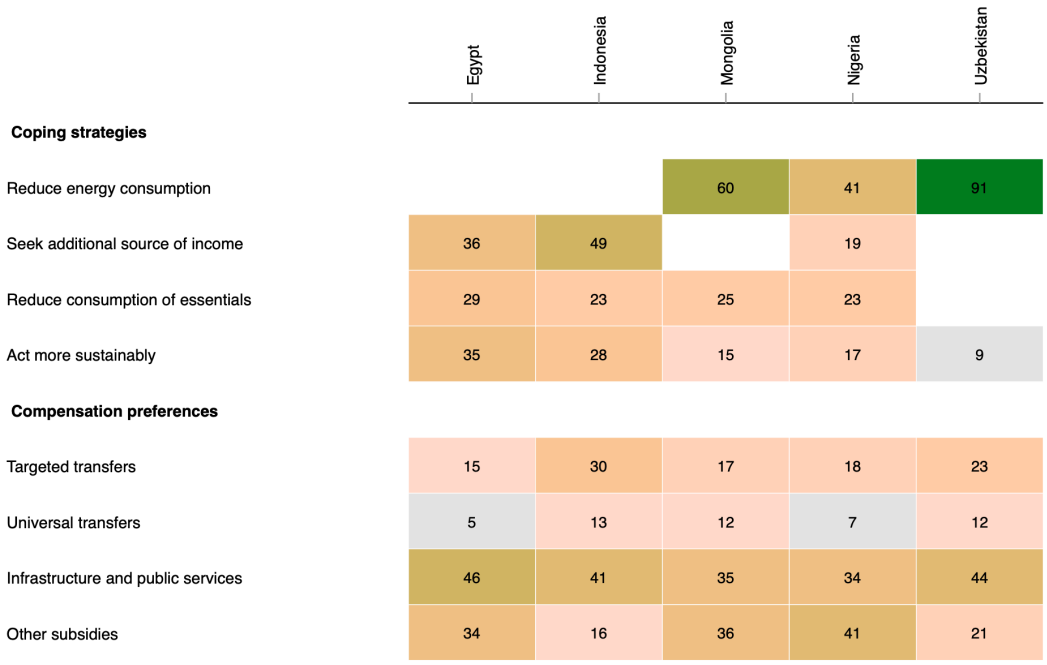
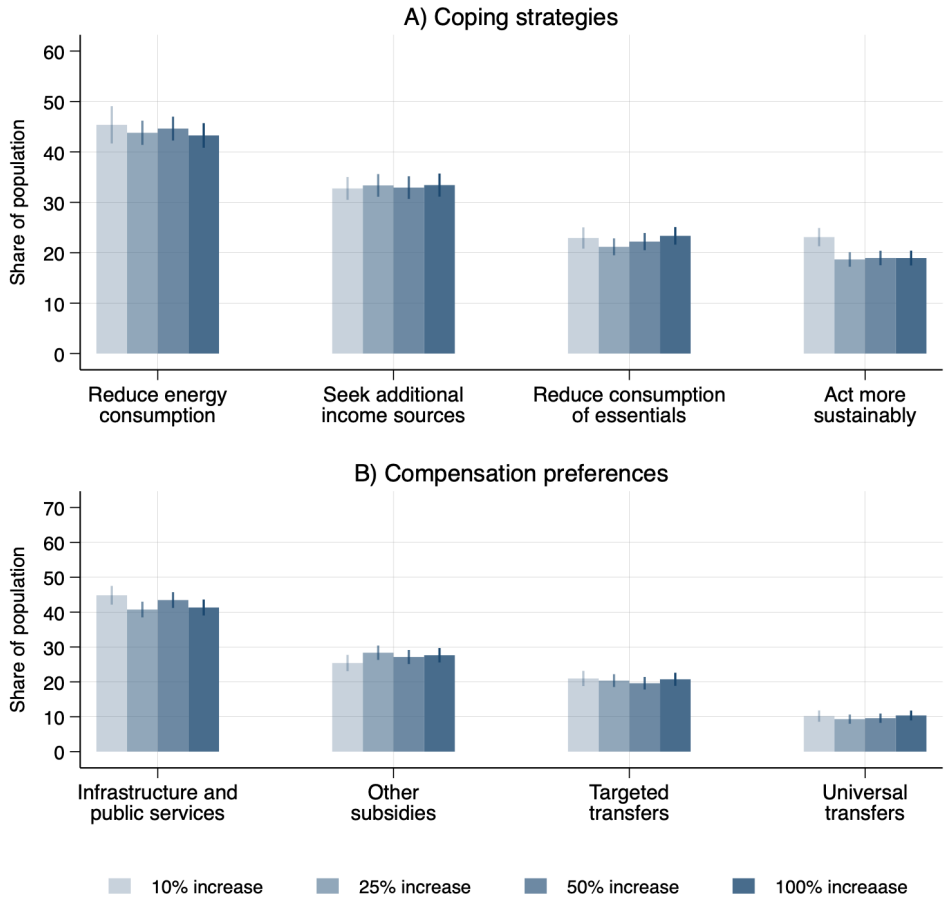
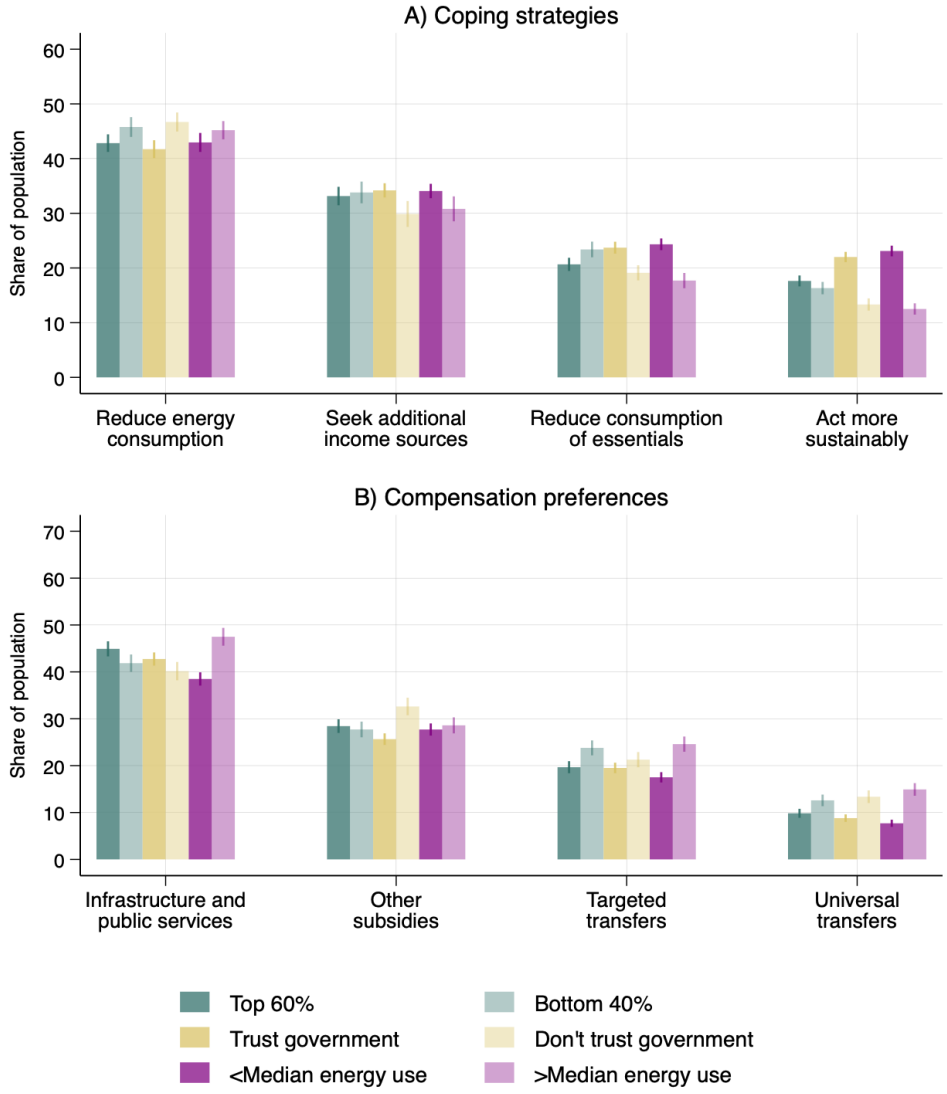


Figure D6: Coping and compensation preferences, across randomized price increase



Note: 95% confidence intervals shown as spikes.

Figure D7: Coping and compensation preferences, across randomized price respondent subgroups



Note: 95% confidence intervals shown as spikes.

D.5 Main figures disaggregated by country

Figure D8: Reduction in opposition to reforms due to design features (Egypt)

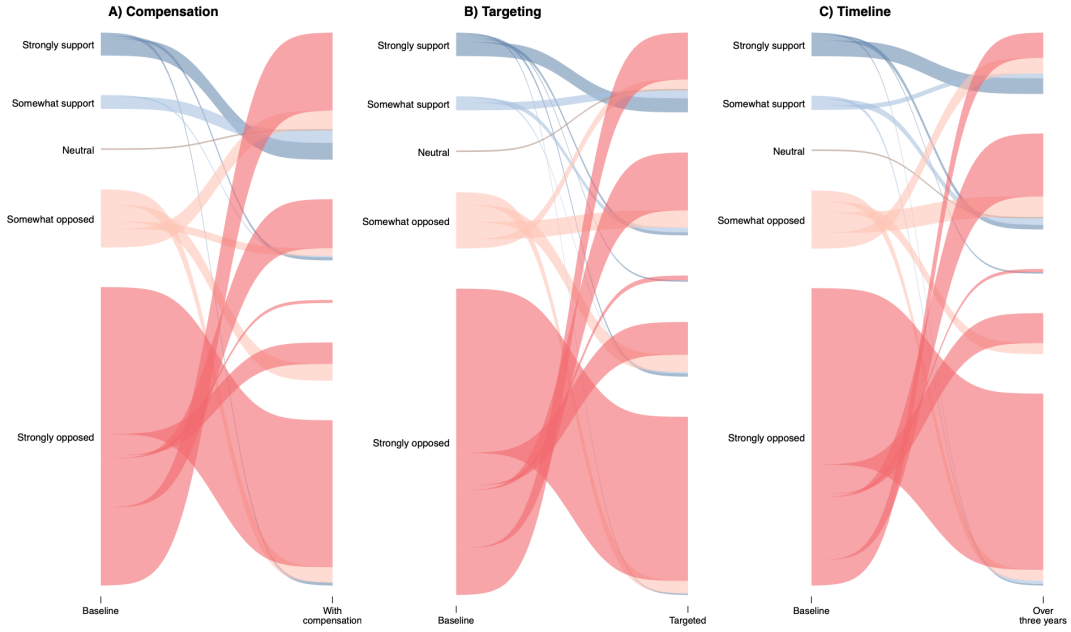


Figure D9: Reduction in opposition to reforms due to design features (Indonesia)

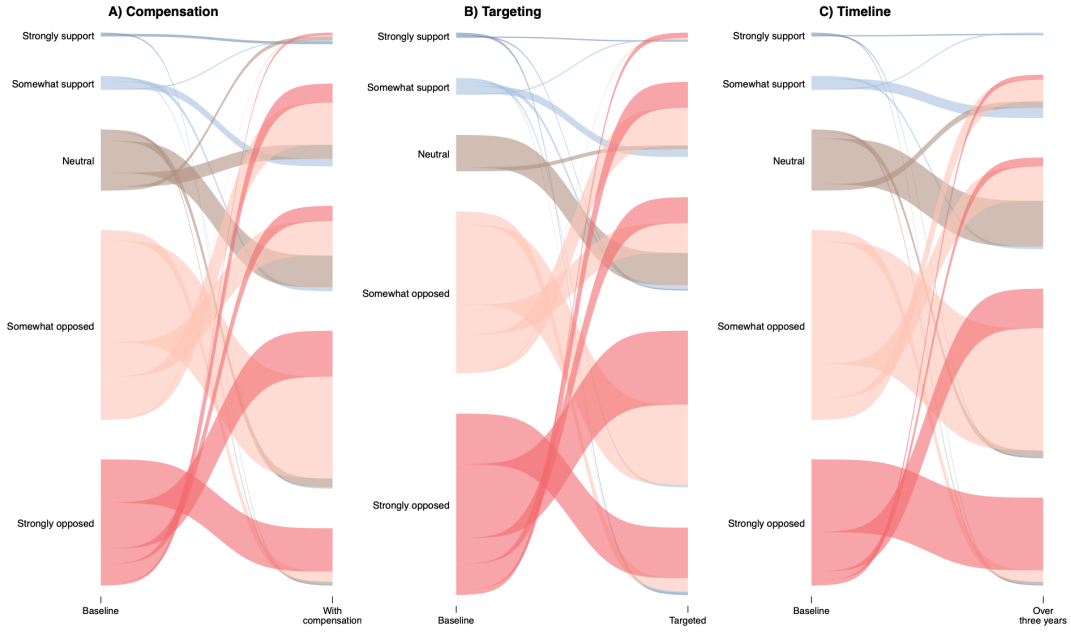


Figure D10: Reduction in opposition to reforms due to design features (Mongolia)

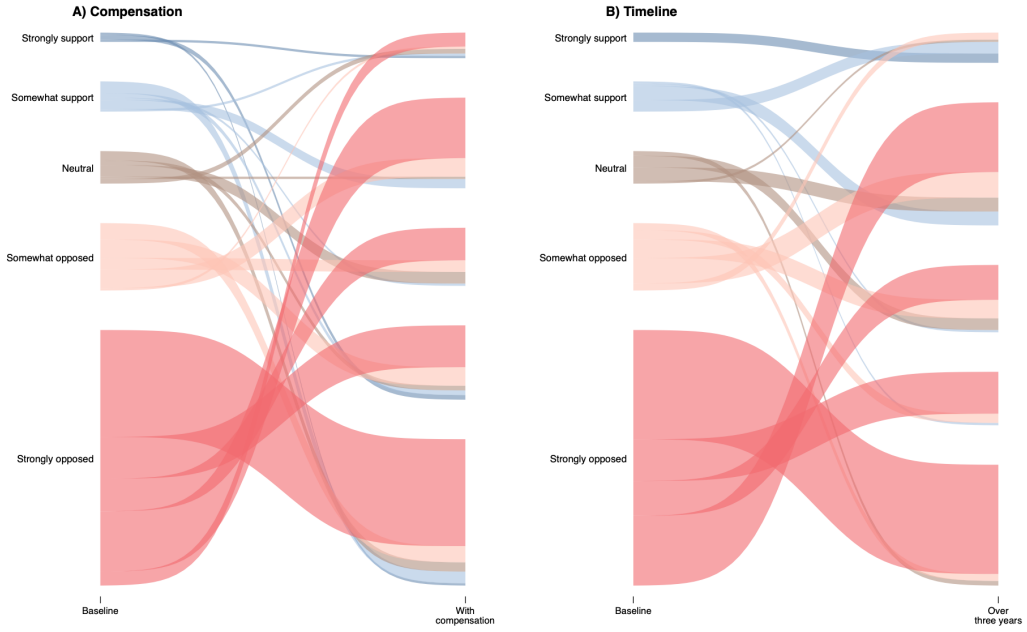


Figure D11: Reduction in opposition to reforms due to design features (Uzbekistan)

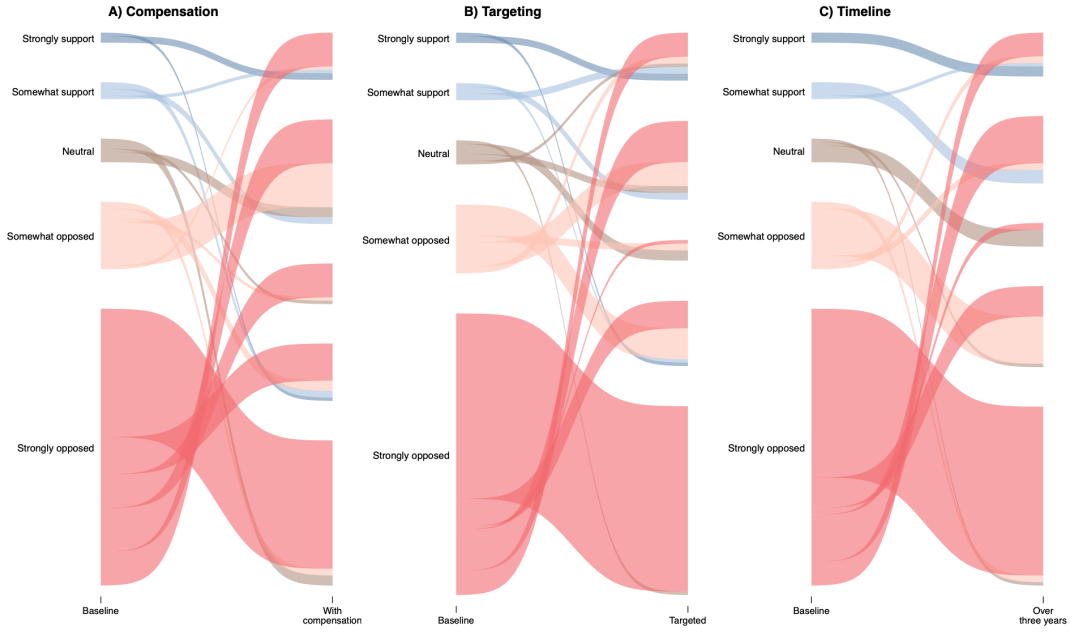
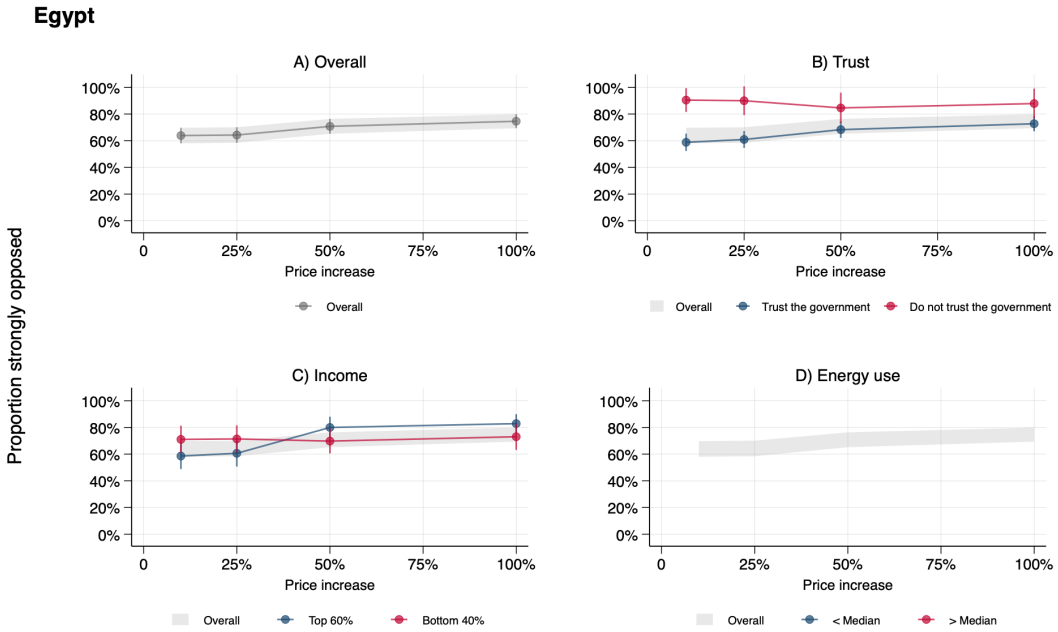
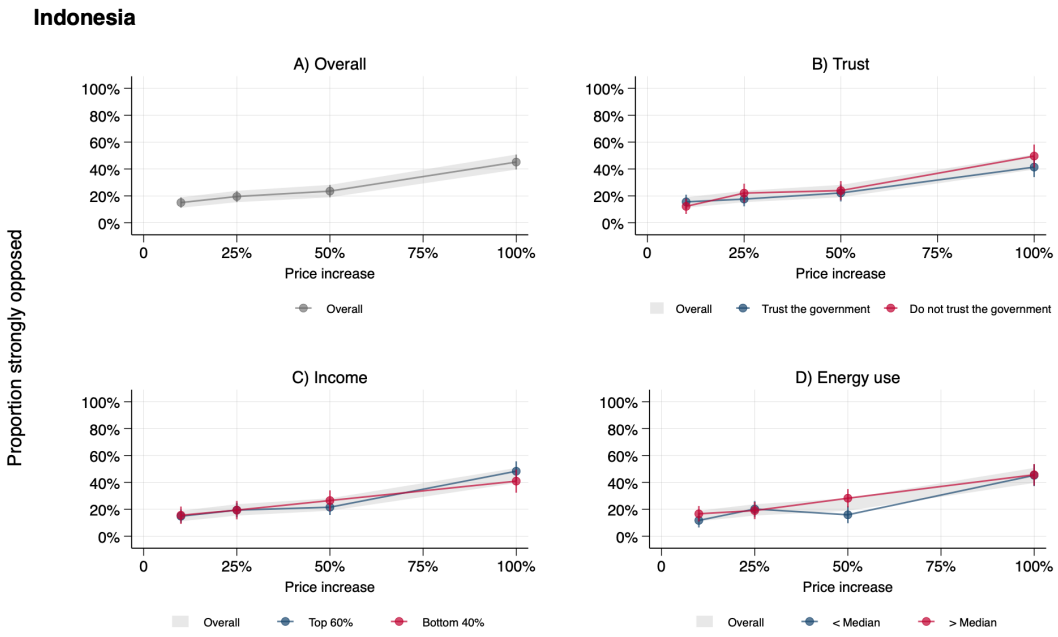


Figure D12: Share of population who strongly opposed reforms by price increase (Egypt)



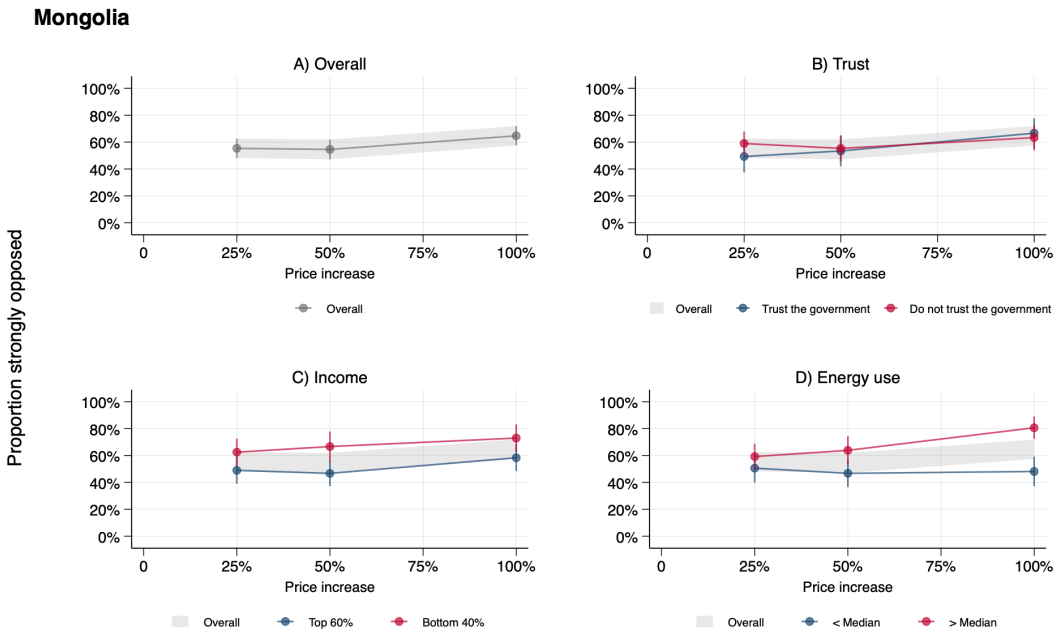
Coefficients absorb survey round fixed effects. 95% confidence intervals constructed using standard errors clustered by household, shown as spikes for subgroups and shaded area for overall estimates.

Figure D13: Share of population who strongly opposed reforms by price increase (Indonesia)



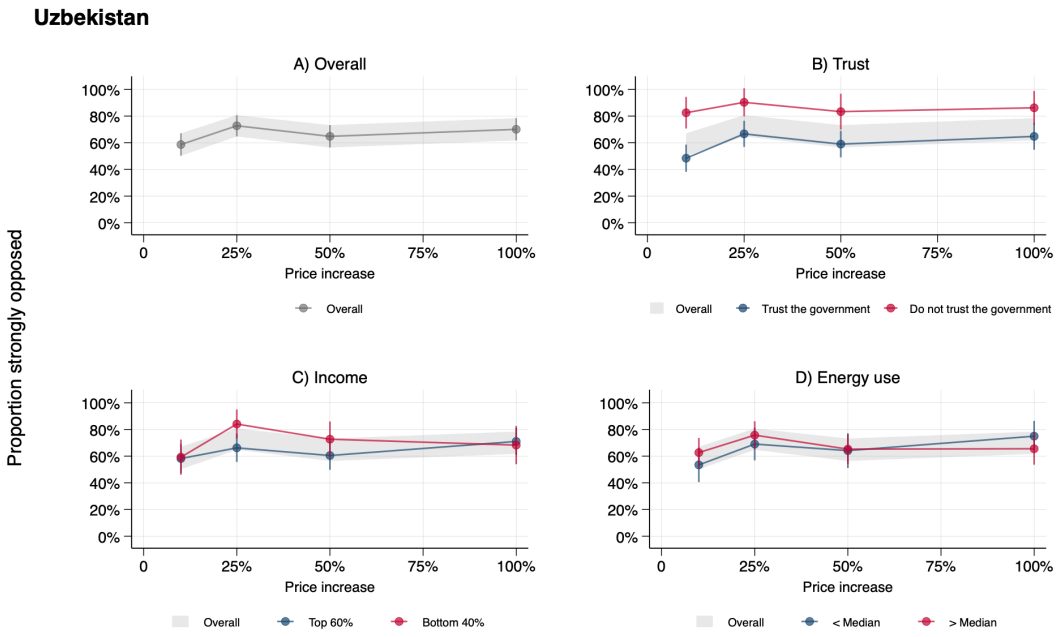
Coefficients absorb survey round fixed effects. 95% confidence intervals constructed using standard errors clustered by household, shown as spikes for subgroups and shaded area for overall estimates.

Figure D14: Share of population who strongly opposed reforms by price increase (Mongolia)



Coefficients absorb survey round fixed effects. 95% confidence intervals constructed using standard errors clustered by household, shown as spikes for subgroups and shaded area for overall estimates.

Figure D15: Share of population who strongly opposed reforms by price increase (Uzbekistan)



Coefficients absorb survey round fixed effects. 95% confidence intervals constructed using standard errors clustered by household, shown as spikes for subgroups and shaded area for overall estimates.

Figure D16: Reduction in strong opposition by reform feature (Egypt)

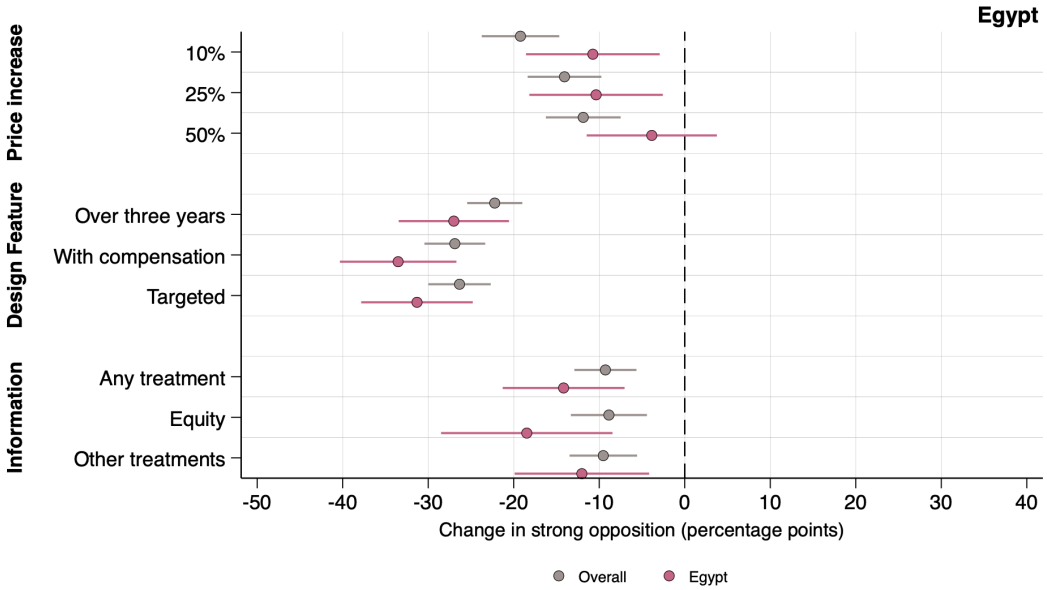
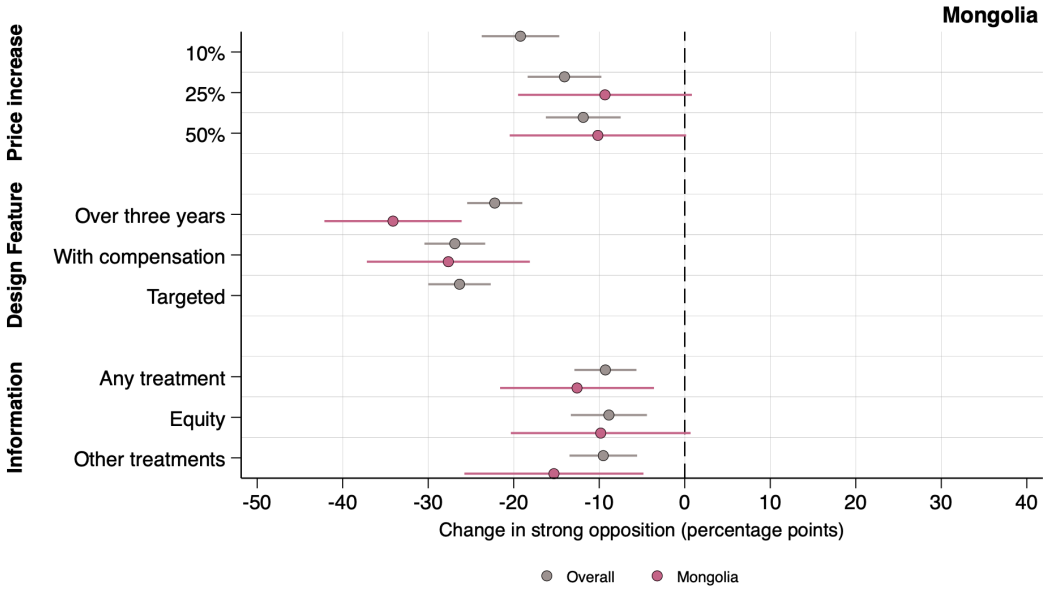


Figure D17: Reduction in strong opposition by reform feature (Indonesia)

Relative to 100% immediate price increase, with no compensation and information treatment.
Coefficients for price and information treatment survey round fixed effects.
Design feature coefficients absorb household x survey round fixed effects.
95% confidence intervals constructed using standard errors clustered by household.

Figure D18: Reduction in strong opposition by reform feature (Mongolia)



Relative to 100% immediate price increase, with no compensation and information treatment.
Coefficients for price and information treatment survey round fixed effects.
Design feature coefficients absorb household x survey round fixed effects.
95% confidence intervals constructed using standard errors clustered by household.

Figure D19: Reduction in strong opposition by reform feature (Nigeria)

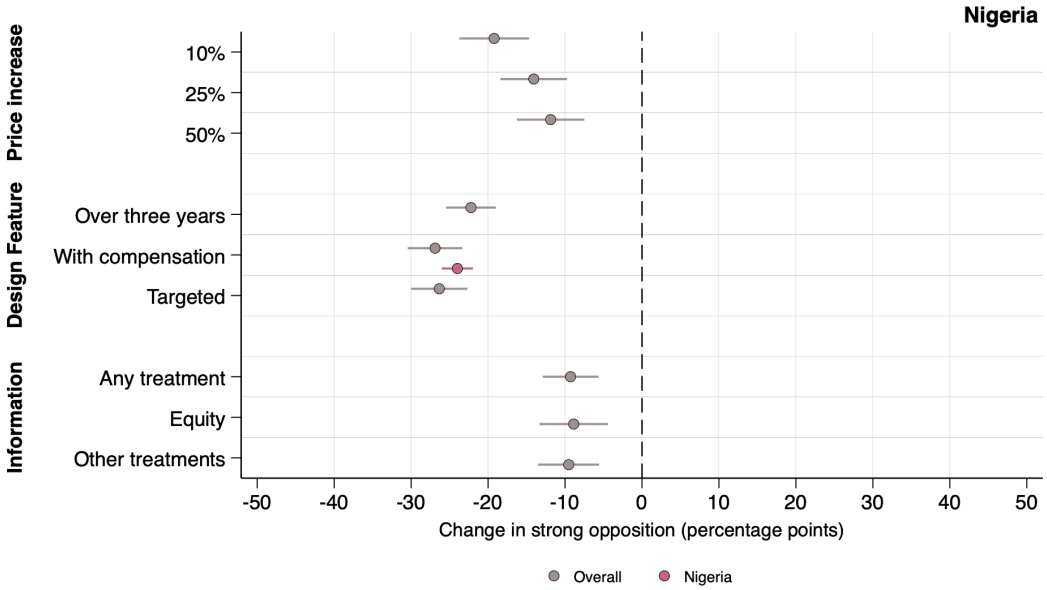


Figure D20: Reduction in strong opposition by reform feature (Uzbekistan)

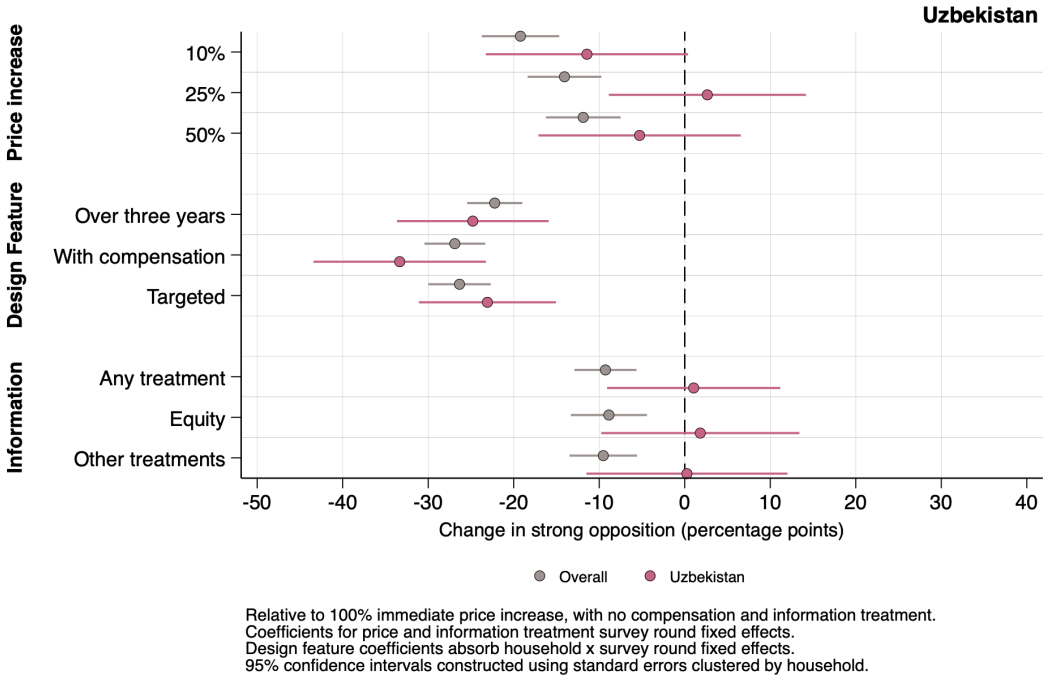
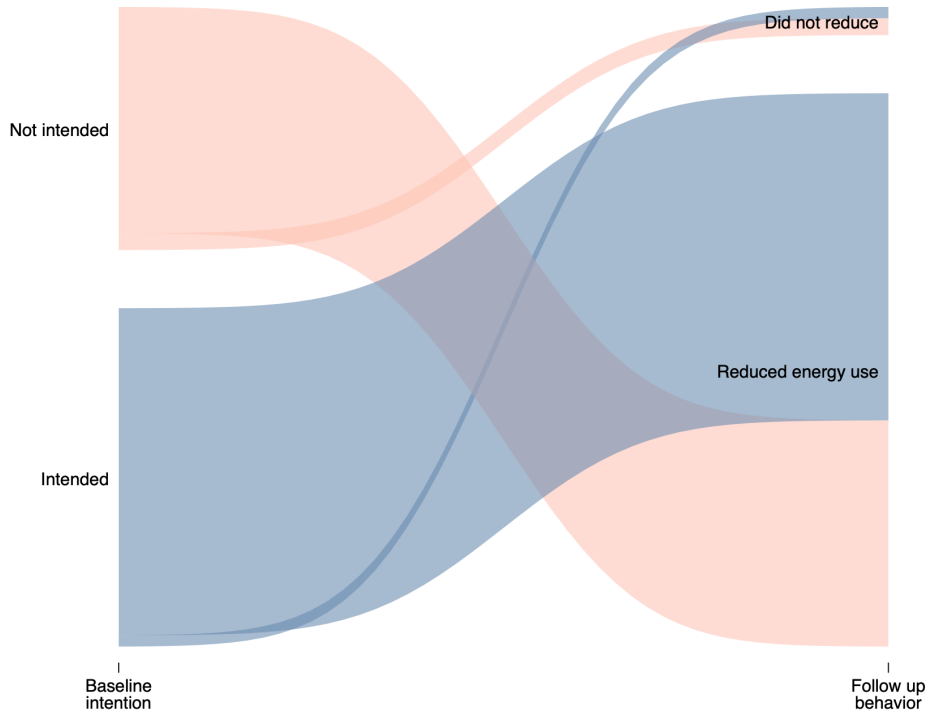


Figure D21: Follow through on intentions to reduce energy usage in Uzbekistan



E Expert survey

An expert prediction survey was conducted with support from the Social Science Prediction Platform (SSPP) in April and May 2025 (full text is available online[3]). Experts were invited to complete the survey from an existing pool of researchers that SSPP maintains, through social media advertisements and emails from the authors. This means that the sample of experts was not randomly selected, rather they were a targeted group of people with relevant knowledge and expertise who responded to our invitation to participate. A total of 66 experts participated in the survey; 88 percent had advanced university degrees, 43 percent worked in academia, 38 percent worked for international organizations, and 42 percent had detailed subject matter and/or country knowledge (see Table E1). Around 42% of the sample reported having directly relevant sectoral or regional experience. We refer to these as "experts with relevant experience" and present their responses separately. Overall self-confidence in predictions was modest. On a 5-point ordinal scale, the average reported confidence level among experts with relevant experience was 2.88, while those without such experience reported scores lower by approximately 0.4 points.

[3]https://socialscienceprediction.org/predict/r/PREVIEW/c23b2655e8b14ea89986734e5636b5e9/

Table E1: Background characteristics of experts

Background characteristic	**Mean**
Holds a doctorate	69%
Holds a master's degree	19%
Holds a bachelor's degree or below	13%
Primary discipline is economics	100%
Primary discipline is some other field	0%
Affiliated with a university	43%
Affiliated with the World Bank	38%
Affiliated with a think tank or research institute	11%
Affiliated with some other institute	9%
Has domain or regional expertise	42%
Mean confidence in own prediction (with domain or regional expertise)	2.88
Mean confidence in own prediction (no domain or regional expertise)	2.48

F Conceptual framework

Governments often respond to public opposition to energy price reform by scaling back the size of the price increase and implementing only a fraction $\alpha \in (0, 1)$ of the adjustment required to remove all subsidies. We treat this partial reform as the benchmark strategy, and model it as yielding a reduced fraction of the fiscal benefits in perpetuity. If alternative designs that allow for higher energy prices, such as phasing in the implementation, communication campaigns, or compensating policies, achieve the same reduction in strong opposition, we can calculate the critical threshold values at which alternative designs become more cost-effective than the benchmark partial reform.

The table below presents the critical policy thresholds defined as the values of the time period, communication cost, or compensating policies that are fiscally equivalent to a given partial reform of intensity α, with $\delta > 0$ being the government's continuous real rate to discount future cash flows:

Table F1: Critical thresholds equating design features to a partial reform (of intensity α)

Reform deviation	**Critical threshold expression**	**Interpretation**
Gradual reform where fiscal benefits accumulate progressively over time rather than all at once	$\delta^\star = \frac{1}{\alpha} - 1$	Maximum real discount rate needed to prefer immediate partial reform over gradual reform
Information campaign incurring a one-time cost equal to a multiple β of the full annual fiscal benefit	$\beta^\star = \frac{1-\alpha}{\delta}$	Maximum information cost as a multiple of annual benefits that is justifiable
Compensation share γ of the fiscal savings	$\gamma^\star = 1 - \alpha$	Maximum share of revenue that can be provided in compensation

For instance, if implementing only 75 percent of the required price increase immediately (i.e. $\alpha = 0.75$) and if phasing in the full reform gradually yields the same level of strong opposition, then the critical discount rate is 33.3 percent.

This means if the government can borrow at a real rate lower than 33.3 percent, it is better off implementing the full reform gradually than permanently locking in 75 percent of the required price increase through partial reform. Similarly, if the government's real discount rate is 10 percent ($\delta = 0.1$), then a communication campaign is preferable to a 75 percent partial reform as long as the campaign costs less than 2.5 times the annual benefit. Finally, compensation policies are preferable only if the government retains at least the same fraction of fiscal revenue as it would under a partial reform (75 percent in this case).

F.1 Detailed description of the critical threshold expressions.

Let B denote the annual fiscal benefit (comprising of fiscal savings or environmental gains) from some baseline price reform that is implemented in full immediately. If the government's continuous real discount rate for future cash flows is $\delta > 0$, then the present value of the stream of perpetual real benefits (NB_0) is given by:

$$\begin{aligned} NB_0 &= \int_0^{\infty} Be^{-\delta t}\, dt \\ &= \frac{B}{\delta}. \end{aligned}$$

s_0 is the share of the population strongly opposed to this reform. We assume that the probability of a reform being reversed is equal to the level of strong opposition it faces. Therefore, the probability of surviving is simply the complement of the level of strong opposition ($1 - s_0$). The expected (i.e., survival

probability adjusted) net benefits (ENB) are given as:

$$ENB_0 = (1 - s_0)\frac{B}{\delta}.$$

Partial reform (p)**:** The ENB of a partial reform, with strong opposition s_p, and one which implements only a fraction $\alpha \in (0, 1)$ of the full price increase immediately and permanently, delivering a benefit stream of αB per year in perpetuity is given by:

$$\begin{aligned} ENB_p &= (1 - s_p)\int_0^\infty \alpha B e^{-\delta t}\, dt \\ &= (1 - s_p)\frac{\alpha B}{\delta}. \end{aligned}$$

Staggered reform (s)**:** We model the ENB of a staggered reform in which benefits in each period accrue according to a smooth implementation path where benefits begin accruing immediately and converge asymptotically to B under the function $b(t) = B(1 - e^{-t})$. Assuming the reform faces strong opposition level s_s, the ENB is:

$$\begin{aligned} ENB_s &= (1 - s_s)\int_0^\infty B(1 - e^{-t})e^{-\delta t}\, dt \\ &= (1 - s_s)B\left(\int_0^\infty e^{-\delta t}\, dt - \int_0^\infty e^{-(1+\delta)t}\, dt\right) \\ &= (1 - s_s)B\left(\frac{1}{\delta} - \frac{1}{1+\delta}\right) \\ &= (1 - s_s)B\frac{1}{\delta(1+\delta)}. \end{aligned}$$

If the two reforms face the same level of strong opposition ($s_p = s_s = s$), then

the government will be indifferent between the partial and staggered reform when $ENB_p = ENB_s$. This indifference condition is given as:

$$(1-s)\frac{\alpha B}{\delta} = (1-s)B\frac{1}{\delta(1+\delta)}.$$

Dividing both sides by $\frac{(1-s)B}{\delta}$ yields:

$$\alpha = \frac{1}{1+\delta}.$$

Rearranging simplifies the critical threshold $\delta^\star$ to:

$$\delta^\star = \frac{1}{\alpha} - 1.$$

Reform (f) with a one-time information campaign: The government pays a one-time cost $C = \beta B$ at time 0 to communicate the benefits of the reform. This faces a strong opposition level s_f and benefit stream begins immediately. The ENB is given as:

$$ENB_f = (1-s_f)\left(\int_0^\infty Be^{-\delta t}\,dt - \beta B\right) = (1-s_f)B\left(\frac{1}{\delta} - \beta\right).$$

If the reforms have the same level of strong opposition ($s_p = s_f = s$), then the indifference condition simplifies to:

$$(1-s)\frac{\alpha B}{\delta} = (1-s)B\left(\frac{1}{\delta} - \beta\right).$$

Which after simplification yields:

$$\alpha = 1 - \delta\beta.$$

Rearranging gives us the critical threshold $\beta^\star$ as:

$$\beta^\star = \frac{1-\alpha}{\delta}.$$

Reform (r) **with compensation:** A share γ of the annual benefit is provided in compensation every year. This faces a strong opposition level s_r and the government only retains $(1-\gamma)B$ every year. The ENB is given as:

$$\begin{aligned} ENB_r &= (1-s_r)\int_0^\infty B(1-\gamma)e^{-\delta t}\,dt \\ &= (1-s_r)\frac{B(1-\gamma)}{\delta}. \end{aligned}$$

If the reforms face the same level of strong opposition ($s_p = s_r = s$), the indifference condition is given as:

$$(1-s)\frac{\alpha B}{\delta} = (1-s)\frac{B(1-\gamma)}{\delta}.$$

Dividing both sides by $\frac{(1-s)B}{\delta}$ yields:

$$\alpha = 1 - \gamma.$$

Rearranging gives us the critical threshold $\gamma^\star$ as:

$$\gamma^\star = 1 - \alpha.$$

APPENDIX G – EXAMPLE OF COUNTRY-SPECIFIC QUESTIONNAIRE

LISTENING TO INDONESIA

ROUND 12: April 2025

HOUSEHOLD PHONE SURVEY QUESTIONNAIRE
COMPUTER ADAPTIVE TELEPHONE SURVEY (CATI)

Statement of Consent for baseline survey respondents (2000)

For those, who participate for the 1st time:

Greetings! My name is_____. I work for _____. We conduct surveys to track the social and economic situation across the country. Our colleagues recently visited you in person and interviewed members of your household. You were selected to participate in special second phase of the study called "Listening to Indonesia." The survey collects the views of participatans on public policies and economic development. Your responses will help in the design of social policies and will help partners give better advice to policymakers. This survey will be collected every month and will take about 20 minutes, but the first interview may take slightly longer. Each time, we will send ____ Rupiah credit to your telephone. We guarantee confidentiality and anonymity—all your answers will be used in a general form together with thousands of other respondents. Can I please confirm your willingness to participate? To ensure quality, I may record your interview, but the recording will be deleted within two months.

Color codes for the questions	Questions in black	Current or active questions
	Questions in blue	Newly added questions for the latest round (updates)
	Questions in green	Removed or paused questions for the moment
Color codes for the variable names	Variables in black	Variable names in Stata/Kobo
	Notes in gray and italic	Conditions for the variable and available rounds

MODULE 14: GASOLINE PRICE REFORM

prior_belief1 *[Only Round 11]*	**To what extent are you concerned about the cost of food and other essential items?**	**Not at all .....1** **A little .....2** **Moderately .....3** **A lot .....4** **A great deal.....5**
prior_belief2 *[Only Round 11]*	**The government of Indonesia can generally trsuted to do what is right**	**Strongly agree .....1** **Agree .....2** **Neither.....3** **Disagree .....4** **Strongly disagree.....5**
gasoline_use1 *[Only Round 11]*	**What are the two most common modes of transportation you and members of your household used in the past 30 days?**	**Car .....1** **Motorbike .....2** **Shared transport (e.g. van tuk-tuk .....3** **Public transport (e.g. bus, train).....4** **Walking or cycling .....5** **Other.....6**
gasoline_use2 *[Only Round 11]*	**Did you and/or any member of your household purchase any pertalite in the last 30 days?**	**Yes.....1** **No 2**
gasoline_use3 ***if gasoline_use2=1*** *[Only Round 11]*	**How much did your household spend on pertalite in the last 30 days?**	**IDR _____** **[0 – millions]**
know_gas_price1 *[Only Round 11]*	**To the best of your knowledge, what is the price per liter of pertalite in your location today?**	**IDR _____** **[0 – tens of thousands]**
know_gas_price2 *[Only Round 11]*	**To what extent do you think the government of Indonesia controls the price per liter of pertalite?**	**Not at all .....1** **A little .....2** **Moderately .....3** **A lot .....4** **A great deal.....5**

treatment1 *[Round 11, 12]*	**Random allocation (stratified by age/gender/location) into the following groups:** **A <RANDOM AGE>-year-old <RANDOM GENDER> <RANDOM LOCATION>** **treatment1_rnd_age:** ***a random number between 1-4.*** **<RANDOM AGE>: treatment1_age** **25 if treatment1_rnd_age is 1** **35 if treatment1_rnd_age is 2** **45 if treatment1_rnd_age is 3** **55 if treatment1_rnd_age is 4** **treatment1_rnd_sex:** ***another random number between 1-2*** ***(different from* treatment1*_rnd_age)*** **<RANDOM GENDER>: treatment1_sex** **woman if treatment1_rnd_sex is 1** **man if treatment1_rnd_sex is 2** **treatment1_rnd_location:** ***another random number between 1-4*** ***(different from* treatment1*_rnd_age and* treatment1*_rnd_sex)*** **<RANDOM LOCATION>: treatment1_loc** **1 if treatment1_rnd_loc is HHid1** **2 if treatment1_rnd_loc is HHid2** **3 if treatment1_rnd_loc is HHid3** **4 if treatment1_rnd_loc is HHid4** **<RANDOM PART OF THE QUESTION>** 1. **Group A Pure Control – No information** 2. **Group B Placebo control.** Recent research shows increasing pertalite prices could save the government of Indonesia up to 110 Bio IDR a year. This means more money could be spent improving roads, schools, and hospitals, and creating better employment opportunities. 3. **Group C Equity.** Recent research shows increasing pertalite prices could save the government of Indonesia up to 110 Bio IDR a year. This means more money could be spent improving roads, schools, and hospitals, and creating better employment opportunities. Higher pertalite prices primarily impact richer households as they mainly use cars, as opposed to public or shared transport. Estimates suggest that around two-thirds of	**Strongly agree.....1** **Agree.....2** **Neither.....3** **Disagree.....4** **Strongly disagree.....5**

	pertalite in Indonesia is consumed by the richest half of households. 4. **Group D Environment.** Recent research shows increasing pertalite prices could save the government of Indonesia up to 110 Bio IDR a year. This means more money could be spent improving roads, schools, and hospitals, and creating better employment opportunities. Higher pertalite prices will improve air pollution and help to address climate change. Estimates suggest that the negative environmental impacts from low petalite prices cost Indonesia around 1,300 Bio IDR a year.	
elasticity_supp1 *[Round 11,12]*	**Intro:** According to the government of Indonesia, the average national price of pertalite is 10,000 IDR per liter. **For question elasticity_supp2 - elasticity_supp5:** **<RANDOM PERTALITE PRICE>:** **pertalite_price** **1 if pertalite_price1_rnd_loc is HHid1** **2 if pertalite_price2_rnd_loc is HHid2** **3 if pertalite_price3_rnd_loc is HHid3** **4 if pertalite_price4_rnd_loc is HHid4** **pertalite_price1 = Rp. 11.000,-** **pertalite_price2 = Rp. 12.500,-** **pertalite_price3 = Rp. 15.000,-** **pertalite_price4 = Rp. 20.000,-** **<RANDOM ORDER OF elasticity_supp2 and elasticity_supp3>**	
elasticity_supp2 *[Round 11,12, 14]*	**Imagine the government of Indonesia were to IMMEDIATELY increase pertalite prices to 15.000,- per liter.**	**Strongly support .....1** **Somewhat support.....2** **Neither support nor oppose.....3** **Somewhat oppose .....4** **Strongly oppose.....5**
elasticity_supp3 *[Round 11,12, 14]*	**Imagine the government of Indonesia were to GRADUALLY increase pertalite prices to 15.000,- per liter by the end of 2025.**	**Strongly support .....1** **Somewhat support.....2** **Neither support nor oppose.....3** **Somewhat oppose .....4** **Strongly oppose.....5**
elasticity_supp4 *[Round 11,12]*	**Imagine the government of Indonesia were to IMMEDIATELY increase pertalite prices to <RANDOM PERTALITE PRICE> per liter ONLY FOR CARS**	**Strongly support .....1** **Somewhat support.....2** **Neither support nor oppose.....3** **Somewhat oppose .....4** **Strongly oppose.....5**

elasticity_supp5 *[Round 11,12]*	**Imagine the government of Indonesia were to GRADUALLY increase pertalite prices to <RANDOM PERTALITE PRICE> per liter by the end of 2025, and this led to small price increases for other goods and services**	**Strongly support .....1** **Somewhat support.....2** **Neither support nor oppose.....3** **Somewhat oppose .....4** **Strongly oppose.....5**
elasticity_supp6 *[Round 11, 12, 14]*	**Imagine the government of Indonesia were to GRADUALLY increase pertalite prices to 15.000,- per liter by the end of 2027.**	**Strongly support .....1** **Somewhat support.....2** **Neither support nor oppose.....3** **Somewhat oppose .....4** **Strongly oppose.....5**
elasticity_supp7 *[Round 14]*	**Imagine the government of Indonesia were to IMMEDIATELY increase pertalite prices to 15.000,- per liter AND at the same time implement a program to COMPENSATE HOUSEHOLDS significantly impacted by the reform.**	**Strongly support .....1** **Somewhat support.....2** **Neither support nor oppose.....3** **Somewhat oppose .....4** **Strongly oppose.....5**

MODULE 15: COPING STRATEGIES *[Only Round 12]*

cop_strategies1 *[Only Round 12]*	**For the following questions, consider the situation in which the government of Indonesia *GRADUALLY increased pertalite prices to* <RANDOM PERTALITE PRICE> *per liter by the end of 2025.***	**Not at all ..... 1** **A little..... 2** **Moderately..... 3** **A lot..... 4** **A great deal..... 5**
cop_strategies2 *[Only Round 12]*	**To what extent would you and members of your household:**	
a	**Use cars less often**	**A great deal..... 1** **A lot..... 2** **A moderate amount..... 3** **A little..... 4** **Not at all ..... 5** **DO NOT USE CAR 6**
b	**Use shared/public transportation more often**	**A great deal..... 1** **A lot..... 2** **A moderate amount..... 3** **A little..... 4** **Not at all ..... 5** **DO NOT USE SHARED OR PUBLIC TRANSPORTATION 6**
c	**Seek additional sources of income**	**A great deal..... 1** **A lot..... 2** **A moderate amount..... 3** **A little..... 4** **Not at all 5**
d	**Consume less food and other essentials**	**A great deal..... 1** **A lot..... 2** **A moderate amount..... 3** **A little..... 4** **Not at all 5**

mit-strategies1 *[Only Round 12]*	**For the following questions, consider the situation in which the government of Indonesia *GRADUALLY increased pertalite prices to* <RANDOM PERTALITE PRICE> *per liter by the end of 2025***	
a	**Recent research shows that higher petalite prices will allow the government of Indonesia to spend more money on other policies and programs immediately.** **What is the most important thing the government of Indonesia should spend this money on?**	**Cash transfers to all households..... 1** **Cash transfers only to low-income households ..... 2** **Reduce in taxation..... 3** **Programs to increase employment opportunities ..... 4** **Better schools..... 5**

		Better hospitals ..... 6 **Better roads ..... 7** **Reduction in the public debts ..... 8** **Others, specify..... 9**
b	**What is the second most important thing the government of Indonesia should spend this money on?**	**Cash transfers to all households..... 1** **Cash transfers only to low-income households ..... 2** **Reduce in taxation..... 3** **Programs to increase employment opportunities..... 4** **Better schools..... 5** **Better hospitals ..... 6** **Better roads ..... 7** **Reduction in the public debts ..... 8** **Others, specify..... 9**
c	**What is the third most important thing the government of Indonesia should spend this money on?**	**Cash transfers to all households..... 1** **Cash transfers only to low-income households ..... 2** **Reduce in taxation..... 3** **Programs to increase employment opportunities..... 4** **Better schools..... 5** **Better hospitals ..... 6** **Better roads ..... 7** **Reduction in the public debts ..... 8** **Others, specify..... 9**
randomization1 *[Only Round 12]*	***If the government of Indonesia were to provide cash transfers to assist households with higher petalite***	**OPTION A:** **Option 1 .....1** **Option 2 .....2** **OPTION B:** **Option 1 .....1** **Option 2 .....2** **OPTION C:** **Option 1 .....1** **Option 2 .....2**

	prices for the next year, which of the following approaches should they pursue: **<RANDOM ORDER OF OPTION A, B, AND C>** **Option A:** **1.** Provide cash transfers to **ALL households** equal to IDR 100.000 per person per month **2.** Provide cash transfers to **low-income households** equal to IDR 300.000 per person per month **Option B:** **1.** Provide cash transfers to **ALL households** equal to IDR 100.000 per person per month **2.** Provide cash transfers to **low dan middle income households** equal to IDR 200.000 per person per month **Option C:** **1.** Provide cash transfers to **low-income households** equal to IDR 300.000 per person per month **2.** Provide cash transfers to **low dan middle income households** equal to IDR 200.000 per person per month	

intro

Expert Survey about "Designing Publicly Acceptable Energy Price Reforms"

Brief Description

We are interested in hearing your views about the results of a cross-country survey examining how energy price reforms can be designed in more publicly acceptable ways. The survey was conducted via phone to a nationally representative sample of over 11,000 respondents in six middle-income countries (Egypt, Indonesia, Kyrgyzstan, Mongolia, Nigeria, and Uzbekistan), where the retail price of electricity and/or gasoline is less than half of what it would be if energy subsidies were reformed.

Respondents were randomly allocated to different reform "scenarios" with 10% or 100% energy price increases. They were also randomly allocated across an information experiment, where treatments were provided information about the rationale for energy subsidy reform (e.g., less government spending on other policies, disproportionately benefiting richer households, and worsening air pollution). They were then asked about their support for different types of energy price reforms (e.g., an immediate or gradual price increase) and the best form of compensation.

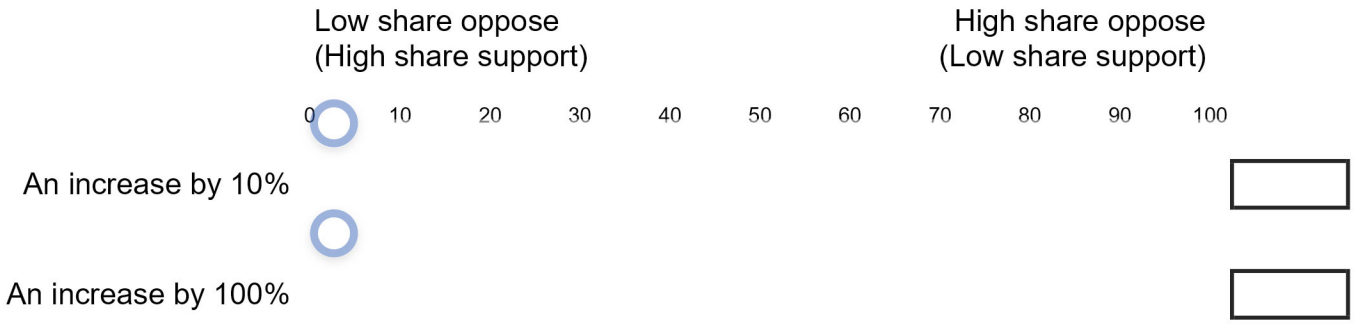
We would appreciate if you would complete 8 questions about how respondents to this cross-country survey would answer. Please provide what you think the average would be across countries (ignoring the specific circumstances and type of energy consumption in each country). We appreciate that you may be unsure of the exact numbers, but we are after your best estimate.

questions

1. What share of the population in these six countries do you expect will **strongly oppose** a reform that immediately increased energy prices?

For example, if you select a value of 30, you are forecasting 30% of the population strongly opposing the reform.

(e.g., if the price per litre of gasoline is $0.50, a 10% increase would result in the price per litre to be $0.55, or, for a 100% increase, $1.00)



For the following questions, assume that 60% of the population would **strongly oppose** a reform that immediately increases energy prices by 10%.

2. What share of the population in these countries do you expect will **strongly oppose** the following reforms?

	Low share oppose (High share support) 0 10 20 30 40 50 60 70 80 90 100 High share oppose (Low share support)
Gradually, over a one-year period, increasing energy prices by 10%?	
Gradually, over a three-year period, increasing energy prices by 10%?	
Immediately increasing energy prices by 10% AND providing households with substantial compensation?	

3. Please rank how the population in these countries would prefer the following types of compensation from most popular (1) to least popular (4):

Cash transfers to all households

Cash transfer to low-income households

Subsidies for other food items

Greater provision of public services (like health and education)

4. By how much, if any, would information provision about the rationale for energy price reforms **reduce** the share of the population in these countries that **strongly oppose** reform? Recall that, in the information provision treatment, individuals were told about the rationale for energy subsidy reform (e.g., less government spending on other policies, disproportionately benefiting richer households, and worsening air pollution).

Please answer in percentage points.

For example, if you predict a value of 10, assuming 60% of the population strongly oppose the reform, you are forecasting that 50% of the population would strongly oppose reform if they were given information provision. Similarly, if you predict a value of -10, assuming 60% of the population strongly oppose the reform, you are forecasting that 70% of the population would strongly oppose reform.

Share that oppose **increases** | No change in opposition | Share that oppose **decreases**

-15 -12 -9 -6 -3 0 3 6 9 12 15

Impact of Information Treatment

5. Please rank the following types of actions in terms of how the population in these countries would cope with increases in energy prices from most popular (1) to least popular (4)

Adopt more sustainable practices (e.g., use shared/public transport)

Reduce energy consumption

Reduce consumption of other goods and services

Generate more income

SSPP_Questions

How confident are you in your predictions for this study? If you are confident, it means that you believe your predictions are very accurate.

- ◯ Not at all confident
- ◯ Slightly confident
- ◯ Somewhat confident
- ◯ Very confident
- ◯ Extremely confident

Have you conducted research on energy price reforms?

- ◯ Yes
- ◯ No

Have you conducted research in either Egypt, Indonesia, Kyrgyzstan, Mongolia, Nigeria, or Uzbekistan?

- ◯ Yes
- ◯ No

If you have any comments, please enter them below. We would love to hear your feedback.

SSPP_Demographics_v3

Are you currently a PhD student, postdoc, faculty, or non-academic researcher?

- ◯ Yes
- ◯ No

Which of the following best describes you?

- ◯ PhD student
- ◯ Postdoc
- ◯ Faculty
- ◯ Researcher in a thinktank, government agency, or other organization
- ◯ Operations officer or other policy position

What is your discipline?

- ◯ Economics
- ◯ Management
- ◯ Political Science
- ◯ Psychology
- ◯ Public Policy
- ◯ Sociology
- ◯ [ ] Other

What is your primary research institution?

Other
Aalborg University
Aalto University
Aarhus University
Aberystwyth University
Åbo Akademi University
Adam Mickiewicz University in Poznań
AGH University of Science and Technology
Ain Shams University
Aix-Marseille University

What is your sector?

- [ ] Agriculture
- [ ] Architecture And Engineering
- [ ] Arts And Design
- [ ] Banking
- [ ] Computer And Information Technology
- [ ] Consulting
- [ ] Economics
- [ ] Education, Training, And Library
- [ ] Federal Government
- [ ] Financial Services
- [ ] Healthcare/Hospitals
- [ ] Hospitality Industry/Tourism
- [ ] Information Technology
- [ ] Insurance
- [ ] Investment Management
- [ ] Legal Services
- [ ] Life, Physical, And Social Science
- [ ] Management
- [ ] Management Consulting
- [ ] Media
- [ ] Public Health
- [ ] Other

What type of organization do you currently work for?

- [ ] Academia/Research Institute
- [ ] Government
- [ ] International Organization
- [ ] NGO
- [ ] Private Sector
- [ ] Other

What are your primary fields? (hold Alt [pc] or command [mac] to select multiple)

American Politics
Applied Econometrics
Applied Sociology
Behavioral Economics
Behavioral Insights
Behavioral Science
Cognitive Psychology
Collective Behavior
Comparative Politics
Comparative Sociology

What are your primary fields? (hold Alt [pc] or command [mac] to select multiple)

Applied Econometrics
Behavioral Economics
Development Economics
Econometrics
Economic History
Economics Of Education
Environment, Resource And Energy Economics
Experimental Economics
Financial Economics
Game Theory

What are your primary fields? (hold Alt [pc] or command [mac] to select multiple)

Behavioral Insights
Behavioral Science
Cognitive Psychology
Developmental Psychology
Experimental Psychology
Neuropsychology
Neuroscience
Other Psychology
Positive Psychology
Social Psychology

What are your primary fields? (hold Alt [pc] or command [mac] to select multiple)

American Politics
Comparative Politics
European Politics
Formal Theory
International Relations
Other Political Science
Political Behavior
Political Economy
Political Psychology
Political Theory

What are your primary fields? (hold Alt [pc] or command [mac] to select multiple)

Applied Sociology
Collective Behavior
Comparative Sociology
Computational Social Science
Crime And Delinquency
Cultural Sociology
Demography
Deviant Behavior
Empirical Research Methodology
Human Ecology

What is your primary research institution?

Which of the following best describes your education level?

- ◯ No formal education
- ◯ Primary education
- ◯ Secondary education or high school
- ◯ GED
- ◯ Some college
- ◯ Vocational qualification
- ◯ Associate's degree
- ◯ Bachelor's degree
- ◯ Master's degree
- ◯ Professional degree (JD/MD/MBA)
- ◯ Doctorate or higher