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THE IMPACT OF GEOPOLITICAL RISK ON
CONSUMER EXPECTATIONS AND SPENDING

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The Impact of Geopolitical Risk on Consumer Expectations and Spending
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ABSTRACT

Using novel scenario-based survey questions that randomize the expected duration of the Russian invasion of Ukraine and Middle East conflict, we examine the causal impact of geopolitical risk on consumers' beliefs about aggregate economic conditions and their own financial outlook. Expecting a longer conflict leads European households to anticipate a worsening of the aggregate economy, with higher inflation, lower economic growth, and lower stock prices. They also perceive negative fiscal implications, anticipating higher government debt and higher taxes. Ultimately, households view the geopolitical conflict as making them worse off financially and it leads them to reduce their consumption.

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“A long-lasting war in Ukraine remains a significant risk. Confidence could deteriorate further... Both consumer and business confidence have fallen rapidly, which is also weighing on the economy.”
Christine Lagarde, Oct. 27th, 2022.

I. Introduction

It is widely believed, both in policy circles and in academic research, that geopolitical risk negatively affects consumer confidence, with significant consequences for consumption and economic performance. For example, the 1990-91 recession in the U.S. is sometimes attributed to a decline in consumer confidence following the Iraqi invasion of Kuwait (Blanchard 1993). Similarly, after the Brexit vote of 2016, there was a marked decline in consumer confidence (Geiger and Güntner 2024), and the post-Brexit drop in consumption was the largest contributing factor to the subsequent U.K. economic slowdown (Lipinska and Orak 2020). In a similar spirit, the barbaric Russian invasion of Ukraine was immediately followed by sharp declines in measures of consumer confidence throughout the euro area (Figure 1).

Despite these examples, clearly establishing a causal link running from geopolitical risk to consumer sentiment and subsequent consumption is not easy. Geopolitical events rarely happen in a vacuum, making it a challenge to establish causality with time series methods. Randomized controlled trials (RCT) with information provision methods can also be ill-suited because geopolitical events are widely covered in the news, limiting the scope of informational treatments to alter participants' expectations. In this paper, we instead use novel hypothetical scenario questions and randomize the expected war duration in a large-scale survey of euro area consumers, to establish a causal link between perceived geopolitical risk and consumer sentiment.

These new questions, incorporated into multiple waves of the ECB's Consumer Expectations Survey (CES), ask respondents how they would expect specific durations of the war between Russia and Ukraine as well as the conflict in the Middle East, to affect their economic expectations. In this set-up, we exploit exogenous variation, either in the cross-section (due to random assignment of different respondents in a given wave to different conflict durations) or over time (a given respondent may be assigned to different hypothetical durations across waves). We find that prolonged conflict durations lead respondents to expect higher inflation and lower economic growth in their country. Respondents also associate this deterioration in macroeconomic conditions with a decline in stock prices but not in housing prices, whereas fiscal authorities would be expected to face rising debt

levels even as they raised taxes. Across the board, respondents view themselves as being negatively affected financially by the heightened risk of an extended conflict. The effects are somewhat more pronounced for those who are not liquidity constrained and those who are more attentive to news about geopolitical conditions. Ultimately, we find that this worsening outlook for both the aggregate economy and their own financial situation leads respondents to predict that they will reduce their consumption over the next year, indicating that geopolitical risk translates into reduced demand from consumers. Consistent with the responses to hypothetical scenario questions, households who become more concerned about geopolitical developments reduce their consumer spending.

This paper builds on three related literatures. The first focuses on geopolitical risk and its effect on economic decisions. Caldara and Iacoviello (2022) develop a measure of geopolitical risk based on news reports and study how it relates to subsequent economic developments. While most of their focus is on aggregate implications, they also show that industries which are more exposed to geopolitical risk suffer larger declines in investment following geopolitical crises. Closely related is work on disaster risk (Barro 2006, Gourio 2008), but sources of possible disasters considered are not restricted to geopolitical forces and typically involve large financial crises instead. We follow Caldara and Iacoviello (2022) in focusing on geopolitical risk but differ from them in that we concentrate on identifying how geopolitical risk affects the expectations and decisions of consumers. That is, while previous work focuses on time series of geopolitical risk, we emphasize and exploit the cross-sectional variation, and hence we can provide micro-foundations for the time-series results.

A second literature focuses on how uncertainty affects decision-making, both for households and firms. After the seminal work of Bloom (2009), this literature has focused on separating the effects of first and second moments of expectations on decisions, such as Alfaro, Bloom, and Lin (2024) and Kumar, Gorodnichenko, and Coibion (2023) in the context of firms or Coibion et al. (2024) in the context of households. These papers generally focus on overall macroeconomic uncertainty, but more recent work has begun to focus on different forms of uncertainty, such as inflation uncertainty (Georgarakos et al. 2024, Kostyshyna and Petersen 2023, Fischer, Herler, and Schnattinger 2025) and trade policy uncertainty (Caldara et al. 2020). Relative to this work, we contribute by providing new evidence on the role of geopolitical factors as a specific source of risk and the identification of their wider transmission to the economy.

Third, we are related to recent papers using hypothetical scenarios in surveys to answer macroeconomic questions (e.g., Andre et al. 2022, Christelis et al. 2025). One way to address

causality is through randomized information treatments (e.g., Roth and Wohlfart 2020, Haaland, Roth and Wohlfart 2023). However, because geopolitical crises are covered so heavily in the news and survey participants tend to be well informed about them, it is difficult to provide information treatments to participants that are both factually correct and sufficiently new to generate meaningful revisions in expectations. Instead, hypothetical scenario questions do not rely on actual information treatments but can still make use of randomization since different respondents are presented with slightly different scenarios, allowing us to still ascertain the causal effects of geopolitical risk on consumer sentiment. Relative to earlier work, we apply scenarios to a new area (geopolitical risk as a key factor) and methodologically introduce new hypothetical questions and randomization across scenarios to further improve causal inference in this approach.

The paper is organized as follows. Section 2 describes the survey we rely on and the questions that we introduced into the survey. Section 3 presents results on how geopolitical risk affects consumer sentiment while section 4 focuses on the impact of geopolitical risk on consumption decisions. Section 5 concludes.

II. Survey Waves and Questions

To assess how geopolitical risk affects consumers, we added questions to three different waves of the ECB's Consumer Expectations Survey, in September 2024, December 2024, and March 2025. The CES is a monthly survey of households covering 11 countries in the Euro-area (see ECB 2021 and Georgarakos and Kenny 2022). Each month, respondents are asked to answer a wide range of questions on their expectations, decisions, and demographics. For example, respondents are asked about future macroeconomic outcomes, like whether there will be a recession in the next 12 months or what they expect inflation will be over the same horizon. They are also asked about the outlook for their own financial situation as well as what they expect to do in the future, such as whether they plan to purchase large durable goods. For illustration, Panel A of Figure 1 plots the average share of respondents who report that they expect their country to experience a recession in the next 12 months. When Russia invaded Ukraine in February 2022, there was an immediate upward spike in this share, indicating an abrupt rise in pessimism about the aggregate outlook following this international crisis. This was reflected not only in households' expectations about the aggregate economy (as more people expected a recession) but also in their personal outlook: respondents expected a worsening of their own financial situation and fewer reported that they recently

purchased large durable goods. This evidence is consistent with a causal link running from geopolitical crises to households' expectations and decisions, but given the plethora of other factors going on more work is needed to establish a causal effect.

One way of linking perceived geopolitical risk and consumer sentiment is to ask respondents directly how worried they are about the geopolitical outlook. In December 2024, we added such a question, asking specifically: *“How concerned are you about the impact of the current geopolitical events on the financial situation of your household, over the next twelve months?”* with possible answers ranging from 0 (not concerned at all) to 10 (extremely concerned). On average, respondents were fairly concerned, with an average answer of 5.7, but with a lot of variation across the population (st.dev. is 2.6). 7.5% of respondents selected the maximum category of 10 (extremely concerned) and 71% picked answers of 5 or above. In March 2025, the average score materially increased to 7.1 with 20% of respondents choosing the maximum score. For comparison, the average score for a similar question from September 2024 about climate change was 5.3 and 7.1% indicated that they were extremely concerned (Figure 2).

Although geopolitical concerns are shared broadly in the population, there is some variation across countries and socioeconomic groups (Appendix Tables 1 and 2). Female, older, and more educated respondents tend to have stronger concerns. Perhaps somewhat surprisingly, respondents in the South of Europe (Greece, Italy, Portugal)—which are further away from the frontlines in Ukraine and with fewer refugees from Ukraine—tend to be more concerned than respondents in the North (Germany, Finland). Household characteristics account for a relatively low share (≤ 5 percent) of variation in geopolitical concerns.

In general, concerns about the geopolitical outlook were correlated with other economic expectations, as shown in Panels B and C of Figure 1. Those who expressed more concern about current global events tended to foresee a greater likelihood of a financial crisis in subsequent months and viewed themselves as more likely to lose their jobs than those who were unconcerned about current global events. Greater geopolitical concern also manifested itself in greater income uncertainty as well as a worse financial outlook overall. As with the time series evidence in Panel A of Figure 1, this is again suggestive of a link running from perceived geopolitical risk to consumer sentiment and expectations, but these correlations could also reflect other (potentially unobserved) factors, such as some individuals being systematically more pessimistic than others.

To infer causality, one possible approach is to implement randomized information

treatments to generate exogenous variation in economic expectations, as in Roth and Wohlfart (2020) and Haaland et al. (2023). But because geopolitical crises are covered so heavily in the news, it is difficult to provide factually correct information that is both unknown to survey participants and important enough to lead them to significantly revise their views. In the December 2024 survey, we asked respondents how much attention they paid to current geopolitical events and 75% responded that they were paying at least some attention to these events, with 31% and 10% reporting that they were paying “Much attention” or “A great deal of attention”, respectively. When attention is already so high, factual information treatments are unlikely to generate much exogenous variation in beliefs.

To address this limitation, we instead introduced hypothetical scenario questions that randomly vary the conflict duration. Specifically in September 2024, respondents were presented with the following hypothetical scenario:

*“Suppose that the war in Ukraine and the conflict in the Middle East [INSERT HORIZON]. How do you think this will affect (if at all) each of the following in the country you currently live in, **over the next 12 months?**”*

and they were randomly assigned to one of the three possible time horizons for the end of conflict: 1) “end by December 2025”; 2) “continue in the course of the next year and end by December 2025”; or 3) “continue in the next three years (and possibly beyond)”. Respondents were then asked to indicate their expectations about ten concepts by selecting one of five qualitative answers (decrease a lot, decrease a little, no effect, increase a little, increase a lot). The concepts included: prices of goods and services, unemployment, economic growth, stock prices and other financial asset values, house prices, government debt, taxes paid by consumers and firms (incl. VAT), trade volume with other countries, conflicts between countries, and a household’s own financial well-being. This question was repeated in December 2024 and again in March 2025 waves by adjusting the end of conflict horizon accordingly (i.e., next three-months, one year and three months, and three years or more).

Hypothetical questions, especially when they incorporate randomly assigned scenarios, offer a number of advantages relative to other ways of establishing causality and are becoming increasingly prevalent in research. One advantage is that, unlike information provision RCTs, they do not require information treatments to successfully move expectations. This can be particularly important when the topics involved are heavily covered by the media, making it difficult to provide

information to survey respondents that they are not already familiar with. Second, compared to information provision RCTs, the response to scenario-based questions can be captured in a single wave, implemented in smaller samples, and often at much smaller costs. Third, the available evidence suggests that hypotheticals are generally able to recover similar results as those coming from quasi-experimental or experimental methods (e.g., Colarieti, Mei and Stantcheva 2025, Kumar, Gorodnichenko and Coibion 2023) as long as the scenarios are familiar to respondents. Given these advantages, recent research has increasingly begun to utilize hypothetical scenarios to answer macroeconomic questions (e.g., Andre et al. 2022, Jiang et al. 2025).

A key feature of our scenario question is that the assumed conflict duration is randomly assigned to different participants in each wave. This means that there is exogenous cross-sectional variation in the amount of perceived geopolitical risk (some respondents are asked about a rapid end to the conflicts whereas others are asked about protracted conflicts) as well as time variation within a respondent (some repeat respondents are asked about different time horizons for the end of the conflicts in different survey waves). In this setting, the average difference in expectations by group reflects the (exogenous) variation in conflict durations and not differences in respondents' unobserved characteristics, such as pessimism, which net out on average. As a result, we are able to make sharper statements about how geopolitical risk affects financial sentiment and various macroeconomic expectations than was previously the case.

III. Geopolitical Risk and Consumer Sentiment

To formally analyze the effects of geopolitical risk, we estimate ordered logit regressions. Specifically, we model the probability that respondents' expectation will decrease (either a little or a lot), stay unchanged, or increase (either a little or a lot) as a function of indicator variables for whether the conflict duration is for one year and three months (and zero otherwise) or three years or more (and zero otherwise). The omitted variable is therefore the shortest conflict duration of three months. The estimated coefficients on these indicator variables therefore indicate how a longer conflict duration, of either one or three years, is expected to affect different expectations. In our baseline, we include wave fixed effects (given that we pool data from three waves) and individual controls (age, gender, household size, etc.). Figure 3 plots the estimated marginal effects of the two indicator variables of conflict duration on the likelihood of higher economic

expectations. Adding individual fixed effects and estimating a linear probability model does not meaningfully alter the estimates (Appendix Figure 5).

In terms of macroeconomic variables, greater geopolitical risk captured through longer conflict durations is expected to have clear stagflationary effects. As the duration gets longer, the probability that respondents expect an increase in prices from the conflict goes up significantly, by almost 50 percentage points when the conflict duration is 3 or more years. Similarly, the probability that they predict rising unemployment goes up significantly with the conflict duration, whereas their predicted probability of increasing economic growth declines substantially by nearly 40 percentage points. Hence, households clearly perceive persistent geopolitical risk as being stagflationary.

Figure 3 also presents results for expectations along a number of other dimensions. Consistent with the belief that geopolitical risk will reduce economic growth, consumers expect significantly lower stock prices as well as reductions in trade volumes overall. However, home prices are expected to, if anything, rise although effects here are quantitatively small. On the fiscal front, consumers anticipate that worse geopolitical outcomes will lead to higher levels of government debt, even while simultaneously expecting taxes to rise. Hence, there is an implicit belief that geopolitical conflict will require a significant increase in government spending, either to address the conflict, to compensate for weakening economic activity, or to finance higher debt payments. Finally, consumers were asked to evaluate how geopolitical risk would affect conflict between their country and others, and they expect more conflict with others as the duration of geopolitical tensions increases. Hence, across the board, consumers believe that greater geopolitical conflict has negative macroeconomic consequences and breeds further conflict.

To what extent does this affect their own financial situation? Along with questions about how geopolitics matters for aggregate outcomes, households were also asked to evaluate the effect of a given duration of conflict on their own financial situation over the next 12 months, again providing a qualitative answer in terms of whether they would be better off, worse, or the same. Using the same empirical strategy as for macroeconomic expectations, we can therefore again estimate the causal effect of conflict duration on households' expected financial situation, using whether households report that they expect their financial situation to worsen, stay the same or improve as the outcome. We present the results in Panel A of Figure 4. Consistent with the negative effect of geopolitical risk on aggregate expectations, we find that more geopolitical risk leads to

households expecting a worse financial situation for themselves as well. The longer the geopolitical conflicts are forecasted to last, the less likely it is for households to report that they expect their financial situation to improve over the next 12 months. If we instead estimate the likelihood of expecting a worse financial situation, we find an equivalent result, with more geopolitical risk leading to an increase in the probability that respondents report that they expect their financial situation to deteriorate (Appendix Figure 2). The same result holds if we include individual fixed effects and identify our estimates through the variation in different conflict durations that are assigned to the same individual over time (Appendix Figure 3).

In Panel A of Figure 4, we also report estimates for different population sub-groups. In one case, we split consumers based on whether they are liquidity constrained or not. The latter comes from a survey question asking respondents if they can cover an unexpected payment equal to one month of their income. We find that the effect of geopolitical risk on financial sentiment is more pronounced for the unconstrained than for those facing liquidity constraints, although the negative effect of geopolitical risk on sentiment obtains for both groups.

A second split we consider is by how attentive they are to geopolitical factors. In the survey, respondents were asked how much attention they paid to current geopolitical events, with answers ranging from almost no attention (1) to a great deal of attention (5). We therefore re-estimate the effect of geopolitical risk on households' expected financial situation for the attentive (score of 4 ["Much attention"] or 5 ["A great deal of attention"]) versus the less attentive (score of 3 ["Some attention"] or less) separately. We find somewhat larger effects for the more attentive respondents, consistent with them being more likely to get news about geopolitical conditions and therefore be more concerned about it, but also consistent with those respondents who are more concerned about geopolitics choosing to pay more attention to news about the topic. However, the difference between the two groups is only marginally statistically significant at longer conflict durations and is not different from zero at shorter durations. When we estimate the effect of conflict duration on sentiment controlling for these categories jointly (attention, liquidity constraints), we find similar results (Appendix Figure 4).

IV. Geopolitical Concerns and Spending

There is, by now, a very extensive literature documenting the fact that the economic expectations of households affect their decisions, particularly in terms of consumption.¹ One might therefore expect geopolitical risk to also affect consumption decisions, given its pervasive effect on expectations about both aggregate (Figure 3) and individual (Figure 4) outcomes. However, there are several challenges to showing that geopolitical risk also affects consumption decisions in this context. First, because we rely on hypothetical questions about geopolitical factors, we cannot link survey responses directly to the self-reported measures of actual spending in different states of the world. Second, in the hypothetical questions, we included one outcome on total household spending in one of the waves (December 2024). However, this question has limitations. One minor limitation is that it is only available in a single wave, which means we can only exploit the cross-sectional variation to infer the causal effect of geopolitical risk on consumption. More importantly, the hypothetical question asked respondents to state whether the specific duration of the conflicts would lead them to increase, decrease or keep constant their total (nominal) *spending* on goods and services, not their consumption. Given that we have established in Figure 3 that geopolitical risk affects consumers' inflation expectations, we need to avoid confounding changes in spending coming from changing prices versus changing consumption.

To do so, we make use of the fact that certain combinations of answers make clear whether (real) consumption had to rise or fall, and we then drop respondents who provide combinations that leave ambiguous what would happen to consumption. For example, whenever respondents give the same sign for the change in prices and spending (e.g., both are expected to rise), then the implication for consumption is ambiguous so we drop respondents who provide that answer. In all other cases, we can infer the response of consumption from the joint responses of spending and prices. Thus, we can create indicator variables for when people report that they expect their consumption to rise (or fall) in response to different geopolitical scenarios.

With this indicator, we can use probit regressions to assess how the duration of the geopolitical conflict affects households' expected (real) consumption increase over the next 12 months. Consistent with their worsening outlook for the overall economy and their financial situation, we find clear negative effects of geopolitical risk on expected consumption, as shown in

¹ See for example Crump et al. (2022), Burke and Ozdagli (2023), Draeger and Nghiem (2021), and Coibion, Gorodnichenko and Weber (2022).

Panel B of Figure 4. As the duration of the conflicts rises, the probability of consumers reporting their consumption will rise falls monotonically.² Thus, consistent with earlier work finding a clear passthrough of expectations into decisions in other contexts, we find that households' worsening economic outlook from rising geopolitical risk translates into reduced consumption expectations.

To make further progress, we note that geopolitical events such as the duration or intensity of Russian aggression or other conflicts are largely exogenous to business conditions in the euro area. For example, between December 2024 and March 2025 Russia increased the intensity of attacks on Ukrainian cities by a factor of 3 (Jensen and Atalan 2025), which obviously is not related to the state of the euro-area economy. Due to this plausibly exogenous variation in the force of the Russian assault, one may expect that households' geopolitical concerns evolve for reasons essentially unrelated to the state of their country's economy or their personal conditions. In this case, one may expect that within-respondent variation in geopolitical concerns can bring us closer to a causal interpretation of the relationship between such concerns and actual choices made and self-reported by CES households. Building on the large panel component of the CES and repeated measurement of geopolitical concerns (December 2024 and March 2025), we thus regress various measures of consumer spending on geopolitical concern, controlling for household fixed effects to focus on the within-respondent variation. We report results in Table 1.

We find that a unit increase in geopolitical concerns ($\approx 40\%$ of the cross-sectional standard deviation) is associated with 0.7 percentage point decrease in nondurable spending.³ This is a statistically and economically significant change in spending given that nondurable spending varies relatively little over the business cycle. The results are broadly similar across countries although the estimates are less precise due to smaller sample sizes (Appendix Table 3).

Consistent with a higher intertemporal elasticity of substitution, we observe even stronger responses for spending on durable goods. Using either $\log(1 + \textit{durable spending})$ —which combines the extensive and intensive margins—or $\log(\textit{durable spending})$ —which uses only the intensive margin—leads to the same conclusion: a unit increase in geopolitical concerns is associated with an approximately 4.5% decrease in spending on durable goods. Focusing on the extensive margin for various types of durables (homes, cars, etc.), we find that with stronger

² The same result obtains if we focus on the probability of them reporting a decline in consumption as shown in Panel B of Appendix Figure 2.

³ Nondurable spending includes: food at home, food away, housing, utilities, furnishings, household equipment, clothing, footwear, health, travel, recreation, entertainment, childcare, education, and other expenditures.

geopolitical concerns the frequency of purchases decreases considerably for nearly all durable types. For example, the probability of purchasing a big-ticket item (a home appliance, furniture, electronics, etc.) falls by 1.2 percentage points while the unconditional probability of buying such items over six months is 20.8 percent. Spending on holidays is the only category where households spend more when they have stronger geopolitical concerns. One may conjecture that such spending may stem from the need to take a break from stress or from “you only live once” (YOLO) reasons. Indeed, earlier studies (e.g., Slemrod 1990, Russett and Slemrod 1993) found that the prospect of a nuclear war (measured by the Doomsday clock) was associated with lower savings of households. In short, we find that these panel regression results support the findings based on survey responses to hypothetical scenarios.

V. Conclusion

Recent years have been characterized by dramatic geopolitical conflicts, first with the Russian invasion of Ukraine and subsequently the extensive fighting in the Middle East. How these conflicts affect economic outcomes in other countries depends in part on how concerned consumers in those countries become in light of the geopolitical risk. In this paper, we provide clear evidence that rising geopolitical risk, in the form of longer durations for these types of conflicts, makes households expect dire macroeconomic outcomes (stagflation), a deterioration in government budgets, a worsening in their household’s financial conditions and ultimately a fall in their consumption. This complements other work showing that geopolitical risk negatively affects firms. Together, this indicates that the risk of geopolitical conflict can *already* have negative economic consequences through expectations, even when the conflict does not yet have a very direct impact on economic actors.

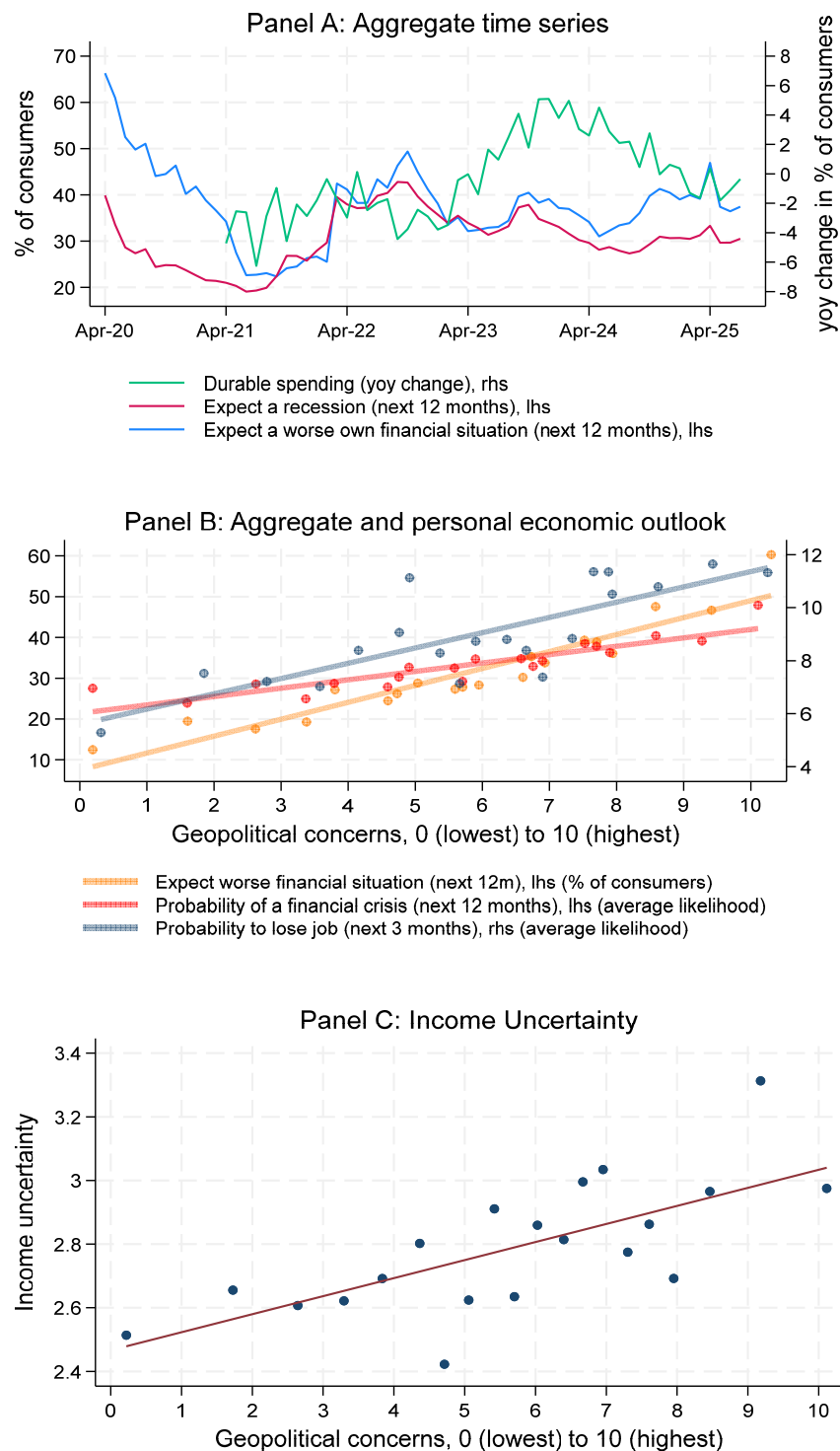
References

- Alfaro, Iván, Nicholas Bloom, and Xiaoji Lin, 2024. “The Finance Uncertainty Multiplier,” *Journal of Political Economy* 132(2): 577-615.
- Andre, Peter, Carlo Pizzinelli, Christopher Roth, and Johannes Wohlfart, 2022. “Subjective Models of the Macroeconomy: Evidence from Experts and Representative Samples,” *Review of Economic Studies* 89(6): 2958-2991.

- Barro, Robert J., 2006. "Rare Disasters and Asset Markets in the Twentieth Century," *Quarterly Journal of Economics* 121(3): 823-866.
- Blanchard, Olivier, 1993. "Consumption and the Recession of 1990-91." *American Economic Review: Papers and Proceedings* 83(2): 270-274.
- Bloom, Nicholas, 2009. "Impacts of Uncertainty Shocks" *Econometrica* 77(3): 623-685.
- Burke, Mary A. and Ali Ozdagli, 2023. "Household Inflation Expectations and Consumer Spending: Evidence from Panel Data," *The Review of Economics and Statistics* 105(4): 948-961.
- Caldara, Dario and Matteo Iacoviello, 2022. "Measuring Geopolitical Risk," *American Economic Review* 112(4): 1194-1225.
- Caldara, Dario, Matteo Iacoviello, Patrick Molligo, Andrea Prestipino and Andrea Raffo, 2020. "The Economic Effects of Trade Policy Uncertainty," *Journal of Monetary Economics* 109(January): 38-59.
- Christelis, Dimitris, Dimitris Georgarakos, Tullio Jappelli and Geoff Kenny, 2025. "Wealth shocks and portfolio choice," *Journal of Monetary Economics* 149, 103632.
- Coibion, Olivier, Dimitris Georgarakos, Yuriy Gorodnichenko, Geoff Kenny, and Michael Weber, 2024. "The Effect of Macroeconomic Uncertainty on Household Spending," *American Economic Review* 114(3): 645-677.
- Coibion, Olivier, Yuriy Gorodnichenko, and Michael Weber, 2022a. "Monetary Policy Communications and their Effects on Household Inflation Expectations," *Journal of Political Economy* 130(6): 1537-1584.
- Colarieti, Roberto, Pierfrancesco Mei, and Stefanie Stantcheva, 2024. "The How and Why of Household Reactions to Income Shocks," NBER Working Paper 32191.
- Crump, Richard, Stefano Eusepi, Andrea Tambalotti, and Giorgio Topa, 2022. "Subjective Intertemporal Substitution," *Journal of Monetary Economics* 126: 118-133.
- Draeger, Lena and Giang Nghiem, 2021. "Are Consumers' Spending Decisions in Line with A Euler Equation?" *The Review of Economics and Statistics* 103(3): 580-596.
- European Central Bank, 2021. "ECB Consumer Expectations Survey: an overview and first evaluation," Occasional Paper Series, No 287, December.
- Fischer, Johannes, Christoph Herler, and Philip Schnattinger. 2024. "The Effect of Inflation Uncertainty on Household Spending," NBER Working Paper 32939.

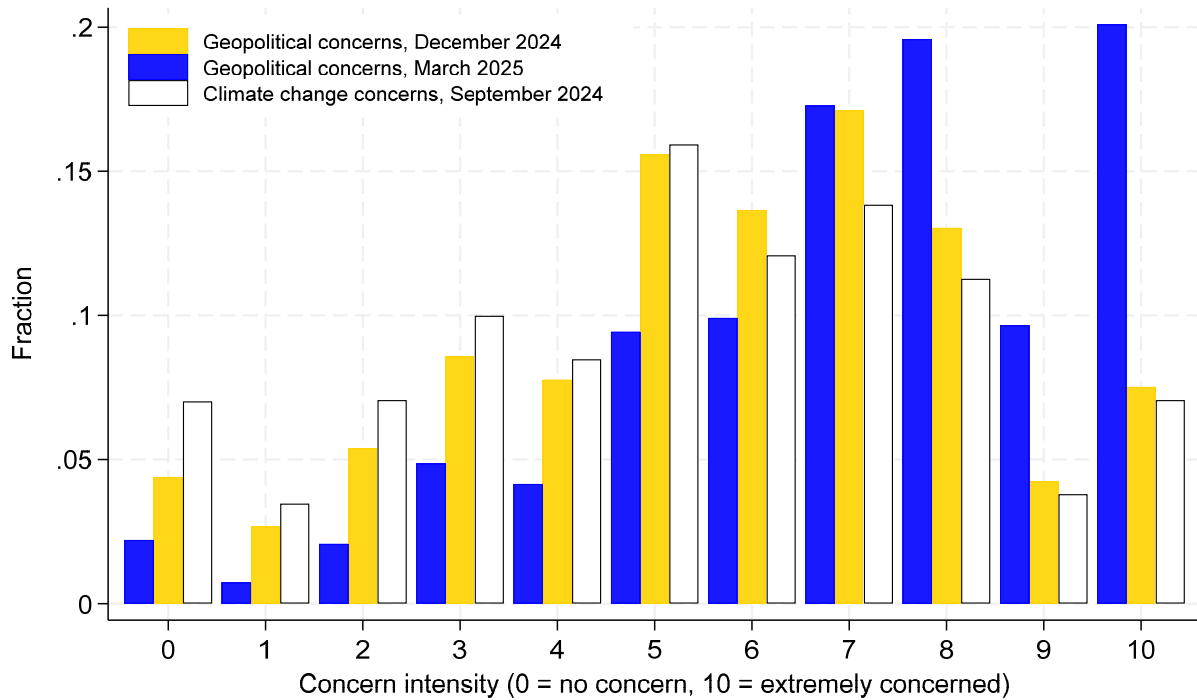
- Geiger, Martin, and Jochen Güntner, 2024. “The chronology of Brexit and UK monetary policy,” *Journal of Monetary Economics* 142(C): 103516.
- Georgarakos, Dimitris and Geoff Kenny, 2022. “Household Spending and Fiscal Support during the COVID-19 Pandemic: Insights from a New Consumer Survey,” *Journal of Monetary Economics* 129: S1-S14.
- Georgarakos, Dimitris, Yuriy Gorodnichenko, Olivier Coibion, and Geoff Kenny, 2024. “The Causal Effects of Inflation Uncertainty on Households’ Beliefs and Actions,” NBER Working Paper 33014.
- Gourio, Francois, 2008. “Disaster Recoveries,” *American Economic Review* 98(2): 68-73.
- Haaland, Ingar, Christopher Roth, and Johannes Wohlfart, 2023. “Designing Information Provision Experiments,” *Journal of Economic Literature* 61(1): 3-40.
- Jensen, Benjamin, and Yasir Atalan, 2025. “Drone Saturation: Russia’s Shahed Campaign,” Center for Strategic and International Studies, Policy Brief. Available at <https://www.csis.org/analysis/drone-saturation-russias-shahed-campaign>.
- Jiang, Janet Hua, Rupal Kamdar, Kelin Lu, and Daniela Puzzello, 2024. “How Do Households Respond to Expected Inflation? An Investigation of Transmission Mechanisms,” CAEPR Working Paper 2024-004, Indiana University, Bloomington.
- Kostyshyna, Olena and Luba Petersen. 2024. “The Effect of Inflation Uncertainty on Household Expectations and Spending,” NBER Working Paper 32939.
- Kumar, Saten, Yuriy Gorodnichenko, and Olivier Coibion, 2023. “The Effect of Macroeconomic Uncertainty on Firm Decisions,” *Econometrica* 91: 1297-1332.
- Lipinska, Anna and Musa Orak, 2020. “Real Effects of Uncertainty: Evidence from Brexit,” FEDS Notes, May 11, 2020.
- Roth, Christopher and Johannes Wohlfart, 2020. “How Do Expectations about the Macroeconomy Affect Personal Expectations and Behavior?” *Review of Economics and Statistics* 102(4): 731-748.
- Russett, Bruce, and Joel Slemrod, 1993. “Diminished Expectations of Nuclear War and Increased Personal Savings: Evidence from Individual Survey Data,” *American Economic Review* 83(4): 1022-1033.
- Slemrod, Joel, 1990. “Fear of Nuclear War and Intercountry Differences in the Rate of Saving,” *Economic Inquiry* 28(4): 647-657.

Figure 1: Geopolitical risk, Financial Sentiment, Spending, and Income Uncertainty.



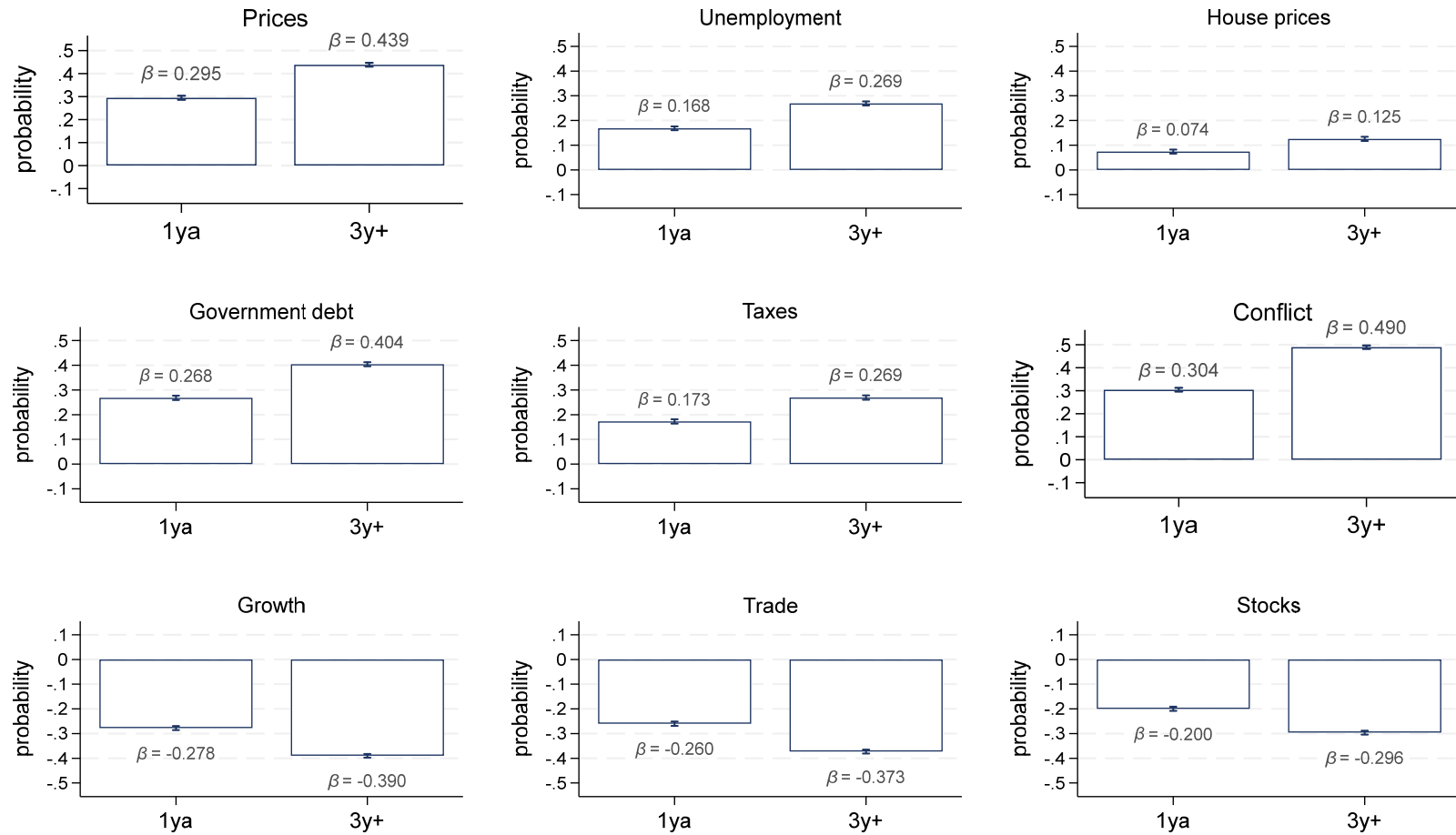
Notes: Panel A plots time series of populated-weighted average responses in the CES. Panel B shows binscatter plots of geopolitical concerns vs. economic outlook at the economy and personal levels. Panel C shows a binscatter of geopolitical concerns vs. personal income uncertainty (interquartile range implied by the reported subjective probability distribution).

Figure 2: Distribution of Geopolitical and Climate-change Concerns.



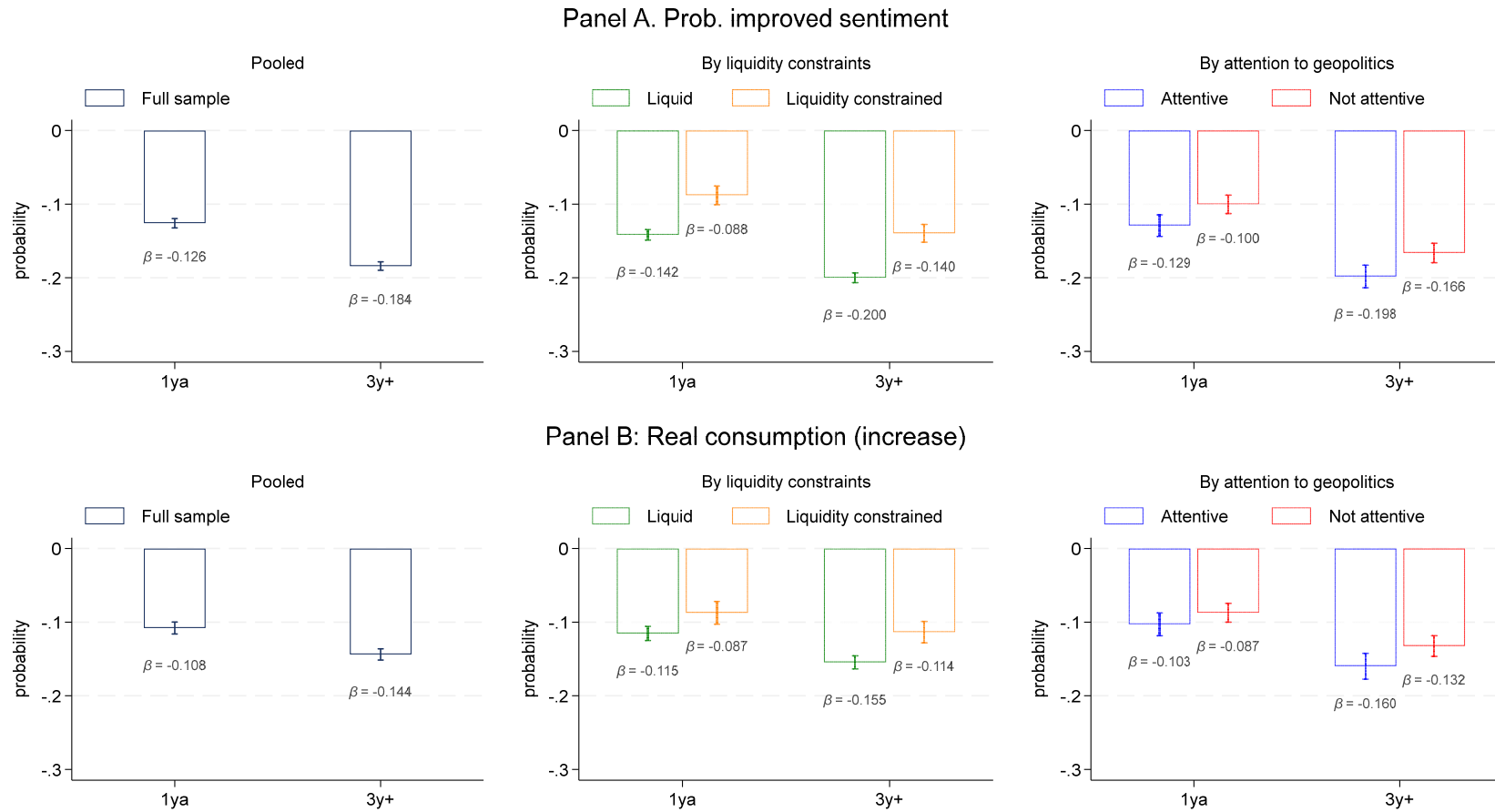
Notes: The figure shows the distribution of consumers' concern intensity about geopolitical and climate change. The data are population-weighted and drawn from the ECB Consumer Expectations Survey (CES). Yellow bars represent geopolitical concerns in December 2024, blue bars geopolitical concerns in March 2025, and white bars climate change concerns elicited in September 2024.

Figure 3: The Effect of Conflict Durations on Macroeconomic Expectations.



Notes: Regressions are estimated with ordered logit. The bars show marginal effects of a longer conflict duration on the likelihood of a higher expectation for each concept. The whiskers show 95% confidence bands.

Figure 4: The Effect of Conflict Durations on Households' Financial Sentiment and Real Consumption.



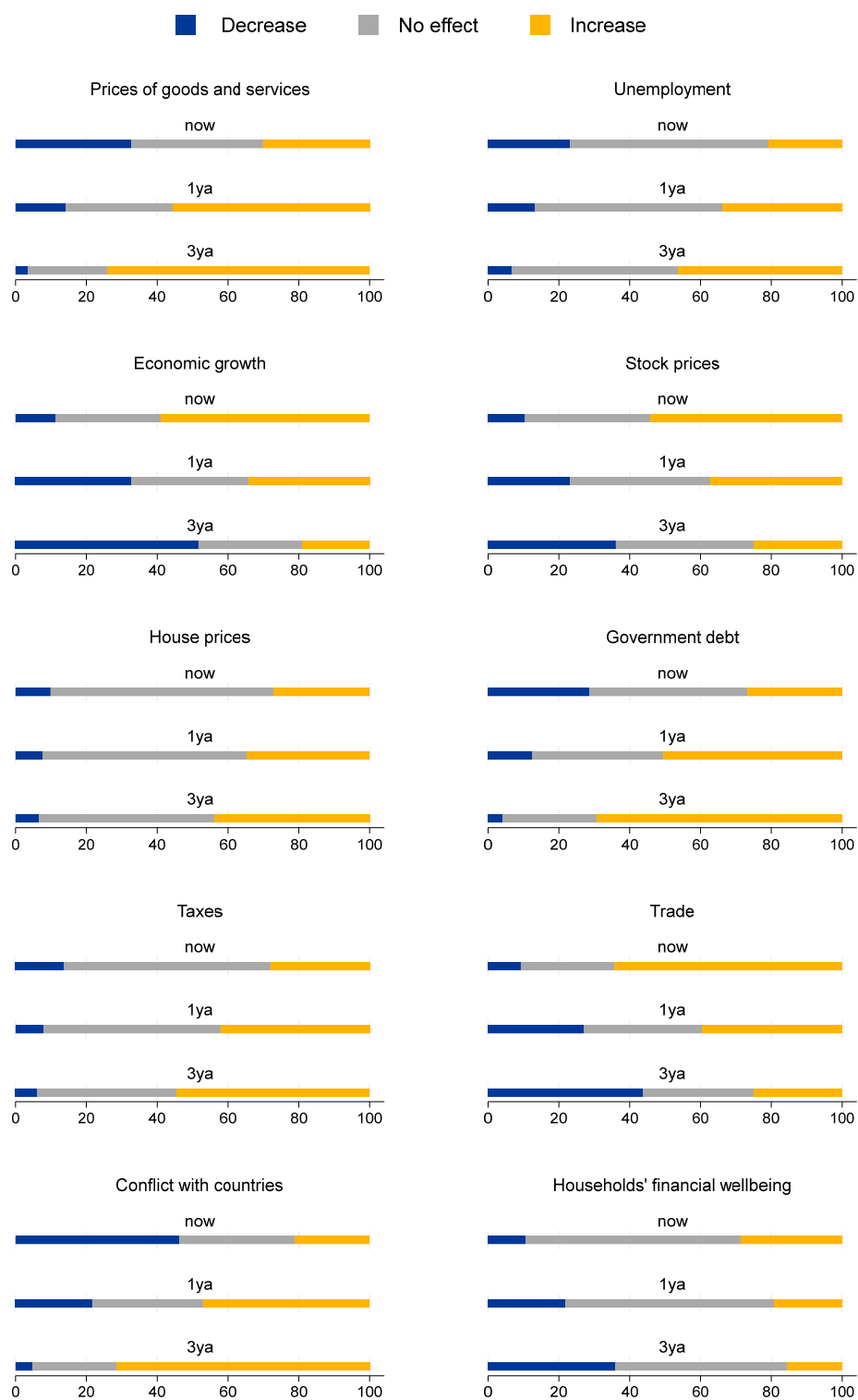
Notes: Panel A is estimated with ordered logit. Panel B is estimated with probit. The bars show marginal effects of a longer conflict duration on the likelihood of improved financial sentiment (Panel A) and increase in real consumption (Panel B). The whiskers show 95% confidence bands.

Table 1. Household Consumption Response to Changes in Geopolitical Concerns.

Choice	coef./(s.e.)	Mean of dependent variable	R2	N obs
	(1)	(2)	(3)	(4)
Log(nondurable spending)×100	-0.691*** (0.207)	745.9	0.84	26,078
Log(durable spending)×100	-4.627*** (1.037)	98.1	0.60	26,554
Log(durable spending)×100 if spending>0	-4.439** (2.152)	569.5	0.72	1,662
I(buy a house)	-0.113* (0.066)	2.2	0.59	29,644
I(buy a car)	-0.068 (0.081)	3.2	0.56	29,644
I(buy a big-ticket item)	-1.169*** (0.198)	20.8	0.61	29,644
I(buy a holiday)	0.797*** (0.148)	18.0	0.67	29,644
I(buy a luxury item)	-0.282*** (0.097)	3.5	0.60	29,644
I(buy other items)	-0.504*** (0.137)	7.4	0.61	29,644

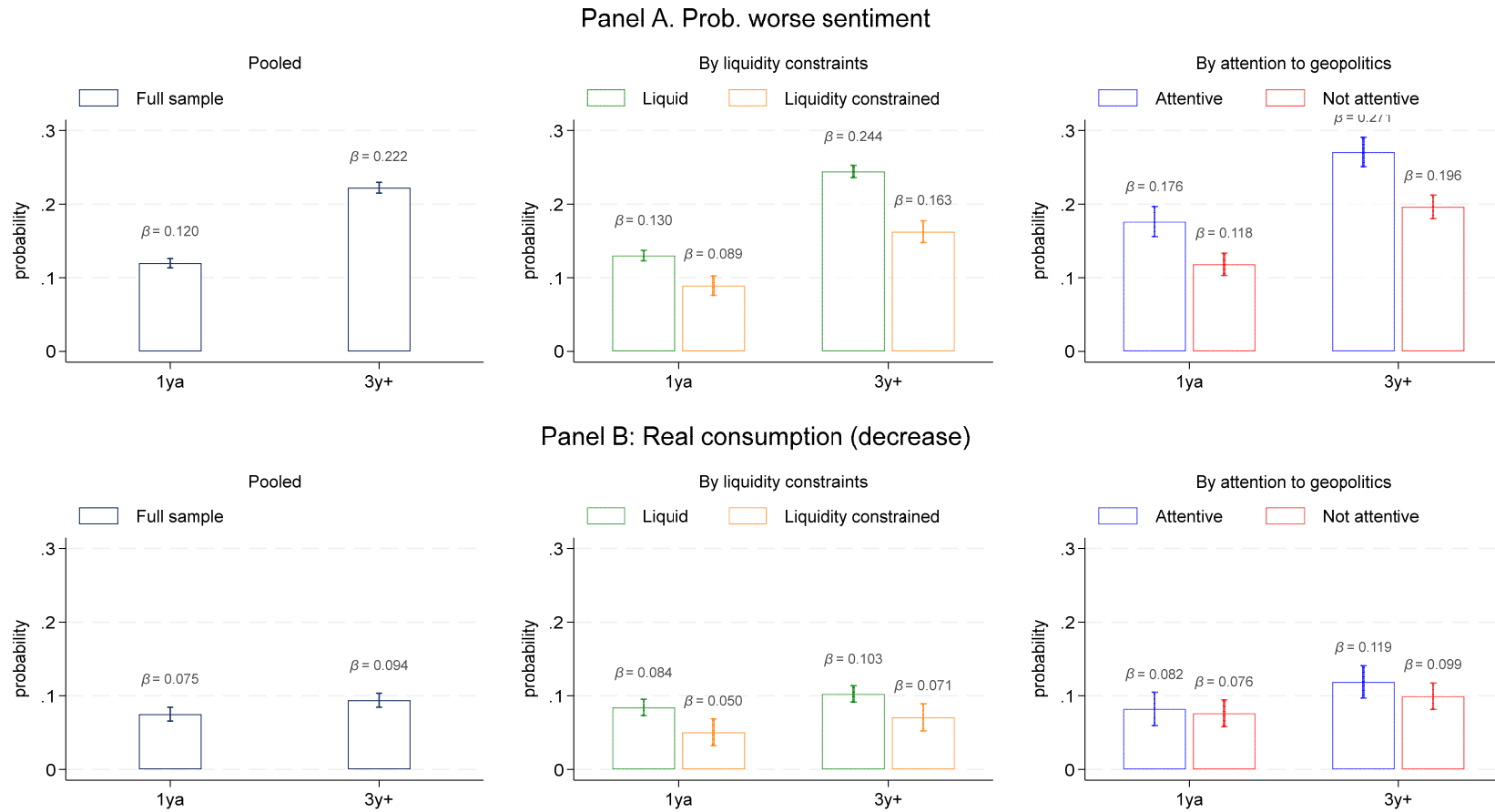
Notes: The table reports estimates of slope coefficient on geopolitical concerns in the regression where a measure of consumption is the dependent variable and geopolitical concerns is an explanatory variable. Household fixed effects are also included but not reported. $I(x)$ is an indicator variable equal to one if state x is true and zero otherwise. Robust standard errors are reported in parentheses. ***, **, * denote statistical significance at 1, 5 and 10 percent levels.

Appendix Figure 1: Hypothetical Scenario Responses for Different Conflict Durations.



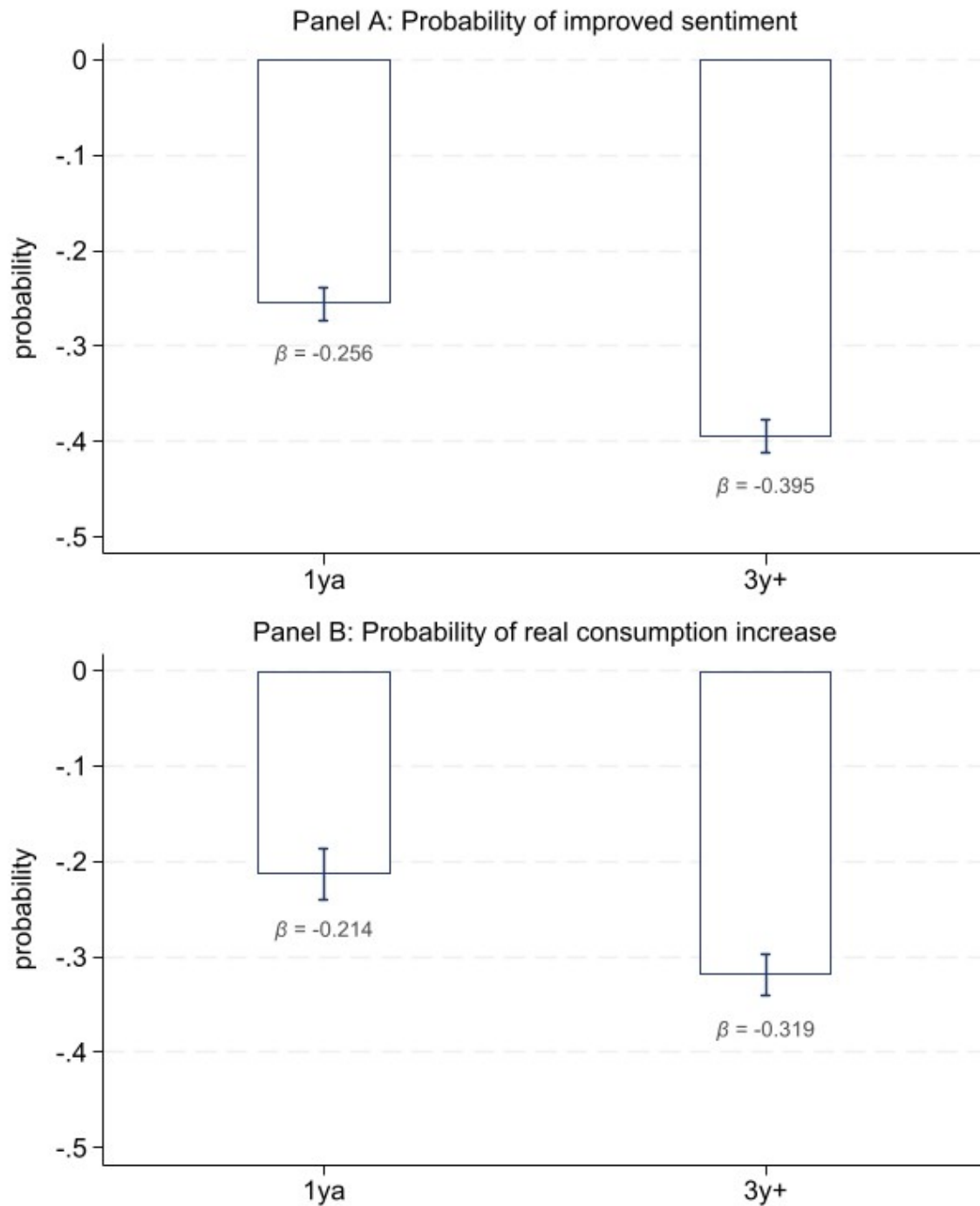
Notes: Each panel shows the population-weighted distribution of responses by outcome, horizon and direction of change.

Appendix Figure 2: The Effect of Conflict Durations on Worse Financial Sentiment and Lower Real Consumption.



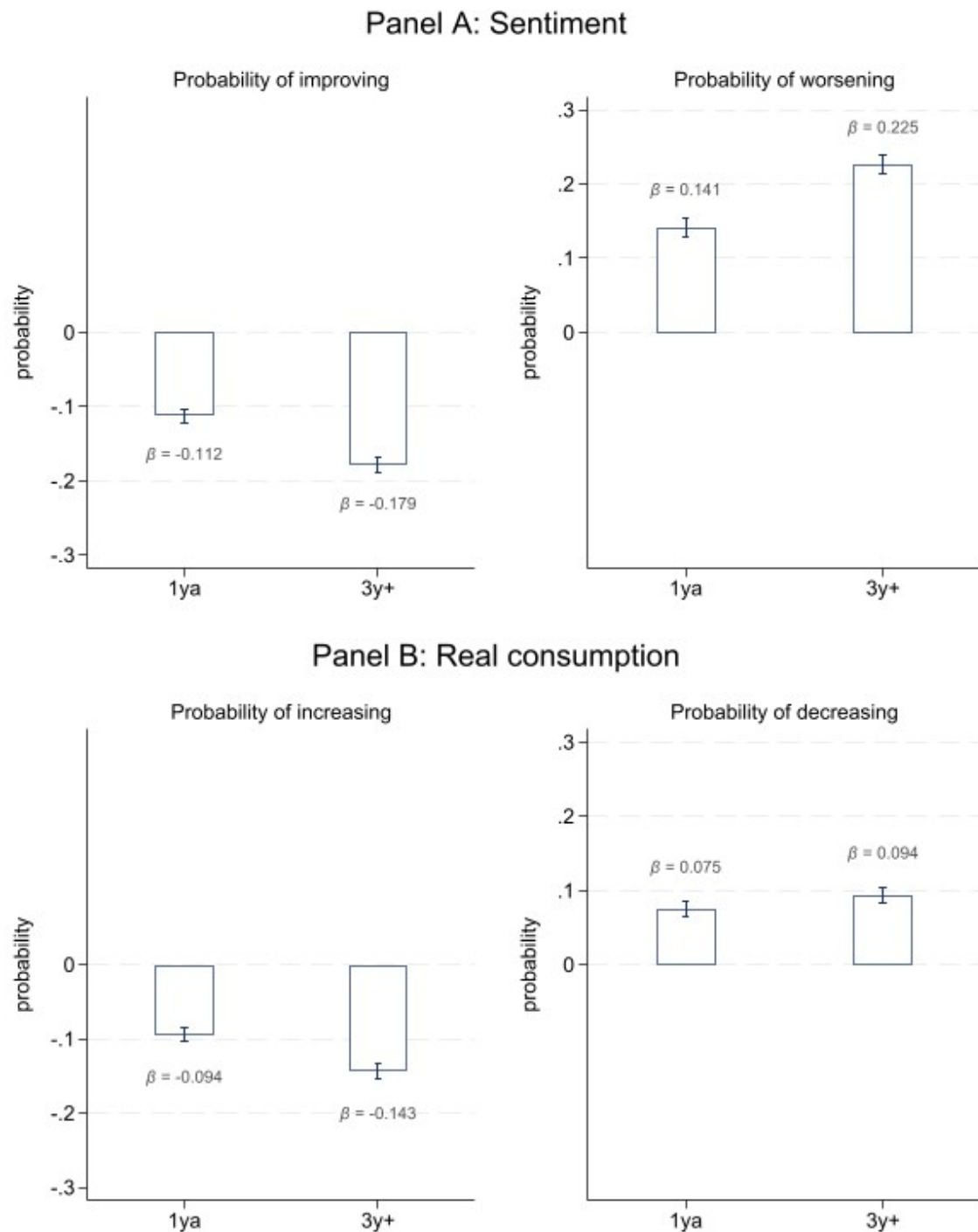
Notes: Panel A is estimated with ordered logit. Panel B is estimated with probit. The bars show marginal effects of a longer conflict duration on the likelihood of worse financial sentiment (Panel A) and decrease in real consumption (Panel B). The whiskers show 95% confidence bands.

Appendix Figure 3: The Effect of Conflict Durations on Financial Sentiment and Real Consumption, incl. Consumer Fixed Effects.



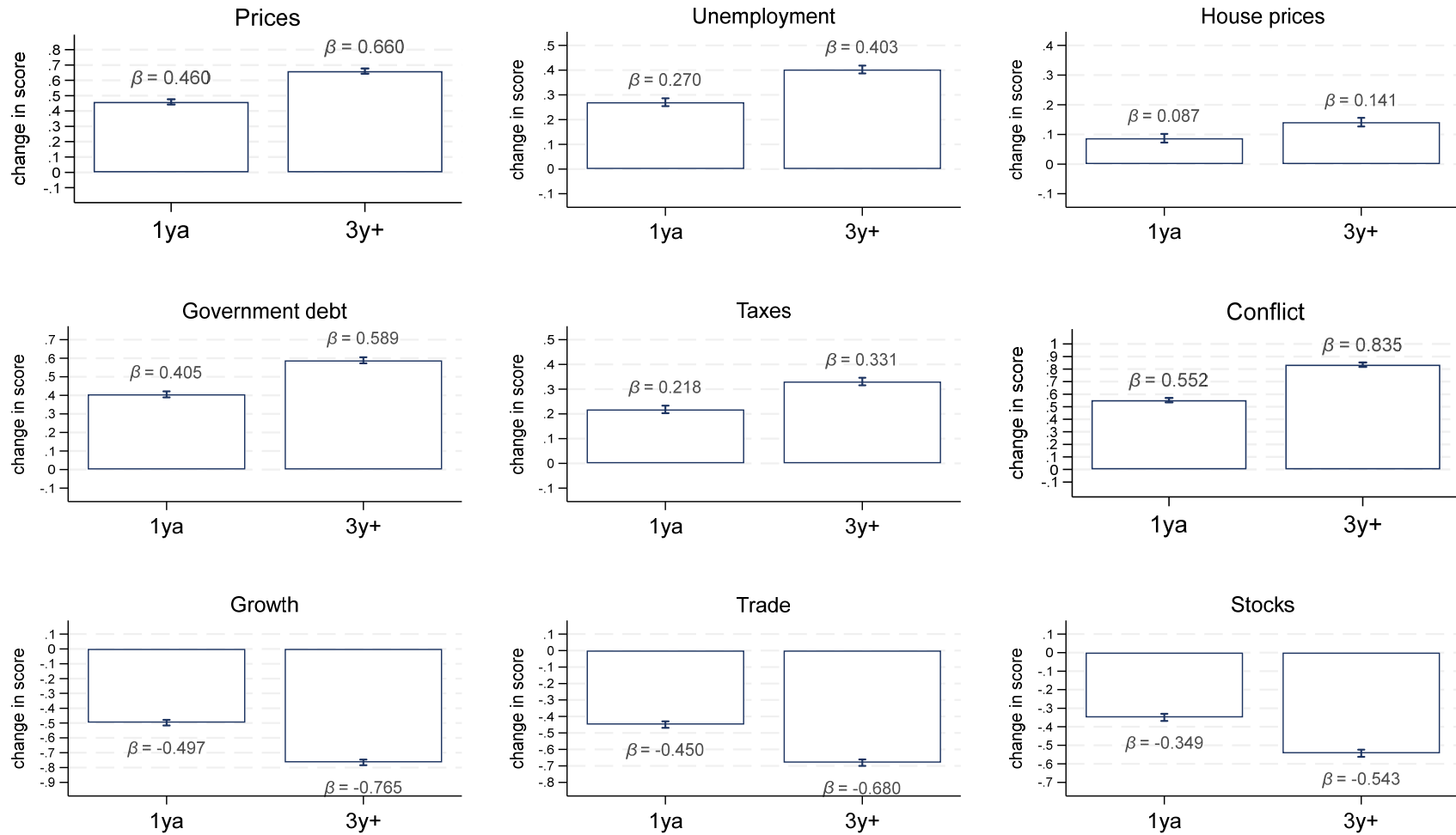
Notes: Regressions include household fixed effects. Panel A is estimated with linear probability model. Panel B is estimated with probit. The bars show marginal effects of a longer conflict duration on the likelihood of better financial sentiment (Panel A) and increase in real consumption (Panel B). The whiskers show 95% confidence bands.

Appendix Figure 4: The Effect of Conflict Durations on Financial Sentiment and Real Consumption.



Notes: Regressions include controls for liquidity constraints and attention to geopolitical events. Panel A is estimated with ordered logit. Panel B is estimated with probit. The bars show marginal effects of a longer conflict duration on the likelihood of worse financial sentiment (Panel A) and decrease in real consumption (Panel B). The whiskers show 95% confidence bands.

Appendix Figure 5: The Effect of Conflict Durations on Macroeconomic Expectations, incl. consumer Fixed Effects.



Notes: Regressions are estimated with linear probability model. Household fixed effects are included. The bars show marginal effects of a longer conflict duration on the likelihood of a higher expectation for each concept. The whiskers show 95% confidence bands.

Appendix Table 1. Descriptive Statistics.

	December 2024		March 2025	
	mean	st.dev.	mean	st.dev.
	(1)	(2)	(3)	(4)
Full sample	5.7	2.6	7.1	2.4
By country				
AT	5.5	2.8	7.0	2.6
BE	6.0	2.4	6.6	2.5
DE	5.1	2.6	7.0	2.5
EL	6.8	2.6	7.0	2.5
ES	6.0	2.4	7.2	2.3
FI	5.2	2.7	7.1	2.5
FR	5.9	2.4	6.7	2.4
IE	5.9	2.5	6.9	2.5
IT	5.7	2.5	7.6	2.3
NL	5.3	2.4	6.7	2.2
PT	6.8	2.2	7.6	2.1
By gender				
male	5.7	2.6	6.9	2.4
female	5.7	2.6	7.2	2.4
By education				
Primary	5.5	2.7	6.9	2.5
Secondary	5.6	2.6	6.9	2.6
Tertiary	5.7	2.5	7.2	2.3
By age				
18-34	5.6	2.5	6.5	2.4
35-49	5.8	2.6	6.9	2.5
50-64	5.9	2.6	7.4	2.3
65+	5.4	2.6	7.4	2.4
By income quintile				
1 (lowest income)	5.8	2.6	6.8	2.7
2	5.7	2.5	6.9	2.5
3	5.8	2.5	7.2	2.3
4	5.5	2.5	7.2	2.3
5 (highest income)	5.6	2.6	7.2	2.3

Appendix Table 2. Socioeconomic Predictors of Geopolitical Concerns.

	Dec 24	Mar 25	Pooled
	(1)	(2)	(3)
Country (DE is omitted)			
AT	0.51*** (0.10)	-0.02 (0.09)	0.24*** (0.07)
BE	0.85*** (0.09)	-0.44*** (0.09)	0.20*** (0.06)
EL	1.50*** (0.09)	-0.09 (0.09)	0.68*** (0.07)
ES	1.08*** (0.06)	0.29*** (0.06)	0.68*** (0.04)
FI	0.09 (0.10)	0.06 (0.09)	0.07 (0.07)
FR	0.86*** (0.06)	-0.44*** (0.06)	0.21*** (0.05)
IE	0.79*** (0.09)	-0.16* (0.09)	0.31*** (0.06)
IT	0.82*** (0.06)	0.59*** (0.06)	0.71*** (0.04)
NL	0.23** (0.09)	-0.34*** (0.08)	-0.06 (0.06)
PT	1.47*** (0.09)	0.46*** (0.08)	0.97*** (0.06)
Female	0.03 (0.04)	0.41*** (0.03)	0.22*** (0.02)
Secondary education	0.07 (0.07)	-0.01 (0.07)	0.03 (0.05)
Tertiary education	0.18*** (0.07)	0.33*** (0.06)	0.26*** (0.05)
Age: 35-49	0.16*** (0.05)	0.45*** (0.05)	0.30*** (0.04)
Age: 50-64	0.20*** (0.05)	0.93*** (0.05)	0.56*** (0.03)
Age: 65+	-0.02 (0.06)	1.17*** (0.06)	0.58*** (0.04)
Income quintile 2	-0.04 (0.06)	0.12** (0.05)	0.04 (0.04)
Income quintile 3	-0.10* (0.06)	0.20*** (0.05)	0.05 (0.04)
Income quintile 4	-0.23*** (0.06)	0.25*** (0.05)	0.01 (0.04)
Income quintile 5 (highest)	-0.27*** (0.06)	0.20*** (0.06)	-0.04 (0.04)
March 2025 wave			1.31*** (0.02)
Observations	19,737	20,423	40,160
R-squared	0.04	0.05	0.09

Notes: the table reports regression results where the dependent variable is geopolitical concerns (0 = no concerns, 10 = extremely concerned). Robust standard errors are reported in parentheses. ***, **, * denote statistical significance at 1, 5 and 10 percent levels.

Appendix Table 3. Consumption Response by Country.

country	Log(nondurable spending)×100		Log(durable spending)×100	
	coef./(s.e.)	N obs	coef./(s.e.)	N obs
	(1)	(2)	(3)	(4)
AT	-0.107 (0.791)	1,108	-12.105** (4.780)	1,126
BE	-1.012 (1.062)	1,262	-10.407*** (2.929)	1,290
DE	-0.830*** (0.300)	4,594	-4.569** (2.184)	4,650
EL	3.959** (1.909)	1,010	-2.268 (2.613)	1,030
ES	-1.140* (0.634)	4,358	-8.339*** (2.058)	4,432
FI	-0.678 (0.527)	1,184	-5.488* (3.290)	1,198
FR	0.364 (0.499)	4,108	-5.499*** (2.090)	4,202
IE	0.960 (0.751)	1,202	-4.290 (3.740)	1,214
IT	-1.969*** (0.563)	4,546	-1.883 (2.080)	4,670
NL	0.455 (0.748)	1,404	-0.249 (3.342)	1,422
PT	-1.712* (0.896)	1,302	1.600 (8.606)	1,320

Notes: The table reports estimates of slope coefficient on geopolitical concerns in the regression where a measure of consumption is the dependent variable and geopolitical concerns are the regression. Household fixed effects are included but not reported. Robust standard errors are reported in parentheses. ***, **, * denote statistical significance at 1, 5 and 10 percent levels.