ROCKWOOL Foundation Berlin
Institute for the Economy and the Future of Work (RFBerlin)

DISCUSSION PAPER SERIES 044/26

The Effects of the Invasion of Ukraine on Russian Sentiments

Mikael Elinder, Oscar Erixson, Olle Hammar

www.rfberlin.com FEBRUARY 2026

The Effects of the Invasion of Ukraine on Russian Sentiments

Authors

Mikael Elinder, Oscar Erixson, Olle Hammar

Reference

JEL Codes: D72, F51, H56, P20

Keywords: War, Public opinion, Sentiments, Rally 'round the flag, Russia

Recommended Citation: Mikael Elinder, Oscar Erixson, Olle Hammar (2026): The Effects of the Invasion of Ukraine on Russian Sentiments. RFBerlin Discussion Paper No. 044/26

Imprint

RFBerlin
ROCKWOOL Foundation Berlin –
Institute for the Economy
and the Future of Work

Gormannstrasse 22, 10119 Berlin
Tel: +49 (0) 151 143 444 67
E-mail: info@rfberlin.com
Web: www.rfberlin.com

The Effects of the Invasion of Ukraine on Russian Sentiments *

Mikael Elinder† Oscar Erixson‡ Olle Hammar§

January 30, 2026

Abstract

The Russian invasion of Ukraine in February 2022 reshaped geopolitics and intensified debates on how wars influence domestic political support. Media reports and scholarly work based on aggregate time-series data suggest rally effects, reflected in an immediate surge in Putin's approval ratings. Leveraging the quasi-experimental timing of the invasion relative to survey fieldwork by Levada and Gallup World Poll, we show that the invasion not only increased support for Putin but also fostered greater optimism about the future, strengthened anti-Western attitudes, and reduced migration aspirations. These effects were broadly consistent across demographic groups, with the notable exception of residents in Moscow. The mobilization, however, had the opposite effects, albeit only temporarily. Our analyses also indicate that Russians abroad have become more critical of Putin, aligning with global views. Taken together, these findings provide new evidence on autocratic leaders' use of foreign conflicts as a tool for domestic support.

Keywords: War, Public opinion, Sentiments, Rally 'round the flag, Russia

JEL Codes: D72, F51, H56, P20

*We thank Raymond Fisman, Greta Fredriksson, Nils Gottfries, Massimo Morelli, Torsten Santavirta, Konstantin Sonin, Andrey Tkachenko, Alexei Zakharov, Ekaterina Zhuravskaya, and seminar participants at the Annual Congress of the IIPF, Asia Meeting of the Econometric Society, ASREC Europe Conference, ASWEDE Conference, CESifo Workshop on Political Economy, EEA Congress, European Winter Meeting of the Econometric Society, ifo Workshop on Return and Integration Prospects of Ukrainian Refugees, Institute for Futures Studies, Institute for Housing and Urban Research, Linnaeus University, Migration Studies Delegation (Delmi), Nordic Conference in Development Economics, Research Institute of Industrial Economics (IFN), Stockholm Institute of Transition Economics, Swedish Conference in Economics, UCLS Workshop on Political Inequality, Uppsala Immigration Lab and Urban Lab for their valuable comments. We thank Delmi for providing access to the Gallup World Poll data and the Levada Center for providing their data. For financial support, Elinder and Erixson thank Jan Wallanders och Tom Hedelius stiftelse samt Tore Browaldhs stiftelse (grants Fh22-0044 and P24-0106), and Hammar thanks the Swedish Research Council for Health, Working Life and Welfare (Forte, grant 2022-00859) and Johan och Jakob Söderbergs stiftelse (grant FA22-0025). This paper has also been circulated with the title "How has the war in Ukraine affected Russian sentiments?".

†Department of Economics, Uppsala University. Email: mikael.elinder@nek.uu.se.

‡Institute for Housing and Urban Research, Uppsala University. Email: oscar.erixson@ibf.uu.se.

§Department of Economics and Statistics, Linnaeus University, and Center for Migration and Integration Research, Stockholm School of Economics. Email: olle.hammar@lnu.se.

1 Introduction

The Russian invasion of Ukraine on February 24, 2022, has caused immense human suffering and mass displacement, profoundly disrupting the geopolitical landscape as well as the global economy (Guénette et al., 2022; Rogoff, 2022; United Nations, 2023). To understand the root causes of military conflicts, how they may evolve, and how their effects might be mitigated, scholars have long emphasized the importance of examining domestic political support and public opinion dynamics (Gartner and Segura, 2021; Gelpi et al., 2009; Smith et al., 2003).

A growing literature focuses on Russia's military aggression in Ukraine (e.g., Egorov and Sonin, 2023; Guriev and Melnikov, 2016; Guriev and Treisman, 2020; Zakharov et al., 2024), particularly its impact on public opinion. Increases in Putin's popularity have been documented in connection with both the annexation of Crimea and the subsequent war in the Donbas in 2014 (Balzer, 2015; Hale, 2022; Theiler, 2018),[1] and more recently in aggregate time-series data following the full-scale invasion (Bussmann and Iost, 2024; Gorodnichenko and Sologoub, 2024; Kizilova and Norris, 2024).[2]

Yet, it is not well understood when and why international conflicts lead to such "rally 'round the flag" effects (Kam and Ramos, 2008; Levy, 1998; Mueller, 1970).[3] In fact, a recent study that exploits 46 militarized interstate disputes as natural experiments finds that these events more often led to public backlash rather than increased support for the political leaders (Seo and Horiuchi, 2024). In the Russian context, restrictions on media and freedom of speech (Enikolopov et al., 2011, 2018; United Nations, 2022), political oppression

[1]The invasion of Georgia in 2008 also spurred increased approval ratings (Guriev and Treisman, 2020; Treisman, 2011), while less violent conflicts such as the Kuril Islands dispute in 2006 and the Syrian air strikes in 2015 were associated with little or no increase in popularity (Bussmann and Iost, 2024)

[2]Based on these findings, some argue that the invasion of Ukraine was a strategic move by Putin to boost popularity and consolidate domestic power (Bussmann and Iost, 2024; Kizilova and Norris, 2024; Theiler, 2018), consistent with the broader view that political leaders' actions—whether in democracies or autocracies—reflect the will of the people or the elite (Acemoglu and Robinson, 2005; Turchin, 2014). Others emphasize Putin's personal ambition to restore the Soviet empire's global power (Florea, 2022), while some argue that historical narratives primarily serve as justification for contemporary geopolitical interests (Kragh, 2022; Plokhy, 2023).

[3]Famous examples of international conflicts that led to so-called "rally 'round the flag" effects include the Falklands War (Lai and Reiter, 2005), the Persian Gulf War (Parker, 1995), and the 9/11 attacks and the War on Terrorism (Hetherington and Nelson, 2003).

(Snegovaya, 2023), diversion of public resources to military spending (VOA, 2022), and Western economic sanctions (Becker et al., 2024; European Council, 2024; Fisman et al., 2024; Simola, 2022)—have severely constrained opportunities for many Russians (VOA, 2023) suggesting that the war with Ukraine would not be supported by the public.

The question remains, therefore, if changes in Putin's aggregate approval ratings reflect true opinions and support for the war, and to what extent the Russian population is united or divided in the apparent support for Putin. To gain a better understanding of these issues, analyses of how the invasion affected other sentiments can support or contradict the credibility of approval ratings. Moreover, analyses that can detect heterogeneous responses across different parts of the population are essential to provide a more complete picture.

In this paper, we provide causal estimates of how the invasion of Ukraine and the subsequent partial military mobilization affected support for Putin as well as other sentiments in Russia. We draw on individual-level microdata covering a broad range of opinions and sentiments that capture both views about the country and personal circumstances—including approval of the leader, optimism about the future, current mood and life satisfaction, migration aspirations, and attitudes toward the West—collected by two respected polling institutions: the Levada Center, a non-governmental research organization in Moscow (Levada-Center, 2024a), and the Gallup World Poll (GWP), the most comprehensive cross-country survey worldwide (Gallup, 2024b). Levada conducts monthly surveys with approximately 2,000 respondents per wave, and the GWP surveys between 2,000 and 4,000 individuals per year in Russia.

For our identification strategy, we demonstrate that the timing of the invasion as well as the mobilization were exogenous with respect to the polling periods, providing a quasi-experimental setting to estimate causal effects (Muñoz et al., 2020). Similar strategies have been employed in other contexts to assess the effects of various shocks on political sentiments and social or economic outcomes (e.g., Bateson and Weintraub, 2022; Boungou and Yatié, 2022; Casas et al., 2024; Costa-Font and Ljunge, 2023; Dinesen and Jæger, 2013; Hariri

et al., 2016; Jakiela and Ozier, 2019; Metcalfe et al., 2011; Montalvo, 2011).

Our results suggest that the invasion significantly increased support for Putin and optimism about the future, fueled anti-Western attitudes, and reduced migration aspirations. Heterogeneity analyses show that the effects were broadly consistent across demographic groups, with the notable exception of residents in Moscow. In contrast, we find that the mobilization in September 2022 was widely unpopular when announced, but that this effect dissipated once the mobilization was concluded. Essentially, it produced a temporary crack in the generally positive perceptions of the invasion. Finally, we document that Russians living abroad have became more critical of Putin following the invasion, aligning with global sentiments.

The reliability of our results are supported by consistent findings across two independent surveys, and across both sensitive and less sensitive questions. By examining potential selection in respondent characteristics as well as item non-response patterns, we find no evidence suggesting that our main conclusions would be driven by selection or false reporting. Moreover, the finding that the mobilization caused negative, yet temporary, effects on regime support and related sentiments, suggests that Russians dared to express discontent even after the invasion.

Our findings contribute to the literature on wars, populism, and autocracies in general (e.g., Egorov and Sonin, 2024; Garfinkel and Skaperdas, 2007; Glaeser, 2009; Herrera et al., 2022; Jackson and Morelli, 2007; Spolaore and Wacziarg, 2016, 2019; Weeks, 2014), and on Russia and the war in Ukraine in particular (e.g., Bussmann and Iost, 2024; Egorov and Sonin, 2023; Gorodnichenko and Sologoub, 2024; Guriev and Melnikov, 2016; Guriev and Treisman, 2020; Hale, 2022; Kizilova and Norris, 2024; Zakharov et al., 2024).[4]

Specifically, we make three main contributions:

1. First, by analyzing a broad range of sentiments—including approval of the leader,

[4]Other studies have examined how the invasion of Ukraine has influenced sentiments in countries outside Russia (Adema et al., 2024; Anger et al., 2024; Balcells et al., 2024; Fukumoto and Tabuchi, 2023; Gehring, 2022).

optimism about the future, life satisfaction, emigration intentions, and attitudes toward the West—we move beyond simple approval ratings to provide a richer picture of Russians' reactions to the invasion and the subsequent mobilization. Importantly, by combining questions of varying political sensitivity across two independent surveys, we triangulate beliefs and attitudes that may be more reliable under authoritarian conditions and that can explain the surge in approval ratings.

2. Second, using individual-level data, we provide a detailed heterogeneity analysis by gender, age, family status, education, income, and region—highlighting where resistance or disapproval is more likely to persist. Exploiting the GWP's global coverage, we also study the effects on Russians living abroad.

3. Third, we contribute to the understanding of how autocratic leaders sustain public support. While repression, propaganda, and censorship are well-documented tools, our results suggest that foreign military interventions may also serve a domestic political function fostering patriotism, reinforcing anti-Western narratives, and consolidating power. These insights complement recent work on autocratic survival strategies (Egorov and Sonin, 2024; Guriev and Treisman, 2020), and illustrate how conflict can be used politically, even amid economic hardship and human costs (Blattman, 2022; Egorov and Sonin, 2023; Smith et al., 2003; Spolaore and Wacziarg, 2016; Weeks, 2012, 2014).

The remainder of this paper is structured as follows: Section 2 presents the data and methods, Section 3 reports the results, and Section 4 concludes.

2 Data and methods

2.1 Data sources

In this section, we present our two main microdata sources—the Gallup World Poll (GWP) and the Levada Center. We also discuss in detail to what extent survey data from Russia can be trusted and how we deal with their potential biases. Finally, we present our main

outcome measures.

2.1.1 Gallup World Poll

The Gallup World Poll (GWP) conducts annual surveys on attitudes and behaviors in more than 160 countries around the world, corresponding to 99 percent of the adult population of the world (Gallup, 2024b).[5] The survey includes at least 1,000 individuals per country and year, but in some large countries, including Russia, sample sizes of at least 2,000 individuals per year are collected. Gallup uses either telephone surveys, using a random-digit-dial method or a nationally representative list of phone numbers, or face-to-face interviews in randomly selected households using an area frame design. Face-to-face interviews are approximately one hour and telephone interviews are about 30 minutes. The samples are probability-based and nationally representative of the resident population aged 15 years and older. The coverage area is the entire country including rural areas, and the sampling frame represents the entire civilian, non-institutionalized adult population of the country. The final GWP samples are weighted to correct for unequal selection probability, non-response, and double coverage of landline and cellphone users when using both cellphone and landline frames. Gallup also weights its final samples to match the national demographics of each selected country.

In Russia, the mode of interview was face-to face in 2006–2019, landline and mobile telephone in 2020–2021, face-to-face in 2022, and mobile telephone in 2023. The interview language was Russian. In some years, people living in very remote or difficult-to-access areas were excluded. In these cases, the excluded areas represent five percent or less of the population (Gallup, 2024a).

In the analysis, we use individual-level GWP data from 2007 to 2023. The annual sample sizes and survey dates in GWP are shown in Table A1 in the Appendix.

[5]The GWP has been used extensively in research (e.g., Adema et al., 2024; Aksoy and Poutvaara, 2021; Deaton, 2008; Elinder et al., 2023; Falk et al., 2018), including studies analyzing the support for leaders in authoritarian countries (e.g., Aksoy et al., 2024; Guriev and Treisman, 2020; Guriev et al., 2021).

2.1.2 Levada Center

The Levada Center is an independent, non-governmental polling and research organization based in Moscow (Levada-Center, 2024a). The center has conducted regular, nationally representative surveys and public opinion polls across Russia since 1988. Since 2016, it has been labelled a foreign agent under the Russian foreign agent law. The Levada data have been widely used in research (e.g., Gorodnichenko and Sologoub, 2024; Kizilova and Norris, 2024; Szakonyi, 2022; Treisman, 2011) and are often considered the most reputable series of public opinion data in Russia (Frye et al., 2023; Kizilova and Norris, 2024).

In the analysis, we use individual-level monthly microdata from the Levada Center between January 2021 and April 2023.[6] Data are weighted using the main vector provided by Levada. The Levada survey dates and sample sizes are shown in Table A2 in the Appendix.[7]

2.1.3 Can we trust survey data from Russia?

Following the full-scale invasion, the Kremlin has further tightened political control and intensified measures to repress dissent. While studies have found that survey data in authoritarian states can generally be trusted—albeit with some reservations (Guriev and Treisman, 2020)—concerns remain that the deterioration of the climate for free expression in Russia has affected the reliability of survey data (Chapkovski and Schaub, 2022; Frye et al., 2017, 2023, 2024; Hale, 2022; Rosenfeld, 2023; Tkachenko and Vyrskaia, 2025). In a recent study, Frye et al. (2024) use three waves of data from the Russian Election Study, a nationally representative panel survey conducted by Levada before and after the invasion, to further investigate these issues. Three primary concerns arise: (i) people may abstain from participating in surveys (non-response); (ii) they may refuse to answer, arguably, sensitive questions (item non-response); and (iii) they may withhold their true opinions (preference falsification).

[6]Due to the current sanctions against Russia we are not able to extend these series with more recent data from Levada.

[7]Both the Levada and GWP data are repeated cross-sections, meaning that we, unfortunately, cannot follow the same individuals over time.

First, in terms of potential non-response bias, despite concerns about the authoritarian environment, Frye et al. (2024) find no significant increase in survey non-response or systematic dropout by regime opponents, suggesting respondents were willing to share political opinions even after the invasion.[8] While the overall survey response rate thus does not appear to have changed significantly at the time of the invasion, another potential concern could be that the effects we find are driven by Russians disapproving of Putin leaving the country. High estimates suggest that up to 300,000 Russians left the country at the time of the invasion and up to 700,000 following the mobilization. However, even if we take this high estimate of one million Russians leaving the country and assume that all of them disapproved of Putin, this still corresponds to less than one percent of the total Russian population. In other words, even a large and very selective emigration from Russia could not explain more than a minor share of the effects that we find. Moreover, we perform balance tests to check for any differences in terms of observable characteristics between the individuals responding to the surveys before and after the invasion and other war events (see Section 2.2).

Second, regarding potential item non-response bias, Frye et al. (2024) find a slight increase in non-response ("Don't know") to sensitive questions, with some respondents avoiding direct answers. However, their analysis suggests that this is more likely due to increasing uncertainty rather than fear of expressing opposition. In our analysis, we directly address this potential bias by calculating lower and upper bounds of our estimates by recoding all item non-responses as either disapprovals or approvals, respectively. Moreover, we directly test for any effects of the different war events on item non-responses.

Third, to assess potential preference falsification, Frye et al. (2024) employ indirect questioning techniques, such as list experiments (Blair and Imai, 2012), endorsement experiments (Rosenfeld et al., 2016), and the randomized response technique (Blair et al., 2015),

[8] As in other countries, pollsters in Russia have observed a consistent decline in response rates over the past few decades. However, response rates in Russian surveys, including Levada, have remained comparable to those in other countries, at around 30 percent (Volkov, 2023). Moreover, Smeltz et al. (2022) report that the non-responses in Levada's monthly surveys did not fall from the month before to the month after the invasion. This appears to also hold for online surveys conducted by state pollsters (Zvonovsky, 2022).

to uncover hidden biases. Their findings indicate that direct polling may slightly overestimate support for the war, but largely captures genuine public sentiments.[9] In our analysis, we assess this potential bias by analyzing responses from both sensitive and less-sensitive questions. While increased repercussions could still potentially increase the likelihood of preference falsification over time, in contrast to the invasion, we find opposite effects at the time of the mobilization (i.e., we find that the disapproval rate increased when the costs of disapproval would arguably be higher). This shows that many people still dared to express their dissatisfaction—and even increased dissatisfaction—with the political leadership after the invasion.

Finally, as with all surveys, we can only measure people's stated responses, and thus not be completely sure that these responses reflect their true opinions and sentiments. Nevertheless, the overall evidence suggests that survey data can provide meaningful insights into how Russians perceive the war.

2.1.4 Sentiment variables

Our main variables of interest are measures of sentiments collected in the Levada and GWP surveys. We study five dimensions of sentiments in the Russian population, capturing various aspects of nationalism and related feelings and attitudes. Our primary outcome variable is the support for President Putin (*Approval of Putin*), measured by the individuals' responses to questions about whether they approve or disapprove of the Russian leader.[10] Our other outcomes are if the respondents think that things in Russia are going in the right direction or not, and to what extent they will have a good life in five years (*Optimism about future*); the respondents' current mood as well as life satisfaction as measured by the Cantril (1965) ladder

[9] Guriev and Treisman (2020) use data from all non-democratic countries in the Gallup World Poll (GWP), including Russia, and find no statistically significant relationship between political repression and leader approval, nor between repression and refusals to answer or "don't know" answers, arguing against preference falsification. In fact, greater repression appeared to be associated with lower leader approval, indicating that outrage may outweigh fear.

[10] We also analyze variations of this question in a number of robustness checks (see Table A5 in the Appendix).

(*Subjective well-being*); attitudes about the European Union (EU) and Germany (*Positive about West*); and if they would like to move permanently to another country or not (*Migration aspirations*). After the invasion, we can also directly analyze the stated support for the war in Ukraine (*Support for military*).[11] For the exact survey questions and variable definitions, see Table A3 in the Appendix.[12]

2.2 Methods

The aim of our empirical approach is to assess how the Russian invasion of Ukraine on February 24, 2022, and the subsequent partial military mobilization between September 21–October 28, 2022, have impacted sentiments in the Russian population.

To identify plausibly causal effects, we use the high frequency and timing of survey waves to compare sentiments just before versus just after these significant events.[13] To the extent that the events were salient, unexpected, and unrelated to the timing of the Levada and GWP surveys, any observed changes in sentiments immediately around the events should credibly reflect causal effects (Casas et al., 2024; Muñoz et al., 2020; Seo and Horiuchi, 2024).

To evaluate the validity of these assumptions, we perform a number of checks (in line with the best practices suggested by Muñoz et al., 2020):

First, Figure A1 in the Appendix displays Google search trends in Russia for the terms "Ukraine" and "mobilization" (in Russian). Notably, each event generated a significant spike

[11]The Levada question asks the respondents if they personally support or not the actions of the Russian Armed Forces in Ukraine. In March 2022, directly after the invasion, 85 percent of the respondents in Levada answered that they personally supported these actions. In the year following the invasion, between April 2022 and April 2023, the stated support rate for the war varied between 77 and 82 percent. However, because the question was not asked before the invasion we cannot directly analyze the effect of the invasion on this outcome.

[12]These sentiments have previously been analyzed using similar questions, albeit in different contexts, in a multitude of studies (see, e.g., Adema et al., 2024; Deaton, 2008; Elinder et al., 2023; Guriev and Treisman, 2020; Guriev et al., 2021; Kahneman and Krueger, 2006; Newport and Saad, 2021; Seo and Horiuchi, 2024).

[13]This identification strategy, exploiting the occurrence of unexpected events during the fieldwork of public opinion surveys to estimate causal effects by comparing responses of those interviewed before the event (control group) to those interviewed after (treatment group), is sometimes referred to as the *unexpected event during survey design* (UESD) method. The two key identifying assumptions in this design are excludability and temporal ignorability, where the latter means that selection of the moment of the interview should be as good as random (Muñoz et al., 2020).

in searches for the corresponding keyword precisely at the time of the event. The search frequency for "Ukraine" indicates that the invasion, referred to by Putin as a 'special military operation in Ukraine' during a televised speech on the morning of February 24 (Al Jazeera, 2022), attracted significant attention within the Russian population. Similarly, the relative search frequency for "mobilization" suggests that the event was also highly salient for the Russian population. We also find the same results for search trends from Yandex, the leading search engine in Russia.[14]

Second, the timing of these spikes in search activity also suggests that the events were unanticipated. This is in line with multiple studies showing that the financial markets' response to the invasion was negative and immediate, suggesting that, despite the buildup of Russian forces along the Ukrainian borders, an actual invasion was not expected by the markets and considered unlikely, even within Russia, until it occurred (Izzeldin et al., 2023; Yousaf et al., 2022). For the mobilization, Avila-Uribe and Nigmatulina (2023) document a substantial spike in ticket prices for flights leaving Russia shortly after the announcement, indicating that it was both unexpected and impactful.

Third, to test that the survey data collections were unaffected by these events, we also do a number of balance tests, reported in Figure A2 in the Appendix. Importantly, the events did not seem to affect who responded to the surveys in terms of their observable characteristics. That is, there were no statistically significant differences in the respondents' demographics before and after these events. The same is also true for the share of missing values, i.e., respondents answering "Hard to answer", "Don't know", or who refused to answer the question about their approval of Putin. Finally, for the GWP, we can also see that the distributions of number of interviews per day as well as the survey period lengths were fairly similar across these waves (see Figure A3 in the Appendix).

[14]While Yandex is the most popular search engine in Russia, followed by Google, long-run search trends for Yandex are only available at the monthly level. In February 2022, the number of searches for "Ukraine" on Yandex in Russia increased from 8 million to 62 million queries compared to the previous month. Searches for "Ukraine" peaked in March 2022, with 104 million search queries, corresponding to 0.9 percent of the total number of queries on Yandex in Russia during that month. In September 2022, searches for "mobilization" rose from 0.4 million to 49 million compared to the previous month (Yandex Wordstat, 2024).

Below we provide further details about our empirical specifications and how we estimate the causal impacts of the invasion and the mobilization.

2.2.1 Invasion

The full-scale Russian invasion of Ukraine began on February 24, 2022. To evaluate its impact on sentiments, we leverage the timing of the Levada polls in February (conducted just before the invasion, between February 14–20) and March (conducted approximately one month after the start of the invasion, between March 27–April 2).

The effects of the invasion on sentiments are estimated using the following linear regression:

$$y_i = \alpha + \beta Post_i + \epsilon_i, \tag{1}$$

where y_i is the survey response of individual i for the relevant sentiment; $Post_i$ is a dummy variable which takes value 0 if individual i is interviewed in the time period before the invasion and value 1 if the individual is surveyed in the period after the invasion; β is the coefficient of interest; α the intercept; and ϵ_i an error term.[15]

While the Levada survey samples are selected to be representative of the Russian population, our estimates could be biased if respondents after the invasion differ systematically from those before the invasion. Panel A in Appendix Figure A2 shows that the pre- and post-invasion samples are strongly balanced in terms of observable characteristics, including the share of respondents answering "Hard to answer" to the approval of Putin question. To further validate this, we also run our baseline regression adding individual-level control variables for a basic and extended set of demographic characteristics. In another sensitivity analysis, we test if the results are robust to variations in the time frame of the analysis. To

[15]All regressions are estimated with robust standard errors and 95 percent confidence intervals. Estimations include sampling weights. Missing values are excluded. Similar results are found when using the unweighted values, and when including missing values imputed as each one of the possible responses to the question (see Appendix Table A5).

assess whether the results could potentially be driven by seasonal effects, we also do two placebo tests where we run the same regression as in Equation (1) but instead compare the Levada polls between February and March in the year before (2021) and after (2023) the invasion. All of these tests suggest that our baseline results are robust and can plausibly be interpreted as causal effects of the invasion (see Appendix Table A5).

To assess potential heterogeneities in the effects, we also estimate Equation (1) for different subgroups in the Russian population, including with respect to gender, age, marital status, education, income, and geographical area.[16]

Since the GWP surveys are only collected annually, for GWP, we estimate the effects of the invasion by comparing responses from the 2021 (conducted approximately nine months before the invasion, between May 14–July 14) and 2022 (collected about seven months after the invasion, between August 13–November 2) survey waves, using Equation (1).

2.2.2 Mobilization

On September 21, 2022, Vladimir Putin declared a partial military mobilization of recruits for the war. One month later, on October 28, the mobilization was announced completed. During the mobilization, all men of conscription age (18–27 years old) faced the risk of being sent to the frontlines in Ukraine. Although young men were therefore the group most likely to be personally affected by the mobilization, it is still plausible that other groups, such as parents and partners, were also directly or indirectly affected by this war policy.

A difference compared to the invasion, which is still ongoing, is that for the mobilization we observe both the beginning and ending of the event, meaning that we can analyze both its announcement and completion effects.

To estimate the dynamic impacts of the mobilization over time, we use data from the monthly Levada polls conducted between May 2022 and February 2023 and estimate an event-study type of regression that compares responses from each month to those from the

[16]For the exact survey questions and definitions of these variables, see Table A4 in the Appendix.

month before the mobilization (i.e., August 2022), as follows:

$$y_i = \alpha + \sum_{\substack{m=-4 \\ m \neq -1}}^{5} \beta_m D_{m,i} + \epsilon_i, \tag{2}$$

where y_i is the survey response of individual i for the relevant sentiment; $D_{m,i}$ is a dummy variable which takes value 1 if individual i is interviewed in month m (where $m = -4$ for May 2022, ..., -1 for August 2022, 0 for September 2022, 1 for October 2022, ..., and $m = 5$ for February 2023) and value 0 if the individual is not interviewed in that month (with August 2022 as the omitted month); β_m is the coefficients of interest; α the intercept; and ϵ_i an error term. The coefficient for September 2022 (β_0) thus captures the announcement effect of the mobilization by comparing responses just after the start of the mobilization (collected between September 24–30) to those just before (collected between August 27–September 2). The coefficient for October 2022 (β_1) captures the total effect of both the announcement and completion of the mobilization by comparing responses at the end of the mobilization (October 23–29) to those before the announcement (August 27–September 2). Appendix Figure A2 (Panel B) shows that the Levada sample compositions in the month before versus after the mobilization announcement are strongly balanced.

We also assess heterogeneous responses to the mobilization announcement for four different subgroups: young men, which was the subgroup targeted by the mobilization (i.e., men aged 18–27), young women, which are women in the same age group as the targeted men, as well as old men and women, aged 28 and above.

In GWP, we take advantage of the coincidence that the mobilization announcement happened in the middle of the 2022 polling period in Russia, which took place between August and November, providing a natural experiment to estimate the effects of the mobilization on sentiments in the Russian population.[17] We estimate the effects using Equation (1) but with respect to the date of the mobilization announcement instead of the invasion. Test-

[17] 942 individuals were interviewed before the announcement (between August 13–September 20) and 1,064 were interviewed after (September 21–November 2).

ing for potential sample differences before and after the mobilization, we do not find any statistically significant differences in observable characteristics of the respondents, including whether they responded to the approval of Putin question or not (see Panel C in Appendix Figure A2).

3 Results

3.1 Invasion spurred positive sentiments in Russian population

Figure 1 (Panel A) shows time-series data from Levada on the approval of Putin in the Russian population, before and after the invasion. The results show that support for Putin increased following the invasion and remained on a higher level during the first year of the war.

In Panel B, we provide estimates of the immediate effects of the invasion on approval of Putin, measured by a comparison of responses to the Levada survey conducted just before (February 14–20) versus just after (March 27–April 2) the invasion (Equation 1). The immediate effect shows an increase of 13 percentage points between February and March. These results confirm previously found surges in Putin's approval (Bussmann and Iost, 2024; Gorodnichenko and Sologoub, 2024; Kizilova and Norris, 2024), with significant rally 'round the flag effects in Russia caused by the invasion of Ukraine.[18] Estimates based on the annual GWP data from 2021 versus 2022 confirm the monthly Levada estimates, but with an even larger increase of 25 percentage points between the two survey years.[19] In Figure 1 (Panel B), we also show heterogeneity analyses, based on the monthly data from Levada. As indicated by these analyses, the immediate responses were remarkably similar across various

[18]Compared with other rally 'round the flag effects found in the literature, these are large effects (Seo and Horiuchi, 2024), albeit smaller than those found in the United States after the 9/11 attacks (Hetherington and Nelson, 2003). At the same time, the Russian invasion has also spurred large rally 'round the flag effects in Ukraine, where the approval of President Volodymyr Zelenskyy increased by 41 percentage points between July 2021 and September 2022 according to the GWP data for Ukraine.

[19]For time-series data from GWP in Russia between 2020 and 2023, see Figure A4 in the Appendix.

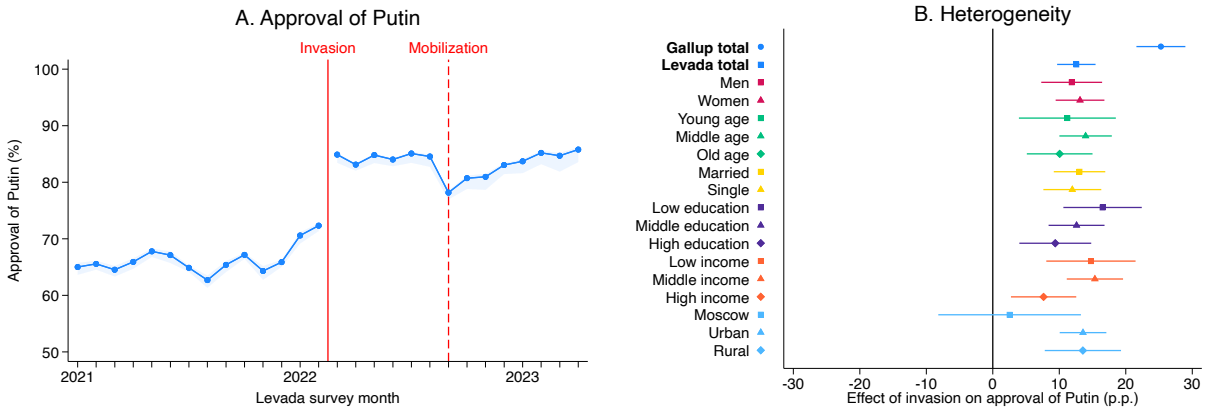


Figure 1: Effects of the invasion on approval of Putin

Note: The figure shows the effects of the Russian invasion of Ukraine on February 24, 2022, on the approval of Putin in Russia. Panel A shows monthly averages from the Levada Center's public opinion surveys in Russia between January 2021 and April 2023, where the shaded areas show the results when all "Hard to answer" responses are recorded as positive (upper bound) and negative (lower bound) responses. Solid red line indicates the full-scale invasion on February 24, and dashed line the mobilization on September 21, 2022. Panel B shows the invasion effects in percentage points (p.p.) for various segments of the Russian population, estimated as the difference between the March (Mar. 27–Apr. 2) and February (Feb. 14–20) 2022 Levada surveys for each subgroup, with 95 percent confidence intervals estimated by a linear regression with robust standard errors (Equation 1). "Gallup total" estimates the difference between the 2022 (Aug. 13–Nov. 2) and 2021 (May 14–Jul. 14) survey waves in Gallup. For exact variable definitions, sample sizes, and survey dates, see Appendix Tables A1–A4.
Source: Authors' calculations based on data from Levada and GWP.

demographics and population groups, consistent with broad popular support for the invasion of Ukraine. The main exception is found only for residents in Moscow, for whom we do not find any statistically significant effects of the invasion.[20]

Regarding the other sentiments, Figure 2 reveals a similar persistent increase in optimism about the future (Panels A–B), a decrease in the share with a positive attitude towards the West (Panels E–F), and a reduction in migration aspirations (Panels G–H). Interestingly, the latter result suggests that, after the invasion, there were fewer—not more—Russians who wanted to move abroad. The response in subjective well-being (Panels C–D), however, is less consistent; while Levada does not reveal any change in current mood following the invasion,

[20] According to the rally 'round the flag theory, there should be more room for rally effects when political support is low (Murray, 2017). Consistent with this, we find that in federal districts where the support for Putin was lower before the invasion, the rally effects of the invasion were stronger (see Figure A5 in the Appendix).

GWP suggests a surge in life satisfaction.

Taken together, the analysis indicates that the invasion had large and persistent impacts on a variety of sentiments, including increased support for Putin, in broad segments of the Russian population. These rally effects are also confirmed in a large set of robustness and sensitivity analyses (see Table A5 in the Appendix): First, adding individual-level control variables for various demographic characteristics to our baseline regression does not change our main results. Second, we find very similar (but slightly larger) estimates when expanding the event window. Third, we also obtain similar rally 'round the flag effects for the approval of Prime Minister Mikhail Mishustin and for the Russian government as a whole. Fourth, our results are not driven by the sample weights, nor by the handling of missing values and non-responses. Fifth, we also find similar rally effects for the invasion and annexation of Crimea in 2014. Finally, our placebo tests, using the same months but in the year before and after the invasion instead, reassuringly yield no statistically significant estimates.

3.2 Mobilization created a temporary drop in support

Figure 3 shows Russians' sentiments during the months surrounding the mobilization of young men that took place between September 21 and October 28, 2022. Column 1 shows the results from the event-study regression (Equation 2), where Panels A–F are based on Levada. The immediate impact of the mobilization was a clear negative effect on the support for Putin (Panel A), optimism about the future (Panel C), current mood (Panel E), as well as support for the military actions of the Russian Armed Forces in Ukraine (see Figure A6 in the Appendix). The interpretation that these effects were caused by the mobilization are supported by the fact that we see no trends in sentiments in the months prior to the mobilization. The mobilization effects, however, were short-lived and had all disappeared within one to five months.

If we look at the heterogeneity of these immediate effects (Column 2), we can see that young men, who were more directly targeted by the mobilization, did not seem to respond

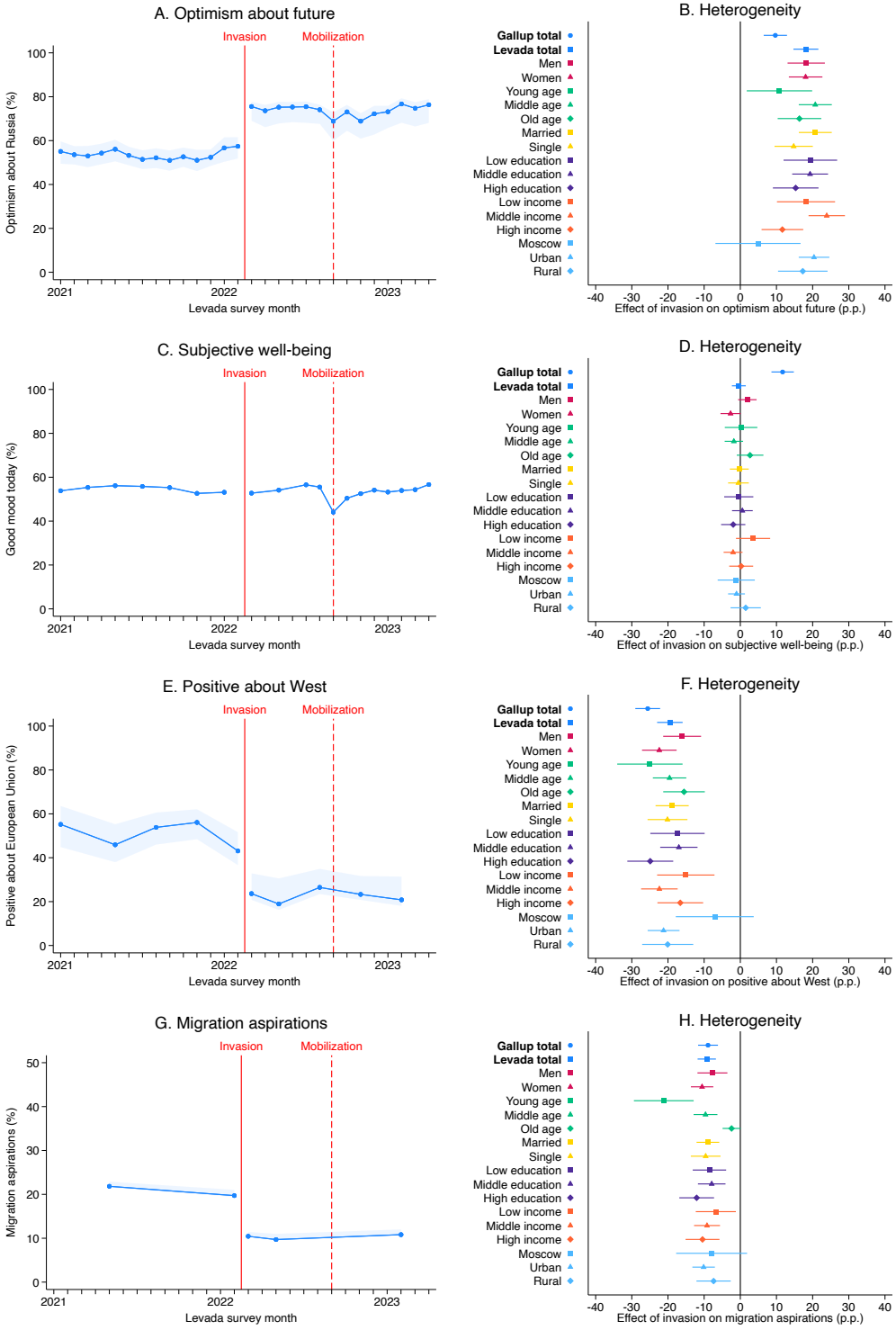


Figure 2: Effects of the invasion on sentiments in Russia

Note: The figure shows the effects of the Russian invasion of Ukraine on February 24, 2022, on optimism about the future (Panels A–B), subjective well-being (Panels C–D), attitudes about the West (Panels E–F), and migration aspirations (Panels G–H). Column 1 shows monthly averages from the Levada Center's public opinion surveys in Russia between January 2021 and April 2023, where the shaded areas show the results when all "Hard to answer" responses are recorded as positive (upper bound) and negative (lower bound) responses. Solid red line indicates the full-scale invasion on February 24, and dashed line the mobilization on September 21, 2022. Column 2 shows the invasion effects in percentage points (p.p.) for various segments of the Russian population, estimated as the difference between the March (Mar. 27–Apr. 2) and February (Feb. 14–20) 2022 Levada surveys for each subgroup (for current mood the comparison is between January and March because the mood question was not asked in February 2022), with 95 percent confidence intervals estimated by a linear regression with robust standard errors (Equation 1). "Gallup total" estimates the difference between the 2022 (Aug. 13–Nov. 2) and 2021 (May 14–Jul. 14) survey waves in Gallup. For exact variable definitions, sample sizes, and survey dates, see Appendix Tables A1–A4.
Source: Authors' calculations based on data from Levada and GWP.

more strongly than other groups. Young women, however, appeared to respond more negatively in terms of their optimism about the future, and old women more negatively in terms of their current mood. A breakdown of the respondents' mood shows that there was an increase in the feelings of fear, melancholy, tension and irritation during the month of the mobilization, while no such mood changes were shown at the time of the invasion (see Figure A7 in the Appendix). As soon as the mobilization was completed, however, the Russian mood went back to normal.

For migration aspirations (Panels G–H), a comparison of responses among those interviewed in GWP before (August 13–September 20) versus after (September 21–November 2) the announcement shows a positive, but not statistically significant, increase in young men's willingness to leave the country.[21] The event-study results confirm the mobilization's short-lived impact.[22]

In sum, this analysis suggests that while the mobilization appears to have been broadly disliked when announced, this effect only lasted until its completion. As such, it essentially just created a temporary crack in the generally positive view of the invasion.

Moreover, the fact that we find opposing effects of the mobilization and invasion supports

[21]This is consistent with reports of large spikes in flight prices around the time of the mobilization, and particularly so for flights leaving Russia within a short time, suggesting demand rather than supply effects (Avila-Uribe and Nigmatulina, 2023).

[22]It should be noted, however, that nine days after the announcement of the mobilization, on September 30, 2022, Putin announced a Russian annexation of the four Ukrainian regions Donetsk, Kherson, Luhansk, and Zaporizhzhia (Berlinger et al., 2022). To the extent that this spurred rally effects among Russians, it may lead us to underestimate the negative sentiments caused by the mobilization.

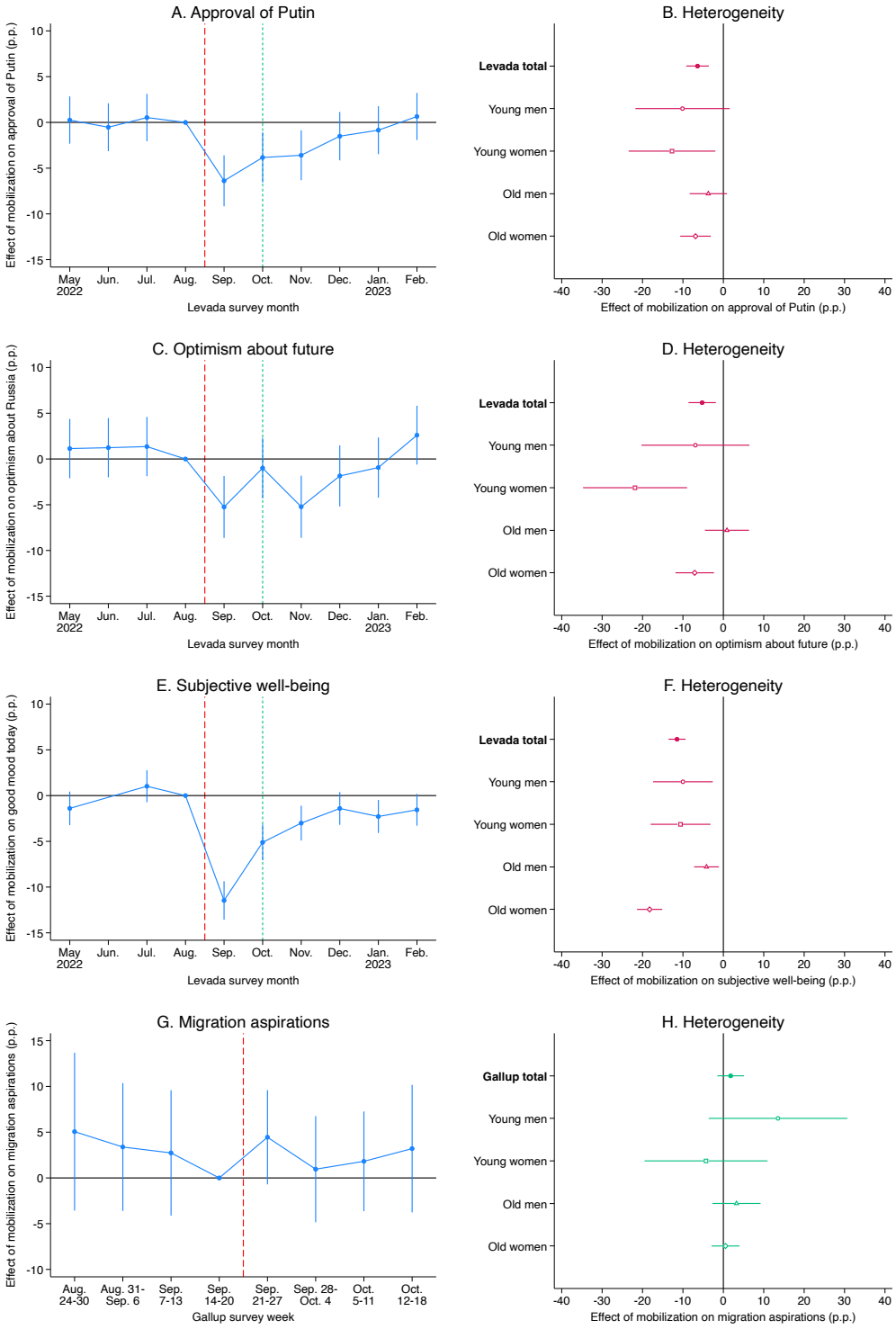


Figure 3: Effects of the mobilization on sentiments in Russia

Note: The figure shows the effects of the partial military mobilization of young men (aged 18–27) that took place between September 21 and October 28, 2022, on the approval of Putin (Panels A–B), optimism about the future (Panels C–D), subjective well-being (Panels E–F), and migration aspirations (Panels G–H). Column 1 shows the effects of the mobilization in percentage points (p.p.) per month in Levada, estimated as the differences relative to August (Aug. 27–Sep. 2) 2022 with 95 percent confidence intervals and robust standard errors (Equation 2). Dashed red line indicates the start of the mobilization on September 21, 2022, and green line the end of the mobilization on October 28, 2022. Column 2 shows the mobilization announcement effects (red) for the full sample ("Levada total") as well as for young (ages 18–27) and old (ages 28–99) men and women in the Levada surveys, estimated as the difference between September (Sep. 24–30) and August 2022, with 95 percent confidence intervals and robust standard errors. For migration aspirations, "Gallup total" estimates the total mobilization effect (green) in the 2022 Gallup survey wave because the migration question was not asked in Levada in these months, and Column 1 shows the effects of the mobilization per week. For exact variable definitions, sample sizes, and survey dates, see Appendix Tables A1–A4.
Source: Authors' calculations based on data from Levada and GWP.

our assumption that many Russians dare to answer these surveys truthfully.

The persistence of the positive view of the invasion is further supported by a supplementary analysis of the Wagner Group rebellion on June 23–24, 2023, which revealed no statistically significant effects—neither positive nor negative—on approval of Putin or any other sentiments (see Appendix E and Figure A8).

3.3 Russians abroad have turned against Putin

Our analyses above show that the Russian population in general seem to be supportive of Putin and the invasion of Ukraine. But how is the invasion perceived in the rest of the world, and in particular by Russians living outside of Russia?

To analyze this, we use a question in GWP about the approval of Russia's leadership, which has been asked annually in more than 100 countries all around the world.[23] Regarding the invasion, there is a sharp drop in approval rates between 2021 and 2022 in these countries (see Figure 4, Panel A), both in anti-Putin and pro-Putin ones (Panel B),[24] suggesting a global dislike of the invasion. In fact, there are only six countries outside of Russia (Afghanistan, Algeria, Bangladesh, India, Mali, and Tunisia) in which the invasion had a

[23]For the exact survey question see Appendix Table A4, and for sample sizes see Appendix Table A1.

[24]Anti-Putin countries are defined as countries in which less than 50 percent of the population approved of Putin in 2020–2021, and pro-Putin countries as countries where 50 percent or more approved of Putin in 2020–2021.

positive effect on the approval of Putin (see Figure A9 in the Appendix).

It can also be noted that, while the annexation of Crimea in 2014 and the invasion of Georgia in 2008 both increased the support for Putin in Russia with rally effects of similar magnitudes, these events were not associated with as large drops in the foreign approval rate of Putin as the 2022 full-scale invasion.[25]

Analyzing the approval of Putin among Russians abroad (i.e., people born in Russia or with a Russian nationality),[26] we find a negative effect of the invasion, suggesting that, unlike their countrymen in Russia, Russians abroad generally opposed the invasion. Panel B in Figure 4 shows that this effect is particularly pronounced among Russians in anti-Putin countries, where it is even stronger than for the general population. We can also note that, in most previous years, the support for Putin has been higher among Russians abroad than those living in Russia (see Panel A). With the 2022 invasion of Ukraine, however, Putin's support among Russians abroad has diverged from the population in Russia and instead converged with the worldview outside of Russia. In other words, the domestic rally effects have this time come at the cost of the previously patriotic diaspora's support, who now for the first time ever mostly disapprove of Putin.

While this effect can consist of both a change in sentiments and a compositional change, due to selective emigration from Russia, a back-of-the-envelope calculation suggests that it is primarily driven by the former. If we again take the high estimate that one million Russians have left Russia following the invasion, and assume that all of them disapproved of Putin, this corresponds to only 0.7 percent of the Russian population, meaning the positive invasion effect on the support for Putin in Russia would only be marginally smaller in a counterfactual scenario without emigration. For the negative invasion effect found among Russians abroad, however, the composition effect could be slightly larger. With the Russian diaspora estimated

[25]For estimates of these effects, comparing the GWP survey waves before and after the events, see Appendix Table A6.

[26]Estimates suggest that the Russian diaspora is scattered in some 100 countries around the world (Aleshkovski et al., 2023). The GWP sample includes Russians in 74 countries outside of Russia between 2007–2023 and in 51 countries between 2020–2023.

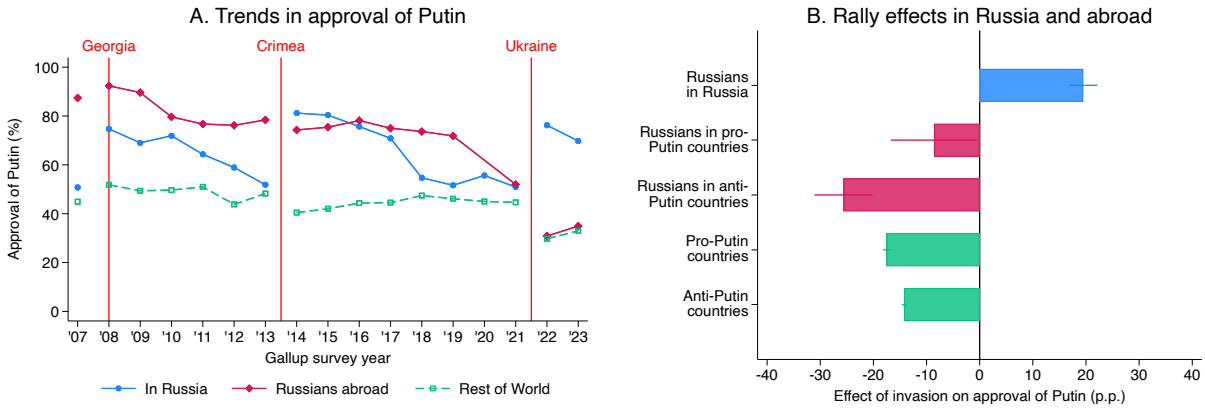


Figure 4: Long-run trends and support for Putin among Russians abroad

Note: The figure shows the approval of Putin in Russia (blue), among Russians abroad (red), and in the rest of the world (green). Russians abroad include people in other countries who were born in Russia and/or have a Russian nationality. Panel A shows the trends in Gallup between 2007 and 2023, where solid lines indicate the war in Georgia in August 2008, the annexation of Crimea in February–March 2014, and the invasion of Ukraine in February 2022 (for Russians abroad, 2021 includes both 2020 and 2021 because of a small number of respondents for these questions in 2020 due to the COVID-19 pandemic). Panel B shows the effects of the invasion in percentage points (p.p.), estimated as the difference between the 2022–2023 and 2020–2021 Gallup survey waves, with 95 percent confidence intervals and robust standard errors. Pro-Putin countries are defined as countries in which 50 percent or more approved of Putin in 2020–2021, and anti-Putin countries as countries where less than 50 percent of the population approved of Putin in 2020–2021. For exact variable definitions, sample sizes, and survey dates, see Appendix Tables A1 and A4.
Source: Authors' calculations based on data from GWP.

to approximately 25 million people (Diamant, 2017), a post-invasion emigration flow of one million Russians would correspond to about 4 percent of the total diaspora. In other words, approximately 4 percentage points of the 25 percentage points decrease in the support for Putin among Russians abroad could be due to a change in composition, while the remaining 21 percentage points would likely be due to an actual change in sentiments.

4 Concluding remarks

Our analysis, based on two independent surveys, shows strong and persistent rally 'round the flag effects in broad segments of the Russian population (with the main exception of Muscovites), supported by consistent shifts in a wide range of sentiments. These results indicate, in line with Bussmann and Iost (2024) and Kizilova and Norris (2024), strong

domestic support for the invasion of Ukraine, suggesting that the war is unlikely to be ended due to public uprising within a foreseeable future.

In comparison to other rally 'round the flag effects found in the literature, the effects caused by the invasion of Ukraine are between one third and one half the magnitude of those sparked by the 9/11 attacks in the United States and George W. Bush's subsequent launch of the War on Terrorism, which are claimed to be the largest rally effects documented (Hetherington and Nelson, 2003).[27] At the same time, far from all military conflicts lead to rally effects. Instead, political leaders often lose support during wars (Seo and Horiuchi, 2024). An interesting question is thus *why* we observe such strong rally effects following the invasion of Ukraine.

During the war, Western sanctions against Russia have likely contributed to increased polarization between Russia and the West (Bunce and Wolchik, 2011; Grauvogel and von Soest, 2014), including the observed rise in anti-Western sentiments within Russia (Gold et al., 2024). Another potentially contributing mechanism is the Kremlin's influence on the narrative in Russian media, along with direct censorship and propaganda (Alyukov, 2022; Baker and Oneal, 2001; Guriev and Treisman, 2019), which may lead to stronger rally 'round the flag effects (Hale, 2022; Newman and Forcehimes, 2010). A burgeoning body of literature studies the impacts of media in Russia on various political outcomes (e.g., Bursztyn et al., 2019; Enikolopov et al., 2011, 2018; Simonov and Rao, 2022). In particular, Melnikov (2019) finds that censorship and propaganda, measured through Internet searches of various media sources across Russian regions, increased support for Putin, especially among consumers of government-controlled media outlets.

While it would be interesting to investigate to what extent our results could be explained by propaganda, we are unfortunately unable to do so directly because our individual-level data from Levada and Gallup do not contain information about media consumption. However, aggregate data from Levada (see Figure A10 in the Appendix) indicate that pro-war

[27]Bush's approval rating increased with 35 percentage points (from 51 percent to 86 percent) between September 10 and September 15, 2001. Similar to our findings, those rally effects also lasted for over a year.

sentiments are stronger among individuals who express greater trust in potentially state-controlled news sources, such as television and Internet media, rather than alternative sources like social media, Telegram channels, and YouTube (Levada-Center, 2024b). Similar results are also found with respect to nationalist sentiments and optimism about Russia's future (El Baz et al., 2024).

In contrast to the positive sentiments connected to the invasion, we find that Russians disliked the partial mobilization, which may be one reason why Putin has postponed a larger general mobilization.

Finally, our analysis indicates that the Russian diaspora, which previously has been supportive of the Russian leadership, has now turned against Putin, in accordance with the rest of the world. Although Putin appears to care little about the outside world's view of Russia, it is possible that the sentiments among Russians abroad may eventually spread to their relatives and friends in Russia.

Overall, our findings highlight that authoritarian regimes may successfully leverage nationalist sentiment to sustain public support, even amidst costly conflicts. This extends our understanding of authoritarian resilience and underscores the necessity of distinguishing between public opinion dynamics in democracies and dictatorships. Together with existing theoretical frameworks, these findings can offer critical insights that may help predict public support in future conflicts and inform policies aimed at conflict prevention.

References

Acemoglu, D., & Robinson, J. A. (2005). *Economic origins of dictatorship and democracy.* Cambridge University Press.

Adema, J., Aksoy, C. G., Giesing, Y., & Poutvaara, P. (2024). *The effect of conflict on refugees' return and integration* (tech. rep. No. 16962) (Accessed October 3, 2024). IZA Discussion Paper. https://www.iza.org/publications/dp/16962/the-effect-of-conflict-on-refugees-return-and-integration-evidence-from-ukraine

Aksoy, C. G., Guriev, S., & Treisman, D. (2024). Globalization, government popularity, and the great skill divide. *Journal of Politics*, *86*(4), 1177–1191.

Aksoy, C. G., & Poutvaara, P. (2021). Refugees' and irregular migrants' self-selection into Europe. *Journal of Development Economics*, *152*, 102681.

Al Jazeera. (2022). 'No other option': Excerpts of Putin's speech declaring war. Retrieved October 3, 2024, from https://www.aljazeera.com/news/2022/2/24/putins-speech-declaring-war-on-ukraine-translated-excerpts

Aleshkovski, I. A., Gasparishvili, A., & Grebenyuk, A. (2023). The changing landscape of Russia's emigration from 1990 to 2020: Trends and determinants. *Journal of Globalization Studies*, *14*(1), 42–65.

Alyukov, M. (2022). Propaganda, authoritarianism and Russia's invasion of Ukraine. *Nature Human Behaviour*, *6*, 763–765.

Anger, S., Christoph, B., Galkiewicz, A., Margaryan, S., Peter, F., Sandner, M., & Siedler, T. (2024). War, international spillovers, and adolescents: Evidence from Russia's invasion of Ukraine in 2022. *Journal of Economic Behavior and Organization*, *224*, 181–193.

Avila-Uribe, A., & Nigmatulina, D. (2023). Flight from Russia. Retrieved October 3, 2024, from https://cepr.org/voxeu/columns/flight-russia

Baker, W. D., & Oneal, J. R. (2001). Patriotism or opinion leadership? The nature and origins of the "rally 'round the flag" effect. *Journal of Conflict Resolution*, *45*(5), 661–687.

Balcells, L., Tellez, J. F., & Villamil, F. (2024). The wars of others: The effect of the Russian invasion of Ukraine on Spanish nationalism. *Journal of Politics*, *86*(1), 352–357.

Balzer, H. (2015). The Ukraine invasion and public opinion. *Georgetown Journal of International Affairs*, *16*(1), 79–93.

Bateson, R., & Weintraub, M. (2022). The 2016 election and America's standing abroad: Quasi-experimental evidence of a Trump effect. *Journal of Politics*, *84*(4), 2300–2304.

Becker, T., Fredheim, K., Gars, J., Hilgenstock, B., Katinas, P., Le Coq, C., Mylovanov, T., Olofsgård, A., Pavytska, Y., Perrotta Berlin, M., Ribakova, E., Shapoval, N., Spiro, D., & Wachtmeister, H. (2024). Sanctions on Russia: Getting the facts right. Retrieved October 3, 2024, from https://freepolicybriefs.org/wp-content/uploads/2024/03/20240314-2.pdf

Berlinger, J., Chernova, A., & Lister, T. (2022). Putin announces annexation of Ukrainian regions in defiance of international law. Retrieved October 3, 2024, from https://edition.cnn.com/2022/09/30/europe/putin-russia-ukraine-annexation-intl/index.html

Blair, G., & Imai, K. (2012). Statistical analysis of list experiments. *Political Analysis*, *20*(1), 47–77.

Blair, G., Imai, K., & Zhou, Y.-Y. (2015). Design and analysis of the randomized response technique. *Journal of the American Statistical Association*, *110*(511), 1304–1319.

Blattman, C. (2022). *Why we fight: The roots of war and the paths to peace*. Viking.

Boungou, W., & Yatié, A. (2022). The impact of the Ukraine-Russia war on world stock market returns. *Economics Letters*, *215*, 110516.

Bunce, V., & Wolchik, S. (2011). *Defeating authoritarian leaders in post-communist countries*. Cambridge University Press.

Bursztyn, L., Egorov, G., Enikolopov, R., & Petrova, M. (2019). *Social media and xenophobia: Evidence from Russia* (tech. rep. No. 26567) (Accessed October 3, 2024). National Bureau of Economic Research (NBER). https://www.nber.org/papers/w26567

Bussmann, M., & Iost, N. (2024). Presidential popularity and international crises: An assessment of the rally-'round-the-flag effect in Russia. *Post-Soviet Affairs*, *40*(2), 105–118.

Cantril, H. (1965). *The pattern of human concern*. Rutgers University Press.

Casas, A., Curci, F., & De Moragas, A.-I. (2024). Judicial decisions, backlash and secessionism: The Spanish Constitutional Court and Catalonia. *Economic Journal*, *134*(664), 3202–3231.

Chapkovski, P., & Schaub, M. (2022). Solid support or secret dissent? A list experiment on preference falsification during the Russian war against Ukraine. *Research and Politics*, *9*(2).

Costa-Font, J., & Ljunge, M. (2023). Ideological spillovers across the Atlantic: Evidence from Trump's presidential election. *European Journal of Political Economy*, *76*, 102231.

Deaton, A. (2008). Income, health, and well-being around the World: Evidence from the Gallup World Poll. *Journal of Economic Perspectives*, *22*(2), 53–72.

Diamant, J. (2017). Ethnic Russians in some former Soviet republics feel a close connection to Russia. Retrieved March 25, 2025, from https://www.pewresearch.org/short-reads/2017/07/24/ethnic-russians-in-some-former-soviet-republics-feel-a-close-connection-to-russia/

Dinesen, P. T., & Jæger, M. M. (2013). The effect of terror on institutional trust: New evidence from the 3/11 Madrid terrorist attack. *Political Psychology*, *34*(6), 917–926.

Egorov, G., & Sonin, K. (2023). *Why did Putin invade Ukraine? A theory of degenerate autocracy* (tech. rep. No. 31187) (Accessed October 3, 2024). National Bureau of Economic Research (NBER). https://www.nber.org/papers/w31187

Egorov, G., & Sonin, K. (2024). The political economics of non-democracy. *Journal of Economic Literature*, *62*(2), 594–636.

El Baz, L., Goncharov, S., Smeltz, D., & Volkov, D. (2024). Young Russians are skeptical of most media outlets. Retrieved October 30, 2024, from https://globalaffairs.org/research/public-opinion-survey/young-russians-are-skeptical-most-media-outlets

Elinder, M., Erixson, O., & Hammar, O. (2023). Where would Ukrainian refugees go if they could go anywhere? *International Migration Review*, *57*(2), 587–602.

Enikolopov, R., Petrova, M., & Sonin, K. (2018). Social media and corruption. *American Economic Journal: Applied Economics*, *10*(1), 150–174.

Enikolopov, R., Petrova, M., & Zhuravskaya, E. (2011). Media and political persuasion: Evidence from Russia. *American Economic Review*, *101*(7), 3253–3285.

European Council. (2024). Timeline - EU sanctions against Russia. Retrieved October 3, 2024, from https://www.consilium.europa.eu/en/policies/sanctions-against-russia/timeline-sanctions-against-russia/

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

Fisman, R. J., Marcolongo, G., & Wu, M. (2024). *The undoing of economic sanctions: Evidence from the Russia-Ukraine conflict* (tech. rep. No. 4704842) (Accessed March 31, 2025). SSRN. http://dx.doi.org/10.2139/ssrn.4704842

Florea, C. (2022). Putin's perilous imperial dream: Why empires and nativism don't mix. Retrieved October 3, 2024, from https://www.foreignaffairs.com/articles/russian-federation/2022-05-10/putins-perilous-imperial-dream

Frye, T., Gehlbach, S., Marquardt, K. L., & Reuter, O. J. (2017). Is Putin's popularity real? *Post-Soviet Affairs*, *33*(1), 1–15.

Frye, T., Gehlbach, S., Marquardt, K. L., & Reuter, O. J. (2023). Is Putin's popularity (still) real? A cautionary note on using list experiments to measure popularity in authoritarian regimes. *Post-Soviet Affairs*, *39*(3), 213–222.

Frye, T., Hale, H., Reuter, O. J., & Rosenfeld, B. (2024). *Sensitivity bias in regime support: Evidence from panel surveys in an autocracy at war* (tech. rep.) (September 3, 2024). https://socialsciences.cornell.edu/sites/default/files/2024-10/sensitivity_bias_in_regime_support.pdf

Fukumoto, K., & Tabuchi, T. (2023). The rally 'round the flag effect in third parties: The case of the Russian invasion of Ukraine. *Journal of Elections, Public Opinion and Parties*, 1–10.

Gallup. (2024a). Country data set details. Retrieved October 3, 2024, from https://www.gallup.com/services/177797/country-data-set-details.aspx

Gallup. (2024b). How does the Gallup World Poll work? Measures the attitudes and behaviors of the World's residents. Retrieved October 3, 2024, from https://www.gallup.com/178667/gallup-world-poll-work.aspx

Garfinkel, M. R., & Skaperdas, S. (2007). Economics of conflict: An overview. *Handbook of Defense Economics*, *2*, 649–709.

Gartner, S. S., & Segura, G. M. (2021). *Costly calculations: A theory of war, casualties, and politics*. Cambridge University Press.

Gehring, K. (2022). Can external threats foster a European Union identity? Evidence from Russia's invasion of Ukraine. *Economic Journal*, *132*(644), 1489–1516.

Gelpi, C., Feaver, P. D., & Reifler, J. (2009). *Paying the human costs of war: American public opinion and casualties in military conflicts*. Princeton University Press.

Glaeser, E. L. (2009). The political economy of warfare. In G. D. Hess (Ed.), *Guns and butter: The economic causes and consequences of conflict*. MIT Press.

Gold, R., Hinz, J., & Valsecchi, M. (2024). *To Russia with love? The impact of sanctions on regime support* (tech. rep. No. 11033) (Accessed October 3, 2024). CESifo Working Paper. https://www.cesifo.org/en/publications/2024/working-paper/russia-love-impact-sanctions-regime-support

Google Trends. (2024). Google trends. Retrieved October 24, 2024, from https://trends.google.com/trends/

Gorodnichenko, Y., & Sologoub, I. (2024). Who is the real opposition to Putin? Retrieved October 3, 2024, from https://voxukraine.org/en/who-is-the-real-opposition-to-putin

Grauvogel, J., & von Soest, C. (2014). Claims to legitimacy matter: Why sanctions fail to instigate democratisation in authoritarian regimes. *European Journal of Political Research*, *53*(4), 635–653.

Guénette, J.-D., Kenworthy, P., & Wheeler, C. (2022). *Implications of the war in Ukraine for the global economy* (tech. rep. No. 3) (Accessed April 9, 2025). World Bank Group EFI Policy Note. https://thedocs.worldbank.org/en/doc/5d903e848db1d1b83e0ec8f744e55570-0350012021/related/Implications-of-the-War-in-Ukraine-for-the-Global-Economy.pdf

Guriev, S., & Melnikov, N. (2016). War, inflation, and social capital. *American Economic Review*, *106*(5), 230–235.

Guriev, S., Melnikov, N., & Zhuravskaya, E. (2021). 3G Internet and confidence in government. *Quarterly Journal of Economics*, *136*(4), 2533–2613.

Guriev, S., & Treisman, D. (2019). Informational autocrats. *Journal of Economic Perspectives*, *33*(4), 100–127.

Guriev, S., & Treisman, D. (2020). The popularity of authoritarian leaders: A cross-national investigation. *World Politics*, *72*(4), 601–638.

Hale, H. E. (2022). Authoritarian rallying as reputational cascade? Evidence from Putin's popularity surge after Crimea. *American Political Science Review*, *116*(2), 580–594.

Hariri, J. G., Bjørnskov, C., & Justesen, M. K. (2016). Economic shocks and subjective well-being: Evidence from a quasi-experiment. *World Bank Economic Review*, *30*(1), 55–77.

Herrera, H., Morelli, M., & Nunnari, S. (2022). A theory of power wars. *Quarterly Journal of Political Science*, *17*(1), 1–30.

Hetherington, M. J., & Nelson, M. (2003). Anatomy of a rally effect: George W. Bush and the War on Terrorism. *PS: Political Science and Politics*, *36*(1), 37–42.

Izzeldin, M., Muradoğlu, Y. G., Pappas, V., Petropoulou, A., & Sivaprasad, S. (2023). The impact of the Russian-Ukrainian war on global financial markets. *International Review of Financial Analysis*, *87*, 102598.

Jackson, M. O., & Morelli, M. (2007). Political bias and war. *American Economic Review*, *97*(4), 1353–1373.

Jakiela, P., & Ozier, O. (2019). The impact of violence on individual risk preferences: Evidence from a natural experiment. *Review of Economics and Statistics*, *101*(3), 547–559.

Kahneman, D., & Krueger, A. B. (2006). Developments in the measurement of subjective well-being. *Journal of Economic Perspectives*, *20*(1), 3–24.

Kam, C. D., & Ramos, J. M. (2008). Joining and leaving the rally: Understanding the surge and decline in presidential approval following 9/11. *Public Opinion Quarterly*, *72*(4), 619–650.

Kirby, P. (2023). Wagner chief's 24 hours of chaos in Russia. Retrieved October 3, 2024, from https://www.bbc.com/news/world-europe-66006880

Kizilova, K., & Norris, P. (2024). 'Rally around the flag' effects in the Russian–Ukrainian war. *European Political Science*, *23*, 234–250.

Kragh, M. (2022). *Det fallna imperiet: Ryssland och väst under Vladimir Putin*. Fri Tanke.

Lai, B., & Reiter, D. (2005). Rally 'round the Union Jack? Public opinion and the use of force in the United Kingdom, 1948–2001. *International Studies Quarterly*, *49*(2), 255–272.

Levada-Center. (2024a). About us. Retrieved October 3, 2024, from https://www.levada.ru/en/about-us/

Levada-Center. (2024b). Conflict with Ukraine: Assessments for May 2024. Retrieved October 30, 2024, from https://www.levada.ru/en/2024/09/06/conflict-with-ukraine-assessments-for-may-2024/

Levy, J. S. (1998). The causes of war and the conditions of peace. *Annual Review of Political Science*, *1*, 139–165.

Melnikov, N. (2019). *Censorship, propaganda, and political popularity: Evidence from Russia* (tech. rep. No. 3276926) (Accessed October 3, 2024). SSRN. http://dx.doi.org/10.2139/ssrn.3276926

Metcalfe, R., Powdthavee, N., & Dolan, P. (2011). Destruction and distress: Using a quasi-experiment to show the effects of the September 11 attacks on mental well-being in the United Kingdom. *Economic Journal*, *121*(550), F81–F103.

Montalvo, J. G. (2011). Voting after the bombings: A natural experiment on the effect of terrorist attacks on democratic elections. *Review of Economics and Statistics*, *93*(4), 1146–1154.

Mueller, J. E. (1970). Presidential popularity from Truman to Johnson. *American Political Science Review*, *64*(1), 18–34.

Muñoz, J., Falcó-Gimeno, A., & Hernández, E. (2020). Unexpected event during survey design: Promise and pitfalls for causal inference. *Political Analysis*, *28*(2), 186–206.

Murray, S. (2017). The "rally-'round-the-flag" phenomenon and the diversionary use of force.

Newman, B., & Forcehimes, A. (2010). 'Rally round the flag' events for presidential approval research. *Electoral Studies*, *29*(1), 144–154.

Newport, F., & Saad, L. (2021). Review: Presidential job approval. *Public Opinion Quarterly*, *85*(1), 223–241.

Parker, S. L. (1995). Toward an understanding of 'rally' effects: Public opinion in the Persian Gulf War. *Public Opinion Quarterly*, *59*(4), 526–546.

Plokhy, S. (2023). *The Russo-Ukrainian war: The return of history*. W. W. Norton & Company.

Rogoff, K. (2022). The long-lasting economic shock of war. Retrieved April 9, 2025, from https://www.imf.org/en/Publications/fandd/issues/2022/03/the-long-lasting-economic-shock-of-war

Rosenfeld, B. (2023). Survey research in Russia: In the shadow of war. *Post-Soviet Affairs*, *39*(1–2), 38–48.

Rosenfeld, B., Imai, K., & Shapiro, J. N. (2016). An empirical validation study of popular survey methodologies for sensitive questions. *American Journal of Political Science*, *60*(3), 783–802.

Seo, T., & Horiuchi, Y. (2024). Natural experiments of the rally 'round the flag effects using worldwide surveys. *Journal of Conflict Resolution*, *68*(2–3), 269–293.

Simola, H. (2022). War and sanctions: Effects on the Russian economy. Retrieved October 3, 2024, from https://cepr.org/voxeu/columns/war-and-sanctions-effects-russian-economy

Simonov, A., & Rao, J. (2022). Demand for online news under government control: Evidence from Russia. *Journal of Political Economy*, *130*(2), 259–309.

Smeltz, D., Sullivan, E., Wojtowicz, L., Volkov, D., & Goncharov, S. (2022). Russian public accepts Putin's spin on Ukraine conflict. Retrieved November 29, 2024, from https://globalaffairs.org/research/public-opinion-survey/russian-public-accepts-putins-spin-ukraine-conflict

Smith, A., Bueno de Mesquita, B., Morrow, J. D., & Siverson, R. M. (2003). *The logic of political survival*. MIT Press.

Snegovaya, M. (2023). Why Russia's democracy never began. *Journal of Democracy*, *34*(3), 105–118.

Spolaore, E., & Wacziarg, R. (2016). War and relatedness. *Review of Economics and Statistics*, *98*(5), 925–939.

Spolaore, E., & Wacziarg, R. (2019). The political economy of heterogeneity and conflict. In T. Besedeš & V. Nitsch (Eds.), *Disrupted economic relationships: Disasters, sanctions, dissolutions*. MIT Press.

Szakonyi, D. (2022). Candidate filtering: The strategic use of electoral manipulations in Russia. *British Journal of Political Science*, *52*(2), 649–670.

Theiler, T. (2018). The microfoundations of diversionary conflict. *Security Studies*, *27*(2), 318–343.

Tkachenko, A., & Vyrskaia, M. (2025). Public opinion and casualties in wartime censorship. Retrieved September 11, 2025, from https://ssrn.com/abstract=5160862

Treisman, D. (2011). Presidential popularity in a hybrid regime: Russia under Yeltsin and Putin. *American Journal of Political Science*, *55*(3), 590–609.

Turchin, P. (2014). Russia's sacred land. Retrieved April 10, 2025, from https://aeon.co/essays/why-national-honour-trumps-rational-strategy

United Nations. (2022). Russia: Human rights experts condemn civil society shutdown. Retrieved October 3, 2024, from https://news.un.org/en/story/2022/07/1122412

United Nations. (2023). One year of the war in ukraine leaves lasting scars on the global economy. Retrieved April 9, 2025, from https://www.un.org/en/desa/one-year-war-ukraine-leaves-lasting-scars-global-economy

VOA. (2022). Russia reportedly raises $13 billion for 2023 defense spending. Retrieved October 3, 2024, from https://www.voanews.com/a/russia-raises-13-billion-for-2023-defense-spending/6841435.html

VOA. (2023). Russia's shifting public opinion on the war in Ukraine. Retrieved October 3, 2024, from https://www.voanews.com/a/russia-s-shifting-public-opinion-on-the-war-in-ukraine-/7255792.html

Volkov, D. (2023). Are meaningful public opinion polls possible in today's Russia? *Russian Analytical Digest*, *292*, 2–3.

Weeks, J. L. P. (2012). Strongmen and straw men: Authoritarian regimes and the initiation of international conflict. *American Political Science Review*, *106*(2), 326–347.

Weeks, J. L. P. (2014). *Dictators at war and peace*. Cornell University Press.

Yandex Wordstat. (2024). Yandex wordstat. Retrieved November 8, 2024, from https://wordstat.yandex.com

Yousaf, I., Patel, R., & Yarovaya, L. (2022). The reaction of G20+ stock markets to the Russia-Ukraine conflict 'black-swan' event: Evidence from event study approach. *Journal of Behavioral and Experimental Finance*, *35*, 100723.

Zakharov, A., Reuter, O. J., Shuklin, V., & Volkov, D. (2024). Effects of a coup attempt on public attitudes under autocracy: Quasi-experimental evidence from Russia. *Post-Soviet Affairs*, *40*(6), 472–480.

Zvonovsky, V. (2022). Respondents' cooperation in surveys on military operations. Retrieved November 29, 2024, from https://www.extremescan.eu/post/6-respondents-cooperation-in-surveys-on-military-operations

Appendix A. Data validations

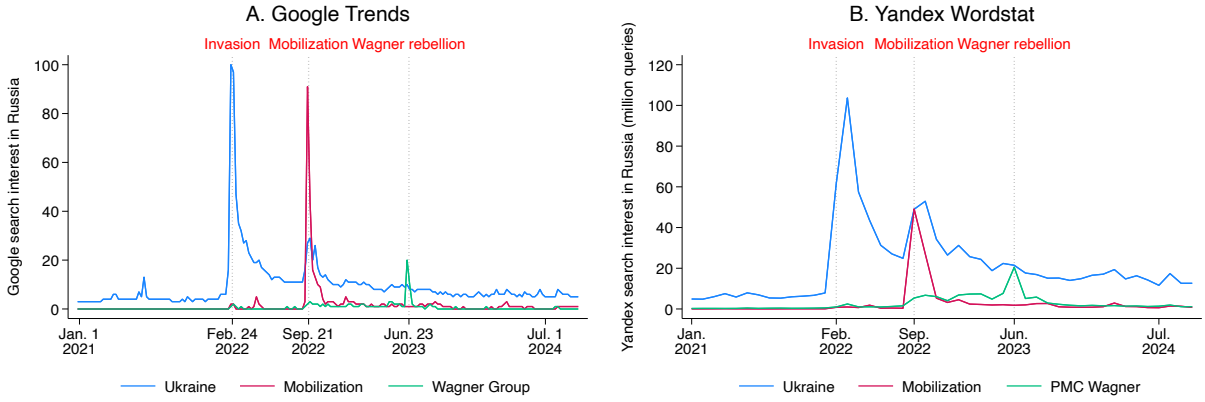


Figure A1: Google and Yandex search trends in Russia

Note: The figure shows the Google (Panel A) and Yandex (Panel B) search trends in Russia. Panel A shows the Google search trends in Russia for the search queries "Ukraine" (Украина), "mobilization" (мобилизация) and "Wagner Group" (Группа Вагнера) by week between January 2021 and September 2024. The numbers indicate web search interest relative to the highest number in the chart. A value of 100 indicates the highest interest for the given time period and search queries, 50 indicates that it is half as popular, and 0 means that there is not enough data for the search term. Panel B shows the Yandex search trends in Russia for the search queries "Ukraine" (Украина), "mobilization" (мобилизация) and "PMC" (ЧВК) or "Wagner" (Вагнера) by month between January 2021 and October 2024. Number of total search queries (in millions) on all devices (desktops, smartphones, and tablets).
Source: Data from Google Trends (2024) and Yandex Wordstat (2024).

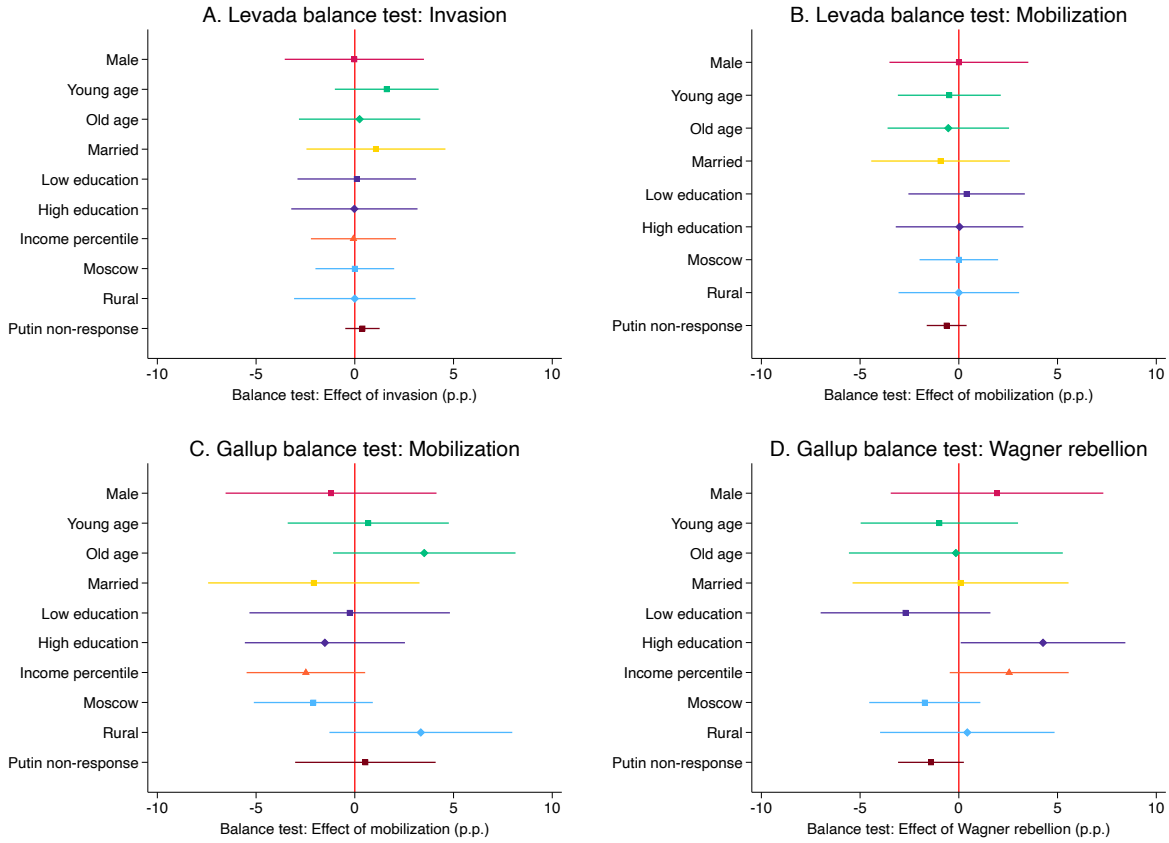


Figure A2: Balance tests

Note: Coefficient plots showing balance tests in the Levada and Gallup data estimated by a linear regression with robust standard errors and 95 percent confidence intervals (Equation 1). Panel A estimated as the difference between the March and February 2022 Levada surveys. Panel B estimated as the difference between the September and August 2022 Levada surveys. Panel C estimated as the difference between the post- (Sep. 21–Nov. 2) and pre-mobilization (Aug. 13–Sep. 20) samples in the 2022 Gallup survey wave. Panel D estimated as the difference between the post- (Jun. 23–Jul. 29) and pre-rebellion (May 23–Jun. 22) samples in the 2023 Gallup survey wave. Effect sizes in percentage points (p.p.). Estimations include sampling weights. Missing values excluded. Each coefficient corresponds to a separate regression. Cut points for income percentiles defined in the period before each corresponding event. Income percentile excluded from Panel B because income variable not available in the September 2022 Levada survey. For "Putin non-response", the outcome is a dummy variable which takes value 1 if the individual has answered "Hard to answer" (in Levada) or "Don't know" or "Refused" (in Gallup) to the approval of Putin question, and 0 otherwise. For exact variable definitions, sample sizes, and survey dates, see Appendix Tables A1–A4. *Source:* Authors' calculations based on data from Levada and GWP.

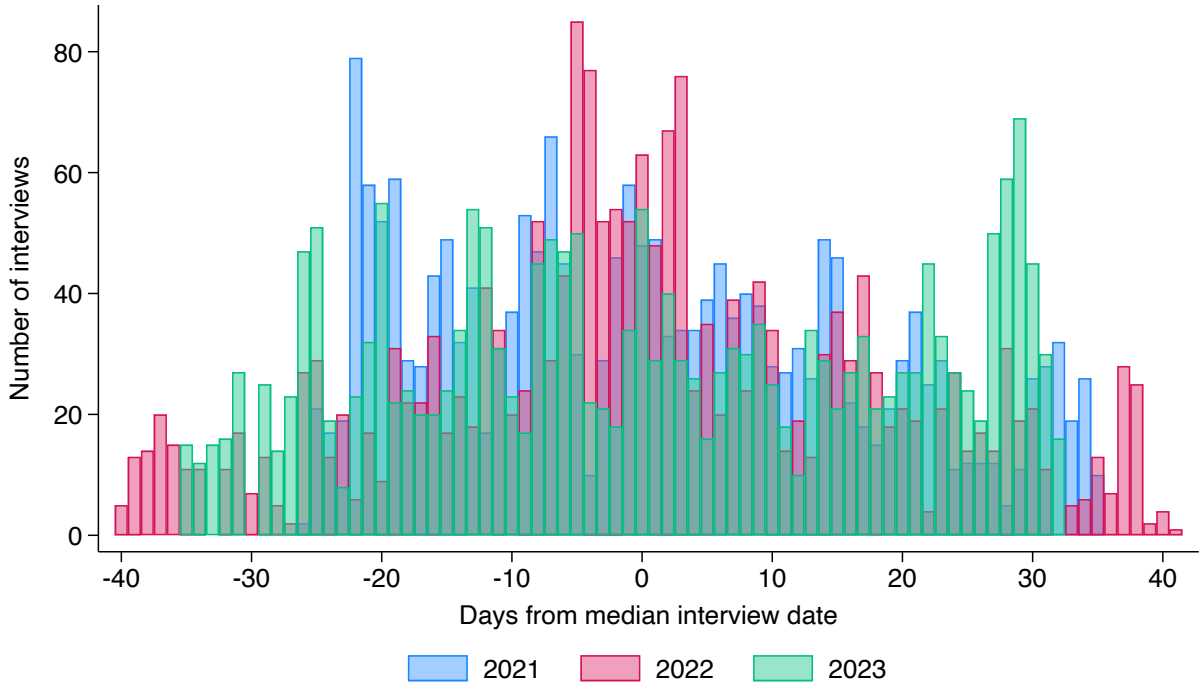


Figure A3: Gallup interview days

Note: This figure shows the survey period lengths and number of interviews per day in the GWP waves 2021–2023. Median interview date indicated by 0. Total number of interview days was 62 in 2021, 82 in 2022, and 68 in 2023.
Source: Data from GWP.

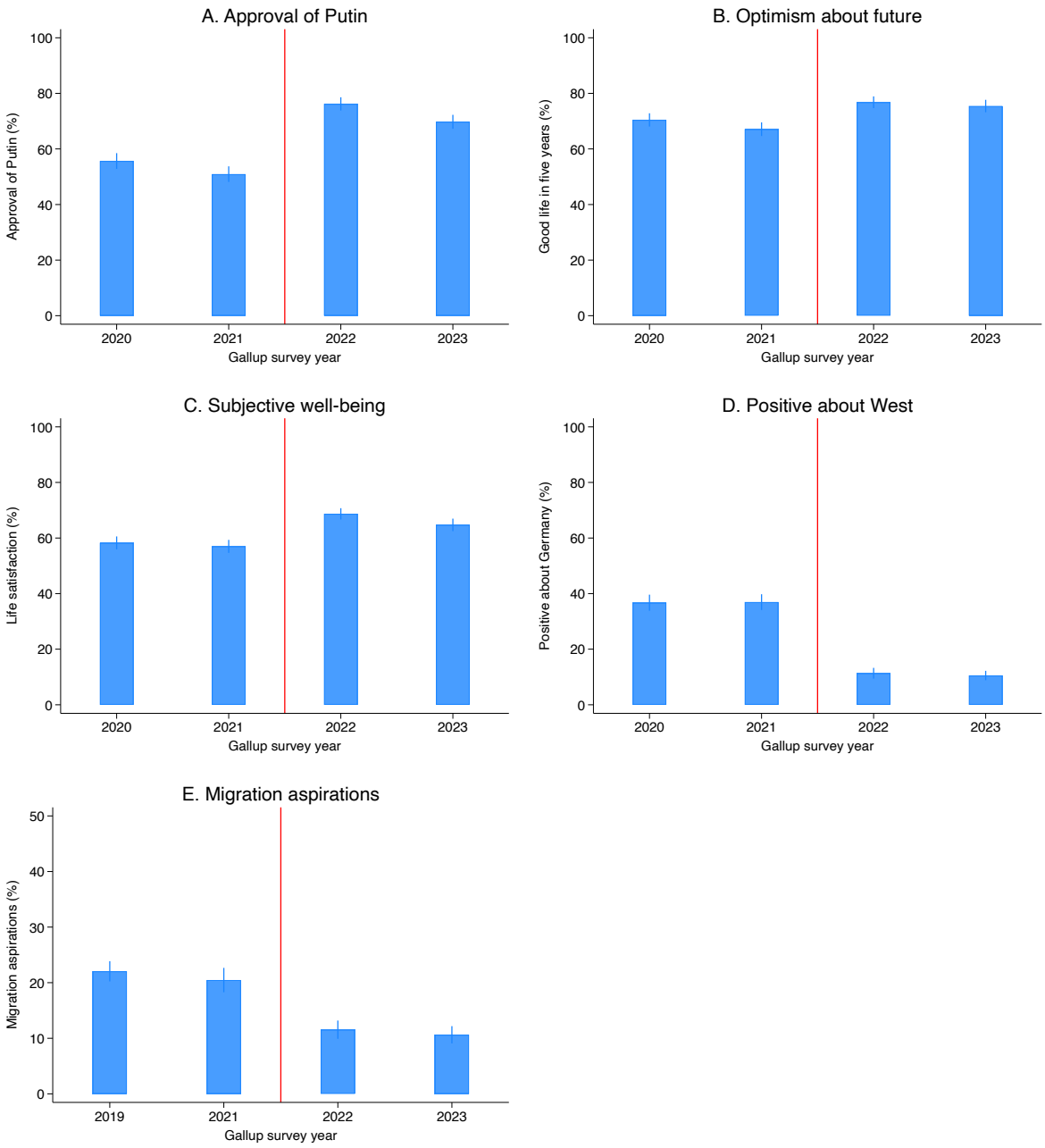


Figure A4: Effects of the invasion on approval of Putin and sentiments in Gallup

Note: The figure shows the effects of the Russian invasion of Ukraine on February 24, 2022, on the approval of Putin (Panel A) and sentiments (Panels B–E) in Russia using data from Gallup. The figure shows yearly averages from the Gallup World Poll (GWP) in Russia between 2020 and 2023 (for migration aspirations, the first year is 2019 because the migration question was not asked in 2020), with 95 percent confidence intervals. For exact variable definitions, sample sizes, and survey dates, see Appendix Tables A1 and A3.
Source: Authors' calculations based on data from GWP.

Appendix B. Regional convergence

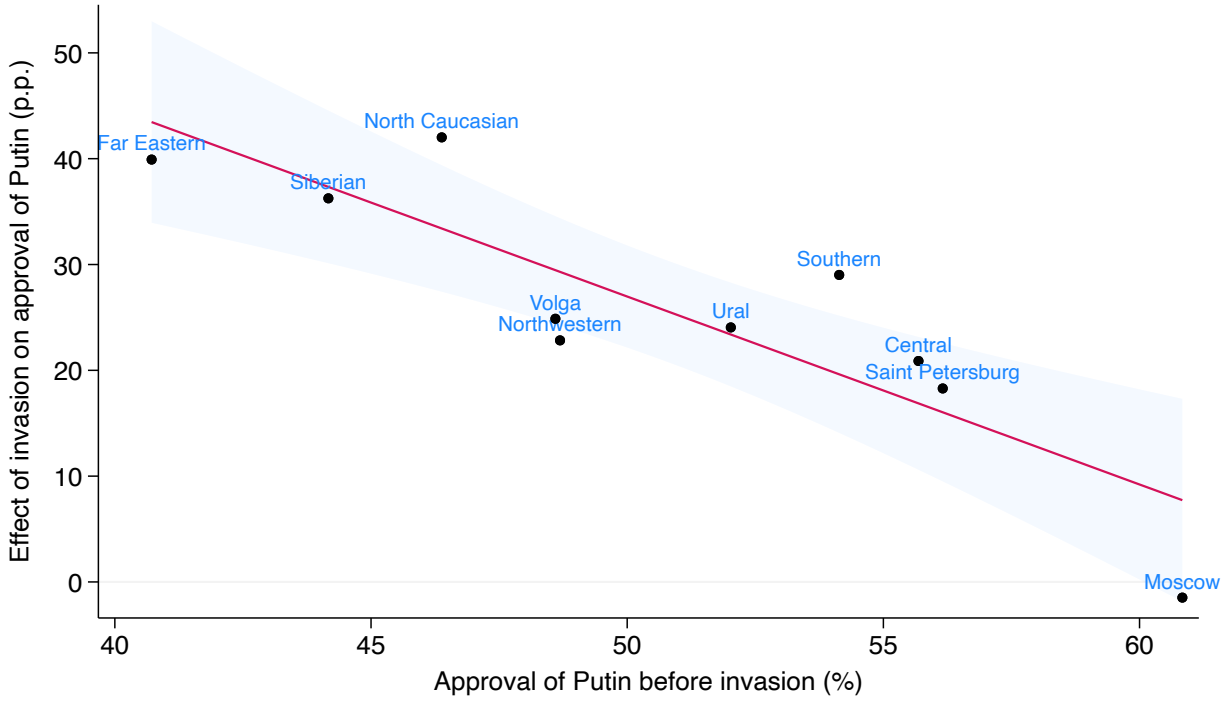


Figure A5: Regional pre-invasion approval versus rally effects

Note: The figure shows that the invasion rally effects on approval of Putin were higher in regions with lower pre-invasion support for Putin (Pearson's correlation coefficient, $r = -0.87$, and $p < 0.01$). Red lines show linear predictions with 95 percent confidence intervals. Central region excludes Moscow, and Northwestern region excludes Saint Petersburg. Approval of Putin before invasion measured as average approval of Putin per federal district, Moscow and Saint Petersburg in the 2021 (May 14–Jul. 14) Gallup survey wave. Effect of invasion on approval of Putin estimated as the difference in percentage points (p.p.) between the 2022 (Aug. 13–Nov. 2) and 2021 survey waves in Gallup for each region. For exact variable definitions, sample sizes, and survey dates, see Appendix Tables A1 and A3.
Source: Authors' calculations based on data from GWP.

Appendix C. Effects of mobilization on war support

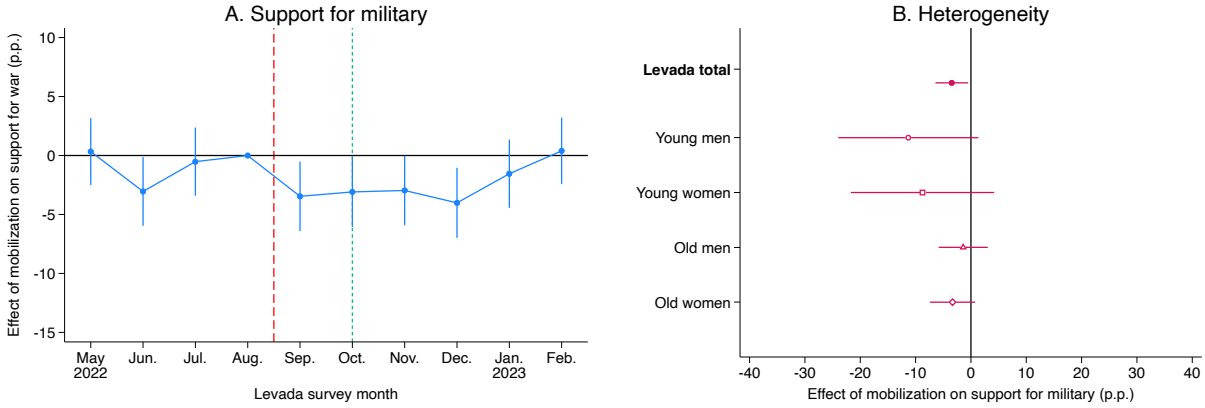


Figure A6: Effects of the mobilization on support for military

Note: The figure shows the effects of the partial military mobilization of young men (aged 18–27) that took place between September 21 and October 28, 2022, on the support for "the actions of the Russian Armed Forces in Ukraine". Panel A shows the effects of the mobilization in percentage points (p.p.) per month in Levada, estimated as the differences relative to August (Aug. 27–Sep. 2) 2022 with 95 percent confidence intervals and robust standard errors (Equation 2). Dashed red line indicates the start of the mobilization on September 21, 2022, and green line the end of the mobilization on October 28, 2022. Panel B shows the mobilization announcement effects (red) for the full sample ("Levada total") as well as for young (ages 18–27) and old (ages 28–99) men and women in the Levada surveys, estimated as the difference between September (Sep. 24–30) and August 2022, with 95 percent confidence intervals and robust standard errors. For exact variable definitions, sample sizes, and survey dates, see Appendix Tables A2–A4.
Source: Authors' calculations based on data from Levada.

Appendix D. Mood decomposition

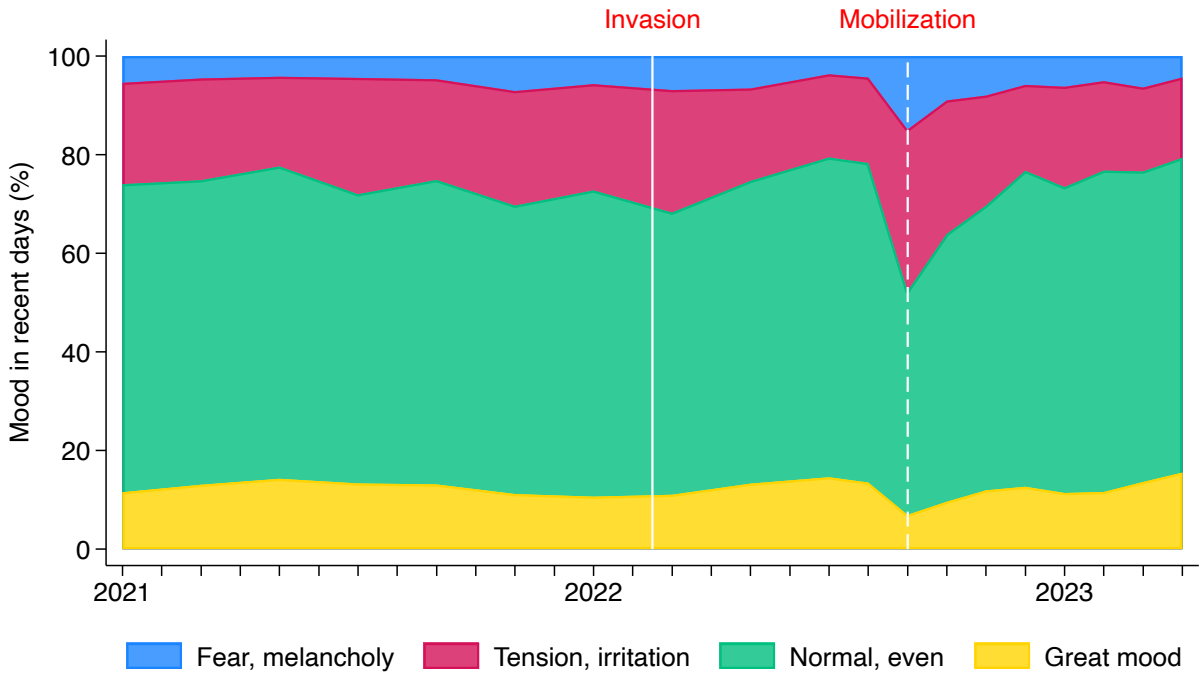


Figure A7: Mood in the Russian population, January 2021–April 2023

Note: Graph showing the mood composition in Russia as measured in the monthly Levada data between January 2021 and April 2023. Solid red line indicates the full-scale invasion on February 24, and dashed line the mobilization on September 21, 2022. Shares weighted using the Levada sampling weights. Missing values and "Hard to answer" responses excluded.
Source: Data from Levada.

Appendix E. Wagner Group rebellion

On June 23–24, 2023, there was a rebellion by the Wagner Group, a Russian private military company (PMC) led by Yevgeny Prigozhin. Although the rebellion lasted only one day, there were reports of people supporting the Wagner troops as they captured the Russian city of Rostov-on-Don and advanced toward Moscow (Kirby, 2023). The rebellion generated significant media attention worldwide, and it also spurred interest among the Russian population (see Appendix Figure A1). A priori, we can think of different ways in which the rebellion could have affected the approval of Putin and Russians' sentiments. On the one hand, it could be viewed as a sign of weakness in the Kremlin, which could lead to a decrease in Putin's support. On the other hand, if the mutiny was seen was an attack on Russia, it could lead to increased support, potentially strengthened by the fact that it was ended swiftly.

By chance, the rebellion coincided with the 2023 GWP survey wave in Russia, which was collected between May and July, providing us with another natural experiment to estimate the causal effects on sentiments.[28] For approval of Putin, we estimate the weekly effects of the rebellion using the event-study type of regression specified in Equation (2), but comparing responses to those from the week before the rebellion.[29] For all sentiments, we also estimate the total rebellion effect using Equation (1) but with the dummy variable indicating if the individual was surveyed in the time period before (May 23–June 22) or after (June 23–July 29) the rebellion. As shown in Appendix Figure A2 (Panel D), the samples before versus after the rebellion are demographically balanced (except for a slightly higher share of respondents with high education in the post-rebellion sample) including in terms of non-responses.

Figure A8 (Panel A) shows the event-study regression results, finding no statistically significant effects—neither positive nor negative—of the Wagner Group rebellion on the approval of Putin. Similarly, comparing responses in the weeks before versus after the rebellion, we find no statistically significant effects of the rebellion on any other sentiments (Panel B). In other words, Russians appeared to be indifferent to the rebellion. These results are also in line with recent findings by Zakharov et al. (2024), who exploit the random timing of the rebellion in relation to a survey conducted by Levada.[30]

[28] 893 individuals were interviewed before the rebellion (between May 23–June 22) and 1,124 were interviewed after (between June 23–July 29).

[29] We estimate the weekly effects from four weeks before, to four weeks after, the rebellion (i.e., for the period between May 26–July 20), with the week before the rebellion (June 16–22) as the omitted week.

[30] In addition, Zakharov et al. (2024) find that the rebellion caused a substantial drop in the popularity of the Wagner Group leader Prigozhin.

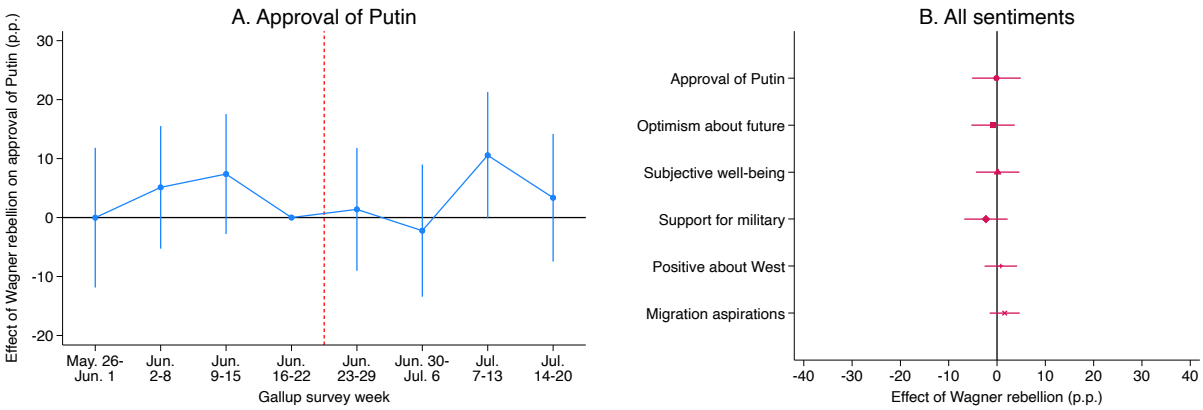
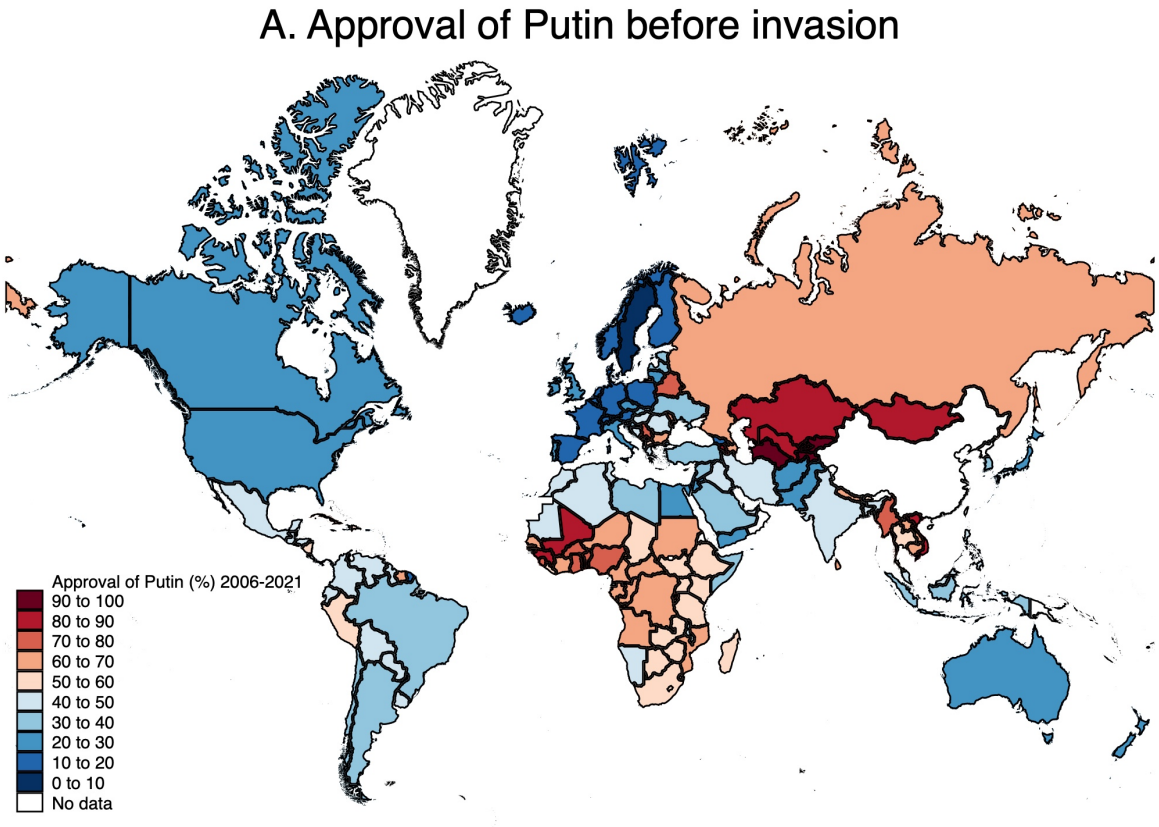


Figure A8: Effects of the Wagner Group rebellion on sentiments in Russia

Note: The figure shows the effects of the Wagner Group rebellion on June 23–24, 2023, on the approval of Putin (Panel A), optimism about the future, subjective well-being, support for the military, attitudes about the West, and migration aspirations (Panel B). Panel A shows the effects of the rebellion in percentage points (p.p.) per week in Gallup, estimated as the differences relative to the week before the rebellion (Jun. 16–22), with 95 percent confidence intervals and robust standard errors (Equation 2). Dashed line indicates the rebellion on June 23, 2023. Panel B shows the rebellion effects in the Gallup 2023 survey, estimated as the difference before (May 23–Jun. 22) and after (Jun. 23–Jul. 29) the rebellion, with 95 percent confidence intervals and robust standard errors (Equation 1). For exact variable definitions, sample sizes, and survey dates, see Appendix Tables A1 and A3.
Source: Authors' calculations based on data from GWP.

Appendix F. Support for Putin around the World



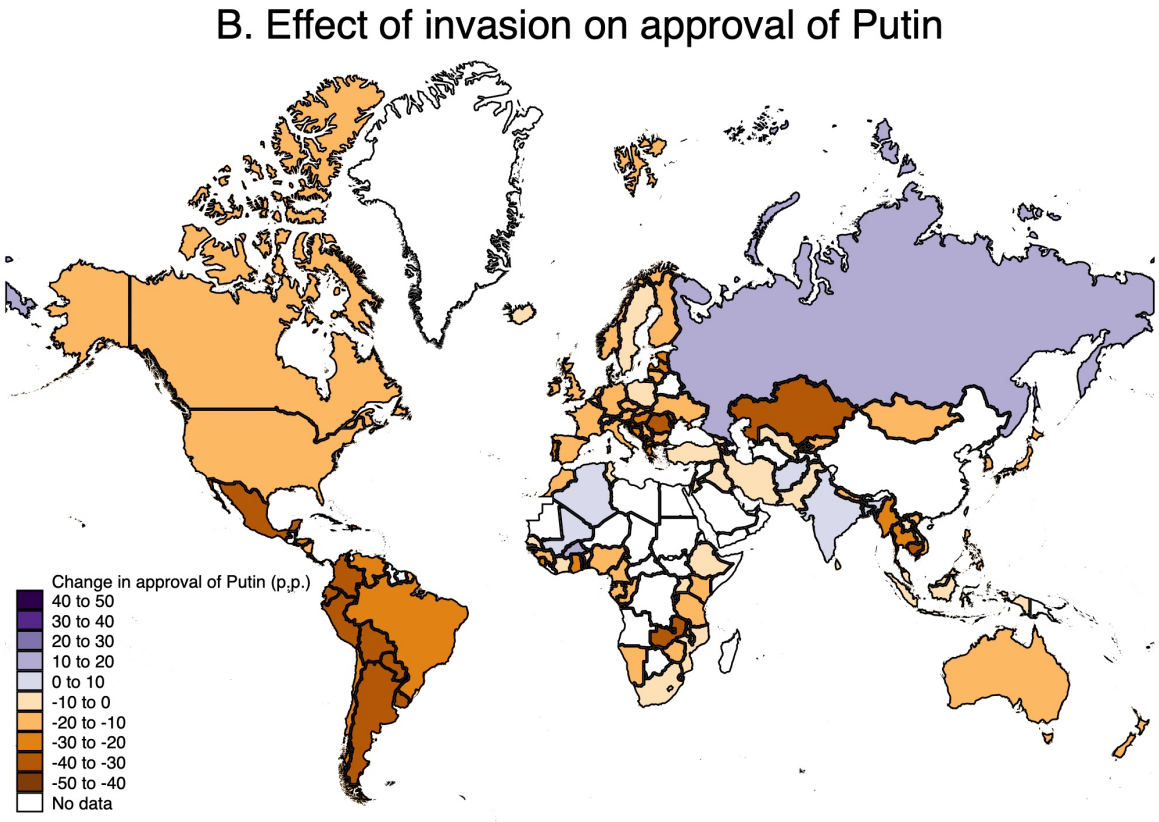


Figure A9: Approval of Putin and invasion effects around the World

Note: Maps showing the average approval of Putin before the invasion 2006–2021 (Panel A) and the effects of the invasion in percentage points (p.p.) on approval of Putin (Panel B) using the GWP data in different countries around the world. Effects of the invasion measured as the difference between the average approval of Putin in 2022–2023 (after the invasion) versus 2020–2021 (before the invasion). Estimations include sampling weights. "Don't know" and "Refused" responses excluded.

Source: Authors' calculations based on data from GWP.

Appendix G. Media and support for the war

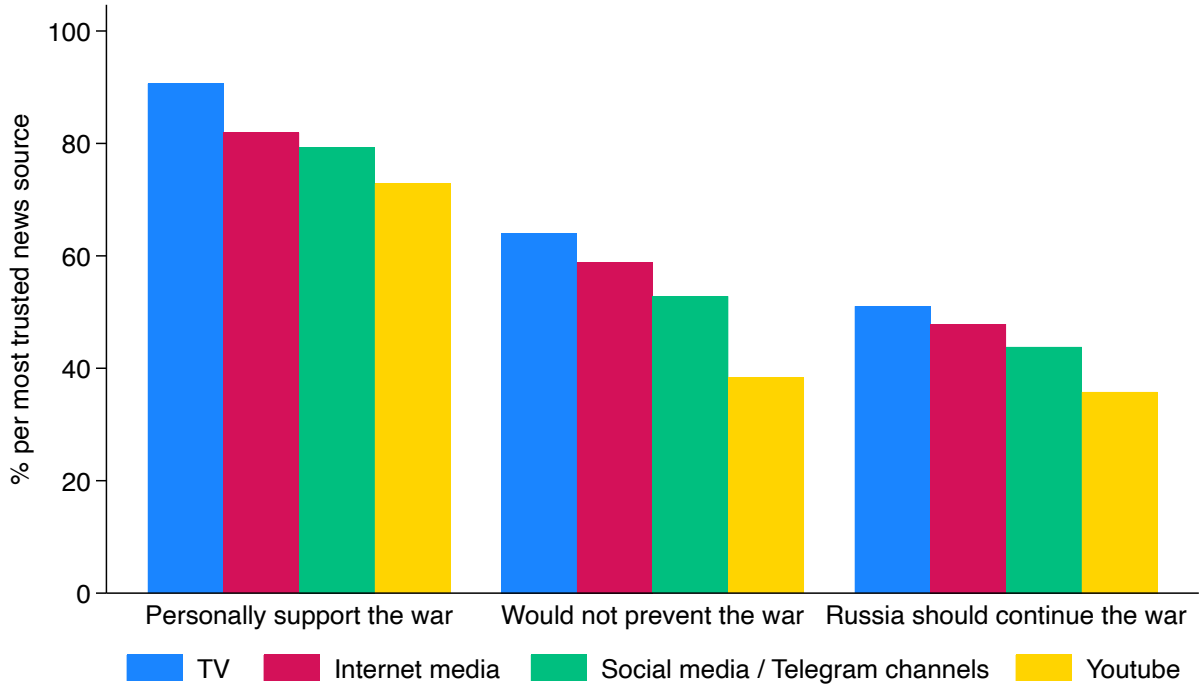


Figure A10: Support for the war in May 2024 by most trusted news source

Note: Graph showing the share of respondents in the May 2024 Levada survey who supported the war, separated per their most trusted news source. *Personally support the war* shows the share of respondents who answered "Definitely yes" or "Yes" to the question "Do you personally support the actions of the Russian Military Forces in Ukraine?". *Would not prevent the war* shows the share answering "Definitely support it" or "Support it" to the question "If you had a chance to go back in time and prevent or support the start of the Special Military Operation, you would…". *Russia should continue the war* shows the share answering "Definitely continue the military actions" or "Continue the military actions" to the question "Do you think Russia should continue the military actions or move to peace talks?". Respondents who answered "Can't say" are excluded. The "Social media / Telegram channels" category shows the average value of the social media and Telegram channels categories. The survey was conducted between May 23–29, 2024, and the sample consisted of 1,601 individuals.
Source: Levada-Center (2024b).

Appendix H. Additional tables

Table A1: GWP survey dates and sample sizes 2007–2023

Year	Survey dates Russia	Russia	Russians Abroad	Rest of World
2007	May 1–31	2,949	1,582	100,300
2008	May 1–30	2,019	1,222	129,261
2009	Apr. 2–Jun. 14	2,042	1,597	134,410
2010	Apr. 29–Nov. 8	4,000	1,150	145,706
2011	May 8–Jun. 30	2,000	1,251	192,213
2012	Feb. 9–Oct. 8	3,000	1,032	226,051
2013	Jul. 3–Aug. 8	2,000	1,134	135,539
2014	Apr. 22–Jun. 9	2,000	1,620	186,728
2015	Jul. 2–Sep. 17	2,000	1,556	144,676
2016	Apr. 15–Jun. 22	2,000	1,489	147,235
2017	Jun. 9–Aug. 20	2,000	1,388	151,778
2018	Jun. 24–Oct. 4	2,000	1,349	149,525
2019	Nov. 6–Feb. 10	3,003	1,273	171,977
2020	Aug. 19–Oct. 2	2,022	381	127,071
2021	May 14–Jul. 14	2,001	1,059	123,842
2022	Aug. 13–Nov. 2	2,006	902	140,778
2023	May 23–Jul. 29	2,017	850	103,921
Total		39,059	20,835	2,511,011

Note: Russia refers to individuals surveyed in Russia. Russians abroad are defined as individuals who live in another country than Russia, but who were born in Russia and/or have Russian nationality. Rest of the world is the non-Russian GWP sample.
Source: Gallup (2024a).

Table A2: Levada survey dates and sample sized 2021–2023

Month	**Year**	**Survey dates**	**Sample size**
January	2021	Jan. 25–31	1,616
February	2021	Feb. 15–21	1,601
March	2021	Mar. 22–28	1,623
April	2021	Apr. 19–25	1,614
May	2021	May 19–25	1,620
June	2021	Jun. 14–27	3,253
July	2021	Jul. 19–25	1,619
August	2021	Aug. 16–22	1,621
September	2021	Sep. 20–26	1,634
October	2021	Oct. 18–24	1,636
November	2021	Nov. 22–28	1,603
December	2021	Dec. 13–19	1,640
January	2022	Jan. 24–30	1,626
February	2022	Feb. 14–20	1,618
March	2022	Mar. 27–Apr. 2	1,632
April	2022	Apr. 27–May 3	1,616
May	2022	May 2–8	1,634
June	2022	Jun. 26–Jul. 2	1,628
July	2022	Jul. 23–29	1,617
August	2022	Aug. 27–Sep. 2	1,612
September	2022	Sep. 24–30	1,631
October	2022	Oct. 23–29	1,604
November	2022	Nov. 23–29	1,601
December	2022	Dec. 16–22	1,611
January	2023	Jan. 25–31	1,616
February	2023	Feb. 25–Mar. 3	1,626
March	2023	Mar. 25–31	1,633
April	2023	Apr. 21–27	1,623
Total			47,008

Note: The monthly data collection usually takes maximum one week. Survey dates approximated as ±3 days around the mean survey date.
Source: Levada-Center (2024a).

Table A3: Variable definitions: Sentiments

Survey	Variable question
	Approval of Putin
Levada	Do you generally approve or disapprove of the activities of the President of Russia? (0 *Disapprove*, 1 *Approve*)
GWP	Do you approve or disapprove of the job performance of the leadership of this country? (0 *Disapprove*, 1 *Approve*)
	Optimism about future
Levada	Do you think that things in the country are going in the right direction, or do you think the country is going the wrong way? (0 *The country is going the wrong way*, 1 *Things are going in the right direction*)
GWP	Just your best guess, on which step do you think you will stand on in the future, say about five years from now? Please imagine a ladder with steps numbered from 0 at the bottom to 10 at the top. Suppose we say that the top of the ladder represents the best possible life for you, and the bottom of the ladder represents the worst possible life for you. (0 *Worst possible 0–4*, 0.5 *5*, 1 *Best possible 6–10*)
	Subjective well-being
Levada	What can you say about your mood in recent days? (0 *I feel fear, melancholy / I feel tension, irritation*, 0.5 *Normal, even mood*, 1 *In a great mood*)
GWP	On which step of the ladder would you say you personally feel you stand at this time, assuming that the higher the step the better you feel about your life, and the lower the step the worse you feel about it? Which step comes closest to the way you feel? Please imagine a ladder with steps numbered from 0 at the bottom to 10 at the top. Suppose we say that the top of the ladder represents the best possible life for you, and the bottom of the ladder represents the worst possible life for you. (0 *Worst possible 0–4*, 0.5 *5*, 1 *Best possible 6–10*)
	Positive about West
Levada	How do you generally feel about the European Union now? (0 *Very bad / Mostly bad*, 1 *Very good / Mostly good*)
GWP	Do you approve or disapprove of the job performance of the leadership of Germany? (0 *Disapprove*, 1 *Approve*)
	Migration aspirations
Levada	Would you like to move abroad for permanent residence? (0 *Definitely no / More likely no*, 1 *Definitely yes / More likely yes*)
GWP	Ideally, if you had the opportunity, would you like to move permanently to another country, or would you prefer to continue living in this country? (0 *Like to continue living in this country*, 1 *Like to move to another country*)
	Support for military
Levada	Do you personally support or not the actions of the Russian Armed Forces in Ukraine? (0 *Definitely no / More likely no*, 1 *Definitely yes / More likely yes*)
GWP	In this country, do you have confidence in the military, or not? (0 *No*, 1 *Yes*)

Note: Response options in parentheses (our coding). Levada also includes the option "Hard to answer". GWP also includes the options "Don't know (DK)" and "Refused".
Source: Levada-Center (2024a) and Gallup (2024a).

Table A4: Additional variable definitions

Survey	**Variable question**
Gender	Gender
Levada / GWP	(Men *Male*, Women *Female*)
Age	Age
Levada	(Young *18–27*, Middle *28–59*, Old *60–99*)
Age	Please tell me your age
GWP	(Young *18–27*, Old *28–99+*)
Marital status	Marital status
Levada	(Married *Married / Not registered, but live together*, Single *Not registered, live separately / Single (not married), never been married / Live separately, but not divorced / Divorced / Widower (widow)*)
Education	Education
Levada	(Low *Other*, Middle *Professional*, High *Higher education*)
Income	How would you describe the material status of your family?
Levada	(Low *We barely make ends meet, we don't even have enough money for food / We have enough money for groceries, but buying clothes causes financial difficulties*, Middle *We have enough money for groceries and clothes, but buying durable goods causes financial difficulties*, High *We can afford quite expensive household items / We can easily buy durable goods*)
Income percentile	Income percentile group
GWP	Per capita income quintiles * 20 (20 *Poorest 20%*, 40 *Second 20%*, 60 *Middle 20%*, 80 *Fourth 20%*, 100 *Richest 20%*)
Geographical area	Size of the populated area
Levada	(Moscow *Moscow*, Urban *Cities up to 100 thousand / From 100 to 500 thousand / More than 500 thousand*, Rural *Village*)
Russians abroad	What is your nationality? / In which country were you born?
GWP	(*Russian / Russia*)
Approval of Putin	Do you approve or disapprove of the job performance of the leadership of Russia? (Russians abroad and rest of world)
GWP	(0 *Disapprove*, 1 *Approve*)
Anti-Putin country	Mean approval of Putin in country
GWP	Anti-Putin *Mean approval of Putin before invasion (2020–2021) 0–50%*
Pro-Putin country	Mean approval of Putin in country
GWP	Pro-Putin *Mean approval of Putin before invasion (2020–2021) 50–100%*

Note: Response options in parentheses (our coding). For age, Levada also includes the options "15–17" and "Refused". For marital status and income, Levada also includes the option "Refusal to answer". For approval of Putin, GWP also includes the options "Don't know (DK)" and "Refused". "In which country were you born?" asked only of those who were not born in this country.
Source: Levada-Center (2024a) and Gallup (2024a).

Table A5: Regression results for sensitivity and robustness analysis

Approval of Putin *Panel A.*	**Baseline**	**Controls basic**	**Controls extended**	**6 months**	**1 year**
Effect of invasion	12.57***	12.58***	12.35***	14.70***	25.28***
	(1.47)	(1.46)	(1.54)	(0.87)	(1.88)
Number of obs.	3,199	3,199	2,871	9,606	3,686
Control variables	No	Few	Many	No	No
Pre-period	Feb. 2022	Feb. 2022	Feb. 2022	Dec. 2021–Feb. 2022	May–Jul. 2021
Post-period	Mar. 2022	Mar. 2022	Mar. 2022	Mar.–May 2022	Aug.–Nov. 2022
Survey question	President	President	President	President	Leadership
Sample weights	Yes	Yes	Yes	Yes	Yes
Missing values	Excluded	Excluded	Excluded	Excluded	Excluded
Data source	Levada	Levada	Levada	Levada	GWP

Panel B.	**Prime Minister**	**Government**	**Unweighted**	**Missing approve**	**Missing disapprove**
Effect of invasion	11.62***	15.33***	12.75***	12.45***	12.07***
	(1.70)	(1.73)	(1.44)	(1.46)	(1.50)
Number of obs.	3,075	3,158	3,199	3,250	3,250
Control variables	No	No	No	No	No
Pre-period	Feb. 2022	Feb. 2022	Feb. 2022	Feb. 2022	Feb. 2022
Post-period	Mar. 2022	Mar. 2022	Mar. 2022	Mar. 2022	Mar. 2022
Survey question	Prime Minister	Government	President	President	President
Sample weights	Yes	Yes	No	Yes	Yes
Missing values	Excluded	Excluded	Excluded	Approve	Disapprove
Data source	Levada	Levada	Levada	Levada	Levada

Panel C.	**Crimea invasion**	**Crimea annexation**	**Placebo pre**	**Placebo post**
Effect of invasion	8.67***	13.76***	-1.03	-0.51
	(1.62)	(1.79)	(1.76)	(1.30)
Number of obs.	4,716	3,163	3,163	3,168
Control variables	No	No	No	No
Pre-period	Feb. 2014	Feb. 2014	Feb. 2021	Feb. 2023
Post-period	Mar. 2014	Apr. 2014	Mar. 2021	Mar. 2023
Survey question	President	President	President	President
Sample weights	Yes	Yes	Yes	Yes
Missing values	Excluded	Excluded	Excluded	Excluded
Data source	Levada	Levada	Levada	Levada

Note: Robust standard errors in parentheses. Effect sizes in percentage points. Baseline estimation same as in the main analysis. Basic specification with control variables controls for gender and age. Extended control variables specification controls for gender, age, marital status, education, income percentile group, and geographical area. 6-months specification expands the window of analysis and compares the responses of individuals surveyed in December 2021–February 2022 (pre-invasion period) to those surveyed in March–May 2022 (post-invasion period). 1-year specification compares responses in the 2021 (May–July) versus 2022 (August–November) survey waves in GWP. Prime Minister and government specifications analyze the effects of the invasion on two different survey questions in Levada: "Do you generally approve or disapprove of the activities of the Prime Minister of Russia?" and "Do you generally approve or disapprove of the activities of the government of Russia as a whole?". Unweighted specification does the baseline estimation but without the sampling weights. Missing approve and disapprove specifications include missing values and recode them as either approval or disapproval of Putin, respectively. Crimea specifications analyze the effects of the 2014 invasion and annexation of Crimea on approval of Putin (Crimea invasion effect compares survey responses in February versus March 2014, and Crimea annexation effect compares February versus April 2014). Placebo tests analyze the change in approval of Putin in the same months as the invasion (February versus March) but for the years before (2021) and after (2023) the invasion instead. *** Significant at the 1 percent level. ** Significant at the 5 percent level. * Significant at the 10 percent level.
Source: Authors' calculations based on data from Levada and Gallup.

Table A6: Regression results for invasion, Crimea, and Georgia—in Russia and abroad

Approval of Putin	**Russians in Russia**	**Russians abroad**	**Rest of World**
Panel A.			
Effect of invasion	25.28***	-25.19***	-14.79***
of Ukraine	(1.88)	(3.10)	(0.27)
Number of obs.	3,686	1,488	198,807
Pre-period	2021	2021	2021
Post-period	2022	2022	2022
Panel B.			
Effect of annexation	29.31***	-4.12*	-7.91***
of Crimea	(1.92)	(2.13)	(0.29)
Number of obs.	3,273	2,167	172,056
Pre-period	2013	2013	2013
Post-period	2014	2014	2014
Panel C.			
Effect of war	18.26***	2.21	4.51***
in Georgia	(1.99)	(1.56)	(0.35)
Number of obs.	3,964	2,198	117,414
Pre-period	2007	2007	2007
Post-period	2009	2009	2009

Note: Robust standard errors in parentheses. Effect sizes in percentage points estimated by the linear regression specified in Equation (1). Effect of invasion of Ukraine estimated as the difference between the 2022 and 2021 survey waves in GWP. Effect of annexation of Crimea estimated as the difference between the 2014 and 2013 GWP waves. Effect of war in Georgia estimated as the difference between the 2009 and 2007 GWP waves. Russians abroad include people in other countries who were born in Russia and/or have a Russian nationality. Estimations include sampling weights. "DK" and "Refused" responses excluded. *** Significant at the 1 percent level. ** Significant at the 5 percent level. * Significant at the 10 percent level.
Source: Authors' calculations based on data from GWP.