The Political Economy of Transfers, Public Opinion and Policy Preferences

by Krisztina Szabó

Submitted to
The Doctoral School of Political Science, Public Policy, and International Relations
Central European University

In Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

Supervisor: Professor Caitlin Brown

Vienna, Austria
2023

CEU eTD Collection

Declaration

CEU eTD Collection

I, Krisztina Szabó, candidate for the degree of Doctor of Philosophy at the Central European University Doctoral School of Political Science, Public Policy and International Relations, declare herewith that the present thesis is my own work, based on my research and external information are properly credited in notes and bibliography. I declare that where the work is based on joint research, co-authors are properly indicated. I also declare that no part of the thesis has been submitted in this form to any other institution of higher education for an academic degree.

Krisztina Szabó

Acknowledgment

This dissertation and my intellectual development owe a great debt to *Professor Cait Brown*. In the most literal sense, this research would have not happened without her guidance, patience, advice, wisdom and encouragement. She has shown me, by her example, what an exceptional scientist and person should be. She is the strongest, most dedicated scholar I know and I can only aspire to become one day an academic like her. I want to express sincere gratitude to *Professor Cristina Corduneanu-Huci* for being an unfailing source of encouragement and guidance. I am very grateful to Cristina who provided me "big-picture" like questions and helped my intellectual development with sharp comments. Our lunches in Vienna and PERG dinners are among the nicest memories from my time at CEU. I am extremely thankful to *Professor Michael Dorsch* who has been always encouraging, supportive and thoughtful and whose advice has always proven incredibly important and valuable. His kindness makes everybody comfortable and chill around him, and I am very fortunate that I now have the chance to co-author a project with him.

I am grateful to *Professor Thomas Pepinsky*, who not only made it possible to me to visit the Department of Government at Cornell University but he has always been extremely generous with his time and encouraging in his words. He is the kindest soul in academia. While providing all these opportunities to me at Cornell was part of his everyday practice of kindness, my time at Cornell and co-authoring projects with him left an intellectual imprint that I will always carry with me.

I benefited immensely from the guidance of many brilliant scholars. I owe a great deal of gratitude to *Ádám Reiff* for his sharp advice and for the constant compassion and encouragement. It is an honor to work with him. My appreciation also extend to many others for reading and commenting on portions of the dissertation at various stages, especially to *Professor István Benczes*, *Professor László Bruszt*, *Professor Zsolt Enyedi*, *Professor Mihály Fazekas*, *Professor Erin Kristin Jenne*, *Professor István Kollai*, *Professor Levente Littvay*, *Cameron Mailhot*, *Professor Anand Murugesan*, *Professor Gábor Simonovits* and *Professor Sidney Tarrow*.

My time at Cornell is indebted to many inspiring people, among others to *Professor Alexandra E. Cirone*, *Harry Dienes*, *Sara Beth Leach*, *Toni Vogt Marcheva* and *Professor Douglas Miller*. Graduate school at CEU was made possible by a set of great folks, such as *Martino Comelli*, *Freya Cumberlidge*, *Pedro Perfeito Da Silva*, *Eszter Farkas*, *András Gál*, *Dániel Kovarek*, *Ameni Mehrez* and *Yen Nguyen Bao*. I am also very grateful to our amazing coordinators

CEU eTD Collection

Ingy Kassem and *Monica Lafaire*.

This dissertation would not have been possible without the support of my family – this work is dedicated to my loving and inspiring parents, *Károly* and *Erzsébet* who believed in me when I did not. *Anni* and *Simon* have been constant sources of support and love over the course of my studies. My friends *Detti*, *Laura*, *Szandi*, *Dia* and *Zsófi* were my fan club, my stipend and my therapists. Köszönöm.

CEU eTD Collection

This PhD is dedicated to my parents, Károly and Erzsébet.

CEU eTD Collection

Abstract

Transfers of public policies as well as external transfers affect the behaviors and attitudes among the mass public. This dissertation explores the ways in which transfers affect the behavior and public opinion among program clienteles and how politics can alter attitudes of the mass public.

Chapter 2 focuses on the effect of an external transfer on the stability of a country and estimates the impact of shocks in foreign aid disbursement on conflict in poor countries. By proposing a new instrumental variable approach, the main findings indicate that negative (positive) aid shocks increase (decrease) one-sided conflict from the opposition suggesting that negative aid shocks primarily trigger social unrest from the population; and the effect of negative aid shocks on one-sided conflict from the opposition is especially large in countries with weak state capacity.

Rather than analyzing the effect of an external transfer, Chapter 3 turns to the question of how the mass public reacts to transfers resulting from a public policy. The Chapter examines the electoral effect of two subsidy programs targeting rural areas in Hungary. The policies were introduced in July 2019, shortly after the European Parliament elections in May 2019 and just before the local elections in October 2019 that allows us to rely on a difference in differences estimation strategy. At the same time, this Chapter looks at how the government designs its targeted distributive strategy. We find that incumbent vote share increases in settlements that were eligible for the programs relative to non-eligible settlements and that the government targeted its core supporters with the aim of mobilizing them (rather than pursuing swing voters).

While Chapter 3 provides evidence for the effect of a targeted government transfer on voting behavior, Chapter 4 analyzes the effect of yet another government transfer program not only on party preferences but also on how the mass public views the appropriateness of supporting a party based on material handouts. Given that people are reluctant to admit that they support a party based on material rewards (that is called social desirability bias), we employ a list experiment technique. Our results suggest that the pre-election transfers worked mainly by demobilizing voters who might have opposed the incumbent party, while the findings show that the material rewards influenced the party preference of around 20% of the incumbent voters.

Finally, while Chapters 3 and 4 show how the mass public reacts to public policies and targeted transfers, Chapter 5 demonstrates that other exogenous events are also able to shape public attitudes. Combining historical public opinion data from the past decade

CEU eTD Collection

with original survey data, we study public opinion towards immigrants in Hungary during the refugee crises of 2015-16 and 2022. We demonstrate that the Ukrainian refugee crisis was accompanied by a large increase in tolerance for refugees, reversing what had previously been one of the most anti-refugee public opinion environments in Europe. We find that the distinguishing feature of the 2022 refugee crisis was that refugees were mostly white European Christians driven from their home country by conflict.

CEU eTD Collection

Table of Contents

CEU eTD Collection

CEU eTD Collection

CEU eTD Collection

CEU eTD Collection

CEU eTD Collection

List of Figures

CEU eTD Collection

CEU eTD Collection

CEU eTD Collection

CEU eTD Collection

List of Tables

CEU eTD Collection

CEU eTD Collection

CEU eTD Collection

CEU eTD Collection

CEU eTD Collection

1 Introduction

The book of Harold (1936) famously claims that politics is all about "who gets what, when and how". It suggests that transfers of many kinds and the effect of these transfers on mass preferences and actions lies at the heart of politics. The dissertation examines the political economy of transfers and the effect of transfers on the behavior as well as on attitudes among the mass public. It further investigates how government policies can play a crucial role in shaping the mass public's view and how citizens understand and act toward the political system. The questions that inspire the dissertation are the following: how do shocks in external transfer affect the stability of the recipient county? How do transfers as a result of different public policies affect the behaviors and attitudes among the mass public? Do citizens interpret receiving transfers and then supporting the incumbent based on these material rewards as socially undesirable, stigmatized behavior? Finally, to what extent is mass public opinion responsive to exogenous events? These questions yield four specific research projects in the field of political economy.[1] The dissertation is comprised of four chapters, each of which is a complete essay on a separate topic in political economy.

1.1 Specific Research Objectives

Chapter 2 estimates the effect of external transfers on the stability of a country and investigates the role of state capacity in managing unexpected shocks in external transfers. In particular, this Chapter looks at the impact of shocks in foreign aid disbursement on the stability of poor countries and at how shocks in these transfers affect people's engagement with violent conflict. Aid revenues remain one of the most significant sources of external fluctuations, accounting for 25% of all exogenous shocks (Raddatz 2007). Aid shocks translate into uncertainty about the value of holding office, making it harder to strike binding bargains with political stakeholders, while they also affect the government's ability to suppress unrest, shifting the balance of power between the government and would-be rebel groups (Nielsen et al. 2011). At the same time, an aid shock disrupts government spending on welfare and infrastructure programs and reduces short-term economic growth (Gutting and Steinwand 2017). Nevertheless, most existing work on the subject assumes that aid is both stable and certain, and relatively little attention has been

[1] While the term *political economy* has had many different meanings over its long lifetime, I follow the approach of Weingast and Wittman (2008, p.4) and define political economy as "the methodology of economics applied to the analysis of political behavior and institutions".

CEU eTD Collection

paid to the effect of aid shocks on the stability of the recipient countries. To refine our understanding of how shocks in aid disbursement affect stability, this Chapter estimates the effect of an aid shock on two-sided conflict (internal armed conflict), one-sided conflict from the government (purges) and one-sided conflict from the opposition (assassinations, riots and terrorism).

While Chapter 2 examines how people react to an erratic external transfer, Chapter 3 rather looks at how mass public is responding to targeted transfers as a result of a public policy. This Chapter seeks to understand whether voters are willing to exchange their votes for material benefits and how politicians and their intermediaries target voters to maximize their electoral prospects. In particular, the Chapter analyzes the effect of a large targeted government spending program on the support of the incumbent government in Hungary as well as the targeting strategy of the government. The program targets rural settlements with two sub-programs: the first, *Rural Family Housing Allowance Program* (Rural CSOK) provides housing subsidies for individuals from eligible settlements; while the second, the *Hungarian Village Program* (HVP) provides financial rewards to eligible settlements. The programs were introduced in July 2019, shortly after the European Parliament (EP) elections in May 2019 and just before the local elections in October 2019 that allows us to compare average changes in turnout rate as well as in vote share from before the introduction of the policies to after it between eligible and non-eligible settlements.

Chapter 4 complements Chapter 3 and tests not only the electoral effect of yet another transfer program but also reveals how citizens think about the appropriateness of supporting a party based on material handouts and whether they interpret this as a socially undesirable and stigmatized behavior. In particular, the Chapter looks at the effect of two large-scale, pre-election transfers; the extra month of pension payment and the family tax refund in Hungary. Both policies share several unconventional features. Not only the timing of the allocations (just before the elections despite of the worsening economic circumstances), the intense credit claiming policy of the government and the unconditional nature of the transfers make these policies unconventional, but both policies provided more transfers to the wealthier. At the same time, around 3% of the GDP was distributed during the two months preceding the elections, which is much larger than the typical size of other countries' transfer programs and thus the policies rewarded nearly half of the electorate. The Chapter seeks to understand the electoral as well as the (de)mobilizing effect of these two policies while it also examines the mass public's view on the appropriateness of supporting the incumbent government because of these transfers. Nonetheless,

CEU eTD Collection

while receiving cash just before the elections was *de jure* not illegal, voters may still be reluctant to admit that they support a political party due to material handouts. Such reluctance may be the result of social desirability bias. Due to this social desirability bias, survey respondents underreport their willingness to support a party based on any material benefits. To overcome this issue, this Chapter employs a list experiment that allows us to properly measure the incidence of the sensitive behavior.

Finally, public opinion is not only responsive to transfers of many kinds, but also to exogenous events and to the political discourse framing these events. Chapter 5 studies public opinion towards refugees in Hungary, a highly exclusionary political environment in which anti-migrant and anti-refugee sentiments are commonly invoked by the ruling government. The Chapter seeks to understand why the Ukrainian refugee crisis was accompanied by a large increase in tolerance for refugees, reversing what had previously been one of the most anti-refugee public opinion environments in Europe. To explain this reversal, we test whether the "refugee hypocrisy" is real and examine the plainly different standards to which Ukrainians have been held in comparison to non-European, non-Christian, non-white refugees from Afghanistan, Syria, and elsewhere.

1.2 Methodology

The chapters are united by the application of quantitative methods often in search for causal inferences. In the field of quantitative political science, there is a clear move toward what Samii (2016) calls *causal empiricism*. Causal empiricism encompasses different approaches to quantitative research that includes causal identification as well as design-based inference methods (Dunning 2012). In particular, research in causal empiricism is based on the identifying power of experiments or natural experiments to define specific causal effect for well-defined subpopulations (Samii 2016). Causal empiricism requires a clear definition of the treated and non-treated units as well as causal identification where the identifying conditions include random assignment, conditional random assignment, or discontinuous assignment of treatment variables. Identification strategy is key in causal empiricism. An identification strategy requires the combination of a clearly labeled source of identifying variation in a causal variable and the application of an econometric technique to exploit this variation (Angrist and Krueger 1999). Econometric techniques include simple instrumental variables estimation with a valid instrument, regression discontinuity estimation with a valid discontinuity, and conditioning strategies like regression and matching under conditional independence assumptions.

CEU eTD Collection

It is a challenging task to meet the conditions for causal identification. As Sekhon (2009, p.503) warns us "without an experiment, a natural experiment, a discontinuity, or some other strong design, no amount of econometric or statistical modeling can make the move from correlation to causation persuasive. This conclusion has implications for the kind of causal questions we are able to answer with some rigor... the only designs I know of that can be mass produced with relative success rely on random assignment. Rigorous observational studies are important and needed. But I do not know how to mass produce them". While it is imperative to have a strong design, Samii (2016, p. 949) claims that "nature rarely provides sources of identifying variation, and experiments require considerable effort". We therefore should carefully think about analyzing and characterizing sources of identifying variation as well as about what kinds of effects are identified.

There are many sources of the identification problem in causal inference. One way to formalize the causal inference identification problem is the potential outcomes framework where each unit has multiple potential outcomes but only one actual outcome. Thus, potential outcomes show the behavior of the unit in the presence or absence of a treatment or an intervention where the actual outcome depends on actual treatment received. Under this framework, there are many ways for defining unit-level causal effects, such as the difference in potential outcomes. Nonetheless the fundamental problem of causal inference is that the individual-level causal effect of some treatment is unobservable and thus any causal inferences are based on comparisons of counterfactual quantities that cannot be observed. Therefore, we usually focus on the average treatment effect that is the average difference in the pair of potential outcomes averaged over the entire population of interest. In causal inference, identification generally rests on the assumption that i) treatment status is independent of potential outcomes; ii) there is no interference between units; iii) there is only one version of the treatment.[2] Problems in causal inference can only be resolved through assumptions. Assumptions, and making credible assumptions are the key since certain counterfactual quantities are unobservable.

[2]The assumption of no interference and no multiple versions of treatment are called the “stable-unit-treatment-value assumption (SUTVA)” described by Rubin (1980). See more in Imbens and Rubin (2015) and in Cunningham (2021).

CEU eTD Collection

1.2.1 *Identification Strategies*

Angrist and Pischke (2010) define identification strategy as a research design intended to solve the causal inference identification problem. Keele (2015, p.318) adds that "part of an identification strategy is an assumption or set of assumptions that will identify the causal effect of interest. To ask what is your identification strategy is to ask what research design (and assumptions) one intends to use for the identification of a causal effect". Here, we explain how each Chapter establishes identification.

Chapter 2 starts with acknowledging that the main difficulties in identifying the causal effect of shocks in transfer on the number of violent conflict are the issues of reverse causality and omitted variables, both of which bias Ordinary Least Squares (OLS) estimates in directions that are ambiguous *ex ante*. To address the issue of reverse causality, the Chapter uses an instrumental variable (IV) approach and a two-stage-least-square estimation. The instrumental variable causally affects the endogenous variable (*relevance condition*) but is uncorrelated with the error term that allows the consistent causal estimation of the relationship between the dependent variable and the endogenous variable. To be a valid instrument, instruments should be associated with the dependent variable only through their relationship with the endogenous variable (there are no other causal pathways from the instrument to the dependent variable) (*exclusion restriction*), while the instrument and the endogenous variables should not share causes.[3]

In particular, the paper develops an instrument based on donors' GNI in a way which accounts for the presence of donors in a given recipient country at a given year. While prominent papers testing the relationships between foreign aid and conflict (Nunn and Qian 2014) and between growth and bilateral aid (Dreher and Langlotz 2017) interact some characteristics of donors with the cumulative probability of being an aid recipient, my instrument takes into account the average characteristics of donors by recipient country and year. In other words, the instrument developed accounts for the presence of a donor country in a recipient at a given year and multiplies donors' characteristics with a value of 1 during those years when donors aided a recipient country and with the value of 0 for the remaining years

Chapter 3 estimates the effect of a large targeted government spending program on support for the government in Hungary. We adopt a difference-in-differences approach and exploit the quasi-random assignment of program eligibility in order to identify the

[3]For additional conditions such as homogeneity and monotonicity see Miguel, Hernan, and James (2020).

CEU eTD Collection

effect of receiving transfers on support for the incumbent government. Our empirical strategy looks at changes in Fidesz vote share in the eligible settlements relative to the non-eligible settlements before and after the implementation of the policies. The policies started in July 2019 and targeted rural settlements with less than 5000 inhabitants that allows us to compare the average change in Fidesz vote share among eligible and non-eligible settlements from before the intervention to after the intervention. We use five elections data from before the policies with the latest recorded just a few month before the launch of the programs (May 2019), while we rely on election results coming from shorty after the implementation of the policies (October 2019). The difference-in-differences design provides an estimate of the average treatment effect on the treated subjects (ATET) under the parallel trends assumption. The parallel trend assumption implies that without the treatment, the dependent variable in the treatment group would have changed in the same way as it did in the non-treatment group. Translating this to the objective of the Chapter, without the introduction of transfers, changes in support for the incumbent government would be the same in the treated and in the control settlements. If the assumption holds, any difference in the average change in support of the government between treated and untreated units must be caused by the transfers. Thus, parallel trend assumption allows for level differences in average potential outcomes, as long as the changes are the same (Békés and Kézdi 2021).

The second half of the dissertation turns to survey methods and combines original survey data and existing survey data with settlement-level administrative data. In Chapter 4, to understand the effect of an unconventional, large-scale, pre-election spending programs on party support in Hungary, we combine descriptive survey data analysis with a list experiment method. When asking survey respondents directly whether the money they received play a significant role in their vote choices, they may be reluctant to admit this. The resulting reluctance of admitting allegedly inappropriate behavior is called social desirability bias or sensitivity bias, in which survey respondents underreport socially undesirable behavior (Blair, Coppock, and Moor 2020). In order to reduce social desirability bias, we employ a list experiment (also known as the unmatched count technique or the item count technique). The survey sample is split into random halves: a treatment and a control group. Each group is presented with a list of items and asked how many (as opposed to which) items are true. To measure the incidence of the sensitive behavior, respondents in the control group are given questionnaires that include only nonsensitive response items. By contrast, respondents in the treatment group are read the same list of

CEU eTD Collection

non-sensitive items given to the control group and plus one additional item that measures the sensitive behavior. Respondents in the control group report how many of a list of control items apply to them and those in the treatment group report how many of a list of the control items plus an additional sensitive item apply to them. By taking the difference in the mean number of items chosen by respondents in the control versus in the treatment group, we can infer the incidence of the sensitive behavior in the population.

In Chapter 5, we combine original survey data, existing survey data and detailed settlement-level demographic data to describe a dramatic change in Hungarian public opinion towards refugees over time. Comparing multiple rounds of public opinion data across the past decade with newly collected data from April and November 2022, we demonstrate that the 2022 Ukrainian crisis was accompanied by a large increase in tolerance for refugees, reversing what had previously been one of the most anti-refugee public opinion environments in Europe. To explain this difference, this Chapter adopts linear probability models, survey experiments and multilevel modeling approach. The purpose of the linear probability model is to show changes in survey respondents' attitude when we control for survey respondents' socio-demographic characteristics. Here, we look at basic associations between variables as well as detect changing attitudes of survey respondents over time with interacting the main explanatory variables of interest with survey wave dummies. More interestingly, we designed a handful of survey experiments, where respondents complete a survey instrument that includes an experimental treatment and a set of outcome measures. To investigate how conflict proximity and racial, religious, and national identity (three manifestations of what we term civilizational characteristics) shape openness to refugees, we incorporate experiments that manipulate the wording of the questions respondents encounter. Following the delivery of the treatment, its effect is assessed with an attitudinal outcome.

Finally, we complement our individual-level results from surveys with additional analyses that incorporate information about respondents' local environments and adopt a multilevel modeling approach. Multilevel data refers to structures that consist of multiple units of analysis, where one unit is nested within the other (Steenbergen and Jones 2002). According to Steenbergen and Jones (2002, p.218) "in multilevel analysis, researchers build models that capture the layered structure of multilevel data, and determine how layers interact and impact a dependent variable of interest". Adopting a multilevel modeling approach, we begin with a simple variance decomposition to estimate the relative importance of settlement-level factors in explaining individual attitudes, and then model contextual

CEU eTD Collection

factors directly by estimating the relative importance of settlement-level characteristics over individual socio-economic features.

1.3 Theory and Literature

While each Chapter is a complete essay on its own addressing diverse topics in the filed of political economy, the argument in the dissertation has links to three research paradigms in political science.

Chapter 2 and Chapter 5 both look at the effect of unexpected external events on the public and at the role of the government in mediating or conditioning this effect. In other words, these two Chapters seek to understand how the population reacts to external events and how this reaction is conditioned by the government. People's perception of unexpected external events often have political roots and consequences worth probing further.

There is a rich literature that assesses the impacts of various external events – such as the financial crisis (Verner and Gyöngyösi 2020; Ahlquist, Copelovitch, and Walter 2020), macroeconomic shocks (Dorsch, Dunz, and Maarek 2015), migration crisis (Dinas et al. 2019), agricultural and natural resources commodity shock (especially in the context of developing countries) (Bazzi and Blattman 2014; Dube and Vargas 2013; Berman and Couttenier 2015) – and investigates the effect of these shocks on partisanship (Barone and Kreuter 2021), radicalization (Dal Bó et al. 2018), attitudes (Colantone and Stanig 2018), policy preferences (Rommel and Walter 2018) and conflict (McGuirk and Burke 2020).

In the fields of political economy and economics, it is traditionally assumed that we can understand the implications of exogenous shocks by identifying the "winners" and "losers" where losers are deprived in many different ways (e.g.: materially deprived). Those harmed by exogenous shocks often push for a radical change relative to the *status quo* and drive up support for protectionist policies, anti-immigrant measures, populist parties, while the marginalized segments of the population (especially in developing countries) are often more likely to engage in conflict or in violent behavior. Importantly, these exogenous events make themselves felt in the society in various ways. Researches studying the impact of unexpected, exogenous events most often motivate their argument with emphasizing their effect on cleavages of many kinds. These exogenous events highlight ethnic, religious, national or cultural cleavages in some cases (e.g.: refugee shocks), while in other cases they make income and social cleavages more salient (e.g.: trade shocks) or might render partisan cleavages more dominant. People's different reactions to these exogenous events

CEU eTD Collection

are not only related to the forms in which these shocks make themselves felt in the society but to how the government responds to them.

But while the link between unexpected exogenous events and the attitude and behavior of people is well established, we know less about the role of the government in conditioning mass public's view on these events as well as about the role of government in mitigating or in exacerbating any potential adverse effects. How are mass publics responding to exogenous events? To what extent are these responses driven by – or conditioned by – the government? Chapter 2 shows that the government has the capacity and the policy tools to mitigate the adverse effect of exogenous shocks by ensuring that these events will not (dominantly) make themselves felt in the society. Chapter 5 provides evidence that mass public opinion and people's perception of the exogenous events can be conditioned by political discourse. Thus, Chapters 2 and 5 both study the government responses to exogenous events and the role of these responses in how the society perceived these shocks. These chapters look at two very different external shocks manifested in different social contexts and thus probe different reactions from the population. While Chapter 2 looks at an unexpected shock in aid inflow (that is a particularly relevant question in poor, aid-dependent countries), Chapter 5 examines unexpected shocks in refugee inflows in Hungary (that again is very relevant in that social context given that Hungary has proven to be a highly exclusionary political environment in which anti-migrant and anti-refugee sentiments are commonly invoked by the ruling government).

Chapter 2 speaks to the field of development studies and tests the reaction from the population following an unexpected shock in developmental aid. Notably, an unexpected and unpredictable aid shock restricts a government's room for financial manoeuvre and that probes *quasi voluntary compliance* (Levi 2006); that is compliance from the citizens motivated by a willingness to cooperate but backed by coercion. The compliance requires that citizens receive something from the government in return for the extractions the government takes from them (Levi 2006). If a government experiences an unexpected negative shock in aid revenue and proves incapable of extracting needed resources to produce collective goods, non-compliance, resistance and conflict are far more likely. Therefore, government capacity is crucial in understanding the impacts of aid shocks. This Chapter argues that the way in which aid shocks affect the society depends on the governments' ability to maintain quasi-voluntary compliance.

Chapter 5 studies public opinion towards refugees in Hungary following two exogenous events: the 2015-16 refugee crisis and the 2022 Ukrainian refugee crisis. We start

CEU eTD Collection

with acknowledging that the 2015 refugee crisis in Europe shaped public attitudes towards refugees, migrants, and policies governing refugees, asylum seekers, and migrants more generally (Hangartner et al. 2019; Brug and Harteveld 2021; Stockemer et al. 2020; Lutz and Karstens 2021; Peshkopia, Bllaca, and Lika 2022; Dinas et al. 2019; Hangartner et al. 2019). We, however, emphasize that the refugee crisis is primarily a contextual variable in Hungary. The majority of people never personally encountered a refugee during the crisis or in its aftermath, but they live in a country in which the refugee crisis was a prominent news item and a subject of extensive political discourse. We theorize here that the political discourse, the selection of some aspects of a perceived reality to make the refugee crisis more salient while excluding others in order to downplay them were key in shaping Hungarian public opinion. This Chapter contributes to the burgeoning strand of literature linking the diffusion and success of political discourses to shaping public opinion (Bischof and Senninger 2018) and shows that mass public opinion is indeed responsive to political discourse following an exogenous event.

In turn, Chapter 3 and Chapter 4 have links to the policy feedback literature. Research in the policy feedback tradition explores the ways in which existing policies can shape key aspects of mass politics. These papers look at how policies can alter political attitudes and participation among both the targets of the policies and other members of the public. A growing literature blends policy feedback theory and political behavior research to explore the ways in which existing policies can shape key aspects of mass politics, but so far it has focused almost exclusively on social policies and analyzed mainly advanced democracies (Mettler, Jacobs, and Zhu 2023; Campbell 2002). Recently, the policy feedback researches have been growing in scope beyond advanced democracies and have focused on Zambia (Hern 2017), on Mexico (De La O 2013), on Uruguay (Manacorda, Miguel, and Vigorito 2011), on Romania (Pop-Eleches and Pop-Eleches 2012), on Thailand (Ricks and Laiprakobsup 2021) or on China (Im and Meng 2016) among others. These papers assess the electoral effects of different types of targeted spending such as cash transfer programs (De La O 2013; Zucco Jr 2013; Manacorda, Miguel, and Vigorito 2011; Conover et al. 2020; Pop-Eleches and Pop-Eleches 2012), public work programs (Zimmermann 2021), nutrition packages and health transfers (Conover et al. 2020). Other papers look at the electoral effect of spending targeting settlements or municipalities, such as the effect of road and infrastructure projects (Huet-Vaughn 2019; Drazen and Eslava 2010), the development of local schools and health clinics (Linos 2013), agricultural assistance (Anzia, Jares, and Malhotra 2022) and various other social policies (Sances and Clinton 2021).

CEU eTD Collection

Within the policy feedback literature, there are two streams of research that are particularly relevant to our research. The first one examines how policies affect *behavioral* outcomes, the second is interested in *attitudinal* measures. The first stream of researches has examined a variety of behavioral outcomes such as voter turnout (Baicker and Finkelstein 2019), vote choice (Rendleman and Yoder 2020) and other political acts beyond voting such as donating to and working on political campaigns (Campbell 2004). There are many proposed mechanisms linking policies to political behavior such as i) policies often confer politically relevant resources (money, health, and financial stability) which increase participatory capacity and may facilitate democratic acts (Pacheco and Fletcher 2015); ii) these policies mobilize recipients by interest groups and political parties (Clinton and Sances 2018); iii) policies may send positive or negative citizenship messages about their place in the polity and these negative messages often explain the diminished participation rates of those receiving the targeted benefits (Watson 2015); iv) any threats to policies may drive up political participation because voters may fear of losing policy gains (Kahneman and Tversky 1979); and v) the effect of policies also depends on their visibility and proximity (Gingrich 2014).

The second branch of scholars examine how public policies affect a variety of attitudinal outcomes such as attitudes towards programs (Hopkins and Parish 2019) and their recipients (Bell 2020), attitudes and trust towards the government (Bol et al. 2021), attitudes towards the markets (Morgan and Campbell 2011) as well as social norms (e.g.: support for smoking bans (Mons et al. 2012)). Within this literature, research has also established several mechanisms by which this effect materializes (some are similar to policy feedback researches studying behavior outcomes); i) these policies confer material benefits that enhance recipients' support for the program; ii) threats to policies; iii) the proximity, the visibility as well as the traceability of the policies (Larsen 2020); iv) the messages that the policy conveys suggesting that recipients are important and worthy and the ways in which politicians talk about the program and the recipients (Watson 2015).

To contribute to this literature, Chapters 3 and 4 examine the effect of two large-scale targeted spending programs on the support for the incumbent party. Chapter 3 analyzes the effect of two targeted policies on the electoral support for Hungary's ruling party, the right-wing Fidesz and contributes to our understanding of voter decision making and to government policy design strategies. The first distributive policy is the *Hungarian Village Program* (HVP) that aims at improving the quality of life in small settlements with less than 5,000 inhabitants, by financially supporting kindergartens, schools, doctor's offices,

CEU eTD Collection

playgrounds, and public spaces. The absence of public criteria of distribution and the failure of official criteria to bite when it came to deciding who would benefit make the Hungarian Village Program a *pork-barrel politics*. While HVP targets collectivities – small settlements with less than 5,000 residents –, it does not punish individuals who defect and vote for a different party. The second policy is the *Rural Family Housing Allowance Program* (Rural CSOK) that targets individuals by offering a state subsidy for the construction or purchase of dwellings for young families with children living in eligible small settlements with less than 5,000 residents and with decreasing population size. Rural CSOK is a *programmatic distributive strategy*, as the criteria of distribution are public and these public, formal criteria of distribution shape the distribution of the resources.

Chapter 4 examines the effects of two major pre-election government spending programs in Hungary: the extra month of pension payment and the family tax refund. These two policies are unconventional in many ways. First, both policies were introduced just before the 2022 national elections and despite of the severe economic hardship, they amounted to around 3% of GDP during the two months preceding the elections. This is much larger than the typical size of other countries' cash transfer programs (e.g.: Progresa which is one of the largest efforts to improve the living conditions of impoverished children in Mexico amounted to 0.2% of the GDP (De La O 2013)). Second, both policies target one particular group within the society (the first one targets senior citizens, the second is designed for working families with children) sending the message that the state perceives these groups as deserving; and people belonging to these social groups automatically received monetary subsidies (without application or any other administrative burdens). Contrary to the conditional cash transfer (CCT) programs that usually target the poorest segment of the society, the pre-election spending programs of Hungary distributed larger subsidies to the wealthier. Third, pre-election subsidies in Hungary were distributed unconditionally. Unlike CCT programs that make welfare programs conditional upon the receivers' actions such as enrolling children into public schools, getting regular check-ups at the doctor's office, or receiving vaccinations, or unlike clientelism of many kinds where parties offer material benefits only on the condition that the recipient returns the favor with a vote or other forms of political support, these subsidies came unconditionally. We classify these two policies as *programmatic club goods* distribution because they are disbursed according to well-defined rules and without regard to partisan characteristics or voting history, while the benefits of the policies were not directly contingent on a vote for the incumbent party. That implies that qualified voters in constituencies that supported

CEU eTD Collection

the opposition party still had access to the two programs. While the timing of the two policies (just before the elections despite of the severe economic circumstances) makes it clear that the benefits are intended to sway people's vote, they do not rise to the level of clientelism.

1.4 Findings and Contributions

To refine our understanding of how shocks in aid disbursement affect stability, Chapter 2 tests the average effect of an aid shock on two-sided conflict (internal armed conflict), one-sided conflict from the government (purges) and one-sided conflict from the opposition (assassinations, riots and terrorism). The findings suggest that an aid shock primarily triggers social unrest from the population, where a negative (positive) aid shock increases (decreases) the number of one-sided conflict events from the opposition. We provide empirical evidence in support of the opposition tactics argument (Mesquita 2013) and show that a sudden aid shock changes opportunities and leads some to engage in irregular types of conflict such as assassination and terrorism but does not attract the mobilization necessary to support conventional war fighting. The Chapter also finds that the effect of a positive versus a negative aid shock is asymmetric in countries with weak versus strong state capacities, such that a negative aid shock provokes more intense and violent reaction from the population under weak state apparatus.

Chapter 2 makes several important contributions to both the conflict and foreign aid literatures. The Chapter first provides a new way of measuring an aid shock that accounts more precisely for the unpredictability of aid inflows. While the existing literature relies on dummy variables, this paper uses the deviation of aid from a rationally expected amount of money, and thus accounts for the expectedness and for the magnitude of a shock. Second, the paper develops an instrument based on donors' GNI in a way which accounts for the presence of donors in a given recipient country at a given year. While prominent papers testing the relationships between foreign aid and conflict (Nunn and Qian 2014) and between growth and bilateral aid (Dreher and Langlotz 2017) interact some characteristics of donors with the cumulative probability of being an aid recipient, the instrument takes into account the average characteristics of donors by recipient country and year. Third, to further explore the relationship between an aid shock and conflict, the paper looks at the *supply side* of aid-giving and at the politics of donor countries, as well as at the *demand side* by allowing for heterogeneity by state capacity of the aid recipient countries. *On the supply side*, we instrument the aid shock variable with a measure of

CEU eTD Collection

the institutional foundations of donors' aid decisions (Ahmed 2016) and with donors' commitment to international development (Minasyan, Nunnenkamp, and Richert 2017). We find that a negative aid shock increases the number of one-sided conflict from the opposition and that an aid shock seems to be driven by donors' wealth instead of the politics of donors. *On the demand side*, as an additional contribution to the literature on state capacity and conflict (Besley and Persson 2010), we allow the effect of a positive and a negative aid shock on conflict to differ depending on the strength of state capacity and find that the marginal effect of a negative aid shock on one-sided conflict is larger in countries with weak state capacities.

Chapter 3 estimates the effect of a large targeted transfer on support for the government in Hungary. Our main findings suggest that policy eligibility *per se* drive up support for the government: the vote share of the incumbent party increases by 4.3 percentage points in policy eligible settlements relative to vote share for the incumbent government in non-eligible settlements. At the same time, the Chapter provides evidence that policy eligibility *per se* mobilized 5.5 percentage points more voters in eligible settlements. Finally, we show that the government targeted its core supporters and mobilized them (rather than pursued swing voters)

Our findings make three important contributions to the literature. First, we show that incumbent politicians are indeed rewarded by voters for distributive allocations and in particular for those from which recipients can be excluded (Ortega and Penfold-Becerra 2008; De La O 2013; Chong et al. 2015). The results provide a rigorous quantitative evidence about the electoral effect of a targeted policy by relying on an administrative, settlement-level data set that is in many ways superior to data used in existing research. The data set provides us an extremely low level of aggregation (the median settlement in our data set has less than 620 eligible voters), while the data is measured without sampling error or survey respondents' bias – problems that typically plague highly disaggregated data sets. Additionally, the plausibly exogenous policy eligibility threshold as well as the short time span between the election results from before and after the introduction of the policy allows us to infer a casual relationship between the targeted policy and the support for the incumbent government.

Second, we contribute to the economic voting literature by analyzing the electoral effect of a targeted transfer that rewards individuals (and thus test the pocketbook voting theory claiming that individuals support a political candidate or a party that benefits them the most financially) *versus* that targets settlements and thus affects the local milieu

CEU eTD Collection

an individual is living in (testing whether voters are looking at the state of their local economy in voting, a theory called sociotropic voting) (Manacorda, Miguel, and Vigorito 2011; Dassonneville and Lewis-Beck 2019; Simonovits, Kates, and Szeitl 2019). The policy design targeting individuals as well as settlements along the same exogenous policy eligibility allows us to test whether individuals cherish transfers to familes or to their settlements. Our preliminary findings show that individuals are more responsive to sociotropic considerations, thus to HVP transfers.

Third, we contribute to the debate about the government targeted strategies and whether core or swing voters receive greater allocations by politicians. In particular, we contribute to the literature that claims that a party targets its strongest supporters to induce them to go to the polls. In other words, parties have an incentive to mobilize voters and target loyal voters in order to induce them to vote (Nichter 2008; Finan and Schechter 2012; Jensenius and Chhibber 2023; Hill 2017). While empirically testing the targeting strategy of the government is challenging due to omitted variables and reverse causality, we show descriptive evidence that the Hungarian Village Program was strategically used and targeted to core settlements with low turnout rate.

The main results of Chapter 4 reveal that the extra month of pension payment and the family tax refund worked mainly by demobilizing certain groups of voters who might have opposed the incumbent party. In particular, family tax refund recipients with primary education or living in rural areas, and the pension recipients living in the capital city were less likely to support the opposition coalition than non-recipient voters with similar socio-demographic characteristics. Additionally, we demonstrate that the majority of survey respondents think that it is not appropriate to support a political party based solely on material handouts. Finally, findings reveal that the material rewards influenced the party preference of around 20% of the incumbent voters.

Our findings make two main contributions to the literature on the link between party preference and pre-election transfers as well as on the mass public's view about the appropriateness of supporting a political party based on material transfers. First, we contribute to the literature that assesses the electoral effect of an unconventional pre-election spending mainly in non-democratic regimes (Gáspár, Gyöngyösi, and Reizer 2023; Mares and Young 2019; Bulut 2020; Pepinsky 2007).[4] While a growing literature explores

[4]Recently, the policy feedback researches have been growing in scope beyond advanced democracies and have focused on Zambia (Hern 2017), on Mexico (De La O 2013), on Uruguay (Manacorda, Miguel, and Vigorito 2011), on Romania (Pop-Eleches and Pop-Eleches 2012), on Thailand (Ricks and Laiprakobsup 2021) or on China (Im and Meng 2016) among others.

CEU eTD Collection

the ways in which existing policies can shape key aspects of mass politics (Mettler, Jacobs, and Zhu 2023; Campbell 2002), evidence on the direct electoral effects of different types of distributive policies is mixed. On the one hand, papers document that beneficiaries reward incumbents following conditional cash transfers (De La O 2013; Manacorda, Miguel, and Vigorito 2011; Zucco Jr 2013), disaster relief spending (Bechtel and Hainmueller 2011), and distributed coupons (Pop-Eleches and Pop-Eleches 2012). On the other hand, several studies cast doubt on these claims and find that citizens do not reward electorally the incumbent party, or even vote against the governing party following the introduction of a large-scale health insurance scheme (Imai, King, and Velasco Rivera 2020), improvements in service provisions (De Kadt and Lieberman 2020) or a cash grant (Blattman, Emeriau, and Fiala 2018). We complement the literature by analyzing the electoral effect of a large-scale (larger than the usual amount of transfers analyzed in the literature (Cecchini and Atuesta 2017)) and unconditional pre-election programmatic club goods distribution and the main mechanism at play.

Second, we contribute to the survey literature addressing the issue that survey responses suffer from misreporting and nonresponse due to the sensitivity of some questions such as supporting a party based on material handouts. There is ample evidence in the literature that people are reluctant to admit that they support a political party because of some generous subsidies they receive (Cruz 2019; Gonzalez-Ocantos et al. 2012; Corstange 2018). As a result, asking directly about supporting a party based on transfers may result in social desirability bias and the underreporting of the true behavior (Blair, Coppock, and Moor 2020; Gonzalez-Ocantos et al. 2012). While it is well-documented in the literature that social desirability bias is an issue when assessing the electoral effect of clientelist exchange (such as vote buying (Gonzalez-Ocantos et al. 2012)), it is unclear how much of a problem is sensitivity bias in our case. Given that the transfers were not illegal, respondent perception about what response (or nonresponse) the social referent prefers might be less straightforward. Additionally, contrary to costs associated with clientelism (such as monetary (fines), or physical (jail time or personal violence) costs (Bustikova and Corduneanu-Huci 2017)), in our case, the perceived cost of the social referent learning is shame at having failed in a civic duty (Blair, Coppock, and Moor 2020). Our paper complements the existing literature by showing that social desirability bias is an issue even when assessing the electoral effect of a legal, pre-election transfer.

Chapter 5 studies public opinion towards refugees in Hungary and the role of politics in shaping mass preferences. We find that the distinguishing feature of the 2022 crisis

CEU eTD Collection

as comapred to the 2015-16 refugee crisis was that those arriving in Central Europe were mostly white European Christians driven from their home country by conflict. The 2022 crisis produced an overwhelming shift in public opinion in favor of accepting refugees in Hungary, countering a trend of growing anti-refugee public opinion. Additional descriptive information and further experimental evidence on the desired characteristics of immigrants demonstrate that the civilizational characteristics (race, religion and values) are important for explaining aggregate patterns in Hungarian public opinion towards refugees in 2022. Consistent with existing work on Hungarian politics, they are particularly important among supporters of the ruling Fidesz party, and for some groups of religious voters. This finding is substantively important on its own, as it reveals the power of external events to shape public opinion on refugees in profound ways.

Our findings make two main contributions to the literature on public opinion towards refugees and migrants, especially in times of crisis (Goodman 2021; Vachudova 2020; Hangartner et al. 2019; Dinas et al. 2019; Kustov, Laaker, and Reller 2021; Bansak, Hainmueller, and Hangartner 2016; Brader, Valentino, and Suhay 2008). First, we show that mass public opinion is indeed responsive to exogenous events. Ours is the most rigorous quantitative evidence yet available that the 2022 Ukrainian refugee crisis actually shifted public opinion towards refugees in a country where anti-migrant and anti-refugee sentiments were widely expressed, strongly held, and politically valuable to the incumbent government. Second, we show that this shift in public opinion is conditional on the specific nature of the refugee shock: our evidence indicates that the shift in public opinion towards refugees was driven by the specific characteristics of the refugee population in question. We argue that what we term "civilizational" factors—Ukrainians as white, Christian, European refugees—are responsible for the favorable shift in Hungarian public opinion towards refugees in 2022. Separately, our findings also contribute new evidence on public opinion formation in Hungary, helping us to better understand contemporary politics in a country that has been a focal point for discussions of illiberal politics in Europe and around the world, including the United States (Enyedi 2018; Haggard and Kaufman 2021; Scheppele 2022). That our findings hold especially among Fidesz supporters points to the intricate relationship between mass preferences and government policy in competitive authoritarian contexts, even in the face of externally-generated crises.

CEU eTD Collection

2 Political Economy of Transfers and Political Violence

2.1 Introduction

Internal conflict is one of the main obstacles to economic development in poorer countries, often stunting and even reversing the course of economic growth (McGuirk and Burke 2020). Poor countries prone to conflict need and receive substantial amounts of development assistance that is an essential part of government revenues. For some, it can exceed half of GDP (Qian 2015). Aid revenues remain one of the most significant sources of external fluctuations, accounting for 25% of all exogenous shocks (Raddatz 2007). Aid shocks translate into uncertainty about the value of holding office, making it harder to strike binding bargains with political stakeholders, while they also affect the government's ability to suppress unrest, shifting the balance of power between the government and would-be rebel groups (2011). At the same time, an aid shock disrupts government spending on welfare and infrastructure programs and reduces short-term economic growth (Gutting and Steinwand 2017). Nevertheless, most existing work on the subject assumes that aid is both stable and certain, and relatively little attention has been paid to the effect of aid shocks on the stability of the recipient countries.

To refine our understanding of how shocks in aid disbursement affect stability, this Chapter estimates the average effect of an aid shock on two-sided conflict (internal armed conflict), one-sided conflict from the government (purges) and one-sided conflict from the opposition (assassinations, riots and terrorism). The findings suggest that an aid shock primarily triggers social unrest from the population, where a negative (positive) aid shock increases (decreases) the number of one-sided conflict events from the opposition. We provide empirical evidence in support of the opposition tactics argument (Mesquita 2013) and show that a sudden aid shock changes opportunities and leads some to engage in irregular types of conflict such as in assassination and terrorism but does not attract the mobilisation necessary to support conventional war fighting. We also find that the effect of a positive versus a negative aid shock is asymmetric in countries with weak versus strong state capacities, such that a negative aid shock provokes more intense and violent reaction from the population under weak state apparatus.

This article makes several important contributions to both the conflict and foreign aid literatures. The paper first provides a new way of measuring an aid shock that accounts more precisely for the unpredictability of aid inflows. While the existing literature relies on dummy variables, this paper uses the deviation of aid from a rationally expected

CEU eTD Collection

amount of money, and thus accounts for the expectedness and for the magnitude of a shock. Second, the paper develops an instrument based on donors' GNI in a way which accounts for the presence of donors in a given recipient country at a given year. While prominent papers testing the relationships between foreign aid and conflict (Nunn and Qian 2014) and between growth and bilateral aid (Dreher and Langlotz 2017) interact some characteristics of donors with the cumulative probability of being an aid recipient, our instrument takes into account the average characteristics of donors by recipient country and year. Third, to further explore the relationship between an aid shock and conflict, the paper looks at the *supply side* of aid-giving and at the politics of donor countries, as well as at the *demand side* by allowing for heterogeneity by state capacity of the aid recipient countries. *On the supply side*, the Chapter instrument the aid shock variable with a measure of the institutional foundations of donors' aid decisions (Ahmed 2016) and with donors' commitment to international development (2017). We find that a negative aid shock increases the number of one-sided conflict from the opposition and that an aid shock seems to be driven by donors' wealth instead of the politics of donors. *On the demand side*, as an additional contribution to the literature on state capacity and conflict (Besley and Persson 2010), we allow the effect of a positive and a negative aid shock on conflict to differ depending on the strength of state capacity and find that the marginal effect of a negative aid shock on one-sided conflict is larger in countries with weak state capacities.

Given that more than 131 billion USD aid flowed from the OECD Development Assistance Committee (DAC) to poor countries in 2015, the question of how aid affects the stability of the aid recipient countries is of great importance. The finding that a negative aid shock is *stirring the pot* warns the donor community to prevent aid from becoming a source of macroeconomic volatility, to deliver aid in a more predictable fashion, and to harmonise aid policies.

The rest of the paper is organised as follows. Section 2.2 reviews the literature and proposes a theoretical link between an aid shock and conflict. Section 2.3 describes the data and outlines the empirical model. Section 2.4 presents the key findings, while Section 2.5 explores heterogeneous effects. The paper concludes in Section 2.6.

CEU eTD Collection

2.2 *Literature, Theory and Stylized Facts*

The current literature reflects a consensus that some association exists between aid and conflict; there is, however, disagreement over the direction of that relationship.[5] There are many who voice concerns that foreign aid causes conflict (Crost, Felter, and Johnston 2014; Nunn and Qian 2014; Dube and Naidu 2015), while other work finds an insignificant or negative relationship between the two (De Ree and Nillesen 2009; Beath, Christia, and Enikolopov 2017). The bulk of existing empirical evidence is mixed in part due to differences in the strategies used to infer causality. There is a voluminous empirical literature which estimates the effect of aid on economic growth and exploits exogenous variations in donor governments' political and legal fractionalisation (Dreher and Langlotz 2017); recipients' temporary membership in the UN Security Council (Dreher, Eichenauer, and Gehring 2018); and oil price shocks and the fact that oil-rich donors tend to favour Muslim nations (Werker, Ahmed, and Cohen 2009).[6]

The aid – conflict literature tends to instrument the endogenous aid with donor country GDP (De Ree and Nillesen 2009), with an interaction term where the first term is the recipient country's likelihood of being an aid recipient and the second terms are U.S. wheat production (Nunn and Qian 2014), donors' legal or political fractionalisation (Bluhm et al. 2019), or the available International Development Association resources (Gehring, Lennart, and Wong. 2019).

The main assumptions, most of the aid – conflict papers rely on, are that aid recipient countries are highly dependent on the amount of foreign aid and thus particularly vulnerable to unexpected aid shocks. Figure 1 depicts the degree of aid dependency in the sample and shows that aid typically amounts to around 3-4% of recipients' GDP; however, there are important variations between countries. The degree of aid dependency might be significantly higher in some cases (e.g.: 40% in Mozambique in 2002), whilst massive changes in the degree of dependency are striking in other (e.g.: in the Democratic Republic of the Congo, this ratio was 3.4% in 2002 and 41.8% in 2003).

Within the scholarly literature, multiple causal processes connecting aid to conflict (onset and dynamics) have been advanced (see Appendix A). Notably, an unexpected and unpredictable aid shock restricts a government's room for financial manoeuvre and that probes *quasi voluntary compliance* (Levi 2006); that is compliance from the citizens motivated

[5]For a review, see Appendix A.

[6]Dreher, Sturm, and Vreeland (2009) find that members of the UN Security Council receive favourable treatment from the World Bank and from the International Monetary Fund.

CEU eTD Collection

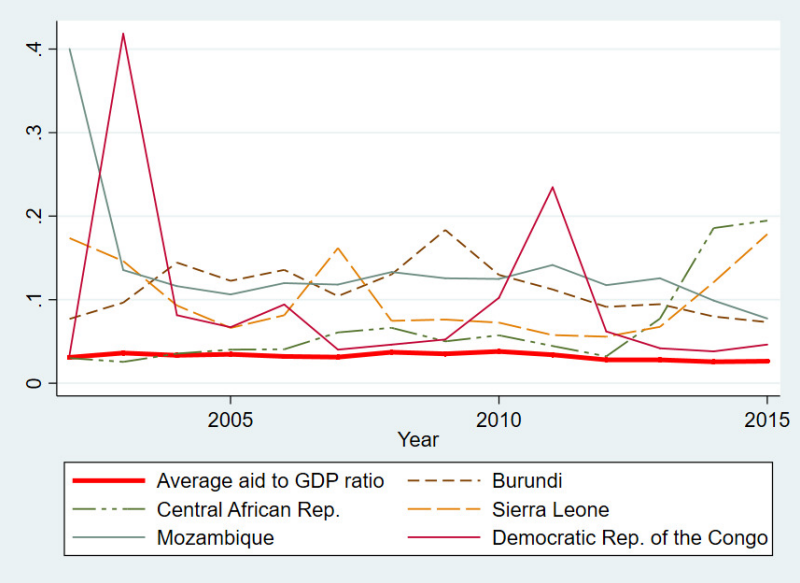

Figure 1: Aggregate Aid to GDP Ratio and Aid to GDP Ratio in Selected Countries between 2002 and 2015

by a willingness to cooperate but backed by coercion. The compliance requires that citizens receive something from government in return for the extractions the government takes from them (Levi 2006). If a government experiences an unexpected negative shock in aid revenue and proves incapable of extracting needed resources to produce collective goods, non- compliance, resistance, and conflict are far more likely.[7]

Following an unexpected negative aid shock, in countries with weak state capacity, governments' ability to maintain quasi-voluntary compliance is adversely affected as there are fewer available resources to be distributed, while the government is not able to make credible commitment for future compensation.

H1a.: Following a negative aid shock, countries equipped with weak state capacity experience more incidences of one-sided conflict from the opposition.

If state capacity is strong and if there is a severe negative aid shock, adversaries are able to make some commitments using social and political institutions that they have inherited from the past, or elements of the state that might have the independence and strength to partially guarantee future payments. The adverse effect of a negative aid shock on conflict can be mitigated if the government is able to appropriate and mobilize other portions of its revenue (Levi 2006).

[7]Literature on the effect of natural resource rents on conflict similarly shows that increases in resource rents reduce internal conflicts (2020).

CEU eTD Collection

H1b.: Following a negative aid shock, countries equipped with strong state capacity experience less incidences of one-sided conflict from the opposition.

Following a positive aid shock, a government with strong state capacities has institutionalized channels through which it can effectively use and mobilize additional, unexpected resources and spend more on public goods or on transfers to certain groups (e.g. minority groups). The stabilising effect of a positive foreign aid shock is theoretically plausible even in non-democratic countries, as aid provides leaders with additional revenue that can be used to appease the dissatisfied public and thereby prevent conflict (Morrison 2009).

H2a.: Following a positive aid shock, countries equipped with strong state capacity do not experience any incidences of conflict.

Theoretically, the effect of a positive aid shock in a country with weak state capacity can be linked to the *predation argument*, citing the prize of state control. However, this theory holds in the long-run when a positive aid shock is not transitory and when aid increases the long-term value of state capture more than it affects the short-term opportunity cost of fighting (Chassang and Miquel 2009). This paper, however, models the immediate, short-term effect of a positive aid shock.

H2b.: Following a positive aid shock, countries equipped with weak state capacity do not experience any incidences of conflict.

In the aftermath of a negative aid shock, opposition tactics is strategically chosen in response to the unexpected changes in the economic opportunities. Mesquita (2013) and Wright (2021) argue that while conventional tactics – such as riots – are most effective when rebels can field a large number of fighters, irregular tactics – such as terrorism or assassination – can be used effectively even by a small, resource-constrained group of extremists. Following a sudden aid shock, quick and widespread mobilisation is not expected as shocks in aid change opportunities at a moderate level and in the short-run, thus the best tactical choice available to opposition is irregular conflict.

H3: A negative aid shock changes opportunity at moderate level and initiates irregular tactics such as terrorism and assassination but not conventional tactics such as riots.

Appendix B details the mechanisms linking foreign aid shocks to conflict and addresses some potential concerns with the proposed hypotheses. To test whether aid is part of governments' revenue and whether aid is fungibility, we analyze the channel of aid delivery as well as the composition of aid and show that aid is typically the set of government resources. The remaining of the section explains the indirect role of the government

CEU eTD Collection

in determining how to use foreign aid and argues that shocks in a particular sector may translate into spending cuts that affect a larger proportion of the population.

2.3 *Descriptive Statistics: Definitions, Data and Identification*

Data for the empirical analysis is drawn from several different sources. The first source is the UCDP-PRIO dataset where two-sided conflict is defined as a contested incompatibility that concerns the government or a territory in which armed force between two parties, one of which is the government, and results in at least 25 battle-related deaths (BDs) per annum. The second source is the Cross-National Time-Series Data Archive (CNTS) which collects data for one-sided conflict. Government one-sided conflict is defined as any systematic elimination by jailing or execution of political opposition within the ranks of the regime or the opposition. One-sided conflict from the opposition takes the form of assassinations, riots and terrorism where assassination is defined as any politically motivated murder or attempted murder of a high government official; and riot is conceptualized as any violent demonstration or clash of more than 100 citizens involving the use of physical force. Using the Global Terrorism Database, terrorism in turn is defined as the threatened or actual use of force and conflict by a non-state actor to attain a political, economic, religious, or social goal through fear, coercion, or intimidation.

The conflict data is of course very skewed, given that some countries have many conflict events while others have very few (or zero): Figure 20 plots the distribution of conflict variables. To account for this, inverse hyperbolic sine (IHS) transformed variables are used in the regressions.[8]

The measure of foreign aid is based on the OECD DAC Official Development Assistance (ODA).[9] To define an aid shock, existing empirical works develop a dummy variable that equals unity if the deviation from some average is significant (see Nielsen et al. (2011) and Strange et al. (2017)). The literature calculates the average of changes in aid commitment to GDP over the previous two years and defines a shock if these changes (relative to changes in the sample) are lower or higher than a cut-off point. Changes in aid commitment alone, however, do not necessarily reflect an *unexpected* shortfall or abundance of the incoming aid. Variances in aid might be the consequence of some pre-agreed compromise and negotiation between donors and recipients. Knowing *ex ante* that aid is going to change might skew recipients' policymakers decision at present; some capital spending may not

[8] See figure 21.

[9] Appendix D and E list recipient and donor countries.

CEU eTD Collection

be started in the first place or recipients' governments may borrow in capital markets to completely smooth out a volatile pattern of aid disbursement. Additionally, disbursed aid volumes differ widely from commitments especially in the poorest and most aid dependent countries (Hudson 2013). In the sample, disbursement amounts also differ from the commitment data, one quarter of countries received at least 20% less aid, while the top one quarter experienced at least 15% more aid than committed (see Appendix G). While due to constraints of the data, Nielsen et al. (2011) rely on aid commitment, our sample period allows me to account not only for aid commitment, but also for aid disbursement.

I introduce a new way of operationalising an aid shock that complements and adds to the existing practice. The aid shock variable is a deviation from a rationally expected amount of aid. The construction of the rational expectation of the recipients' government comprises a backward-looking element that is a function of past aid disbursement practices (aid disbursed in $year_{t-1}$ and in $year_{t-2}$) and a forward-looking element that accounts for the amount of aid donors pledged to transfer for the given year (Gutting and Steinwand 2017). Reflecting the magnitude of aid flows relative to other resources at a government's disposal, and making the economic impact of aid shortfalls comparable across countries, aid flows are standardised by recipients' GDP.[10] Expected aid for country i at year t is defined as:

$$Expected_{i,t} = 1/3 * \left[\frac{Disbursement_{i,t-2}}{GDP_{i,t-2}} + \frac{Disbursement_{i,t-1}}{GDP_{i,t-1}} + \frac{Commitment_{i,t}}{GDP_{i,t}} \right] \quad (1)$$

Thus, an aid shock is defined as:

$$Shock_{i,t} = \left[\frac{\frac{Disbursement_{i,t}}{GDP_{i,t}} - Expected_{i,t}}{Expected_{i,t}} \right] \quad (2)$$

This deviation has to be large enough, therefore, as an additional robustness check, we account for the *magnitude* of a shock and follow the practice of the literature (Nielsen et al. 2011). We explain the results of this robustness check in the next section.

Using aid shock dummy has the advantage that it identifies shocks only if they are substantively important relative to a country's GDP; however, in the main specification, we use the deviation without the cut-off points for three reasons: (1) cut-off points are

[10] See figure in the Appendix H.

CEU eTD Collection

admittedly arbitrary; (2) dummy variables mask important variations in shocks and (3) two endogenous independent variables make it empirically challenging to account for endogeneity.

Finally, accommodative state capacity (from the Relative Political Capacity dataset) refers to the capacity of governments to obtain resources from their population and to promote effective and efficient resource allocation and policy choices.[11]

	Number of Obs	Mean	Standard Dev	Minimum	Maximum
Internal armed conflict	1512	0.19	0.49	0	4
Purges	1492	0.08	0.36	0	5
Assassination	1492	0.14	0.92	0	26
Terrorism	1512	20.25	82.48	0	891
Riots	1492	0.62	2.21	0	27
Aid disbursement	1512	427.49	614.26	0	11579. 58
Aid commitment	1512	469.62	660.08	0	11409.07
Aid to GDP	1494	0.032	0.05	0	0.59
Aid shock	1271	-0.04	0.35	-0.90	4.14

Note: The sample includes 108 recipient countries for the years between 2002 and 2015. The aid shock variable is shown for the years between 2004 and 2015. Aid disbursement and commitment are in million USD.

Table 1: Descriptive Statistics

Table 1 presents descriptive statistics for the main variables. From 2002 to 2015, 45 countries out of 108 experienced at least one internal armed conflict, 48 countries suffered from at least one purges from the government while 104 countries experienced some form of one-sided conflict from the opposition. On average, an aid recipient country experiences a 3.8% negative aid shock coming with a large variance of 34.72%.

The main difficulties in identifying the causal effect of aid shocks on conflict are the issues of reverse causality and omitted variables, both of which bias Ordinary Least Squares (OLS) estimates in directions that are ambiguous *ex ante*. To address this issue, the paper uses an instrumental variable approach and estimates the following equations:

$$y_{it} = \beta X_{it} + C'_{it}\gamma + \phi_t + \psi_i + \epsilon_{i,t} \tag{3}$$

[11]See Appendix I.

CEU eTD Collection

$$X_{it} = \alpha Z_{it} + C'_{it}\gamma + \phi_t + \psi_i + \nu_{it} \tag{4}$$

where Equation (3) is the second stage of the two-stage-least-square estimation and Equation (4) is the first stage. The number of conflict event is denoted by $y_{i,t}$, $C'_{i,t}$ is a vector of country-year covariates, $X_{i,t}$ is the endogenous aid shock variable, ϕ_t denotes year fixed effect, and ψ_i is the country fixed effect.

The instrument is constructed in the following way:

$$Z_{i,t} = \frac{\sum_{j=1}^{j_i} g_{j,i,t}}{N_{i,t}} \tag{5}$$

where i is recipient country, t denotes time (years); j_i is the total number of donors for country i; $g_{j,i,t}$ is the GNI per capita of the donor country j that disbursed any aid to a recipient i at year t; $N_{i,t}$ is the number of possible donor countries at time t in recipient i and $Z_{i,t}$ is the mean of the GNI of the donor countries at time t in recipient i.

To be a valid instrument, average of donors' GNI should satisfy both the relevance and the exclusion restrictions. The first requirement involves a sufficient correlation between an aid shock and donors' GNI. In 1970, developed countries agreed to increase their development assistance to the 0.7% ODA to GNI target which has been repeatedly re-endorsed at the highest levels. The correlation between the instrumental variable and the aid shock variable is -0.1166, significant at the 1% level. Figure 23 plots the instrumental variable (per capita GNI_{t-1} of particular donors in recipient country i at year t) for countries that experienced a negative aid shock, while Figure 24 shows the same correlations for observations with a positive aid shock. The further aid shocks fall from zero (thus the larger an aid shock is), the less the donors' GNI per capita was in year *t-1*. The figures imply that less (per capita) wealth of donor countries in year *t-1* drive the deviation from the expected amount of aid (in both directions) as donors have probably less capacity to jointly optimise aid allocation within a country. In addition to this, the broader scholarly evidence show that there is a strong correlation between donors wealth and the aid flows (2013).[12] Not only does the scholarly literature leads me to propose this connection, but several prominent anecdotes also bolster this view (e.g.: see a brief case study on the Democratic Republic of the Congo in Appendix L).

The second requirement, the exclusion restriction, relies on the assumption that donors' GNI is not directly related to the outcome variable nor any omitted variables. However,

[12]For a review see Appendix K.

CEU eTD Collection

to address some natural concerns over the validity of the instrument, the paper controls for a set of covariates in the baseline specification. The remainder of this section explains these covariates and why the exclusion restriction is likely to hold.

First, donors' GNI might affect conflict through the global business cycle or through trade relationships. To address this, the model controls for net Foreign Direct Investment inflow to recipient countries and for manufacturing exports as a percentage of merchandise exports, while it also includes year fixed effects.

A second concern is that donors' foreign intervention might affect both donors' GNI and the number of violent attacks in recipient countries. Given that OECD DAC donors played crucial role in the war in Iraq and in Afghanistan and that it is well-documented that these interventions have been extremely costly gobbling up aid budgets (Woods 2005), Afghanistan and Iraq are excluded from the sample.

Third, variation in donors' GNI can affect primary commodity prices, which may, in turn, affect conflict (Dube and Vargas 2013). To mitigate this concern, region-year fixed effects are included to control for the price of primary commodity that affects countries within a region similarly. To be cautious, Table 44 addresses the possibility that price change may have differential effects on countries with high reliance on primary commodities.

Finally, the presence of donors in a particular recipient country at a particular year might be endogenous. To address this concern, Appendix X tests the effect of future conflict on the current decision of a donor government to aid a recipient country. The estimation provides evidence that anticipation of future violence does not influence donors' presence in a country at a given year. Additionally, we include year fixed effects to control for some warning signs in year t associated with more conflict in year $t+1$ in recipient country i that are the same across donor countries. Of course, some donor countries might be more responsive to the warning signs of some recipients than others due to colonial past, historical allies or geographic proximity that are all controlled for with recipient country fixed effects.

To control for possible confounders, four broad control groups are used following the literature: human development indicators, governance characteristics and variables for horizontal inequatility and economic ties (see Appendix N and O).

To identify sources of exogenous variation, prominent papers testing the relationships between foreign aid and conflict (Nunn and Qian 2014) as well as the relationship between growth and bilateral aid (Dreher and Langlotz 2017) interact some characteristics of donors

CEU eTD Collection

with the cumulative probability of being an aid recipient. These papers make a convincing argument about the exclusion restrictions and account for the potentially endogenous variable. However, suppose that the sample period is 20 years, and recipient county X was aided by donor country Y in 15 years. These papers calculate a probability of being an aid recipient (15/20 =0.75) and multiply the donor characteristics by 0.75. Donor Y's characteristic is used to estimate aid with a 0.75 multiplier in those 5 years when donor country Y was not even present in recipient country X. The existing scholarly approach works with the assumption that recipient country X receives a positive amount of aid with 0.75 probability and gets no aid with a probability of 0.25 at a given year. However, this probability is not constant over time.[13] The instrument in Equation (5) precisely accounts for the presence of a donor country in a recipient at a given year and multiplies donors' characteristics with a value of 1 during those years when donors aided a recipient country and with the value of 0 for the remaining years.

In this particular context with a research period starting from 2002, the instrument comes with the necessary cross-sectional variations (see in Appendix W). The research period coincides with changes in the list of donor countries at OECD DAC, the Czech Republic, Iceland, Poland, the Slovak Republic and Slovenia joined the DAC organisation in 2013 within the Committee's opening up policy.[14]

2.4 Baseline Estimates

Panels A in Table 2 and Table 3 report the 2SLS estimates of Equation (3) where Table 2 shows estimation for international armed conflict and for one-sided conflict from the government and Table 3 presents results for one-sided conflict from the opposition. Columns 1 and 3 in Table 2 and 1, 3 and 5 in Table 3 show the estimated coefficients using a region specific time trend that is designed to control for changes over time that similarly affect countries within a region (such as the price of wheat commodity product or the dominance of an ideology). The rest of the columns in Tables 2 and 3 include year and country fixed effects as well as a large set of additional covariates. OLS estimates of the effect of aid on

[13] In the data of Bluhm et al. (2019), countries that received aid from a particular donor also received aid in the following year from the same donor with a probability of 91%. In contrast, if a country did not receive aid from a donor, then the probability of receiving aid from the same donor country in the following year is 9%.

[14] Some of the new members disbursed ODA years before joining the Committee, namely, Czech Republic (2011), Denmark (2003), Hungary (2014), Iceland (2011), Korea (2006), Poland (2013), Slovak Republic (2013), Slovenia (2010).

CEU eTD Collection

conflict (panels B) are biased downwards suggesting that donor governments reduce aid to countries engaged in conflict probably to maximise aid effectiveness (Nunn and Qian 2014). Panels C and D show the first-stage and the reduced-form estimations.

The main findings suggest that two types of one-sided conflict, assassination and terrorism have statistically significant and negative relationship with an aid shock. This implies that 10% percent negative aid shock – that is a 10% deviation from the expected amount of aid – leads to a 3.67 percent increase in assassination and to a 20 percent increase in the number of terrorist attacks.[15] In line with Mesquita (2013)'s model of rebel tactical choice, after an aid shock, conventional tactics (riots and international armed conflict) are relatively less attractive as opposition is unable to mobilize large proportion of the population, while irregular tactics (terrorism and assassination) are more attractive.

To provide additional evidence for the validity of the identification strategy, Appendices also provide alternative measures for aid shocks (M.2), present placebo tests (M.3) and control for primary commodity export (M.1). Additionally, following prominent papers that precisely account for different types of conflict events (e.g.: Brown and Corduneanu-Huci (2020)), Appendix Q tests whether an aid shock only triggers violent incidences or whether it also affects non-violent forms of conflict and finds that only violent activities are affected by aid shocks.

In Appendix F, we examine the sensitivity of the baseline estimates to the use of an aid shock variable as defined by Nielsen et al. (2011). This specification focuses only on very large aid shocks, therefore it comes as no surprise that the magnitude of the estimated parameters are larger than the results in Tables 2 and 3, however the sign and the significance of the coefficients remain the same.

We also replicate the existing instrumental variable approach and predict aid bilaterally from the best linear combination of an interacted instrument and then aggregate the bilateral predictions across all donors (Bluhm et al. 2019). Table 53 shows that the estimated coefficients are very similar to the results in Tables 2 and 3, however F statistics are always higher in the main specifications, thus accounting for the presence of a donor country strengthen the fit of the first stage.

[15]The inverse hyperbolic sine transformation is a log transformation, therefore marginal effects can be interpreted as percentage changes. See formally:

$$\tilde{z} = ln\left(z + \sqrt{z^2 + 1}\right) \approx ln(2z) = ln2 + ln(z) \tag{6}$$

CEU eTD Collection

	Internal armed conflict		Purges	
	(1)	(2)	(3)	(4)
	Incidences	Incidences	Incidences	Incidences
	Panel A. 2SLS			
Aid shock	-0.090	-0.045	-0.024	-0.069
	(0.149)	(0.138)	(0.111)	(0.127)
Accommodative Capacity	No	0.083	No	-0.003
	No	(0.052)	No	(0.050)
	Panel B. OLS			
Aid shock	-0.013	-0.031	-0.013	-0.015
	(0.019)	(0.020)	(0.020)	(0.019)
Accommodative capacity	No	0.083	No	0.000
	No	(0.054)	No	(0.053)
Observations	1,259	1,166	1,247	1,166
	Panel C. Reduced Form Estimates			
Donor GNI_{t-1}	0.0005	0.0002	0.0000	0.0001
	(0.0004)	(0.0003)	(0.0003)	(0.0003)
Observations	1,404	1,286	1,386	1,286
	Panel D. First Stage (Dep. var.: Aid shock)			
Donor GNI_{t-1}	-0.0029**	-0.0028**	-0.0029**	-0.0028**
	(0.0013)	(0.0012)	(0.0013)	(0.0012)
Cragg-Donald Wald F statistic	36.42	31.11	37.08	31.11
Kleibergen-Paap Wald rk F statistic	5.25	4.97	5.35	4.97
Observations	1,271	1,178	1,271	1,178
Human dev. indicators	No	Yes	No	Yes
Regime characteristics	No	Yes	No	Yes
Horizontal Inequality	No	Yes	No	Yes
Economic ties	No	Yes	No	Yes
Year FE	No	Yes	No	Yes
Country FE	Yes	Yes	Yes	Yes
Region specific time trend	Yes	No	Yes	No

Note: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Inverse hyperbolic sine transformed dependent variables are presented. The controls included are indicated by yes or no. Coefficients are reported with robust standard errors clustered at the country level in parentheses. In Panel C and D, the point estimates and standard errors are multiplied by 100 for presentation purposes.

Table 2: The Effect of an Aid Shock on Two-sided and One-sided Conflict

CEU eTD Collection

	Assassinations		Riots		Terror	
	Incidences	Incidences	Incidences	Incidences	Incidences	Incidences
	Panel A. 2SLS					
Aid shock	-0.410***	-0.367**	0.186	0.195	-2.223**	-2.081**
	(0.155)	(0.180)	(0.288)	(0.339)	(0.900)	(0.937)
Accommodative Capacity	No	-0.069	No	0.045	No	-0.037
	No	(0.070)	No	(0.120)	No	(0.286)
	Panel B. OLS					
Aid shock	-0.002	-0.014	0.072	0.091*	-0.162	-0.163
	(0.023)	(0.027)	(0.049)	(0.048)	(0.107)	(0.102)
Accommodative capacity	No	-0.051	No	0.040	No	0.059
	No	(0.072)	No	(0.125)	No	(0.246)
Observations	1,247	1,166	1,247	1,166	1,259	1,166
	Panel C. Reduced Form Estimates					
Donor GNI_{t-1}	0.0011**	0.0010**	-0.0001	-0.0002	0.0059**	0.0057***
	(0.0005)	(0.0005)	(0.0007)	(0.0008)	(0.0026)	(0.0018)
Observations	1,386	1,286	1,386	1,286	1,404	1,286
	Panel D. First Stage (Dep. var.: Aid shock)					
Donor GNI_{t-1}	-0.0029**	-0.0028**	-0.0029**	-0.0028**	-0.0029**	-0.0028**
	(0.0013)	(0.0012)	(0.0013)	(0.0012)	(0.0013)	(0.0012)
Cragg-Donald Wald F statistic	37.08	31.11	37.08	31.11	36.42	31.11
Kleibergen-Paap Wald F stat.	5.35	4.97	5.35	4.97	5.25	4.97
Observations	1,271	1,178	1,271	1,178	1,271	1,178
Human dev. indicators	No	Yes	No	Yes	No	Yes
Regime characteristics	No	Yes	No	Yes	No	Yes
Horizontal inequality	No	Yes	No	Yes	No	Yes
Economic ties	No	Yes	No	Yes	No	Yes
Year FE	No	Yes	No	Yes	No	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Region specific time trend	Yes	No	Yes	No	Yes	No

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Inverse hyperbolic sine transformed dependent variables are presented. The controls included are indicated by yes or no. Coefficients are reported with robust standard errors clustered at the country level in parentheses. In Panel C and D, the point estimates and standard errors are multiplied by 100 for presentation purposes.

Table 3: The Effect of an Aid Shock on Two-sided Conflict from the Opposition

CEU eTD Collection

2.5 *Exploring the Relationship between an Aid Shock and Conflict*

2.5.1 *The Demand Side: Different State Capacities*

The occurrence of conflict after an aid shock depends to a great extent on the strength of a recipient's state capacity. To test for the heterogeneous relationship, we estimate Equation (3) for weak *versus* strong state capacity countries as divided by the median value of state capacity.

The main findings in Table 4, Panel B show that the effect of an aid shock on assassination and terrorism is statistically significant and larger (compared to the main results) in countries with weak state capacity; a 10% percent negative aid shock leads to a 3.6 percent increase in assassination and to a 23 percent increase in the number of terrorist attacks. This effect is not significant in states with strong capacities suggesting that a relatively strong state is able to effectively handle an unexpected aid shock (Panel A).

Additionally, Appendix U estimates the effect of a positive *versus* a negative aid shock in weak *versus* strong states. The findings support the results of the sub-sample regression, while further show that the marginal effect of a negative aid shock on assassination and on terrorism is positive in countries with weak state capacities, but close to zero or even negative in countries with strong state capacities.

Besides accommodative state capacity measure, Appendix T looks at another aspect of state capacity, the government's expenditure as an indicator of the economic capacity (Fjelde and De Soysa 2009). The results show that aid shock and the national government expenditure variables are jointly significant at 10% level for all types of conflict except for purges. The negative coefficients on the interaction terms and on the expenditure data in Table 51 suggest that after a negative aid shock, more government spending has a conflict-reducing effect (buying-out hypothesis), while after a positive aid shock, the conflict-reducing effect of government expenditure is even larger.

2.5.2 *The Supply Side: The Politics of Aid Giving*

Besides the wealth of donor countries, the institutional foundations of donors' aid decisions, as well as donors' quality and their commitment to international development determine their aid allocation practice. This section adds two more instruments to the existing one to account more precisely for the heterogeneous nature of the donor community using the following equations:

CEU eTD Collection

	Two-sided and Gov't One-sided		Opposition One-sided conflict		
	(1)	(2)	(3)	(4)	(5)
	Internal armed	Purges	Assassinations	Riots	Terrorism
	Panel A. Strong states				
Aid shock	0.273	-0.028	-0.338	-0.117	-2.429
	(0.264)	(0.167)	(0.441)	(0.452)	(1.692)
Observations	614	614	614	614	614
	Panel B. Weak states				
Aid shock	-0.234	0.042	-0.360**	0.348	-2.256**
	(0.212)	(0.171)	(0.168)	(0.629)	(0.996)
Observations	564	564	564	564	564

Note: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Inverse hyperbolic sine transformed dependent variables are presented. All controls are included as well as year and country fixed effects. Coefficients are reported with robust standard errors clustered at the country level in parentheses.

Table 4: The Effect of an Aid Shock on Internal Armed Conflict, Purges, Assassination, Riots and Terrorism in Countries with Strong versus Weak State Capacities – A Subsample Regression

$$y_{it} = \beta X_{it} + C'_{it}\gamma + \phi_t + \psi_i + \epsilon_{i,t} \tag{7}$$

$$X_{it} = \alpha Z_{1_{it}} + \delta Z_{2_{it}} + C'_{it}\gamma + \phi_t + \psi_i + \nu_{it} \tag{8}$$

where Equation (7) is the second stage of the 2SLS estimation and Equation (8) is the first stage. The number of violent attacks is denoted by $y_{i,t}$, $C'_{i,t}$ is a vector of country-year covariates, $X_{i,t}$ is the endogenous aid shock variable, ϕ_t denotes time fixed effect, and ψ_i is the country-fixed effect.

The instruments are constructed in the following way:

$$Z_{1_{it}} = \frac{\sum_{j=1}^{j_i} g_{j,i,t}}{N_{i,t}}; Z_{2_{it}} = \frac{\sum_{j=1}^{j_i} h_{j,i,t}}{N_{i,t}} \tag{9}$$

where i is recipient country, t denotes year; j_i is the total number of donors for country i; $N_{i,t}$ is the number of possible donor countries at time t in recipient i and $g_{j,i,t}$ is the GNI

CEU eTD Collection

of the donor country that disbursed any foreign aid in the recipient country i at year t. At the same time, $h_{j,i,t}$ accounts for the politics of a donor country if that donor disbursed any aid to a given recipient i at year t.

First, $h_{j,i,t}$ is the legislative and political fragmentation of a donor country.[16] The literature has found that government or legislative fractionalisation positively affects government expenditures, whilst higher government expenditures also imply higher aid budgets, which in turn might be translated into higher aid disbursements (Dreher and Langlotz 2017).

Table 5 confirms that the sign, the magnitude and the significance of an aid shock are robust through these specifications both on assassination and terrorism, and adding another set of instruments does not strengthen the fit of the first stage.

	Internal armed	Purges	Assassi-nations	Riots	Terrorism
	(1)	(2)	(3)	(4)	(5)
	Panel A Donors' GNI and Political Fractionalisation				
Aid shock	-0.111	0.080	-0.429**	0.522	-1.460*
	(0.172)	(0.126)	(0.170)	(0.427)	(0.762)
Observations	1,170	1,170	1,170	1,170	1,170
	First Stage				
Cragg-Donald Wald F statistic	17.82	17.82	17.82	17.82	17.82
Kleibergen-Paap Wald rk F statistic	3.88	3.88	3.88	3.88	3.88
	Panel B Donors' GNI and Legal Fractionalisation				
Aid shock	-0.129	0.049	-0.443**	0.260	-2.139**
	(0.170)	(0.117)	(0.182)	(0.351)	(0.893)
	First Stage				
Cragg-Donald Wald F statistic	15.93	15.93	15.93	15.93	15.93
Kleibergen-Paap Wald rk F statistic	3.04	3.04	3.04	3.04	3.04

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Inverse hyperbolic sine transformed dependent variables are presented. Coefficients are reported with robust standard errors clustered at the country level in parentheses. All control variables, year and country fixed effects are included.

Table 5: The Effect of an Aid Shock on Conflict in Aid Recipient Countries: Using Donors' GNI and Political and Legal Fractionalisation as Instruments

Second, $h_{j,i,t}$ accounts for donors' commitment to international development (Mi-

[16] Definition is provided in Appendix P.

CEU eTD Collection

nasyan, Nunnenkamp, and Richert 2017). We use two additional instruments along with donors' GNI; the first one is constructed from the Commitment to Development Index (CDI), whilst the second accounts for the quality of aid.[17]

Table 6 presents the estimations using donors' GNI and the CDI data as instruments (Panel A), and the quality of aid measure (Panel B).[18] The results imply that a negative aid shock increases both the number of assassinations and terrorism, nonetheless, the F statistics again show that adding variables on the politics of donors as instruments do not strengthen the first stage relations.

	Internal armed	Purges	Assassi-nations	Riots	Terrorism
	(1)	(2)	(3)	(4)	(5)
	Panel A. Donors's GNI and CDI				
Aid shock	–0.048	-0.071	-0.334**	0.197	-2.158**
	(0.138)	(0.124)	(0.164)	(0.337)	(0.939)
Observations	1,189	1,189	1,189	1,189	1,189
	First Stage				
Cragg-Donald Wald F statistic	16.07	16.07	16.07	16.07	16.07
Kleibergen-Paap Wald rk F statistic	2.63	2.63	2.63	2.63	2.63
	Panel B. Donors's GNI and Aid Quality				
Aid shock	-0.038	-0.046	-0.325**	0.231	-1.967**
	(0.140)	(0.119)	(0.156)	(0.337)	(0.855)
Observations	1,189	1,189	1,189	1,189	1,189
	First Stage				
Cragg-Donald Wald F statistic	16.58	16.58	16.58	16.58	16.58
Kleibergen-Paap Wald rk F statistic	2.74	2.74	2.74	2.74	2.74

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Inverse hyperbolic sine transformed dependent variables are presented. Coefficients are reported with robust standard errors clustered at the country level in parentheses. All control variables, year and country fixed effects are included.

Table 6: The Effect of an Aid Shock on Conflict in Aid Recipient Countries: Using Donors' GNI; Commitment to International Development and Aid Quality as Instruments

[17]Definition is provided in Appendix P.

[18]Iceland and Slovenia are not recorded in the CDI index.

CEU eTD Collection

2.6 Conclusion

Woods (2005) warns us that major donors are failing to coordinate aid through and choosing instead to create their own new mechanisms and pursue their own priorities. This tendency creates aid chaos in many of the poorest recipient countries. The aim of this study was to resolve part of the debate over how shocks in aid disbursement affect two-sided conflict (internal armed conflict); one-sided conflict from the government (purges) and one-sided conflict from the opposition (assassinations, riots and terrorism). This paper constructed a new instrument to handle endogeneity issues using the average of GNI of donors who were present in a particular country at a given year. We provide evidence that the use of irregular tactics (such as assassination and terrorism) is highest after a negative aid shock and this is especially strong in countries equipped with weak state capacities.

This paper draws important lessons regarding the debate that the donor community should plan its aid policy in order to avoid large oscillations in foreign aid disbursement. The principle of donor harmonisation has been repeatedly endorsed at high level meetings, such as the Nairobi High-Level Meeting (2016) or the Paris Declaration on Aid Effectiveness (2005) among others, where donors unanimously agreed on the importance of improving harmonisation by providers of development cooperation. Yet, many in the donor community are frustrated by a noticeable lack of coherence in the treatment of low-income country problems. Solving this will require greater recognition by donors of the cost of macroeconomic instability and commitment to make reduced volatility in aid an explicit goal for development assistance. For their part, recipient countries need to commit to less erratic policy implementation, which could go a long way toward more stable aid disbursements.

CEU eTD Collection

3 *Political Economy of Targeted Transfers and Voting Behavior*

3.1 Introduction

This Chapter analyzes the effect of a large targeted government spending program on support for the government in Hungary.[19] The program targets rural settlements with two sub-programs: the first, the *Rural Family Housing Allowance Program* (Rural CSOK) provides housing subsidies for individuals from eligible settlements; while the second, the *Hungarian Village Program* (HVP) financially rewards eligible settlements. We exploit the quasi-random assignment of program eligibility in order to identify the electoral effect of receiving transfers. This Chapter aims at advancing our understanding of whether politicians are rewarded by voters for distributive allocations (*demand side*) and at uncovering how the government designs its targeted spending programs (*supply side*).

Are voters willing to exchange their vote for material benefits? Are citizens' decision to vote or abstain affected by the distributive goods (*demand side*)? First, the general connection between proffering material goods and electoral support has been the object of theoretical and empirical investigation in recent years, but the findings are still debated (Chen 2013; Manacorda, Miguel, and Vigorito 2011; Pop-Eleches and Pop-Eleches 2012; Manacorda, Miguel, and Vigorito 2011). Since early work of Kramer (1971), Nordhaus (1975), Fair (1978), and Fiorina (1981), many scholars have documented voters' responsiveness to economic conditions as well as to their own financial circumstances. Second, scholars have long argued that distributive benefits increase voter turnout among their beneficiaries (Chen 2013; Campbell 2012; Mettler and Stonecash 2008; Matsubayashi and Wu 2012; Campbell 2002). Indeed, many provides evidence that the delivery of distributive benefits motivates recipients to protect their stake in these spending programs by participating in politics through voting (Chen 2013). Yet, existing empirical work faces obvious econometric concerns, as it typically relies on aggregate data with few observations and, most importantly, rarely exploits an exogenous source of policy variation.

How do politicians and their intermediaries target voters to maximize votes (*supply side*)? Do they support loyal partisan supporters or swing voters or do they target a particular subgroup of the society? A vast body of research provides evidence that targeted spending is often distributed along partisan lines (Jensenius and Chhibber 2023; Brollo and Nannicini 2012; Berry, Burden, and Howell 2010). Previous work has focused on the strategies by which parties offer material handouts to maximize their electoral

[19] This Chapter is co-authored with Ádám Reiff.

CEU eTD Collection

returns (Gans-Morse, Mazzuca, and Nichter 2014; Stokes et al. 2013; Hill 2017). At the heart of this literature lies the debate on whether politicians use handouts to mobilize supporters or persuade swing voters. Many have shown that targeting political "core supporters" is more effective, implying that parties are making tactical decisions about precisely targeting groups that will respond most to transfers (Robinson and Verdier 2013; Finan and Schechter 2012; Frye, Reuter, and Szakonyi 2014). Others, however, argue that since politicians can count on the support of their core voters, then the obvious vote-maximizing strategy is to target swing voters (Lindbeck and Weibull 1987; Dahlberg and Johansson 2002). Empirically testing the targeting strategy of the government is challenging due to omitted variables and reverse causality. For instance, if targeting political "core supporters" is more effective, a positive correlation between transfer receipt and political support does not imply causality, since parties are making tactical decisions about precisely which groups will respond most to transfers (Manacorda, Miguel, and Vigorito 2011).

Just as important, little is known about the mechanisms that underpin the exchange of votes for transfers between voters and politicians, especially since the secrecy of the ballot makes vote-swaying through targeted government transfers difficult to enforce. One widely documented mechanism is that targeted government spending succeeds in getting voters to the polls and in increasing the turnout rate (Larreguy, Marshall, and Querubin 2016; De La O 2013). Others argue that the effect is mediated by how successfully politicians claim credit for their programs (e.g.: a salience mechanism whereby spending and associated "funded-by" signage affect political preferences (Huet-Vaughn 2019)).[20] Finally, some argue that these transfers might have a political multiplier effect whereby stimulus spending improves local economic outcomes, generating incumbent votes (Huet-Vaughn 2019).

The literature also tests the effect of targeted spending of many kinds. Papers estimating the effect of targeted spending to *individuals* focus on cash transfer programs typically in developing countries (De La O 2013; Zucco Jr 2013; Manacorda, Miguel, and Vigorito 2011; Conover et al. 2020) (with a notable exception by Pop-Eleches and Pop-Eleches (2012) examining the Romanian cash transfer program)[21]; others focus on the effect of

[20]Voters often have difficulty distinguishing between levels of government, and they do not accurately identify the government as the source of grants, which creates the risk of "credit hijacking" (Bueno 2018).

[21]Manacorda, Miguel, and Vigorito (2011) measure the extent of voters' responsiveness to targeted public transfers of a large temporary anti-poverty program in Uruguay. Using the discontinuity in program assignment based on a pretreatment eligibility score, the authors find that beneficiary households are 11 to 13 percentage points more likely to favor the current government relative to the previous government.

CEU eTD Collection

large public-works programs (Zimmermann 2021)[22]; and on nutrition packages and health transfers (Conover et al. 2020). Another branch of the literature looks at the electoral effect of spending targeting *settlements or municipalities*, such as road and infrastructure projects (Huet-Vaughn 2019; Drazen and Eslava 2010)[23]; local schools and health clinics (Linos 2013); agricultural assistance (Anzia, Jares, and Malhotra 2022) and various social policies (Sances and Clinton 2021; Campbell 2012). Studying Honduran government programs, Linos (2013) finds that conditional cash transfers positively affect incumbent mayor votes while public goods expenditures do not suggesting that traditional pocketbook voting considerations are perhaps more pronounced when transfers are more direct. Drazen and Eslava (2010) argue that voters value some types of spending more than others and therefore a politician seeking reelection might shift the composition of spending towards the goods voters prefer and thereby signaling that his preferences are close to those of voters.

To contribute to our understanding of voters' decision making and of government policy design strategies, we analyze the effect of two targeted policies on the electoral support for Hungary's ruling party, the right-wing Fidesz.[24] The first distributive policy is the Hungarian Village Program that aims at improving the quality of life in small settlements with less than 5,000 inhabitants by financially supporting kindergartens, schools, doctor's offices, playgrounds, and public spaces. The absence of public criteria of distribution and the failure of official criteria to bite when it came to deciding who would benefit make the Hungarian Village Program a *pork-barrel politics*. While HVP targets collectivities – small

[22]Zimmermann (2021) estimates the effect of a public-works program, the India's National Rural Employment Guarantee Scheme that legally guarantees each rural household up to 100 days of manual public-sector work per year at the minimum wage. By the time of the general election, some districts had access to the program for two full agricultural off-seasons; some district used the program during one agricultural off-season, while other district had no access to the program. The author shows that votes for the government in districts with the program during two seasons are substantially lower than in district implementing the program during one season. The main results are consistent with a loss of salience explanation or with voters holding the government accountable for low implementation quality. They do not support other mechanisms such as reciprocity or a rise in program awareness over time.

[23]Huet-Vaughn (2019) estimates the impact of the American Recovery and Reinvestment Act road projects in New Jersey on voting behavior. By exploiting a difference-in-differences design making use of the onset of the road project and geographic variation in proximity to the projects, the paper finds an approximate 1.5 percentage point increase in Democratic Party presidential vote share in areas close to highway and bridge expenditures.

[24]Fidesz (Alliance of Young Democrats) was founded in 1988 as a liberal youth party opposing the ruling communist government. Fidesz has come to dominate Hungarian politics at the national and local level since its landslide victory in the 2010 national elections with the Christian Democratic People's Party (KDNP), securing enough seats to achieve a two-thirds majority in the National Assembly in 2010, in 2014, in 2018 and again in 2022. In this dissertation, Fidesz always refers to the Fidesz–KDNP alliance.

CEU eTD Collection

settlements with less than 5,000 residents – it does not punish individuals who defect and vote for a different party. The second policy is the *Rural Family Housing Allowance Program* (Rural CSOK) that offers a state subsidy for the construction or purchase of dwellings for young families with children living in eligible small settlements with less than 5,000 residents and with decreasing population size. Rural CSOK is a *programmatic distributive strategy*, as the criteria of distribution are public and these public, formal criteria of distribution shape the distribution of the resources in question. Both policies – directly and indirectly – offer substantial benefits to potential voters: while HVP treated settlements received approximately 45,555 HUF per capita (roughly half of the minimum wage), on average, Rural CSOK amounted to 15,500 HUF per capita (roughly 15% of the minimum wage) in eligible settlements.

In this Chapter, we rely on settlement-level administrative data that is in many ways superior to data used in existing research. By exploiting settlement-level administrative subsidies and party preferences, our data provides us an extremely low level of aggregation (the median settlement in our dataset has less than 620 eligible voters), while the data is measured without sampling error or survey respondents' bias – problems that typically plague highly disaggregated data sets. We merge settlement-level subsidy data with official election returns at the same level of aggregation.

We exploit a difference-in-differences design by making use of the exogenous variation in eligibility for subsidies. Our empirical strategy looks at changes in incumbents' vote share as well as in turnout rate in eligible settlements relative to non-eligible settlements before and after the implementation of the policies. The policies started in July 2019 and targeted rural settlements and families that allows us to compare the average change in Fidesz vote share and in turnout rate among eligible and non-eligible settlements from before the intervention to after the intervention. We use five elections data from before the policies with the latest recorded just a few month before the launch of the programs (May 2019), while we rely on election results coming from shorty after the implementation of the policies (October 2019). This short time span allows us to assume that changes in party preferences were driven by the two policies and rules out the concern that people moved to eligible settlements.

Our main findings suggest that policy eligibility *per se* drive up support for the government; Fidesz vote share increases by 4.3 percentage points in policy eligible settlements (Rural CSOK and HVP eligible settlements) relative to Fidesz vote share in non-eligible settlements. Additionally, we provide empirical evidence that the policies increased the

CEU eTD Collection

turnout rate in eligible settlements; the policies mobilized 5.5 percentage points more voters in eligible settlements as compared to non-eligible units. Beyond estimating the impact of program eligibility on voters' political support, the policy design allows us to test how voters respond to material handouts targeting individuals as well as the local milieu a citizen is living in. We find that voters are more responsive to sociotropic considerations, thus to HVP transfers.

Second, while for Rural CSOK, incumbents have little or no discretion in delivering benefits because citizens receive this transfer on the basis of well-known, publicly stated rules, the targeting strategy of the HVP subsidies remains unclear. We show that eligible but treated *versus* non-treated settlements are plausibly random in case of Rural CSOK (there is no sign of program discontinuation or endogenous program enrollment), but we find that the likelihood of receiving funds from HVP is larger in settlements with core Fidesz voters and in settlements with low turnout rate. This suggests that the electoral bonus generated by HVP transfers may be best explained by targeting core voters and by mobilizing rather than swinging voters.

Evidence on how Fidesz–KDNP has come to dominate Hungarian politics at the national and local level since its landslide victory in 2010 has been growing. Numerous studies consider the roles that media consolidation, gerrymandering, court-packing, campaign finance restrictions, economic crises and the reduction of local capacity for institutional resilience have played in Hungary's democratic decline since 2010 (Jakli and Stenberg 2021; Greskovits 2015; Enyedi 2020). None, however, have considered the electoral effects of targeted spending programs for rural areas that not only proffer money to rural families and settlements but also comes as part of a grand mission to support Hungarian families and to re-traditionalize Hungarian society – a value near and dear to the hart of many in Hungary. Viktor Orbán is currently in his fifth term as prime minister, having previously served from 1998 to 2002 and from 2010 to 2026. The increasingly far-right Fidesz-KDNP coalition offers a unique opportunity to understand how major political maneuvers help consolidate power and how voters respond to targeting policies.

Admittedly, this qualitative single-country study is vulnerable to the criticism of the lack of external validity. However, it would be impossible to align concepts of subsidies and electoral support across countries. For instance, subsidies to buy new homes and to start families cannot be interpreted as indicators of the same underlying concepts in different contexts at different times. Additionally, (Pepinsky 2019, p.193) points out that while country-case studies have implications for the generalizability of their findings, they,

CEU eTD Collection

nonetheless, come with the following advantages: *"proper measurement of key variables, appropriate concepts, and contextually sensitive understanding of causal processes"*.

The paper proceeds as follows. Section 3.2 offers a brief policy background, while Section 3.3 explains the Hungarian election system. Section 3.4 describes the data and definitions used and outlines the empirical model as well as the identification strategy. Section 3.5 presents the key findings on the demand side. Section 3.6 demonstrates the targeting strategy of the government. A brief conclusion in Section 3.7 summarizes the key findings and discusses the contributions of this study.

3.2 Policy Background

Rural Family Housing Allowance Program

The *Rural Family Housing Allowance Program* or Rural CSOK (the abbreviation of the program's Hungarian name) was introduced on the 1st of July 2019 as part of two policies: the Family Housing Allowance Program; and the Hungarian Village Program.[25] Individuals living in settlements with population less than 5,000 and with declining population are eligible for Rural CSOK.[26] The list of 2,486 eligible settlements was revealed by the government in mid-2019.

The general goal of the program is to support families with children and to reverse a demographic decline that is an especially pressing concern in small, rural settlements. In particular, to support married couples with children living in rural areas, the program has two core components: it offers 1) a non-refundable state subsidy for the purchase, renovation or enlargement of a house/flat; 2) and a capped-interest loan supplementing the subsidy.[27] The program is an extension of the existing Family Housing Allowance Program (or CSOK).[28] The CSOK program – subsidy for buying new and used houses and flats – differs from Rural CSOK in two important ways. First, while CSOK can only be used for purchase of new and used houses and flats, and not for modernization, renovation or enlargement, Rural CSOK subsidy is designed for modernization, renovation or

[25]Rural CSOK was (first) regulated in Government Decree 109/2019. (V. 13.) as an amendment of the Government Decree 17/2016. (II. 10.) and Government Decree 46/2019. (III. 12.). The Government Decrees are available in the Hungarian Gazette (Magyar Közlöny).

[26]More precisely, municipalities sustaining population losses between 2003 and 2018 are eligible.

[27]The capped-interest loan was optional for Rural CSOK applicants.

[28]CSOK was introduced on the 1st of July 2015 and has been repeatedly re-endorsed and enlarged since then. The main conditions and criteria have been amended in several steps, and the subsidy amounts have been increased significantly.

CEU eTD Collection

enlargement of newly purchased old houses (at most 50% of the subsidy can be spent on renovation). Second, in eligible small rural settlements, the Rural CSOK subsidy can also be used for modernizing, renovating or enlarging already owned houses or flats, while CSOK cannot be used for these purposes. Figure 2 reveals that before the introduction of Rural CSOK, the amount of per capita CSOK was systematically lower in "treated" (Rural CSOK eligible) settlements suggesting that individuals from more prosperous settlements applied and received funds for purchasing newly built or used houses. The introduction of Rural CSOK, however, had immediate and striking effect in eligible settlements: the amount of per capita CSOK and Rural CSOK received doubled in 2019 compared to previous years, and as a result, the amount of received funds in treated settlements exceeded the amount of funds received in control settlements for the first time. This suggests that individuals from small settlements might not have enough resources to buy new dwellings, but they rather buy and renovate used houses or renovate their own homes.

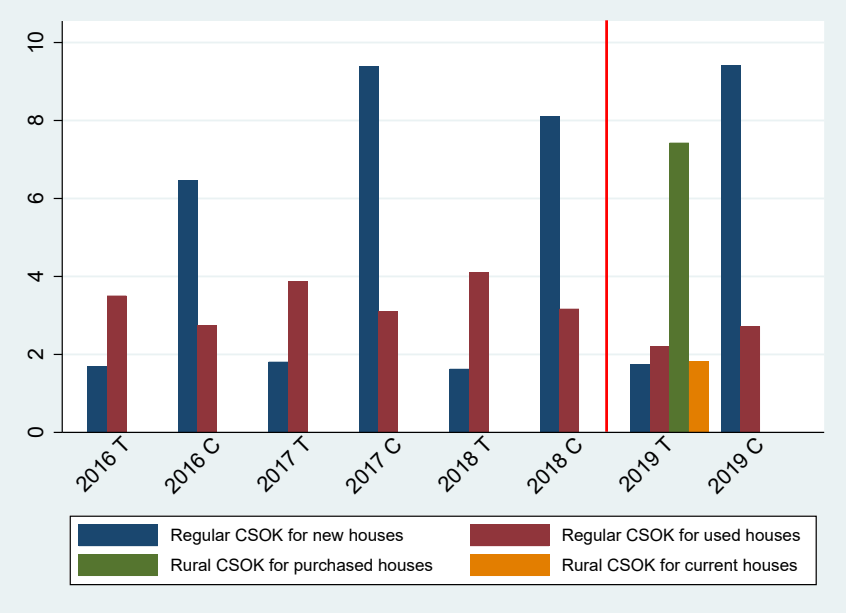

Figure 2: Total Per Capita CSOK and Per Capita Rural CSOK Disbursement by Year and Settlements, in Rural-CSOK-Eligible (Treated (T)) and non-Eligible (Control (C)) Settlements (1,000 Hungarian Forints)

Note: Data are from the Hungarian State Treasury. T (treated group) refers to Rural CSOK eligible settlements, C (control group) stands for non-eligible settlements. Means are population weighted. The sample includes settlement with less than 10,000 population to make the comparison of treated and control group meaningful (large settlement are excluded).

Similar to CSOK, Rural CSOK can also be supplemented with a capped-interest loan,

CEU eTD Collection

that is besides the state subsidy, beneficiaries could also apply for a loan under preferential conditions. Contrary to CSOK, Rural CSOK is designed to support families to renovate, modernise or enlarge their newly purchased house or their current house (Appendix AA discusses the main element of CSOK and compares the two policies).

Rural CSOK is a *programmatic distributive strategy*, as the criteria of distribution is public and these public, formal criteria of distribution shape the distribution of the resources in question. The criterion for who will benefit from Rural CSOK programs is based on whether an individual occupies the given class of beneficiaries: married couples with children who live in small, rural settlements. Programmatic distributive strategies have a public good quality implying that within a class of beneficiaries, particular people who qualify cannot be excluded. At the same time, the decision and the evaluation of Rural CSOK applications fall under the territory of commercial banks, therefore, the decision is objective. The main elements and criterion for the distribution of Rural CSOK are summarised in Table 7.[29]

In October 2019, two days before the local elections, the government revealed some basic statistics on Rural CSOK applications. Between July and October 2019, 1,500 applicants requesting all together HUF 8 billion were approved by the commercial banks and HUF 1.8 billion was already transferred to the beneficiaries. 72% of the applications were submitted by families with three or more children for buying and then renovating houses. On average, these families received a HUF 9.4 million subsidy.[30]

Amount of subsidies for buying and then modernising/renovating/enlarging pre-owned houses:

- Married couples with one child or those who undertake to raise one child: non-refundable allowance of HUF 600 000 (USD 2,000);

[29]The amount of the subsidy varies between HUF 600,000 (USD 2,000) and HUF 10 million (USD 34,000) depending on the type of house and the number of children. The program gives a maximum benefit to married couples with three or more children, equivalent to a USD 34,000 grant to buy a new home, and a major value-added tax deduction for each home, and a capped-interest loan for part of the home value. These interest and tax benefits are worth around another USD 15,000 to USD 50,000 per family, depending on the house they buy and their likely loan terms. In other words, for a married couple buying a new house with at least three children, the value of their total payout could run anywhere from USD 50,000 to USD 80,000. Meanwhile, for a couple with two children, the payout could be from around USD 18,000 to USD 34,000. Given that the average salary in Hungary is around USD 11,000 to USD 15,000 per year, an equivalently-impactful subsidy for Americans with two children, based on the higher incomes, would need to amount to somewhere between USD 40,000 and USD 55,000.

[30]See https://2015-2019.kormany.hu/hu/miniszterelnokseg/hirek/csaknem-8-milliardos-tamogatasi-igeny-erkezett-a-falusi-csokra.

CEU eTD Collection

Children	Type	Buying and modernising houses	Modernising own houses
1	Subsidy	HUF 600,000	HUF 300,000
2	Subsidy	HUF 2,600,000	HUF 1,300,000
	Mortage loan	HUF 10,000,000	HUF 5,000,000
3+	Subsidy	HUF 10,000,000	HUF 5,000,000
	Mortage loan	HUF 15,000,000	HUF 7,500,000

Note: The house/flat must be 1) at least 40 m^2 with one children; 2) at least 50 m^2 with two children; 3) at least 60 m^2 with three children; and 4) at least 70 m^2 with four or more children.

Table 7: The Rural Family Housing Allowance Program (Rural CSOK) for Pre-owned Houses

- Married couples with two children or those who undertake to raise two children: non-refundable allowance of HUF 2.6 million (USD 8,900);
- Married couples with three children or those who undertake to raise three children: non-refundable allowance of HUF 10 million (USD 34,000).

Amount of subsidies for modernising/renovating/enlarging owned houses:

- Married couples with one child or those who undertake to raise one child: non-refundable allowance of HUF 300 000 (USD 1,000);
- Married couples with two children or those who undertake to raise two children: non-refundable allowance of HUF 1.3 million (USD 4,450);
- Married couples with three children or those who undertake to raise three children: non-refundable allowance of HUF 5 million (USD 17,000).

Similar to CSOK, Rural CSOK also grants a capped-interest loan (mortage loan at a 3% interest rate) for those who are eligible and apply for rural CSOK subsidies and have (or undertake to have) at least two children.

Amount of mortage loan for buying and then modernising/renovating/enlarging pre-owned houses:

CEU eTD Collection

- Married couples with two children or those who undertake to raise two children: up to HUF 10 million (USD 34,000);
- Married couples with three or more children or those who undertake to raise three or more children: 15 million (USD 51,000).

Amount of mortgage loan for modernising/renovating/enlarging owned houses:

- Married couples with two children or those who undertake to raise two children: up to HUF 5 million (USD 17,000);
- Married couples with three or more children or those who undertake to raise three or more children: 7,5 million (USD 25,500).

Hungarian Village Program

The main objective of the *Hungarian Village Program* is to improve rural areas and to renovate schools, hospitals and churches. Settlements with less than 5,000 residents are eligible to apply for HVP. There are 2,885 HVP eligible settlements with – on average – 880 voters.

Based on the official site of the Hungarian government, the government spent HUF 65 billion on the Hungarian Village Program in 2019. 97.4% of the eligible settlements applied for some of the HVP calls and 86% of the applicants received some subsidy.[31] [32] Five days before the local elections, the government announced a brief statement claiming that HUF 21 billion were transferred to 1,454 HVP beneficiaries between July and October 2019. By October 2019, the government has spent HUF 6 billion on local government-owned community spaces, HUF 7 billion on church-owned community spaces, HUF 4 billion on medical centers in 186 settlements and HUF 2 billion on medical equipment in 778 settlements.[33] The Prime Minister's Office also announced in October 2019, that they received 10,713 applications out of which 1,398 were submitted by churches. Between

[31]See https://2015-2019.kormany.hu/hu/miniszterelnokseg/hirek/iden-65-milliard-forinttal-segitette-a-falvakban-az-eletminoseg-javitasat-a-kormany.

[32]In 2019, the government received 11,069 applications out of which 5,307 received a positive response. According to government statistics, the subsidy targeted more than 1,000 community spaces, 190 medical centers, 103 government-owned apartments for health workers and teachers. Additionally, 870 investment projects in kindergartens, investment in public vehicles (337 cases) and in public graveyards (600 cases) are documented.

[33]See https://2015-2019.kormany.hu/hu/miniszterelnokseg/parlamenti-allamtitkar/hir/a-falvak-mar-tobb-mint-21-milliard-forintot-kaptak-az-eletminoseget-javito-beruhazasokra.

CEU eTD Collection

July and October 2019, 96% of HVP eligible settlements submitted at least one application, while 55% of the eligible settlements received at least one type of fund.[34] Alpár Gyopáros, the government commissioner responsible for the development of modern settlements, in an interview also claimed that *"not even one Euro cent has been spent on the Hungarian Village Program, this program was not financed by the European Union"*. This statement was designed to ensure that voters attribute credits and responsibility for the HVP funds to the government and reward the incumbent government instead of any other political entity.

In 2019, there were 15 calls for applications targeting 15 different issue areas (see Table 8). Local governments and mayors of local governments were responsible for applying for HVP, while the Minister of the Prime Minister's Office evaluates the applications and makes the decision on a discretionary basis. The Prime Minister's Office has at most 60 days from receipt of a complete application to issue a decision and upon the announcement of the beneficiaries, it has at most 5 days to transfer funds to the local government. The Hungarian Village Program is classified as pork-barrel politics as it finances local public goods in a smaller constituency of the society: in settlements with 5,000 residents; it targets settlements instead of individuals; while rules and criteria on evaluating application and on the distribution of funds are not publicly available.

CEU eTD Collection

[34]See https://2015-2019.kormany.hu/hu/miniszterelnokseg/parlamenti-allamtitkar/hir/a-falvak-mar-tobb-mint-21-milliard-forintot-kaptak-az-eletminoseget-javito-beruhazasokra.

Objective	Number of beneficiaries	Amount of funds	Minimum amount of funds	Maximum amount of funds
Investment in church-owned graveyards (FVT)	217	1,281	0.97	30
Renovation of mayor offices (HPH)	144	2,525	1.02	50
Development of church-owned community spaces (EKT)	492	7,285	0.28	45.5
Strengthening national and local identity (NHI)	461	6,000	0.78	22.8
Medical equipment (AEE)	776	2,000	0.005	14.5
Medical centers (HOR)	186	3,998	0.11	12.5
Vehicles maintaining public spaces (KKE)	503	4,232	0.32	15
Building and improving pavement (BJA)	376	1,658	0.45	4.99
Building and improving local government-owned roads (ÖTU)	411	8,619	3.10	30
Investment in government-owned apartments for health workers (FOL)	13	3,089	200	274
Investment in kindergardens (FOR)	217	5,356	1.55	100
Investment in graveyards (FFT)	365	2,175	0.51	30
Investment in kindergarden yards (OUF)	658	2,930	0.37	5
Supporting village public servants (TFB)	338	4,789	8	15
Investment in government-owned apartments (SZL)	93	1,853	4	30

Note: Amount of funds is in million HUF. The number of beneficiaries within the category of *"Investment in church-owned graveyard"* and *"Development of church-owned community spaces"* are number of churches in eligible settlements, thus we aggregated these funds to settlement level.

Table 8: Hungarian Village Program – Objectives and Funds

CEU eTD Collection

3.3 Elections

3.3.1 National Elections

Hungarian national elections follow a one-round, two-ballot elections system. The unicameral body of the National Assembly consists of 199 members elected to 4-year terms. 106 MPs gain a seat in the National Assembly from individual constituencies, while the remaining 93 MPs get their mandates from national party lists.[35] In national elections, voters with a registered Hungarian address can cast two votes: one on any of the national party lists and another on their preferred individual candidate in the individual constituency their address belongs to. MPs for the 106 individual districts are elected in a first-past-the-post system. The remaining 93 party-list national seats are allocated based on the sum of second ballot list votes and from the so-called "fragment votes" from the first ballot (where fragment votes are 1) votes that were cast for unsuccessful individual candidates or 2) surplus votes for winning candidates). Party list mandates are distributed based on the d'Hondt method.

We rely on two national elections data, on April 8, 2018 and on April 6, 2014 election results. In April 2014, Fidesz–KDNP received 44.11% (96 seats) of individual constituency votes and 44.87% (37 seats) from party list votes and gained 133 seats in the National Assembly, preserving its two-thirds majority, with Viktor Orbán remaining Prime Minister.[36] In April 2018, Fidesz–KDNP claimed a landslide victory again with 47.89% (91 seats) of individual votes and 49.27% (42 seats) from party list votes, gaining again a total of 133 seats in the National Assembly.[37] Polling-station level data are drawn from the Hungarian National Election Office.[38] Eligible voters cast their votes in polling stations, on average, 800-1,000 eligible voters belong to each polling station.[39] We aggregate polling station-level data (that is the lowest possible level of aggregation) to the level of settlements.[40]

[35]To qualify for party list mandates, parties need to surpass a 5% threshold, or 10% in case of two parties' joint list and 15% in case of three or more parties' joint list.

[36]Note that Fidesz won 96 of the 106 individual constituencies with just 44.11% of the votes, because opposition parties were fragmented and ran separately.

[37]Despite reaching larger popular vote share in individual constituencies than in 2014 (47.89% vs 44.11%), Fidesz won only 91 of the 106 individual constituencies due to some coordination among opposition parties.

[38]Source: National Election Office of Hungary ("Nemzeti Választási Iroda"at www.valasztas.hu).

[39]In April 2018, Hungary had 10,285 polling stations, while in April 2014, there were 10,386 polling stations.

[40]This aggregation is a necessary step as polling stations can and sometimes do change between successive elections, while settlements remain the same.

CEU eTD Collection

3.3.2 *European Parliamentary Elections*

In the Hungarian European Parliamentary elections, parties – rather than individual candidates – run for the seats: parties that collect 20,000 recommendations (or signatures) from eligible voters are on the ballots. Both in 2014 and 2019, Hungarians elected 21 Hungarian members of the European Parliament for five years. The 21 mandates are allocated proportionally, using the d'Hondt-method, among the parties that receive at least 5% of the valid votes. Voting in one round together with the proportional allocation of seats ensure that voters express their true party preferences without strategic voting considerations in mind. The result of the EP elections reflects the actual popularity of parties.

Election results from May 26, 2019 and from May 25, 2014 European Parliamentary elections are used in our study. In May 2019 elections, five party lists surpassed the 5% threshold, while the combined vote share of the other four parties was around 8.5%. The ruling alliance of Fidesz–KDNP received 52.5% and won 13 of the 21 mandates.[41] In May 2014, eight Hungarian parties took part in the elections, and six of them surpassed the 5% threshold. Fidesz–KDNP received 51.48% of valid votes and won 12 of the 21 mandates.[42] For the EP elections, polling-station level data are available on the website of the Hungarian National Election Office and we aggregate the polling station-level data to the level of settlements.[43]

3.3.3 *Local elections*

In local elections, mayors and assembly members are elected for a term of 5 years. In this study, we focus on settlements with less than 10,000 residents, therefore we detail the local election rules for these settlements.[44] Residents of small settlements cast three votes at the local elections: first they elect a mayor for their settlement. In mayoral elections,

[41] In May 2019, the Democratic Coalition (a left-wing opposition party) got 16.1% of the valid votes and 4 seats in the European Parliament. A newly founded liberal party, Momentum received 9.9% of the votes and two seats in the EP. The remaining two seats went for the left-wing Hungarian Socialist Party and for the radical right party Jobbik (both got one seat with 6.6 and 6.4 percent of the votes, respectively).

[42] The far-right Jobbik received 3 mandates, while the left-wing MSZP and the left-wing Democratic Coalition gained 2 mandates each. Együtt-PM and LMP parties managed to receive one mandate each.

[43] In the 2019 EP elections, Hungary had 10,276 polling stations, while in the 2014 EP elections, there were 10,386 polling stations.

[44] In Hungary, local election rules are slightly different in villages or towns that have more than 10,000 residents. Additionally, election rules are also somewhat different in the 23 towns with county rights (which are mostly the largest towns apart from the capital city of Budapest), and yet another different set of rules in Budapest.

CEU eTD Collection

individuals compete in a first-past-the-post format. Second, voters of relatively small settlements elect the assembly members for their settlements. The assembly members election follows a plurality-at-large voting system: there is a list of individual candidates for assembly membership, where the number of assembly members depends on the size of the settlement.[45] Third, voters of small settlements elect members for their county assembly in each of the 19 counties of Hungary. Party preferences in county assembly elections are comparable to party preferences in EP and national elections: parties – rather than individual candidates – are running for seats in the county assemblies. The distribution rules for county assembly seats are also similar to the rule in EP and national elections: parties with more than 5% of all valid votes gain seats, and the distribution of mandates among these parties is proportional (based on the d'Hondt-method).

In this study, we focus on two local elections, elections in October 13 2019 and in October 12 2014. For the local elections, we collect data from the Hungarian National Election Office. In particular, we collect party list votes of the county assembly elections at the level of 10,276 polling stations in 2019 and at the level of 10,351 polling stations in 2014. We then aggregate the results to the level of settlements with less than 10,000 residents.

3.3.4 Election Fixed Effects

We rely on party preferences data from each election. Regardless of the type of the election, the proportional distribution of seats, as well as the one-round election ensure that votes reflect true party preferences without any strategic voting motives. Nonetheless, to address concerns regarding election-specific unobserved differences, we control for election specific factors (for instance, whether an election is widely perceived as a second-order election), that are the same across settlements. We use election-specific fixed effects for each six elections we rely on (instead of election *type* fixed effects) to control for factors affecting all voters on election days (for instance for a political scandal or for changes in national macroeconomic factors).

For instance, it is well documented in the literature that turnout rate in supranational "second-order elections" tends to be significantly lower (Kouba, Novák, and Strnad 2021; Kostelka, Blais, and Gidengil 2019) than in national elections – an issue that is particularly pronounced in small settlements. At the same time, turnout rate especially in small

[45] The number of assembly members – apart from the directly elected mayor – can be 2, 4, 6 or 8, depending on the number of residents. For example, an assembly in settlements with 5,000-10,000 residents consists of 8 members, while settlements with 1,000-5,000 inhabitants have a 6-member assembly. On the other hand, small villages with less than 100 residents have an assembly with only 2 members.

CEU eTD Collection

settlements with stronger informal network among voters and politicians is likely to be higher. In Hungary, the turnout rate of general elections and local elections fluctuated between 56-71%, and 43-53% in the elections of 1990-2019 respectively, in the EP elections of 2004-2019 the turnout rate was in the range of 29-43% (43% in 2019).[46] A possible explanation is that voters are not directly exposed to European matters, thus they have less interest in EP elections as there is little at stake.

Additionally, at the EP and national elections only Hungarian citizens are eligible to vote, while at local elections, residents in Hungary with a registered address also have the right to vote. While in general, the number of non-Hungarian residents in small settlements is negligible, we control for the share of foreigners in the empirical model.[47]

Finally, voters' turnout rate at the EP elections is higher among the highly educated segment of the society that is more concentrated in larger settlements (Fauvelle-Aymar and Stegmaier 2008). We also control for this concern by adding two variables on education in the model.[48]

Month and Year	Elections	Fidesz–KDNP	Turnout rate
April 2014	National	27.69	57.02
May 2014	European Parliamentary	14.29	24.56
October 2014	Local	26.52	48.49
April 2018	National	35.97	65.55
May 2019	European Parliamentary	23.35	38.85
October 2019	Local	29.50	49.12

Note: Means are eligible voters weighted.

Table 9: Election Results and Turnout Rates in Settlements with less than 10,000 Residents in Percent of Eligible Voters

[46]Source: National Election Office of Hungary.
[47]See Appendix Y on the definition on foreign residents.
[48]See Appendix Y on the variables on education.

CEU eTD Collection

3.3.5 *Additional Local Elections Specificities*

While election fixed effects successfully control for all factors that affect voters on election days, yet some local elections specificities vary across settlements and over time that ultimately may affect vote share as well as the turnout rate differently. Factors such as the number of mayor candidates, the closeness of the election, the ethnicity of the mayor candidate (Roma candidate) as well as whether the candidate is supported by Fidesz vary across settlements and over local elections. Below, we explain how these local election specificities affect the turnout rate and vote share and how we address these concerns.

At Hungarian local elections, the turnout rate and the number of votes for each party are heavily influenced by the closeness of the election in the mayoral elections and in settlement assembly elections. The closer the election is expected to be, the higher the expected utility of voting and thus the higher the voters' turnout rate is (Geys 2006; Matsusaka and Palda 1993).[49] The outcome of the mayoral elections as well as the composition of the settlement assembly – which deals with local issues such as schools, medical services, and other local public services – is more important for voters than the composition of the county assembly.

Therefore, at the Hungarian local elections, the voter turnout rate is mostly explained by voters' preferences on the mayor and on the members of their settlement's assembly rather than by their partisanship. Table 10 shows the distribution of settlements by the number of mayor candidates at the 2019 local elections. We find that there was a single mayor candidate in 909 out of the 3,010 settlements (around 30%) with less than 10,000 residents. Table 11 shows the effect of single candidate (Column 1) and two candidates (Column 2) on the turnout rate; and the effect of single candidate (Column 3) and two candidates (Column 4) on Fidesz vote share. The average turnout rates in single-mayor-candidate and multiple-mayor-candidate settlements were 38.8% and 52.5%, respectively. This implies that people participated in much smaller numbers at the local elections in settlements where it was *a priori* decided who was elected as a mayor.[50] The negative effect on the turnout in single-candidate municipalities is reflected in Table 11 by the large negative parameters in Column 1. Similarly, the larger the winning margin at the mayoral elections, the smaller the turnover rate was at the local elections – another evidence for the effect of close elections on turnout rate. Column 2 of Table 11 shows that turnout rate

[49] Matsusaka and Palda (1993) refer to this as the Downsian Closeness Hypothesis.

[50] The turnout rate at the *EP elections* in the same two groups of settlements (with single candidate and multiple candidates in the *local elections*) was 40.4% and 38.4%, respectively.

CEU eTD Collection

is also somewhat smaller if there are two mayor candidates (which still implies weaker competition).

Additionally, we also test whether the effect of Roma candidate on turnout rate is the same across each settlements with less than 10,000 residents. We find evidence that the average turnover rate is significantly higher in settlements where one of the mayor candidates is supported by a Roma party or a Roma civil organisation.[51] Finally, the vote share on Fidesz party list (in the county assembly election) is higher if there is a Fidesz-supported mayor candidate suggesting that Fidesz mobilized voters more successfully at these settlements.

Population Range	Share of Municipalities with One Mayor Candidate	Share of Municipalities with Two Mayor Candidates	Share of Municipalities with at least Three Mayor Candidates	Number of Municipalities
0-1000	31.1%	33.8%	35.1%	1801
1000-2000	28.4%	30.5%	41.1%	615
2000-3000	23.1%	34.2%	42.8%	276
3000-4000	26.6%	35.9%	37.5%	121
4000-5000	25.8%	33.9%	40.3%	72
5000-6000	14.6%	44.6%	40.8%	42
6000-7000	15.5%	37.7%	46.7%	32
7000-10000	13.3%	48.8%	38.0%	51
10000-15000	9.0%	32.5%	58.5%	58
1000-5000	26.2%	33.0%	40.8%	1084
5000-15000	11.8%	39.4%	48.8%	183

Note: Data are drawn from the Hungarian *National Election Office*. Means are population weighted.

Table 10: Number of Mayor Candidates Running in the Hungarian Local Election in 2019 by Municipality Bins

[51]This latter fact can probably be explained by a general prejudice against the Roma ethnic minority, especially in small settlements at the countryside. This implies that if there is a possibility that the settlement could have a Roma mayor, people are more likely to participate in the election.

CEU eTD Collection

	2019 Local Turnout Rate		Changes in Fidesz Vote Share	
	(1)	(2)	(3)	(4)
	One Candidate	Two Candidates	One Candidate	Two Candidates
0-1000	-0.180	-0.002	-0.133	-0.023
1000-2000	-0.173	-0.024	-0.116	-0.017
2000-3000	-0.165	-0.011	-0.098	-0.012
3000-4000	-0.151	-0.038	-0.089	-0.016
4000-5000	-0.175	-0.045	-0.101	-0.029
5000-6000	-0.105	-0.006	-0.042	-0.022
6000-7000	-0.103	-0.025	-0.037	0.017
7000-10000	-0.110	-0.049	-0.045	-0.024
10000-15000	-0.137	-0.011	-0.071	0.004
1000-5000	-0.167	-0.028	-0.104	-0.019
5000-15000	-0.113	-0.021	-0.047	-0.004

Note: Data are drawn from the Hungarian *National Election Office*. Columns 3 and 4 show changes in Fidesz vote share between May (EP elections) and October (Local elections) in 2019. Regression results are population weighted. Robust standard errors are used.

Table 11: The Effect of the Number of Mayor Candidate on Voters Turnout in 2019 Local Election as well as on Changes in Fidesz Vote Share in Hungary

3.4 Data, Descriptive Statistics and Empirical Strategy

We use several data sources for our empirical analysis. The first dataset is the National Election Office's polling-station level data on the number of votes, number of eligible voters as well as information on candidates. While we have around 10,200 polling stations in each election, we aggregate the data to settlement level, and calculate the settlement-level vote share of Fidesz–KDNP and the opposition parties for each election. The second data source is a contract-level data from the Hungarian State Treasury on each CSOK and Rural CSOK subsidy. In this dataset, we have information on the type of subsidy, on the date and amount of subsidy, and on the settlement. We also aggregate these data to the settlement level for each year and for each quarter. Third, we rely on the official website of the Hungarian government and collect data on the beneficiaries of the Hungarian Village Program. This is a settlement-level dataset on the type and amount of subsidy. Fourth, we

CEU eTD Collection

use two other sources of administrative, settlement-level data on Hungarian settlements, T-STAR data by the Hungarian Statistical Office (KSH) and a dataset by the the Center for Economic and Regional Studies of the Hungarian Academy of Sciences. These data sets contain information on various demographic and economic variables. In Hungary, there are 3,177 settlements (including the 23 districts of Budapest) that are the smallest administrative units.[52]

To estimate a causal effect of the policies on incumbents' vote share and on turnout rate, we uncover *ex ante* the possible channels through which these two policies affect Fidesz support and turnout rate. The directed acyclic graph (Figure 3) shows a graphical representation of a chain of causal effects. In the lower box, we list those confounders -– such as population; income per capita; share of public workers; local election specificities; share of women and children; share of unemployed; education, religion, ethnicity and proximity to the capital city — that can influence both the casual and the outcome variables in the causal relationship. Appendix Y defines the variables, while Table 58 presents descriptive statistics for the main variables.

The common confounder variables of the lower box of Figure 3 are grouped into five different categories. First, there are variables which describe the specificities of the local elections at the settlement level: the number of candidates running for the mayor position; whether there was a Fidesz-supported or a Roma candidate; whether the mayoral race was close or not; and whether there were many foreigners living in the settlement. Some of these variables directly affect the vote share of Fidesz (e.g. the presence of a Fidesz-supported candidate), while others affect the Fidesz vote share through the local election turnover rate (e.g. only one mayor candidate, Roma candidate, or close competition among the mayor candidates).

The second type of common confounders are demographic variables: proportion of female and children, education levels, the share of atheists, protestants, catholics, evangelists and the share of Roma residents. All of these variables are correlated with both the Fidesz support and the settlement size, thus they determine the treatment and the outcome simultaneously.

Third, we have some economic variables among the common confounders: per capita income, settlement-level unemployment rate and the proportion of public workers. Again, these variables are correlated with the outcome variables (Fidesz vote share and turnout

[52] According to legislation *2011. evi CLXXXIX.*, there are five categories of settlements (they differ in terms of their population and rights): capital city (1); towns with county's rights (23); towns (322); large villages (128); villages (2 681).

CEU eTD Collection

rate) in line with the economic voting hypotheses, but at the same time they are also correlated with policy eligibility (as smaller and poorer settlements are treated with a higher probability).

Fourth, we include variables that directly (by the very design of the policies) determine the treatment: population size and population change (2019 relative to 2003). As these settlement characteristics are also correlated with the outcome variable (Fidesz vote share), we include them as control variables. Finally, we include settlement and elections fixed effects.

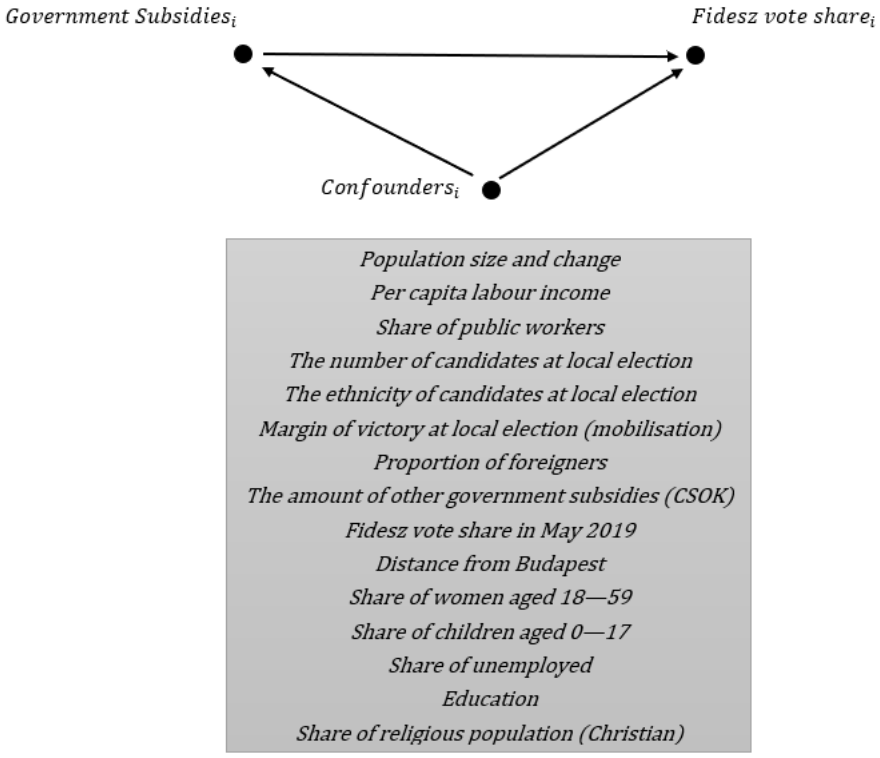

Figure 3: Directed Acyclic Graph Explaining the Causal Path from Government Subsidy to Vote Share

CEU eTD Collection

3.5 The Demand Side: The Effect of Policy Eligibility

We estimate the causal effect of policy eligibility on the electoral success of the incumbent government by exploiting the exogenous policy eligibility threshold.[53] We rely on a

[53] As the Rural CSOK-eligible settlements (with less than 5,000 inhabitants and with declining population) are a subset of HVP-eligible settlements (with less than 5,000 inhabitants), we define one control group and

difference-in-differences design and compare average changes in vote share from before the introduction of the policies to after it between eligible and non-eligible settlements. To ensure the internal validity of the difference-in-differences research strategy, we argue for parallel trends between eligible and non-eligible settlement prior to the introduction of the policies. This assumption is key for our identification strategy as it implies that in the absence of treatment, the difference in Fidesz vote share between treated and non-treated settlements are the same over time. If this assumption holds, then the untreated units provide the appropriate counterfactual of the trend that the treated units would have followed if they had not been treated. Figure 4 shows the average Fidesz vote share in Rural CSOK eligible and non-eligible settlements in five elections before the introduction of the policy as well as in the elections right after the treatment. Figure 5 plots the same changes in vote share in Hungarian Village Program-eligible *versus* non-eligible settlements before and after the policy. In both Figures, differences between treated and non-treated settlements are remarkably stable over the elections prior to the introduction of the programmes: average changes in Fidesz vote share is very similar in eligible and non-eligible settlements.[54]

To further evaluate the parallel-trends assumptions, we perform a test of whether the linear trends in Fidesz vote share are parallel between control and treatment groups during the pre-treatment period. Another way to think about the parallel-trends assumption in the pre-treatment period is that treatment and control groups do not change their behavior in anticipation of the treatment. Therefore, parallel-trends assumption implies that there should be no treatment effect in anticipation of the treatment. To test this assumption, we

two different treatment groups. The control group is the set of settlements that are not eligible for any of the two programs. The first treatment group consists of settlements that are eligible for HVP, but not eligible for Rural CSOK. The second treatment group contains those settlements that are eligible for both HVP and Rural CSOK subsidies.

[54]In Hungary, the public work (PW) programmes have been extensively used as active labour market policy tools since 2011. In villages in Hungary's poor regions, jobs offered within the public work scheme are often the only form of employment available. Mayors promise jobs only to those who vote for them and for the ruling party, while the scheme allows local authorities to fire staff and rehire them as cheaper public works labourers, creating a perverse incentive to expand the scheme. Gáspár, Gyöngyösi, and Reizer (2023) provide empirical evidence that public work scheme has become a political tool in Hungary that creates a permanent underclass of unskilled workers, grants a unique power to local mayors and in turn increases clientelism. Gáspár, Gyöngyösi, and Reizer (2023) also document that the Hungarian government scaled up the public work programme right before local elections in October 2014 and that the share of public workers had a positive effect on the electoral performance of both Fidesz and (mostly independent) incumbent mayors in local elections. As we also see a peak in the public work share in eligible settlements just before the October 2014 local elections (Figure 25), we control for the effect of public work share on Fidesz support, so that the vote-buying effect of the public work programme will not bias our estimation (see Appendix Z).

CEU eTD Collection

could fit a Granger-type causality model where we augment our model with dummies for each pre-treatment and treatment period for the treated observations. A joint test of the coefficients on these dummies can be used as a test of the null hypothesis that no anticipatory effects have taken place. The test statistic suggests that we do not have sufficient evidence to reject the null hypothesis of parallel trends. These test and the graphical analysis support the parallel-trends assumption and show preliminary evidence that the differences in Fidesz support after the introduction are caused by the policies.

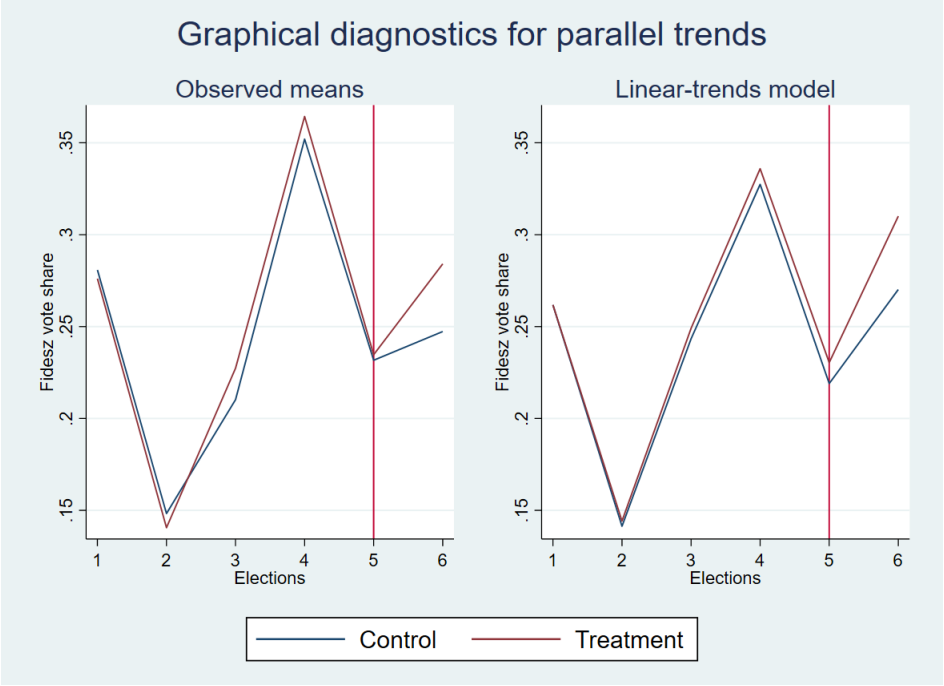

Figure 4: Average Fidesz Vote Share in Rural CSOK Eligible *versus* non-Eligible Settlements, Before and After the Introduction of the Rural CSOK Programme in July 2019

To provide empirical evidence for the electoral effect of policy eligibility, we rely on a panel data of six elections and 3,000 settlements, using the following equation:

$$\begin{aligned} Fidesz_{it} =& \alpha + \beta_1 RCSOKelig_i + \beta_2 Post_t + \beta_3 RCSOKelig_i x Post_t + \\ & \beta_4 HVPelig_i + \beta_5 Post_t + \beta_6 HVPKelig_i x Post_t + \\ & X'_{i,t}\gamma + \mu_i + \phi_t + \varepsilon_{i,t}, \end{aligned} \tag{10}$$

where $Fidesz_{it}$ is the vote share of Fidesz in settlement i in election t (where t denotes elections in April 2014, May 2014, October 2014, May 2018, May 2019 and October 2019), *RCSOKelig* and *HVPelig* are eligibility dummies for Rural CSOK and HVP programmes

CEU eTD Collection

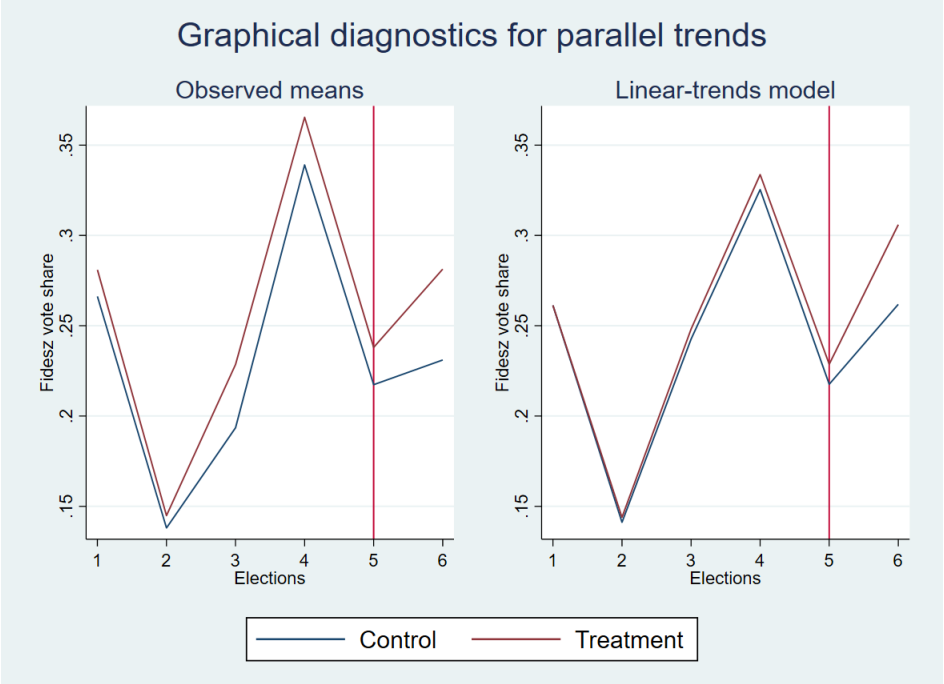

Figure 5: Average Fidesz Vote Share in HVP Eligible *versus* non-Eligible Settlements, Before and After the Introduction of the Hungarian Village Program in July 2019

for settlement i; $Post_t$ is a dummy for the October 2019 election (post-treatment); $X_{i,t}$ is a vector of settlement-level control variables, ϕ_t denotes elections fixed effects and μ_i is settlement fixed effects. We weight the settlements by the number of eligible voters, and report robust standard errors clustered at the settlement level. Eligibility dummies (parameters β_1 and β_4) are time-invariant and thus their effect are captured by settlement fixed effects (μ_i). Also, the terms with parameters β_2 and β_5 are identical, only one of them needs to be included. The main parameters of interest are β_3 and β_6 showing the difference-in-differences estimate of program eligibility on Fidesz support.

Scholars have long argued that distributive benefits increase voter turnout among their beneficiaries (Chen 2013; Campbell 2012; Mettler and Stonecash 2008; Matsubayashi and Wu 2012; Campbell 2002). Lipset famously explains the positive turnout effect and argues that one's decision to turn out depends upon the perceived *"relevance of government policies to the individual"*(Lipset 1960, p.190). In line with this theory, many provides evidence that the delivery of distributive benefits motivates recipients to protect their stake in these spending programs by participating in politics through voting. Chen (2013) finds that this positive relationship between distributive benefits and turnout is conditioned by voters partisanship.

CEU eTD Collection

We also test whether the targeted programs have significant effects on voters' turnout rate. Using the turnout rate as the main dependent variable, we estimate the the following equation:

$$\begin{aligned} Turnout_{it} =& \alpha + \beta_1 RCSOKelig_i + \beta_2 Post_t + \beta_3 RCSOKelig_i x Post_t + \\ & \beta_4 HVPelig_i + \beta_5 Post_t + \beta_6 HVPKelig_i x Post_t + \\ & X'_{i,t}\gamma + \mu_i + \phi_t + \varepsilon_{i,t}, \end{aligned} \tag{11}$$

For the estimations, we focus on all settlements with less than 10,000 residents, because local elections have slightly different rules for settlements with more than 10,000 inhabitants. The other reason for excluding relatively larger settlements is that Budapest, county capitals, and larger cities or towns are probably very different from the settlements that received Rural CSOK or HVP subsidies. This leaves us with 3,000 settlements observed at 6 consecutive elections between 2014-2019 (with a sample size of 18,000).

Column 1 and 4 in Table 12 show the estimation results of Equations (10) and (11) respectively. The estimation provides evidence that policy eligibility *per se* mobilized 5.5 percentage point more voters in eligible settlements (Column 4) and that in policy eligible settlements, support for the incumbent party was 4.3 percentage point higher than in control settlements (Column 1). In particular, in HVP-eligible settlements, Fidesz vote share is 2.22% points larger, while in Rural CSOK eligible settlement, Fidesz vote share is 2.08% points larger than in non-eligible settlements. All Rural CSOK-eligible settlements are also eligible for HVP, therefore, Column 1 suggests that Fidesz gains 4.30% points of extra vote share.

3.5.1 The Effect of Receiving Subsidy

While Column 1 and 4 in Table 12 provide suggestive evidence on the policy eligibility effect, it does not estimate the effect of the amount of subsidies on the popularity of Fidesz.

The first panel of Table 13 shows that 2,479 (82.6%) settlements were eligible for Rural CSOK, out of which 1,061 settlements did not receive the "treatment". These 1,061 settlements were intended to treat but not treated, while the remaining 1,418 eligible settlements received the "treatment". The first panel of Table 14 shows the share of Rural CSOK-eligible settlements weighted by their population size. The share of Rural CSOK-eligible settlement decreases to 63.6%, of which 52.0% received the treatment. This represents a more balanced treatment allocation.

The second panel of Table 13 shows that out of 3,000 settlements in our sample, 2,878

CEU eTD Collection

	Fidesz vote share			Turnout rate		
	(1)	(2)	(3)	(4)	(5)	(6)
	OLS	OLS	IV	OLS	OLS	IV
Rural CSOK eligibility	0.0208***	0.0198***	0.0177***	0.0338***	0.0311***	0.0264***
	(0.0030)	(0.0032)	(0.0033)	(0.0041)	(0.0044)	(0.0047)
Per capita Rural CSOK	..	0.0003	0.0003	..	0.0020	0.0018
	..	(0.0012)	(0.0013)	..	(0.0015)	(0.0019)
HVP eligibility	0.0222***	0.0196***	0.0101**	0.0212***	0.0182***	-0.0024
	(0.0041)	(0.0042)	(0.0045)	(0.0057)	(0.0057)	(0.0063)
Per capita HVP	..	0.0016***	0.0078***	..	0.0020***	0.0152***
	..	(0.0003)	(0.0011)	..	(0.0004)	(0.0016)
First stage F	..	..	71.35	..	..	71.35

Note: Settlement fixed effects, election dummies and control variables are included. Results are eligible voters weighted. $N = 18,000$ (6 elections in 3,000 settlements). *, ** and *** indicate significance at 10%, 5% and 1%, respectively.

Table 12: The Effect of Rural CSOK and Hungarian Village Program on Fidesz Vote Share and on Voters' Turnout Rate

(95.9%) were eligible to HVP subsidy.[55] 2,322 settlements received treatment, while the remaining 556 were not granted by any HVP subsidies. The second panel of Table 13 shows that the population-weighted proportion of HVP-treated settlements is 63.7%.

Tables 13 and 14 suggest that some eligible settlements did not receive any treatment. To overcome this issue, the literature typically estimates the intention-to-treat effect (ITT) first (Havnes and Mogstad 2011; Baker, Gruber, and Milligan 2008). This parameter, however, averages the treatment effect over all units irrespective to the actual treatment, therefore it reflects poorly the actual effect of the treatment of interest. To arrive at the treatment-on-the-treated (TT) effect, the literature scales up the estimated ITT parameter with the probability of treatment (specifically, the ITT parameter is divided by the share of

[55]The second panel of Table 14 shows, however, that the population-weighted proportion of eligible settlements is only 78.7%, much smaller than the unweighted figure of 95.9%.

CEU eTD Collection

	Rural CSOK		**Total**	
	(1)	(2)	(3)	(4)
	No Rural CSOK	Rural CSOK Recipients	**Total**	**Ratio (%)**
Non-eligible settlements	517	4	521	17,4%
Eligible settlements	1,061	1,418	2,479	82.6%
Total	1,578	1,422	3,000	
Ratio(%)	52.6%	47.4%		

	Hungarian Village Program		**Total**	
	(1)	(2)	(3)	(4)
	No HVP	HVP Recipients	**Total**	**Ratio (%)**
Non-eligible settlements	122	0	122	4.1%
Eligible settlements	556	2,322	2,878	95.9%
Total	678	2,322	3,000	
Ratio(%)	22.6%	77.4%		

Note: Data are from the Hungarian State Treasury.

Table 13: Number of Eligible versus non-Eligible Settlements

	Rural CSOK		**Total**	
	(1)	(2)	(3)	(4)
	No Rural CSOK	Rural CSOK Recipients	**Total**	**Ratio (%)**
Non-eligible settlements	1,166	15	1,181	36.7%
Eligible settlements	379	1,660	2,039	63.3%
Total	1,545	1,675	3,220	
Ratio(%)	48.0%	52.0%		

	Hungarian Village Program		**Total**	
	(1)	(2)	(3)	(4)
	No HVP	HVP Recipients	**Total**	**Ratio (%)**
Non-eligible settlements	687	0	687	21.3%
Eligible settlements	334	2,200	2,534	78.7%
Total	1,021	2,200	3,220	
Ratio(%)	31.7%	68.3%		

Note: Data are from the Hungarian State Treasury. Number of eligible voters are in thousands.

Table 14: Number of Eligible Voters (in Thousands) in Eligible *versus* non-Eligible Settlements

CEU eTD Collection

treated within the intent-to-treat group) (Havnes and Mogstad 2011; Baker, Gruber, and Milligan 2008). This, however, comes with the assumption that there is no *intent-to-treat*

effect, but only *treatment* effect, which might not be a valid assumption in our case.

To account for the amount of subsidies, we estimate the following equation:

$$\begin{aligned} Fidesz_{it} =& \alpha + \beta_1 RCSOKelig_i + \beta_2 Post_t + \beta_3 [RCSOKelig_i x Post_t] + \\ & \beta_4 RCSOKpc_i + \beta_5 Post_t + \beta_6 [RCSOKpc_i x Post_t] + \\ & \beta_7 HVPelig_i + \beta_8 Post_t + \beta_9 [HVPKelig_i x Post_t] + \\ & \beta_{10} HVPpc_i + \beta_{11} Post_t + \beta_{12} [HVPpc_i x Post_t] + \\ & X_i' \gamma + \mu_i + \phi_t + \varepsilon_{i,t} \end{aligned} \tag{12}$$

where $RCSOKpc_i$ and $HVPpc_i$ are per capita Rural CSOK and HVP subsidies, respectively. Similar to Equation (10), the time-invariant regressors (β_1, β_4, β_7 and β_{10}) are captured by settlement fixed effects, and terms β_5, β_8 and β_{11} are redundant (identical to β_2). Our main parameters of interest are β_3, β_6, β_9 and β_{12} and show the difference-in-differences estimates of the four types of treatments: Rural CSOK eligibility, per capita Rural CSOK, HVP eligibility and per capita HVP, respectively. As before, we weight the settlements by the number of eligible voters, and report robust standard errors clustered at the settlement level.

Column 2 in Table 12 reveals that the effect of HVP eligibility *per se* on vote share is 1.96% points, slightly smaller than in Column 1. The results suggest that the effect of an additional 10,000 HUF per capita HVP subsidy increases Fidesz vote share by 0.16% points (numerically small but statistically significant effect). While the Rural CSOK intent-to-treat effect is 1.98% points, the treatment intensity is statistically insignificant suggesting that program eligibility rather than the amount of subsidy has explanatory power.

Ideally, we would like to be able to interpret the effect of the amount of subsidies causally; however, this is a less than straightforward task given that the amount of funds a settlement received is not randomly assigned. In other words, there are likely to be both observable as well as unobservable variables influencing an individual's as well as a settlement's probability of receiving any subsidies. For Rural CSOK, both the program design and the disbursement procedure suggest that the settlement-level per capita subsidies do not depend on general Fidesz support. This is because Rural CSOK distribution criteria are public and these public, formal criteria shape the distribution of the resources in question. Decisions on granting the subsidies are made by commercial bank branches that are independent from the central or local governments.

In contrast, for HVP subsidies the Minister of the Prime Minister's Office makes the decision on who gets them and who does not. Section 3.6 provides evidence that settlements

CEU eTD Collection

with higher Fidesz support are more likely to receive HVP funds. To address endogeneity, we instrument per capita HVP subsidy with measures that (should) have guided the decision criteria for HVP issue areas. Table 8 show that three HVP sub-programs targeted medical infrastructure, four targeted road and pavement renovations, and two sub-programs support kindergarten investments. We rely on settlement-level measures that are related to these issues and therefore, in an ideal world, should have determined the amount of HVP funds a settlement receives.

We use area of the settlement, settlement-level length of the road network, the number of kindergarten buildings in a settlement, and the settlement-level number of health institutions as instruments. We are instrumenting the amount of per capita HVP subsidies, thus, we rely on the per capita values of the instrumental variables.

To be a valid instrument, instruments should satisfy both the relevance and the exclusion restrictions. The first requirement involves a sufficient correlation between the instruments and the per capita HVP subsidies (*validity*), while the second requirement (*the exclusion restriction*), relies on the assumption that the only reason for the relationship between Fidesz support and the instruments is the first-stage; thus the instruments are is not directly related to the outcome variable nor any omitted variables. In our first stage regression of the endogenous variable *HVPpc*, all four instruments are highly significant (with *t-values* of 6.60, 5.91, 5.59 and 3.06) with the expected signs. The *F-statistics* of the test of the joint significance – first stage *F-statistics* – is 71.35, significant at the 1% level. The high value of the first-stage *F* implies that the IV-estimator eliminates practically all small-sample bias of the OLS-estimator (Bound, Jaeger, and Baker 1995).

The second requirement, the exclusion restriction, relies on the assumption that the instruments are not directly related to the outcome variable nor any omitted variables. The instruments we rely on are historically determined, and cannot be changed in the short run (in response for political support, for example). Our first instrument, the *area of settlements* typically do not change for decades or even centuries. One might argue that the total area of settlements is correlated with the type of activities or industries of different settlements. For example, larger settlements might have more developed agriculture, which might indicate lower-than-average settlement-level income through the lower-than-average productivity in agriculture. However, the agricultural orientation of settlements is among their time-invariant characteristics, which are captured by settlement fixed effects in the main equation – thus, we control for this possible indirect channel between our first

CEU eTD Collection

instrument and the dependent variable.[56]

Our second instrument is the length of road network within the settlements, that is also determined by geographic factors rather than short-term political considerations. This variable is the sum of paved and unpaved roads within the administrative areas of a settlement. To test what factors (e.g. political factors) affect changes in road network size, we collect data on the length of road network between 2009-2016 (the first six years of Fidesz governance). We find that in 1,606 (around 56%) of the 2,883 settlements with a population less than 5,000, the total length of the road network did not change during these 7 years; while it increased in 748 settlements (26%). We tested the effect of settlement-level Fidesz support in settlements with increasing road network length to uncover whether this change is driven by political favouritism. In particular, we ran a regression of road network increase dummy on Fidesz vote share at various elections before 2016, as well as on other settlement characteristics such as population change, per capita income, and share of unemployed and public workers. We find that settlements with increasing population, with higher per capita income and with lower unemployment rate are more likely to increase its road network.[57] Fidesz popularity – measured in different ways – does not have any explanatory significance suggesting that the size of road network is unrelated to political preferences.[58]

The third instrument is the number of kindergarten buildings, that is also historically determined and does not vary in the short. We collect settlement-level data on changes in the number of kindergartens between 2009 and 2019. Among the 2,876 HVP-eligible settlements in our sample, this change is zero in 2,696 settlements (94%), while the number of settlements with increasing or decreasing number of kindergartens is 83 and 97, respectively.[59] This implies a remarkable stability in the number of kindergarten buildings within a settlement. Further, to understand the source of any changes, we estimate the effect of political and demographic indicators on changes in kindergarten buildings

[56]The endogenous variable that we instrument is the interaction variable corresponding to parameter β_{12} in Equation (10), thus the instruments are the corresponding interaction variables of the instruments with the $After_t$ variable. This interaction makes it possible to use time-invariant settlement-level variables, like settlement area, as instruments in our fixed effects estimation.

[57]Change in population has the strongest explanatory power with the expected positive sign and with a *t-value* larger than 4.

[58]The length of paved roads is, however, dependents on political considerations (e.g. settlements with stronger support for Fidesz could have higher proportion of paved roads in their road network). We do find some evidence on this in our data on road lengths.

[59]Typically, changes in the number of kindergarten building are one (plus or minus). Only 3 settlements reported an increase of 2, and another 3 settlements reported a decline of 2 in the number of their kindergartens.

CEU eTD Collection

and find that demographic indicators (e.g. the share of children aged 3-5, population change) are highly significant, while settlement-level Fidesz support (e.g. past vote shares of Fidesz) turn to be insignificant.

Our fourth instrument, the number of health institutions is also determined by historical factors especially in small settlements that our analysis focuses on. While we do not have data from years before 2019, we believe that their number cannot be changed in the short run by politicians in exchange for political support.

Column 3 in Table 12 shows the estimated coefficients relying on instruments for per capita HVP funds. While the HVP program eligibility decreases relative to the OLS-estimate, the estimated coefficient on per capita HVP funds becomes numerically larger and highly significant (0.78% points instead of 0.16% points, with an estimated t-ratio of around 7). In particular, additional 10,000 HUF of per capita HVP subsidy increases the Fidesz vote share by 0.78% points. For the Rural CSOK program, the eligibility effect remains significant (1.77% points), while the effect of per capita Rural CSOK subsidy is insignificant.

3.6 The Supply Side: Political Determinants of the Distribution

How does the government allocate targetable goods – in particular private goods of the Hungarian Village Program – targeted to rural areas in order to optimize their electoral prospects? Extant models focus on persuasion – defined as an attempt to change voters' preferences between given alternatives – and on mobilisation – defined as an attempt to affect whether citizens participate in the election at all.

The question of whether politicians direct goods to their core support groups, to opposition groups, or to swing groups is central to debates in political economy, but the findings are still debated. Cox and McCubbins (1986) famously argue that risk-averse politicians will invest relatively more in support groups and secondarily in swing groups, while they will not invest at all in opposition voters. Contrary to this prediction, Lindbeck and Weibull (1987) and Dixit and Londregan (1996) contend that vote maximising redistribution will target two classes of voters: those ideologically indifferent between the two parties ("swing voters") and low-income voters. The underlying rationale is the same in both cases. These are groups who are likely to be more responsive than others to distributive benefits, the former because they care less than other groups of voters about ideology relative to material benefits, the latter because their low income makes them cheaper to attract.

CEU eTD Collection

These two sets of models lay out competing expectations about distributive politics. The Cox-McCubbins model predicts that we should see distributive benefits going to the government's core supporters, whereas the Lindbeck-Weibull/Dixit-Londregan model predicts that we should see benefits going disproportionately to swing voters. Given this theoretical controversy, it is not surprising that the empirical literature has generated a confusing array of findings (Golden and Picci 2008). McGillivray (2004) reconciles these two competing models with a theory that specifies the institutional conditions under which each obtains, while Golden and Picci (2008) argue that the incentives facing politicians deciding the allocation of distributive goods should be taken into consideration, more precisely: the type of electoral system and the strength of national political parties.[60]

In an attempt to contribute to this strand of empirical literature, we investigate how the Rural CSOK and HVP subsidies were distributed in Hungary.[61] Figures 6 and 7 show our main results regarding the distribution of HVP funds. In Figure 6, we take each of the 15 sub-programs of the Hungarian Village Program, and divide the settlements into recipients (represented by blue bars) and non-recipients (represented by red bars) of that particular program.[62] Then we calculate the electoral performance of Fidesz in the 2018 parliamentary elections in recipient as well as in non-recipient settlements, for each sub-program. In order to measure the performance of Fidesz in 2018, we first estimate a very simple model of Fidesz vote share that only uses settlement and election fixed effects, and then take the difference between the actual Fidesz vote share in 2018 and the vote share predicted by this model. In essence, we are using the residuals of the estimated simple fixed-effects model, with positive and negative values representing better-than-expected and worse-than-expected vote share. When we take the population-weighted averages of these residuals in recipient (blue bars) vs non-recipient (red bars) settlements on Figure 6, we see that in case of 14 of 15 sub-programs, Fidesz performed much better in the 2018 elections in recipient settlements – indicating that settlements in which Fidesz

[60]Golden and Picci (2008) analyses the political determinants of the distribution of infrastructure expenditures by the Italian government and show that when districts elect politically more powerful deputies from the governing parties, they receive more investments (legislators with political resources reward their core voters). The governing parties, by contrast, are not able to discipline their own members of parliament sufficiently to target the parties' areas of core electoral strength.

[61]This is important also from the point of view of possible endogeneities in our baseline estimations.

[62]On the horizontal axis, we list the 15 sub-programs, plus three categories that were aggregated from individual sub-programs that cover similar "issue areas". These three aggregated categories are the "MED", the "REN", and the "KDGN"categories. MED stands for medical subsidies, and consists of three individual sub-programs: AAE, FOL and FOR. REN stands for subsidies related to renovation, and consists of BJA, HTH, KKE, ÖTU. KDGN stands for kindergarten subsidies, and consists of FOB and OUF.

CEU eTD Collection

performed better in 2018 (relative to its past performance) had higher chance of receiving HVP subsidies.

Note that these results are robust to alternative measurements of Fidesz performance: we find similar results if we measure the popularity of Fidesz by the estimated settlement fixed effects. The results also hold in multivariate regression setting. We run a cross-sectional linear probability regressions where the probability of receiving a particular type of HVP is the dependent variable and the main explanatory variable is Fidesz performance in past elections. We estimate the following equation:

$$HVPk_i = \alpha + \beta FIDperf_i + \gamma X_i + \varepsilon_i, \tag{13}$$

where HVPk_i is a dummy that settlement i ($i = 1, \ldots, 3,000$) received a HVP subsidy in sub-program or program area k ($k = 1, \ldots, 18$), FIDperf$_i$ is the performance of Fidesz in previous elections (either estimated settlement Fixed Effects or residual for the 2018 elections), and X_i are other control variables that might have influenced the subsidy allocation. We find that in 17 out of the 18 estimated equations, the estimated β is positive, and in 10 equations it is significant at least at the 10% level.

Importantly, among the explanatory variables of the linear probability model of Equation (13), we have variables that are related to the particular issue areas that the individual HVP programs belong to. For example, in case of programs that provide medical subsidies (AAE, FOL and FOR), we included variables like the per capita number of patient visits in primary and advanced care (both in children and adult care), the number of family doctors and family doctor districts, and the number of health institutions at the settlements. For programs related to kindergartens (FOB and OUF), we added variables on the share of kindergarten-aged children (both total share and share of disadvantaged), the number of kindergarten institutions and buildings. And for programs on renovation and infrastructure (BJA, HPH, KKE and ÖTU), we included the surface of the settlements as well as the total length of paved and unpaved roads, and pavements.

While Figure 6 distinguishes between HVP recipients *versus* non-recipients, and visualizes the probability of receiving different types of HVP subsidies, Figure 7 investigates the *per capita amount of total HVP subsidies* that each settlement received. On the figure, each dot corresponds to one of the HVP eligible settlements. The horizontal axis shows the settlement-level Fidesz support measured by the estimated settlement fixed effect from a simple fixed effects regression on Fidesz vote share. The vertical axis, on the other hand, shows the per capita total HVP subsidy (in 10,000 HUFs) that a settlement received

CEU eTD Collection

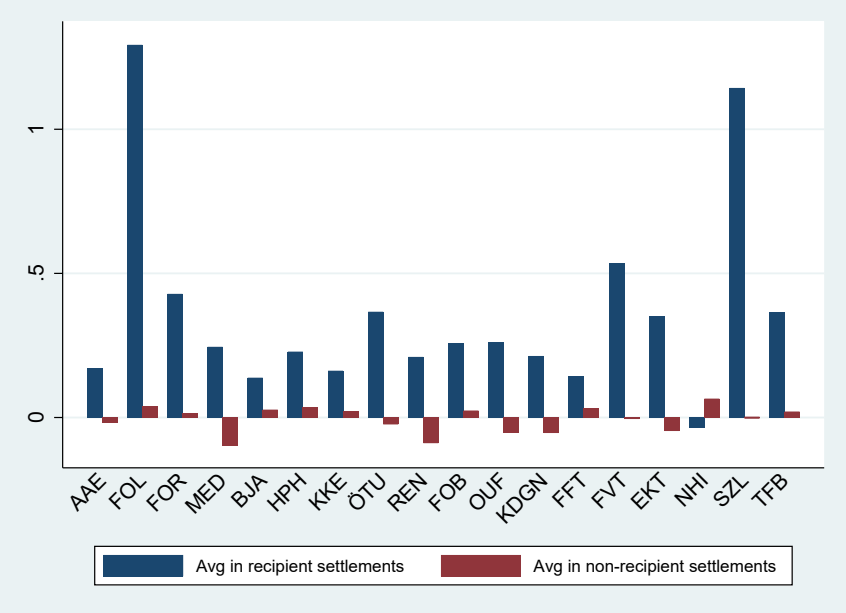

Figure 6: HVP Recipients versus non-Recipients: Relative Popularity of Fidesz in 2018 National Elections

Note: The abbreviation stands for different issue areas as summaries in Table 8.

between July and October 2019.[63] We have also added an estimated regression line to the Figure that shows the correlation between Fidesz popularity and the amount of per capita HVP. The positive correlation (which is very significant with a t-value of 3.79) suggests that settlements in which Fidesz performs better, obtained a larger HVP subsidy in 2019. Thus, we provide evidence for the Cox-McCubbins model and show that the incumbent government rewarded its core supporters.

As a final exercise, we do a similar investigation of the distribution of Rural CSOK subsidies. In particular, we re-estimate the cross-sectional linear probability model of Equation (13) with the Rural CSOK recipient dummy as the dependent variable, for the Rural CSOK eligible settlements. We find that the estimate of parameter β is highly insignificant, for all possible measures of Fidesz performance. Also, when we estimate the correlation between the per capita Rural CSOK disbursement and the Fidesz performance (similarly to the per capita HVP disbursement on Figure 7), then we find no significant relationship between the performance of Fidesz on past elections and per capita Rural CSOK subsidies. These results are intuitive, as the Rural CSOK subsidies were distributed

[63]Therefore the dots of the settlements that – despite being eligible – did not receive any HVP subsidy are located on the horizontal axis.

CEU eTD Collection

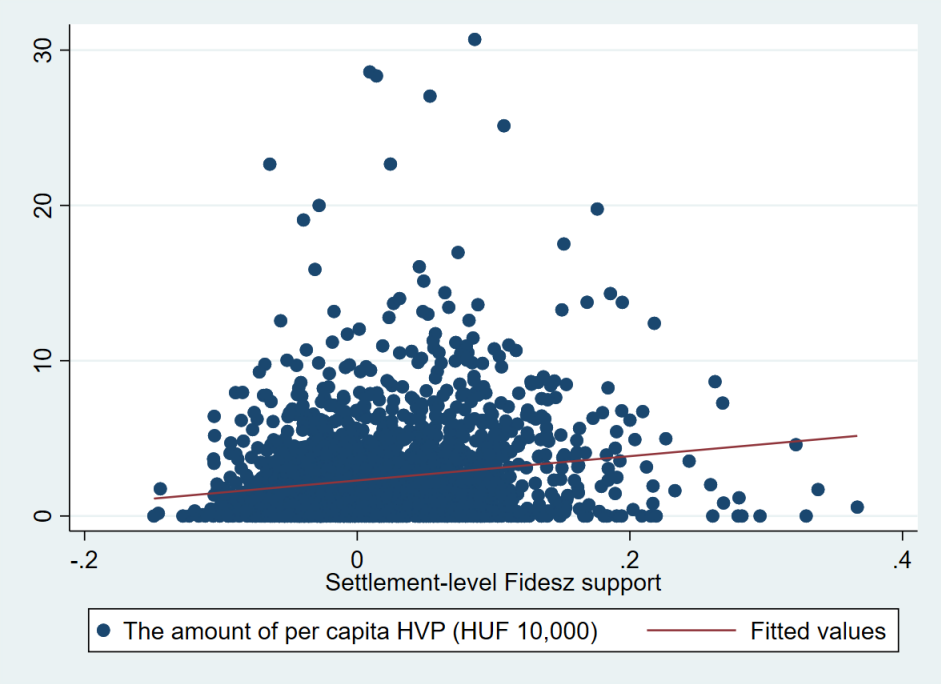

Figure 7: Correlations between the Amount of Per Capita HVP Funds and the Settlement-Level Fidesz Support (Estimated Settlement Fixed Effects)

by agents (commercial bank branches) that are independent from the central or local governments, and the allocation criteria did not contain any subjective elements. The results imply that Rural CSOK allocation is probably exogenous to Fidesz support.

As a final note, we should mention that unfortunately, we only have data about the settlements that received any type of HVP subsidy, but not about the settlements that applied but did not get the subsidy. This leaves open the possibility that the endogenous disbursement of HVP subsidies happened already at the demand side, meaning that settlements on which the support of Fidesz is smaller than the national average, did not even apply for such subsidies. Without appropriate data, we cannot formally test this hypothesis. However, we suspect that this is probably not the case, for two reasons. First, there is anecdotal evidence in newspapers, in which some mayors who are supported by opposition parties complain that their HVP applications were rejected. Second, application for HVP subsidies is not costly, while it potentially brings non-refundable revenues for the settlements; therefore all mayors – irrespective of their party affiliation – had an incentive to apply.

CEU eTD Collection

3.7 Conclusion

The phenomenon that politicians distribute material rewards to maximize their electoral success is widespread in many countries and in many forms. This Chapter seeks to understand whether voters are willing to exchange their vote for material benefits; and how politicians and their intermediaries target voters to maximize their electoral chance. This Chapter analyzes the effect of a large targeted government spending program on support for the government in Hungary as well as the targeting strategy of the government. The program targets rural settlements with two sub-programs: the first, *Rural Family Housing Allowance Program* provides housing subsidies for individuals from eligible settlements; while the second, the *Hungarian Village Program* provides financial rewards to eligible settlements.

To ultimately advance our understanding of the electoral effect of a targeted policy as well as of the targeting strategy of the government, we exploit the quasi-random assignment of program eligibility. We rely on a difference-in-differences design by making use of the exogenous variation in eligibility for subsidies and compare the vote share as well as the turnout rate in eligible and non-eligible settlements before and after the implementation of the policies. Further, in case of the targeted spending within the Hungarian Village Program, the criteria of distribution are not public and it is unclear who would benefit from HVP and on what basis. Therefore, we analyze the targeting strategy of the government and test whether the incumbent party favors swing or core settlements and whether the funds are utilized to mobilize voters.

Our main findings suggest that policy eligibility *per se* drives up support for the government; Fidesz vote share increases by 4.3 percentage points in policy eligible settlements (Rural CSOK and HVP eligible settlements) relative to changes in Fidesz vote share in non-eligible settlements. While it is unclear whether this electoral difference comes from mobilized, core voters or from swaying otherwise opposition voters, we are nonetheless able to estimate the turnout effect of the policies. We find evidence that the policies also increased the turnout rate in eligible settlements; the policies mobilized 5.5 percentage points more voters in eligible settlements as compared to non-eligible units.

Our findings make three important contributions to the literature. First, we show that incumbent politicians are indeed rewarded by voters for distributive allocations and in particular for those from which recipients can be excluded (Ortega and Penfold-Becerra 2008; De La O 2013; Chong et al. 2015). The results provide a rigorous quantitative evidence about the electoral effect of a targeted policy by relying on an administrative,

CEU eTD Collection

settlement-level data set that is in many ways superior to data used in existing research. The data set provides us an extremely low level of aggregation (the median settlement in our data set has less than 620 eligible voters), while the data is measured without sampling error or survey respondents' bias – problems that typically plague highly disaggregated data sets. Additionally, the plausibly exogenous policy eligibility threshold as well as the short time span between the election results from before and after the introduction of the policy allows us to infer a casual relationship between the targeted policy and the support for the incumbent government.

Second, we contribute to the economic voting literature by analyzing the electoral effect of a targeted transfer that rewards individuals (and thus test the pocketbook voting theory claiming that individuals support a political candidate or a party that benefits them the most financially) *versus* that targets settlements and thus affects the local milieu an individual is living in (testing whether voters are looking at the state of their local economy in voting, a theory called sociotropic voting) (Manacorda, Miguel, and Vigorito 2011; Dassonneville and Lewis-Beck 2019; Simonovits, Kates, and Szeitl 2019). The policy design targeting individuals as well as settlements along the same exogenous policy eligibility allows us to test whether individuals cherish transfers to familes or to their settlements. Our preliminary findings show that individuals are more responsive to sociotropic considerations, thus to HVP transfers.

Third, we contribute to the debate about the government targeted strategies and whether core or swing voters receive greater allocations by politicians. In particular, we contribute to the literature that claims that a party targets its strongest supporters to induce them to go to the polls (Nichter 2008; Finan and Schechter 2012; Jensenius and Chhibber 2023; Hill 2017). While empirically testing the targeting strategy of the government is challenging due to omitted variables and reverse causality, we show descriptive evidence that the Hungarian Village Program was strategically used and targeted to core settlements with low turnout rate.

CEU eTD Collection

4 *Political Economy of Transfers and Public Opinion*

4.1 Introduction

In April 2022, parliamentary elections were held in Hungary to elect the National Assembly.[64] The election came at an economically difficult time. Rising interest rates, surging inflation and energy prices were exacerbated by Hungary's lack of access to EU funds due to rule of law concerns, such as a row over democratic standards.[65] At the same time, Russia's invasion of Ukraine just a few month before the elections had appeared to upend Hungarian Prime Minister Viktor Orbán's campaign, forcing him into awkward manouvering to explain decade-old economic and political relations with President Vladimir Putin. In addition, for the first time since 2010, Orbán's opposition (socialists, greens, liberals, former far-right parties) was running together in the elections, which–given the specificities of the Hungarian election system–gave them the best chance in the Orbán era to defeat the Fidesz-led government.[66] Still, in April 2022, Fidesz scored a fourth consecutive landslide victory in national elections, winning the support of many older, relatively poor voters in rural areas who espouse his traditional Christian values, as well as of families who benefit from a host of tax breaks. What explains the unexpected landslide victory of the incumbent government?

To support its bid for a fourth successive term, the incumbent government distributed an approximately $5.35 billion (2,000 bn HUF, around 3% of GDP) worth of tax rebates, tax cuts, pension hikes and other subsidies just before the April 2022 elections. This enormous spending program was announced in late 2021 and was disbursed in February, only 6-8 weeks before the elections. It has pushed the country's budget deficit to 1,585 bn HUF in February 2022, half of the 2022 target.

In this paper, we examine the role of two major pre-election government spending programs in shaping the attitudes and policy preferences of the mass public: the role of the extra month of pension payment (hereafter "13th month pension") targeting the older segment of the society, and the family tax refund. These two policies are unconventional

[64] This Chapter is co-authored with Professor Thomas B. Pepinsky and Ádám Reiff.

[65] In April 2022, the consumer price inflation reached a 15-year high of 9.5% (year-on-year) with food inflation soaring to 15.6%. This was, however, only the beginning of a steadily increasing inflation path, which peaked in January 2023 with a 25.7% headline inflation and a 44.8% food inflation. Meanwhile, the central bank's base interest rate of 4.4% in April 2022 was gradually increased to 13% by September 2022.

[66] Following a successful pre-election campaign of the opposition parties in September-October 2021, which mobilized 10% of the electoral base, polls projected a very tight race between the incumbent government and the opposition coalition.

CEU eTD Collection

in many ways. First, regarding the timing of the allocations, both policies were introduced just before the 2022 national elections and were flagships in the government's pre-election political campaign.[67] The timing of the two policies (just before the elections despite of the worsening economic circumstances in line with the political business cycles model) makes it clear that the benefits were intended to sway people's vote.[68] In a recent paper, Bueno (2021) provides evidence that the electoral effects of pre-election spending is especially large when politicians successfully claim credit for this spending and argues that *"the ability to claim credit reinforces incentives for pre-election expansion of government expenditures"* (Bueno 2021, p.1).[69] The Hungarian Prime Minister has had a variety of platforms to claim credit for these policies, to make sure that voters learn about pre-election spending and most importantly, to ensure that voters attribute responsibility to the incumbent government. In February 2022, all tax refund recipients (1.9 million people, or around 25% of voters) received a letter, via regular mail, which informed them about receiving the tax refund, and also claimed that the previous left-wing government–whose members were part of the opposition coalition–significantly cut family allowances in the past. At the same time, pensioners also received a letter from the state treasury that informed them about the full re-introduction of the 13th month pension.[70] These letters cost around $1.75 million (700 million HUF) and were financed from the central budget.[71]

Second, both policies target one particular group within the society (the first one targets senior citizens, the second is designed for working families with children) sending the message that the state perceives these groups as deserving; and people belonging to

[67] The tax refund was announced in September 2021 and the extra month of pension in November 2021. The 13th month pension was paid in early February 2022, while the tax refund was transferred in February-March 2022.

[68] An extensive literature examines the timing of goods allocation to determine their association with the electoral cycle. Many papers find that politicians, seeking to improve their chances of winning a forthcoming election, deliberately allocate goods and services just prior to the election. For example, Drazen and Eslava (2005) find that pre-election expansions of investment spending and government jobs occur in Colombian municipalities, while Kwon (2005) provide evidence for increased government spending to provinces in election years in South Korea. In Hungary, Gáspár, Gyöngyösi, and Reizer (2023) document that the Fidesz government used the public work program to gain popularity just before the 2014 national elections.

[69] Credit claiming refers to a set of actions (appearances, branding) politicians take to create a belief or shape their message about spending (Bueno 2021).

[70] In the wake of the 2008-2009 financial crisis, the left-wing government—now part of opposition coalition—indeed stopped the disbursement of the 13th month pension. In 2020, the Fidesz government decided to re-introduce the 13th month pension in a gradual way: pensioners would have received an extra one *week*'s pension in each years between 2021-2024, and a full *month*'s pension from 2024. This decision was overturned in September 2021, granting pensioners an extra month's pension from already 2022.

[71] See https://hvg.hu/gazdasag/20220207_700_millioba_kerul_Orban_levele_az_adovisszateritesrol_es_a_13_havi_nyugdijrol (link).

CEU eTD Collection

these social groups automatically received monetary subsidies (without application or any other administrative burdens).[72] Nonetheless, contrary to the conditional cash transfer (CCT) programs that usually target the poorest segment of the society (e.g. eligibility is defined according to some income or wealth threshold), the pre-election spending programs of Hungary distributed larger subsidies to the wealthier.[73] The tax refund program reimbursed the personal income tax from the year of 2021 for all families with children (with a flat 15% personal income tax rate, this implies that families received a one-time transfer equivalent of 12*15%=180% of their regular gross monthly earnings, or around 245% of their regular net monthly earnings), and therefore families with larger income received more refund. Similarly, the 13th month pension payment was defined as the amount of the regular monthly pension benefit, therefore better off pensioners received more subsidy than their poorer compatriots.[74]

Third, pre-election subsidies in Hungary were distributed unconditionally. Unlike CCT programs that make welfare programs conditional upon the receivers' actions such as enrolling children into public schools, getting regular check-ups at the doctor's office, or receiving vaccinations, or unlike clientelism of many kinds where parties offer material benefits only on the condition that the recipient returns the favor with a vote or other forms of political support, these subsidies came unconditionally.[75]

Fourth, the size of the spending programs (especially during an economically difficult time) also stands out as compared to the amount distributed within similar programmatic programs: in Hungary, around 3% of GDP was distributed during the two months preceding the elections, which is much larger than the typical size of other countries' conditional cash transfer programs. The coverage of the programs was also exceptionally large: 25% of voters (around 1.9 of 7.6 million) were eligible for family tax refund, and another 25% of voters (2 million pensioners) were eligible for the 13th month pension. This adds up to around half of the electorate.[76]

[72]There is, however, an important difference between the designs of the two policies; while the pension policy grants the 13th month pension for the long run, in all subsequent years, the family tax refund was a one-time payment.

[73]This is a reasonable comparison, as CCT programs also provide cash, target one particular segment of the society based on well-defined, objective and non-manipulable eligibility rules.

[74]Poland also introduced recently a so-called 13th month pension payment; but the Polish policy is *flat* in the sense that all pensioners receive the same amount irrespective of the recipients' regular old-age pension.

[75]See an in-depth summary of the Latin American CCT programs by Cecchini and Atuesta (2017).

[76]Parker and Todd (2017) argue that the CCT program *Progresa/Oportunidades* of Mexico reached 5.8 million households (around 20% of all households) with a total budget of 0.5% of the GDP in 2010, 13 years after its gradual introduction. More generally, in a meta analysis of Latin American CCT programs, Cecchini and Atuesta (2017) report that across 16 countries that apply CCT programs, the average coverage

CEU eTD Collection

We, therefore, label these two policies as *programmatic club goods distribution* because they are disbursed according to well-defined rules and without regard to partisan characteristics or voting history, while the benefits of the policies were not directly contingent on a vote for the incumbent party.[77] That implies that qualified voters in constituencies that supported the opposition party still had access to the two programs. While the timing of the two policies (just before the elections despite of the severe economic circumstances) makes it clear that the benefits are intended to sway people's vote, it does not rise to the level of clientelism.[78]

For all these reasons, we argue that the pre-election subsidy programs of Hungary in 2022 stand out in international comparison: they are very different from distributive allocations and programmatic policies implemented in other countries. While the literature on the electoral effects of programmatic policies mostly fails to find any significant electoral consequences of the spending programs (see Guardado and Wantchekon (2018) and Imai, King, and Velasco Rivera (2020)), it is unclear how people respond to such large-scare, targeted, unconditional transfer and what their views are about the appropriateness of supporting a party based on material rewards. This yields two specific research questions.

First, how do these transfers affect citizens' political participation and party preferences? What is the main mechanism that explains the electoral advantage of the incumbent government implementing a large-scale transfer? To advance our understanding about the effect of the transfers on voters (de)mobilization and on their partisanship, we compare the party preferences of subsidy recipients with non-subsidy recipients. More precisely, we analyze whether transfers mobilized new voters, demobilized otherwise opposition supporters or even swayed the party preference of some recipients. As the policies and receiving money were not illegal *de jure*, we are able to directly ask survey respondents about being a subsidy recipient as well as about their party preferences (contrary to the

is 20% and the average expenditure is 0.33% of GDP (with none of the countries exceeding 1%). Samuels (2002) studying pork-barrel amendments to the budget in Brazil, argues that these policies do not provide a direct electoral payoff because these allocations benefit only a small number of voters, particularly those in the firms that are awarded the construction contracts.

[77]These transfers are programmatic in the sense that they bestow benefits on people meeting a set of formalized, objective, non-manipulable criteria.

[78]Under classical definitions, clientelism is a transaction, or *quid pro quo*, in which "particularistic benefits from political patrons are reciprocated by voters (the clients)" (Hicken and Nathan 2020, p.278). The seminal contribution of Hicken (2011) lists the main elements shared across most (often competing) definitions of clientelism. Accordingly, *contingency* (that is voters expect to receive benefits only if they act in accordance with the patron's desired political behavior) and *iteration* (mutual expectations that exchanges will continue into the future) are central to almost all conceptualizations.

CEU eTD Collection

clientelism literature (Mares and Young 2019)).

Second, how do mass publics view the appropriateness of supporting a party based solely on material subsidies? Do citizens interpret receiving material subsidies and then supporting the incumbent based on these subsidies as socially undesirable, stigmatized behavior even when these transfers were not *de jure* illegal? These questions are particularly interesting and far from being obvious given the very unconventional nature of the policies providing large-scale, unconditional cash transfers and granting more money to the wealthier. On the one hand, distributive rules of the policies were clear and transparent, while influencing votes (rather than coercing certain behaviour) are not necessarily inappropriate. Additionally, even if a voter has been lavished with cash by the government, this individual can ignore this transfer and vote on other grounds without personal material consequence. On the other hand, supporting a party based on material rewards, more precisely on cash is socially not acceptable, especially when these transfers rather favored the better off voters. Following from this, when asking directly survey respondents about the role of these transfers in their decision to support the incumbent, respondents are likely to be more reluctant to admit this allegedly inappropriate behavior. The resulting reluctance is called social desirability bias or sensitivity bias, in which survey respondents underreport socially undesirable behavior. To mitigate the issue of social desirability bias that comes from survey respondents' reluctance of admitting that they support the incumbent because of the money they received, we employ list experiment and infer the incidence of the sensitive behavior in the population.

In this paper, we combine original survey data from April 2022 with settlement-level data to describe the attitudes and policy preference of the mass public following a large-scale, unconditional government spending program. Importantly, our analysis is based on individual level survey data including individuals' party preferences as well as a host of other individual characteristics collected two-three weeks after the elections. We merge the survey data to settlements that allows to learn more about the heterogeneous effect of these transfers across individuals with different socio-economic background living in different settlements. By including settlement level fixed effect in the analysis, our identification comes from the difference of party preferences of subsidy recipients and non-recipients with similar socio-demographic characteristics living in the same settlements. At the same time, settlement-level fixed effects allow us to control for any settlement-level changes in the level of clientelistic exchanges (the level at which these policies are typically implemented in Hungary) (Gáspár, Gyöngyösi, and Reizer 2023; Mares and Young 2019);

CEU eTD Collection

as well as for any observed and unobserved settlement-level characteristics.

Our results suggest that these transfers worked mainly by demobilizing voters who might have opposed the incumbent party. In particular, family tax refund recipients with primary education or living in rural areas, and the pension recipients living in the capital city were less likely to support the opposition coalition than non-recipient voters with similar socio-demographic characteristics. Further, findings demonstrate that the majority of voters think that it is not appropriate to support a political party based on material handouts. Finally, findings reveal that the material rewards influenced the party preference of around 20% of the incumbent voters.

4.2 The Policy Background

Before the elections in April 2022, the Hungarian government distributed large-scale material transfer to well-defined segments of the population. In October 2021, the chief economic advisor of the Prime Minister announced that between October 2021 and March 2022, the government planned to implement a fiscal stimulus of 15% of the GDP (or around 7,200 billion HUF, 20 bn USD).[79] Estimates suggest that around one third of this fiscal stimulus was direct monetary subsidy to individuals, in various forms: personal income tax refund for families with children (660 bn HUF), 13th month pension for the retired (365 bn HUF), family housing allowance program (FHAP), and home renovation subsidies.[80]. In the tax refund program, parents raising children got back their personal income tax paid in 2021, up to the amount of the average salary. The maximum amount reimbursed was around $ 2,000 (HUF 809,000), or around 245% of the average net earnings (HUF 330,000) in early 2022, for families with larger-than-average income. Families earning below the average got reimbursed a proportionally smaller amount. In terms of the 13th pension month payment, all retired individuals got an extra month of pension in February 2022, which means that in February 2022 they received twice the usual amount of their pension benefits. Similarly to the tax refund, this implies that better-off pensioners got larger subsidies. We note that originally, the government re-introduced the 13th month pension

[79] See https://hvg.hu/gazdasag/20211019_nagy_marton_konferencia_inflacio_gazdasagpolitika (link).

[80] See MNB (2022). Additional elements of the direct fiscal subsidies include the newly introduced personal income tax exemption for the young (less than 25 years, total subsidy is 140 bn HUF), service allowances for the military and police employees (170 bn HUF), and various sectoral wage increases (382 bn HUF in education, social services, and for government officials, university professors). The total increase of the households' net disposable income is estimated to be 1,717 bn HUF (5 bn USD), or more than 3% of GDP in 2021. See also https://hvg.hu/gazdasag/20220903_Az_emberek_mar_kamatostul_visszafizettek_a_valasztas_elotti_osztogatast_a_koltsegvetesbe (link).

CEU eTD Collection

payment—which was abolished in 2009 by the previous left-wing government in the wake of the 2008-09 financial crisis, due to macro-financial difficulties—from 2021, with gradual implementation. According to the original plans, in each year between 2021-24 only one week of extra pension payment would have been re-introduced, and pensioners would have received a full month of extra pension only by 2024. This date was brought forward to 2022, with an announcement in late 2021.

In our April 2022 survey, we asked all respondents whether they received the above mentioned forms of the monetary subsidies, as well as a series of questions on whether this might have influenced their vote choice. We analyze the effect of subsidies on the support of Fidesz based on these questions. The first row of Table 15 shows the proportion of voters who received four types of subsidies before the April 2022 elections. About one quarter of all voters received the 13th month pension, which is consistent with the population proportion of the 65+ age cohort. Another 17% of voters benefited from the personal income tax refund for families with children. This is a smaller proportion than the population share of people living with children under 18, but recall that only legally employed people with taxable income could benefit from the tax refund. The proportion of the recipients of the family housing allowance program and the home renovation subsidy is around 4% each. Altogether, 44% of all voters received at least one type of subsidy.[81]

The following four panels of Table 15 show the proportion of subsidy recipients by age, number of children, employment status and marital status—the most important sociodemographic determinants of the provision of the different types of subsidies. For the tax refund, individuals living with children under 18 and legal employment (subject of personal income tax) were eligible—which is clearly reflected in the Table. On the other hand, the precondition of getting 13th month pension was being retired. We also see significant heterogeneity of the recipient proportion by age and marital status.

In the following, we will focus on the recipients of tax refund and 13th month pension, as these were the types of subsidies which were disbursed based on well-defined and objective rules: all eligible individuals (i.e. legally employed parents of children under 18 years and pensioners) received the subsidies, even if they did not request them. This ensures that for these two types of subsidies—that were by far the most important ones—there is no self selection into the set of recipients.[82]

[81] 87.5% of all subsidy recipients received only one type of subsidy, and another 10% of them received two, while the remaining small proportion received three or four. This explains why the proportion of subsidy recipients is somewhat smaller than the sum of recipients of the different subsidies.

[82] In case of the Family Housing Allowance Program and home renovation subsidy, individuals had to

CEU eTD Collection

	Type of subsidies				
	Tax refund	13th pension	FHAP	Home renov	Any
Proportion of recipients	17.1	25.8	3.8	4.4	44.2
	By age categories				
18-30 years	15.5	1.8	5.6	4.3	20.1
31-45 years	35.8	1.4	6.5	7.3	39.9
46-55 years	14.4	7.0	3.5	5.7	20.4
56-70 years	5.3	49.7	1.1	1.8	55.6
71+ years	0.7	96.6	0.2	0.7	97.1
	By number of children				
0 child	3.9	32.1	1.2	2.7	37.1
1 child	63.7	2.1	8.3	12.6	68.9
2 children	76.8	3.1	20.4	9.6	79.6
3 or more children	49.6	5.9	25.1	2.1	54.7
	By employment status				
Employed	24.6	2.5	4.5	4.9	28.0
Self-employed	14.7	1.2	10.5	17.6	28.0
Unemployed	5.6	7.3	0.0	0.0	12.9
Retired	0.4	93.9	0.4	0.4	94.4
Inactive	36.4	15.6	9.6	6.5	51.3
Student	0.0	0.0	0.0	0.0	0.0
	By marital status				
Single	4.8	10.5	1.5	2.3	16.0
Married	18.8	24.1	6.1	6.3	44.9
Divorced	24.6	16.7	1.2	3.7	41.9
Widowed	82.9	0.0	0.3	0.7	82.9

Table 15: Proportion of Recipients of Different Subsidies by Age, Number of Children, Employment Status and Marital Status

In order to formally test the determinants of subsidy recipiency, we estimate the following linear probability regression of the dummies of receiving different types of subsidies:

$$subsidy_i = \alpha + X_i'\beta + \epsilon_i, \tag{14}$$

where $subsidy_i$ is a dummy variable for respondent i to receive a particular type of subsidy, and X_i' is a row vector of socio-demographic variables about individual i. We estimate this equation twice: first for tax refund recipient dummy, and second for the recipients of

submit a request for getting the subsidy—an administrative procedure that might not be equally easy to fulfil for all voters.

CEU eTD Collection

the 13th month pension.

For the equation on receiving personal income tax refund, besides the number of children and employment status variables the education level (primary/secondary/tertiary) turns out to be significant, but all other socio-demographic variables (gender, ethnicity, age, marital status, settlement type) are insignificant: for the F-test on their joint insignificance, $p = 0.5375$. Education might matter as, *ceteris paribus*, more educated people are more likely to have official employment and thus become eligible for tax refund by paying taxes. For the equation on receiving 13th month pension, besides the employment status variable (and most importantly: being retired), the respondents' age is significant, while all the other socio-demographic variables are insignificant ($p = 0.6888$ for the F-test of joint insignificance).

We focus on those two subsidy types—the personal income tax refund and the 13th month pension—where being beneficiary was automatic if certain objective criteria (e.g. being legally employed and having children, or being retired) were satisfied. This ensures that, once we control for all these objective criteria, there is no self selection of the subsidy recipients based on any factors that might be related to party preference. In other words, if we control for all the group characteristics that influenced the disbursement of subsidies (employment status, number of children, being retired etc.), there should be no further within-group selection into the pool of recipients that might be related to party choice, and which could confound the effect of subsidies on vote choice.

4.3 Empirical Analysis

4.3.1 The Political Returns of Allocations

In this section, we examine whether the incumbent government was rewarded by voters for the pre-election club goods distribution. We begin with an analysis of the determinants of willingness to vote for Fidesz, which enables us to directly estimate the impact of receiving different types of subsidies on Fidesz vote share. We estimate the following linear probability model:

$$y_i = \alpha + \beta_1 subsidy_i + \beta_2 relig_i + X_i'\gamma + \delta_j + \epsilon_i, \tag{15}$$

where y_i is a dummy variable indicating that respondent i voted for Fidesz in the elections; $subsidy_i$ is a subsidy-recipient dummy (which, for the time being, contains all respondents who received any of the four types of subsidies); $relig_i$ is a dummy for religiosity; X_i' is a

CEU eTD Collection

vector of socio-demographic variables such as education, age, gender, and activity type; and δ_j are settlement dummies that capture the effect of all contextual variables at the settlement level (local party preferences, economic conditions, share of religious or foreign population etc.). We can include settlement dummies as the 1,023 survey respondents were asked from 104 settlements, with more than one (typically 5-15) respondents from all settlements in the survey sample. For the variable on individual religiosity, which turns out to be the most significant when explaining respondents' willingness to vote for Fidesz, we used three alternative measures: self-declared level of religiosity, frequency of participating in religious services, and being Catholic or Protestant. By including relevant control variables, we claim to capture the counterfactual conditions. Table 16 shows the results.

	Measure of religiosity					
	degree		attendance		denomination	
Subsidy recipient	0.028	(0.48)	0.032	(0.55)	0.053	(0.85)
Very religious	0.481***	(6.02)	..	..	..	..
Somewhat relig	0.150***	(2.68)	..	..	..	..
Frequent particip	..	..	0.515***	(7.19)	..	..
Occasional particip	..	..	0.181***	(3.84)	..	..
Catholic	..	..	..	..	0.253***	(3.76)
Protestant	..	..	..	..	0.147*	(1.97)
Socio-demogr contr	Yes		Yes		Yes	
N	1,017		1,017		998	

Robust t statistics in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 16: Linear Probability Model on the Determinants of Voting for Fidesz

Table 16 shows that the estimated parameter of being a subsidy recipient, once we control for all socio-demograohic variables and settlement fixed effects, are statistically insignificant. Individual religiosity, however, is strongly significant: the probability that very religious or frequent service participant respondents vote for Fidesz is 48-52 percentage points higher than for their non-religious or non-service participant fellows. For the somewhat religious, or occasional service participants, the effect is smaller (15-18 percentage points) but still strongly significant. For Catholic respondents, the increase in probability is 25 percentage points, while for Protestants it is 15 percentage points (the latter is only significant at the 10% level).[83] The effect of being a subsidy recipient on supporting Fidesz is not statistically significant even when we distinguish between the

[83]For the other socio-demographic controls, we find that Fidesz is more popular among Roma, married,

CEU eTD Collection

different types of subsidies (Table 60 in Appendix AB) and even when we allow the effect of being a subsidy recipient on party preference to differ across the level of education, the level of income of the survey respondents as well as across the type of settlement the respondent is from (Table 61 in Appendix AC).

Nonetheless, estimating the effect of being a subsidy recipient on a dummy variable equals one if the respondent voted for Fidesz and zero otherwise comes with an oversimplified understanding on the electoral effect of these subsidies. Being a subsidy recipient might have a positive effect on those who did not vote for Fidesz (and by definition the dummy variable is zero in this case), but who would have voted for the opposition without the subsidy. In another words, subsidies might have a de-mobilizing effect among opposition voters and while the share of Fidesz supporters does not necessarily increase, the decrease in the support for the opposition party is still a favourable outcome for the incumbent government.

To investigate the effect of subsidies on the willingness to vote for one of the opposition parties, we re-estimate Equation (15) when the dependent variable is "non-Fidesz", i.e. a dummy variable of voting for any party other than Fidesz. We also allowed the effect of subsidies to be heterogeneous across different social groups.

Table 17 presents mostly negative point estimates, suggesting that support for the opposition parties is smaller among subsidy recipients. The estimated parameters show that subsidy recipients' willingness of supporting any other party than Fidesz decreases by 7 percentage points, which implies–given that the population proportion of subsidy recipients is around 45%–that due to subsidies, support for the opposition parties decreased by around 3.5 percentage points in the whole population.

While this is a large effect, it is statistically not significant, therefore we now turn to the heterogeneous de-mobilizing effect of subsidies across different segments of the society. We find that the de-mobilizing effect was particularly large among tax refund recipients with primary education, and among the pension recipients living in Budapest. In these segments, the probability of supporting any party other than Fidesz decreases by more than 20 percentage points (both estimates are significant at the 5% level). Table 17 also provides evidence that the support for other parties decreases by around 14 percentage points among tax refund recipients living in small towns, and the decrease is 9 percentage point among those who live in villages.[84] These results indicate that the

more educated respondents who have two children, but it is less supported by those who have only one child.

[84]If we estimate a common effect for villages and small towns, and interpret the estimate as the effect

CEU eTD Collection

	Dependent variable: non-Fidesz voter dummy					
	Effect of the following subsidy:					
	Any subsidy		Tax refund		13th pension	
	Panel A: By education level					
Primary education	-0.146**	(-2.30)	-0.214***	(-2.63)	-0.039	(0.49)
Secondary education	0.020	(0.24)	0.044	(0.47)	0.014	(0.15)
Tertiary education	-0.029	(-0.35)	0.032	(0.32)	-0.093	(-0.82)
Whole population	-0.069	(-1.18)	-0.058	(-0.78)	-0.027	(-0.39)
	Panel B: By settlement type					
Village	-0.027	(-0.33)	-0.091	(-1.03)	0.021	(0.22)
Small town	-0.118	(-1.37)	-0.144	(-1.48)	-0.041	(-0.51)
County capital	0.021	(0.21)	-0.055	(-0.49)	0.068	(0.68)
Budapest	-0.116	(-0.84)	0.137	(0.88)	-0.251**	(-2.08)
Whole population	-0.069	(-1.18)	-0.058	(-0.78)	-0.027	(-0.39)
	Panel C: By income category					
Less than median	-0.092	(-1.26)	-0.061	(-0.57)	-0.056	(-0.71)
More than median	-0.053	(-0.72)	-0.053	(-0.62)	0.014	(0.18)
Whole population	-0.069	(-1.18)	-0.058	(-0.78)	-0.027	(-0.39)

Robust t statistics in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.
Socio-demographic controls and settlement dummies are included in all specifications.

Table 17: Effect of Subsidies on the Willingness to Vote for Any Party Other Than Fidesz

de-mobilizing effect of subsidies was stronger among those with primary education living in the countryside.

To acquire a better understanding on the effect of being subsidy recipient on supporting Fidesz as well as on de-mobilizing opposition voters, we now test these two effects in a single specification. We define a new dependent variable which takes the value of 1 if a respondent supports Fidesz, the value of -1 for voters supporting any other parties than Fidesz, and 0 for all voters who do not participate in the elections. Relying on this dependent variable, we re-estimate Equation (15). In this specification, if a subsidy recipient participates in the elections and supports Fidesz due to the subsidies (first channel), the outcome variable increases by 1; if, on the other hand, a subsidy recipient non-Fidesz voter does not participate in the election due to the subsidies (second channel), then the outcome variable again increases by 1; while if the subsidies sway respondents' party preference to support Fidesz instead of any other party, the outcome variable increases by 2. Thus, this specification estimates the total effect of subsidies on the winning margin of

on tax refund recipients living in the countryside, the estimated common effect is -10 percentage points, significant at the 10% level.

CEU eTD Collection

the incumbent government and shows the *net gain* of Fidesz due to its subsidy policies.[85]

	Dependent variable: Net vote of Fidesz (1/0/-1)					
	Effect of the following subsidy:					
	Any subsidy		Tax refund		13th pension	
	Panel A: By education level					
Primary education	0.200*	(1.76)	0.317**	(2.16)	0.045	(0.33)
Secondary education	-0.031	(-0.20)	0.026	(0.15)	-0.105	(-0.65)
Tertiary education	0.073	(0.49)	-0.091	(-0.55)	0.092	(0.38)
Whole population	0.101	(1.01)	0.106	(0.88)	-0.001	(-0.01)
	Panel B: By settlement type					
Village	0.070	(0.47)	0.261	(1.51)	-0.106	(-0.60)
Small town	0.080	(0.60)	0.108	(0.75)	0.002	(0.01)
County capital	0.026	(0.14)	0.078	(0.32)	-0.101	(-0.57)
Budapest	0.276	(1.32)	-0.100	(-0.41)	0.412*	(1.94)
Whole population	0.101	(1.01)	0.106	(0.88)	-0.001	(-0.01)
	Panel C: By income category					
Less than median	0.193	(1.58)	0.078	(0.49)	0.104	(0.76)
More than median	0.040	(0.32)	0.113	(0.77)	-0.152	(-1.21)
Whole population	0.101	(1.01)	0.106	(0.88)	-0.001	(-0.01)

Robust t statistics in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.
Socio-demographic controls and settlement dummies are included in all specifications.

Table 18: Effect of Subsidies on the Winning Margin of Fidesz

Table 18 shows the increase in the winning margin of Fidesz among subsidy recipients, across different socio-demographic groups. Overall we estimate a 10 percentage point gain for Fidesz among subsidy recipients that corresponds with an approximately 5 percentage points gain in the whole population.[86] Table 18 provides further evidence that Fidesz has large and significant gains (more than 30 percentage points) among tax refund recipients with at most primary education, and among 13th month pension recipients who live in Budapest. We also estimate sizeable impact on tax refund recipients who live in villages.[87]

[85]This is the sum of the effects that we estimated in Tables 61 and 17. Schuster (2020) also uses this variable as a dependent variable when measuring the effect of campaign advertising spending on the electoral performance of the Republican Party relative to the Democrats in the 2012 Congressional Elections. He calls this as the *net vote* variable. Estimated parameters of the regression can be interpreted as net gains (the change in net vote due to subsidies).

[86]This is consistent with the sum of our earlier results in Tables 61 and 17.

[87]These results are completely in line with Schuster (2020)'s results on the effects of campaign spending on advertisements in the US. He finds that pre-election spendings on ads mostly work through de-mobilizing the other party's voters; moreover, effects are strongest among "low-information voters, [among] those who identified with a political party, and [among] people who are unhappy with the state of the econ-

CEU eTD Collection

To acquire a more nuanced understanding of the effect of being a subsidy recipient on party preference as well as on the level of commitment towards different parties, we distinguish between core voters, undecided (swing) voters and indifferent voters.[88] We do this by combining information from two survey questions: besides the vote choice, we also consider when exactly the respondent decided that she or he would vote for the party.[89] Core voters always supported their party of choice, in our sample there are around 40% core voters with 51% of Fidesz core voters.[90]

The dependent variable this time has five values with core Fidesz voters having a value of +2, and core non-Fidesz voters getting a value of -2. For all other voters, the value of the variable remains unchanged: it will be +1 for undecided Fidesz voters, 0 for indifferent voters, and -1 for undecided opposition voters. In other words, we create a 5-scale Fidesz support variable that extends from -2 (always voted against Fidesz) to +2 (always voted for Fidesz). Moving up on this scale reflects that one gradually gets a more positive view about Fidesz (e.g.: an individual becomes an undecided non-Fidesz voter instead of a core non-Fidesz voter; becomes a an indifferent voters instead of an undecided non-Fidesz voter; becomes an undecided Fidesz voter instead of indifferent voter; or becomes a core Fidesz voter instead of an undecided Fidesz voter).

Note that an upgrade in this 5-scale ladder, perhaps due to monetary subsidies, does not necessarily mean that there is an immediate electoral consequence of subsidies. While subsidy recipient might remain Fidesz voters or opposition voters, their level of commitment might change due to the subsidies. Following from this, when we compare the distribution of subsidy recipients with the distribution of subsidy non-recipients considering their average placement over this 5-scale variable, the difference cannot be interpreted as a net vote gain for Fidesz, at least not immediately. But it still shows the degree of party support that – in the long-run – might be translated into changes in vote choice.

Table 19 shows the estimated effect of subsidies on a 5 scale party preference. This

omy", properties probably shared by Hungarian voters with at most primary education and living in the countryside.

[88]Undecided swing voters are sitting on the fence or mildly leaning toward one party (Kitschelt 2018).

[89]The wording of the questions is the following: *"When did you decide that you vote for this party?"*

[90]One potential concern is that consciously or unconsciously, subsidy recipients marked the *"always supported this party"* option due to receiving subsidy whereas they would have not answered this question, if they did not receive the support from the government. To mitigate this issue, we check the proportion of survey respondent who always supported Fidesz in a survey from 2014 (the only survey from past TARKI surveys that contains this question). Given that we do not see a systematically higher proportion, especially not among those who later qualified for subsidy (families with children and retired), we rule out this concern.

CEU eTD Collection

table shows that tax refund recipients with primary education or living in the countryside (in villages or small towns), and 13th pension month recipients living in Budapest had significantly more favorable opinion about Fidesz in the elections. Our overall estimate is that subsidy recipients are, on average and given all the socio-demographic controls that we included, 0.24 grades higher on this 5-scale ladder than their non-recipient fellows.

	5-scale Fidesz support variable (from -2 to +2)					
	Effect of the following subsidy:					
	Any subsidy		Tax refund		13th pension	
	Panel A: By education level					
Primary education	0.376**	(2.13)	0.360*	(1.77)	0.207	(1.10)
Secondary education	0.081	(0.37)	0.206	(0.86)	-0.107	(-0.49)
Tertiary education	0.188	(0.79)	0.061	(0.25)	-0.088	(-0.27)
Whole population	0.243	(1.63)	0.226	(1.36)	0.068	(0.42)
	Panel B: By settlement type					
Village	0.216	(0.99)	0.392	(1.64)	-0.033	(-0.13)
Small town	0.171	(0.88)	0.254	(1.36)	0.020	(0.12)
County capital	0.118	(0.48)	0.061	(0.19)	-0.041	(-0.18)
Budapest	0.582	(1.65)	0.070	(0.18)	0.675*	(1.84)
Whole population	0.243	(1.63)	0.226	(1.36)	0.068	(0.42)
	Panel C: By income category					
Less than median	0.365**	(2.16)	0.248	(1.20)	0.178	(0.92)
More than median	0.165	(0.87)	0.215	(1.04)	-0.090	(-0.52)
Whole population	0.243	(1.63)	0.226	(1.36)	0.068	(0.42)

Robust t statistics in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.
Socio-demographic controls and settlement dummies are included in all specifications.

Table 19: Effect of Subsidies on the Winning Margin of Fidesz

In sum, we find evidence that subsidy recipients had a 3-5 percentage point higher probability of supporting the incumbent Fidesz (Table 60 and Table 61), and at the same time their willingness to support another party decreased by around 7 percentage points (Table 17). This latter decrease is more than 20 percentage points in certain sub-groups of the society (tax refund recipients with primary education and 13th month pension recipients living in Budapest), and is statistically significant. We also find that the net winning margin of Fidesz is significantly larger among tax refund recipients who have primary education or live in villages, and among 13th month pension recipients in Budapest (Table 18), and this result holds if we distinguish between core voters and unattached voters (Table 19). Following from this, pre-election transfers has increased the winning margin

CEU eTD Collection

of the incumbent party by around 5 percentage points.

4.3.2 *Appropriateness of Supporting a Party Based on Material Benefit*

While pre-elections material handouts, albeit unconventional in many respects, was not illegal, it is not clear how the public perceive the appropriateness of supporting the incumbent based on these distributions.

To learn more about the public view on the appropriateness of supporting the incumbent party based on material subsidies, we constructed three questions in our survey. First, we rely on the question of *"Did subsidies encourage people to vote for Fidesz on April 3?"* that was asked from all survey respondents. Table 20 reveals that around two third of the respondents claim that subsidies encouraged people to vote for Fidesz; nonetheless, this ratio is significantly lower among Fidesz supporter and among religious survey respondents who frequently go to church. In contrast, opposition voters overwhelmingly think that subsidies encouraged people to vote for Fidesz.[91]

		Partisanship		Service participation		
	All	Fidesz	Opposition	Frequent	Occasional	Never
Yes	67.2%	56.1%	84.4%	52.9%	68.4%	71.1%
No	25.6%	36.7%	15.0%	39.2%	25.7%	20.7%
Don't know / Refuse	7.2%	7.2%	0.6%	7.9%	5.9%	8.2%
N	1023	485	251	163	455	404

Table 20: Did Subsidies Encourage People to Vote for Fidesz? Distribution of Responses

We also asked all respondents ($N = 663$) who claimed that subsides encouraged people to vote for the incumbent whether this behavior is appropriate. The wording of the question was the following: *"Is it appropriate that people vote for Fidesz because of the subsidies?"*. Table 21 shows that almost two thirds of the respondents think that this practice is inappropriate, and this view is primary driven by opposition and more educated voters.[92]

Finally, we were interested in why the survey respondents think that some voters voted for Fidesz after receiving the transfers. We phrased the question as *"Why do you think that people vote for Fidesz after receiving material subsidies?"* and provided three options: the first

[91] These results hold in multivariate regression, when we also control for individual socio-demographic characteristics and settlement fixed effects.

[92] These hold in multivariate regression settings too.

CEU eTD Collection

		Partisanship		Education level		
	All	Fidesz	Opposition	Primary	Secondary	Tertiary
Yes	35.6%	60.3%	16.9%	39.8%	31.9%	29.5%
No	62.6%	38.6%	82.3%	58.8%	65.8%	68.3%
Don't know / Refuse	1.8%	1.1%	0.8%	1.4%	2.3%	2.2%
N	663	265	205	213	226	122

Table 21: Is It Appropriate that People Vote for Fidesz Because of the Subsidies? Distribution of Responses

refers to economic considerations (economic hardship), the second resonates with the populist profile of the incumbent government (Fidesz caring for people), while the third incorporates the values that the government attached to their policies (Fidesz supporting families and traditional values). Table 22 contains the results. Overall, the relative majority of respondents think that people vote for Fidesz after receiving material handouts due to economic hardship; and this opinion is especially strong among opposition voters, subsidy non-recipients and among those who think that it is not appropriate to vote for Fidesz because of some material transfers. On the other hand, non-economic reasons are relatively popular among Fidesz voters, subsidy recipients and among respondents who think that it is appropriate to reward Fidesz with a vote for subsidies. Overall, the opinion of inappropriateness is correlated with the opinion of voting for Fidesz due to economic hardship.

		Partisanship		Subsidy recipient		Appropriateness	
	All	Fidesz	Opposition	Yes	No	Yes	No
Economic hardship	58.5%	48.6%	77.8%	50.0%	65.2%	36.7%	70.6%
Care for people	17.8%	35.2%	3.4%	21.4%	15.0%	31.6%	10.5%
Families / Trad values	18.3%	24.2%	10.7%	22.7%	14.9%	28.5%	12.4%
Don't know / Refuse	5.3%	0.0%	8.1%	5.9%	4.9%	3.3%	6.5%
N	663	265	205	320	343	243	411

Table 22: Why Do You Think that People Vote for Fidesz after Receiving Material Subsidies? Distribution of Responses

CEU eTD Collection

4.3.3 Social Desirability Bias

In the previous section, we reported that most of the survey respondent think that it is not appropriate to vote for the incumbent party based on material subsidies provided.

Thus, we have good reasons to believe that when respondents are asked directly whether the money they received play a significant role in their vote choices, they may be reluctant to admit that they support a political party because of some generous subsidies they receive. The resulting reluctance of admitting allegedly inappropriate behavior is called social desirability bias or sensitivity bias, in which survey respondents underreport socially undesirable behavior.[93][94] Papers studying clientelism (in which material goods are exchanged by politicians and voters in return for votes) show that people tend to underreport their true behavior due to fear of prosecution (Corstange 2018; Mares and Young 2019) or respondents may be reluctant to admit selling their vote because of the possible association with low socioeconomic status (e.g.: they are poor enough to sell their votes (Stokes 2005)). Others find that respondents simply just wish to avoid revealing an immoral or unethical behavior and acknowledging that the handouts influenced their votes (Mares, Muntean, and Petrova 2018). In their meta-analysis, Blair, Coppock, and Moor (2020) find that due to sensitivity biases, respondents typically underreport vote buying by 8 percentage points on average.

How much of a problem is sensitivity bias in our case? Do Hungarians interpret receiving pre-election transfers and then voting for the incumbent based on these subsidies as socially undesirable, stigmatized behavior even when the subsidies themselves were not illegal? Is there any heterogeneity in the degree of social desirability bias across partisanship? In our case, social desirability bias is likely to be an issue when asking survey respondents about the effect of pre-election transfers on their party preferences, although, to a lesser degree than in case of clientelism for two main reasons. First, given that these subsidies were not illegal, respondent perception about what response (or nonresponse) the social referent prefers might be heterogeneous across contexts and across respondents. It might also depend on whom respondents manage impressions; often, the most salient social referent is the interviewer asking the questions, the respondent themselves or family members within earshot (Blair, Coppock, and Moor 2020). Nonetheless, given that these subsidies were not individually targeted and the receipt of benefit were not contingent on individual's political support, state authorities or politicians are less likely to serve as social referent. Therefore, it is not clear what respondent perceptions are about the

[93]Incerti (2020) warns us that social desirability bias differs from norms because norms reflect internalized values, whereas social desirability bias is driven by fear of judgement by a social referent.

[94]In a notable piece, Blair, Coppock, and Moor (2020) criticize the term *social desirability* as it does not define who desires a particular response, why a respondent would care and the concept does not capture other sources of bias beyond conformity with perceived social norms. Instead, they advance a social reference theory of sensitivity bias that disentangles these considerations.

CEU eTD Collection

appropriateness of voting for a party based on material subsidies. Second, it is not clear whether a respondent thinks that failing to provide the response approved by the social referent would entail any costs (Blair, Coppock, and Moor 2020). Contrary to costs associated with clientelism (such as monetary (fines), or physical (jail time or personal violence) costs), in our case, the perceived cost of the social referent learning (or relearning, in the case of the "self" social referent) is shame at having failed in a civic duty (Blair, Coppock, and Moor 2020).

So what should we do about sensitivity bias? In order to reduce social desirability bias, we employ list experiment, or the unmatched count technique that originally called the item count technique. To do so, the survey sample is split into random halves: a treatment and a control group. Each group is presented with a list of items and asked how many (as opposed to which) items are true. To measure the incidence of the sensitive behavior, respondents in the control group are given questionnaires that include only nonsensitive response items. By contrast, respondents in the treatment group are read the same list of non-sensitive items given to the control group and plus one additional item that measures the sensitive behavior. Respondents in the control group report how many of a list of control items apply to them and those in the treatment group report how many of a list of the control items plus an additional sensitive item apply to them. By taking the difference in the mean number of items chosen by respondents in the control versus in the treatment group, we can infer the incidence of the sensitive behavior in the population. This technique allows survey respondents to hide the sensitive item from possible social referents, such as interviewer, bystanders, or later data users, thus list experiment mitigate social responsibility bias.[95]

We asked all Fidesz supporters the following question: *You voted for Fidesz in the April 3 elections. I would like you to count HOW MANY of the items applied to you for your party preferences in the national elections. Then, please tell me HOW MANY, not WHICH ONES apply to you*. Respondents in the control group received four items and did not receive the sensitive item within the list experiment, while respondents in the treatment group received the same four items plus the sensitive item (the sensitive item in our survey is the *Fidesz provided me with material benefit (e.g. family tax refund or 13th month pension)* option).

There are three important things to note about the design of the non-sensitive control items (Glynn 2013; Tsuchiya, Hirai, and Ono 2007). First, to avoid ceiling effects (when

[95]List experiment, however, is not able to address entirely all sources of social desirability bias. For example, if sensitivity bias arises from self-image concerns, list experiment will not hide answers from the respondents themselves.

CEU eTD Collection

a respondent would honestly respond "yes" to all nonsensitive items) as well as the floor effect (when a respondent would honestly respond "no" to all nonsensitive items), we included both high and low prevalence items, in trying to minimize the number of respondents who would be affected by the ceiling or floor effects. By definition, list experiments should provide plausible deniability to respondents, but if either none or all of the control items are true for a respondent, then they cannot hide their response to the sensitive item (Mares and Young 2019). To this end, we used items that were likely not to be chosen by a Fidesz supporter (as it is not true for the party) and high-prevalence items that are likely to be chosen by the majority of the respondents. In this way, we increased the confidence of respondents in keeping their anonymity when they report truthfully their sensitive behavior, while we also reduced the variance in the means estimate for the treatment and control groups. Second, we further reduced the variance of the estimate of the average number of items chosen by constructing control items that are likely to be negatively correlated. Third, as an additional attempt to decrease variance, we also included options in which the agreement rates are relatively far from 50%, but certainly not 0% and 100%. Fourth, we designed a double-list experiment, in which all respondents were presented two lists (list A and list B). Thus, a random half of respondents received list A, and served as control group in list B, while the other half was the control group for list A, and treated for list B. This ensures that we estimate the prevalence of the sensitive item based on a much larger pooled sample, in which the number of treated individuals is equal to the whole population (as opposed to only half of the population).[96]

Table 23 shows the distribution of the number of responses for the short and long version of lists A and B.[97]

For list A, respondents receiving the sensitive item as one of the options picked 2.59 options on average; while those who were presented the short version, chose around 2.43. This translates into 16% of respondents counted in the direct monetary subsidies when answering the question of why they voted for Fidesz. Based on list B, we estimate that cash transfers could have influenced around 24% of Fidesz voters. Only the estimate based on list B is significantly larger than zero ($p = 0.053$), which is the consequence of the relatively small sample sizes.[98] To reproduce the difference-in-means estimators of Table

[96]The choice between list experiments and direct questions largely amounts to a bias-variance trade-off. Blair, Coppock, and Moor (2020) estimate that list experiments are approximately 14 times noisier than direct questions, which means that either the sample size or the amount of bias needs to be large in order to justify a list experiment.

[97]The options appeared in a randomized order.

[98]The list experiment was only designed for Fidesz voters, which decreased our sample size to $N = 485$.

CEU eTD Collection

	List A		List B	
	Short	Long	Short	Long
1 option	20.5%	19.7%	22.0%	18.0%
2 options	36.2%	36.3%	32.4%	31.9%
3 options	23.3%	21.2%	24.3%	23.5%
4 options	20.0%	11.1%	21.4%	16.8%
5 options	..	10.7%	..	9.8%
Mean	2.428	2.587	2.451	2.687
Standard deviation	1.030	1.252	1.058	1.228
N	222	219	219	229
Difference	15.9%	(1.27)	23.6%*	(1.94)

Robust t-statistics are reported in parentheses.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 23: Distribution of Responses in the List Experiment

23, we estimate the following simple regression equation separately for list A and list B:

$$y_i = \alpha + \beta T_i + \epsilon_i, \tag{16}$$

where y_i is the number of options picked for the particular list, and T_i is the dummy variable indicating random treatment (it equals one if the respondent received the long list with the sensitive item, and zero otherwise). Estimating this equation, we obtain the two different estimates of Table 23 of the proportion of Fidesz voters who were affected by the pre-election transfers.

To overcome the small sample issue, we employed a double-list experiment and asked two questions from each survey respondent. In other words, by pooling together the answers for the two questions, we gain efficiency. We estimate the following pooled regression:

$$y_i = \alpha + \beta T_i + \gamma listA_i + \epsilon_i, \tag{17}$$

where $listA_i$ is a dummy variable indicating that the observation is taken from list A, and thus we control for any potential differences between the non-sensitive items listed in list A *versus* in list B. There are two observations from each Fidesz voter that increases the sample size and allows us to cluster standard errors at the individual level. The last two columns in the first row of Table 24 show that the estimate based on the pooled sample is strongly statistically significant (at 1% level), implying that pre-election transfers

CEU eTD Collection

played an important role in shaping the party preferences of around 20% of the incumbent supporters that is around 9% of all voters. We emphasize that this result does not imply that Fidesz gained 9% of votes, or increased its net winning margin by 9 percentage points due to the unconventional pre-election transfers. The results rather suggest that these material handouts shaped the party preferences of 9% of voters; nonetheless, it is likely that some of these voters would have supported the incumbent government even without the pre-election spending.

	Difference based on					
	List A		List B		Both lists	
All Fidesz voters	15.9%	(1.27)	23.6%*	(1.94)	19.8%***	(4.50)
...with primary education	10.1%	(0.59)	19.3%	(1.15)	14.8%**	(2.36)
...with more than primary educ	20.3%	(1.12)	29.1	(1.64)	24.7%***	(4.17)
...living in rural neighborhood	-0.9%	(-0.06)	33.5%**	(2.41)	16.3%***	(3.04)
...living in urban neighborhood	47.0%*	(1.92)	5.7%	(0.26)	26.2***	(3.37)
...retired	7.5%	(0.38)	28.7%	(1.47)	18.2%**	(2.41)
...non-retired	19.2%	(1.23)	21.7%	(1.44)	20.5%***	(3.82)

Robust t-values are reported in parentheses.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 24: Proportion of Respondents whose Party Preferences are Shaped by Subsidies, by Socio-Demographic Characteristics

Table 24 shows the estimated proportion of survey respondents whose party preferences are affected by the large-scale pre-election spending. In particular, Table 24 breaks down survey respondents by their level of education, their urban-rural residency, by their status of retiree and by being a beneficiary of the transfers. The table shows that the estimated, affected proportion of Fidesz voters are always positive and significant (when estimated from the pooled sample).

In another question, we asked the beneficiaries of transfers how these handouts influenced their voting behavior.[99] There were two positive response options; the first suggested that respondents participated in the elections to vote for Fidesz because of the pre-election transfers (mobilization) and the second option claimed that respondents voted for Fidesz, instead of voting for another party because of the pre-election transfers (swing voters). At the same time, there were two options for negative responses with the first one suggesting that survey respondent would have supported the incumbent govern-

[99] *"You received material subsidies in recent months (e.g.: family tax refund/13th month pension). Did this subsidy in any way affected your party list vote in the April 3 elections, 2022?"*

CEU eTD Collection

ment anyway while the second option was that respondents voted for another party even though being a transfer recipient.

	Partizanship			
	Fidesz	Opposition	Other	All recipients
Yes, mobilized	9.9%	0	0	4.8%
Yes, reversed preference	7.0%	2.4%	1.6%	4.4%
No, Fidesz voter anyway	78.1%	3.5%	7.0%	41.0%
No, Opposition voter despite	5.0%	91.8%	39.6%	35.1%
Refuses / Does not know	0	2.3%	51.8%	14.6%
N	249	116	130	495

Note: Only subsidy recipients were asked ($N = 495$)

Table 25: Self-Assessment of Whether Voting Behavior Was Different Because of the Subsidy

Table 25 shows the distribution of responses by party affiliation. Nearly 10% of subsidy-recipient Fidesz voters (and nearly 5% of all subsidy-recipient voters) claim that they participated in the elections, and voted for Fidesz because of the subsidy. Another 7% of subsidy-recipient Fidesz voters claim that they voted for Fidesz instead of voting for some other party. Altogether, around 17% of subsidy-recipient Fidesz voters (which is approximately 3.7% of *all* voters) claim that their vote choice was tilted towards Fidesz by the subsidies. This estimated proportion is more than double of our direct estimate of around 1.5 percentage points (in the whole population) in Table 16 of Section 4.3.1. In terms of the net increase in Fidesz's winning margin, among subsidy-recipient Fidesz voters it is 23.8%, which is a 5.2% gain among all eligible voters.[100] Our direct estimate for this increase, in Table 18 of Section 4.3.1, was around 10 percentage points among subsidy recipients, or 4.5 percentage points in the whole population—similar in magnitude to our estimate of 5.2 percentage points based on this question.

Table 26 shows the effect of subsidies, according to respondents' self-assessments, among subsidy-recipient Fidesz voters. Consistent with our direct estimates in Section 4.3.1, the impact of subsidies was relatively strong among voters with primary education or who are living in a rural neighborhood. As discussed before, the estimate of around 5.2 percentage points net gain of Fidesz in the whole population is also consistent with our

[100] 9.9%+2*7.0%=23.8% (with appropriate rounding). This is because in terms of winning margin, Fidesz gains one vote with all mobilized voters, and two votes for each voters whose preferences were reversed. As the population weight of subsidy-recipient Fidesz voters is 21.6%, this amounts to a net gain of 0.216*23.8%=5.2% among all eligible voters.

CEU eTD Collection

	Mobilized	Reversed	Net gain	Weight	Overall gain
Subsidy-recipient Fidesz voters	9.9%	7.0%	23.8%	21.6%	5.2%
...with primary education	13.1%	6.8%	26.7%	12.0%	3.2%
...with more than primary educ	5.9%	7.2%	20.3%	9.7%	2.0%
...living in rural neighborhood	10.8%	8.2%	27.2%	13.6%	3.7%
...living in urban neighborhood	8.4%	4.9%	18.1%	8.0%	1.5%
...retired	6.7%	6.8%	20.3%	12.7%	2.6%
...non-retired	14.4%	7.2%	28.8%	8.9%	2.6%

Note: the table only considers subsidy-recipient Fidesz voters ($N = 249$)

Table 26: Self-Assessment of Whether Voting Behavior Was Different Because of the Subsidy, in Sub-Groups of Subsidy-Recipient Fidesz Voters

direct estimate 4.5 percentage points (in the whole population) in Table 18, even though we should interpret results based on self assessment carefully: it is very difficult for people to tell how they behaved *relative to a counterfactual scenario that in reality did not happen*, which might lead to bias in respondents' perceptions about their own behavior. As a final note, we observe that results in Table 25 are also consistent with our earlier results of the list experiment (in Table 23 and Table 24): both indicate that people think that the subsidies influenced their voting behavior.

Next, we asked all Fidesz voters about the single most important reason of their choice to vote for Fidesz. This time we listed nine options that all characterized Fidesz policy in recent years; and one of these options was that Fidesz provided monetary benefit to the respondent.[101] Contrary to the list experiment, where survey participants could pick multiple options, here they were restricted to choose only one option.

Table 27 reveals that around 6% of incumbent supporters openly claim that pre-election transfers were the single most important reason for them to support Fidesz. This proportion is almost entirely coming from subsidy-recipient Fidesz voters with 11.4% of them marking this option as the most important reason. Note, however, that subsidies being the single most important reason for voting for Fidesz does not necessarily imply that subsidies changed these voters' party preference or mobilized them. Some of these respondents may be core Fidesz voters who would have voted for Fidesz anyway; they just think that among other positive measures that Fidesz implemented, subsidies were extremely important.

Table 27 also shows that almost 40% of Fidesz voters claim to have voted for Fidesz

[101] The nine options were presented to the respondents in a randomized order.

CEU eTD Collection

Most important reason to vote for Fidesz	Fidesz voters	Recipient	Non-recipient
Guarantees peace	38.1%	36.9%	39.3%
Defends families and traditional values	21.6%	27.5%	16.2%
Stands for national interests in Brussels	11.1%	5.4%	16.2%
Created new jobs	10.9%	6.4%	15.0%
Provided me with subsidies	**5.9%**	**11.4%**	**0.9%**
Defends Christian values	5.4%	5.1%	5.7%
The opposition is incompetent	4.4%	5.7%	3.2%
Handled the COVID pandemic well	1.2%	0.0%	2.2%
Defends children from propaganda	1.0%	0.9%	1.1%
Refuses / Does not know	0.5%	0.7%	0.3%
N	485	249	236

Note: Only Fidesz voters were asked ($N = 485$).

Table 27: The Most Important Reason for Voting for Fidesz

mainly because it guarantees peace, and that Hungary stays out of war—a hardly surprising answer given that the elections took place on the 3rd of April, only 38 days after the beginning of the Russian invasion of Ukraine. At the same time, 22% of the incumbent supporters marked the option that Fidesz defends families and traditional values as the single most important one. Around 11% of Fidesz voters claimed that the incumbent government stands for the Hungarian national interests in Brussels, and another 11% marked economic factors (such as good economic policy and job creation) as the single most important reason to support the government.

Table 28 breaks down the proportion of Fidesz voters by their socio-economic characteristics. In particular, the table shows the distribution of survey respondent who claimed that pre-election subsidies were the single most important reason in their decision to support the incumbent government. In line with the direct estimates in Section 4.3.1, the material handouts were the single most important factor in supporting the incumbent government for Fidesz voters who are retired, having a primary education, or living in the countryside.

Finally, we included a question that asked respondents about when exactly they had decided their party list vote. As subsidies were mainly transferred to recipients in February or March 2022, (maximum 2 months before the elections), if subsidies had a significant influence on vote choice, then we should see a significant proportion of voters who decided just a few months before the election.

Table 29 shows the distribution of answers by partisanship, and shows that the pro-

CEU eTD Collection

Most important reason: subsidies	Proportion
All Fidesz voters	5.9%
...with primary education	7.6%
...with more than primary educ	4.2%
...living in rural neighborhood	7.4%
...living in urban neighborhood	3.1%
...retired	13.7%
...non-retired	2.7%
...subsidy-recipient	11.4%
...subsidy non-recipient	0.9%

Note: the table only considers Fidesz voters (N = 485)

Table 28: Proportion of Incumbent Voters who Claimed that Pre-Election Subsidies Were the Single Most Important Reason for Them to Support the Government

When decided of whom to vote	Fidesz voters	Opposition voters	All voters
Last minute	1.9%	4.7%	2.8%
One week before elections	1.8%	0.4%	1.7%
One month before elections (March)	2.8%	6.5%	4.3%
Two months before elections (February)	2.1%	2.9%	2.9%
Three months before elections (January)	6.9%	8.1%	7.5%
Earlier	32.3%	39.5%	34.9%
Always voted for this party	51.1%	38.0%	40.4%
Refuses / Does not know	1.2%	0.0%	5.7%
N	476	243	879

Note: Only those were asked who indicated that they had voted (N = 879).

Table 29: When Voters Decided about Their Party List Vote

portion of voters who decided about their votes in the final two-three months is not particularly large for Fidesz. It seems that Fidesz voters are very closely attached to their preferred party: 51% of them have always voted for this party, and another 32% decided well in advance. For the opposition alliance, as well as for other parties, the combined proportion of these two groups is much smaller, and the proportion of those who decided in the final two-three months is much larger. These results are entirely consistent with our earlier findings about the relatively small proportion of voters whose vote choice was affected by the subsidies.

CEU eTD Collection

4.4 Conclusion

This Chapter has examined the role of two major pre-election government spending programs in shaping the attitudes and policy preferences of the mass public in Hungary. Both policies, the extra month of pension payment and the family tax refund share several unconventional features such as the the timing of the allocations (just before the elections despite of the worsening economic circumstances) as well as the intense credit claiming policy of the government. Additionally, both policies provided more transfers to the wealthier, while the handouts came unconditionally. Finally, around 3% of GDP was distributed during the two months preceding the elections, which is much larger than the typical size of other countries' transfer programs and thus, these policies targeted 25% of voters and all together around half of the electorate. How do these transfers affect citizens' political participation and party preferences? How do mass publics view the appropriateness of supporting a party based solely on material subsidies? Do citizens interpret receiving material subsidies and then supporting the incumbent based on these subsidies as socially undesirable, stigmatized behavior even when these transfers were not *de jure* illegal? These questions are particularly interesting and far from being obvious given the very unconventional nature of the policies providing large-scale, unconditional cash transfers and granting more support to the wealthier.

In this Chapter, we have combined original survey data from April 2022 with settlement-level data to describe the attitudes and public opinion of the mass public following a large-scale, unconditional government spending program. The main results reveal that these transfers worked mainly by demobilizing certain groups of voters who might have opposed the incumbent party. In particular, family tax refund recipients with primary education or living in rural areas, and the pension recipients living in the capital city were less likely to support the opposition coalition than non-recipient voters with similar socio-demographic characteristics. Additionally, we have demonstrated that the majority of survey respondents think that it is not appropriate to support a political party based on material handouts. Finally, findings reveal that the material rewards influenced the party preference of around 20% of the incumbent voters.

Our findings make two main contributions to the literature on the link between party preference and pre-election transfers as well as on the mass public's view about the appropriateness of supporting a political party based on these transfers. First, we contribute to the literature that assesses the electoral effect of an unconventional pre-election spending mainly in non-democratic regimes (Gáspár, Gyöngyösi, and Reizer 2023; Mares and

CEU eTD Collection

Young 2019; Bulut 2020; Pepinsky 2007).[102] While a growing literature explores the ways in which existing policies can shape key aspects of mass politics (Mettler, Jacobs, and Zhu 2023; Campbell 2002), evidence on the direct electoral effects of distributive policies of many kinds is mixed. On the one hand, papers document that beneficiaries reward incumbent following conditional cash transfers (De La O 2013; Manacorda, Miguel, and Vigorito 2011; Zucco Jr 2013), disaster relief spending (Bechtel and Hainmueller 2011), and distributed coupons (Pop-Eleches and Pop-Eleches 2012). On the other hand, several studies cast doubt on these claims and find that citizens do not reward electorally the incumbent party, or even vote against the governing party following the introduction of a large-scale health insurance scheme (Imai, King, and Velasco Rivera 2020), improvements in service provisions (De Kadt and Lieberman 2020) or a cash grant (Blattman, Emeriau, and Fiala 2018). We complement the literature by analyzing the electoral effect of a large-scale (larger than the usual amount of transfers analyzed in the literature (Cecchini and Atuesta 2017)) and unconditional pre-election programmatic club goods distribution and the main mechanism at play.

Second, we contribute to the survey literature addressing the issue that survey responses suffer from misreporting and nonresponse due to the sensitivity of some questions such as supporting a party based on material handouts. There is ample evidence in the literature that people are reluctant to admit that they support a political party because of some generous subsidies they receive (Cruz 2019; Gonzalez-Ocantos et al. 2012; Corstange 2018). As a result, asking directly about supporting a party based on transfers may result in social desirability bias and the underreporting of the true behavior (Blair, Coppock, and Moor 2020; Gonzalez-Ocantos et al. 2012). While it is well-documented in the literature that social desirability bias is an issue when assessing the electoral effect of clientelist exchange (such as vote buying (Gonzalez-Ocantos et al. 2012)), it is unclear how much of a problem is sensitivity bias in our case. Given that the transfers were not illegal, respondent perception about what response (or nonresponse) the social referent prefers might be less straightforward. Additionally, contrary to costs associated with clientelism (such as monetary (fines), or physical (jail time or personal violence) costs), in our case, the perceived cost of the social referent learning is shame at having failed in a civic duty (Blair, Coppock, and Moor 2020). Our paper complements the existing literature by showing

[102]Recently, the policy feedback researches have been growing in scope beyond advanced democracies and have focused on Zambia (Hern 2017), on Mexico (De La O 2013), on Uruguay (Manacorda, Miguel, and Vigorito 2011), on Romania (Pop-Eleches and Pop-Eleches 2012), on Thailand (Ricks and Laiprakobsup 2021) or on China (Im and Meng 2016) among others.

CEU eTD Collection

that social desirability bias is an issue even when assessing the electoral effect of a legal, pre-election transfers.

CEU eTD Collection

5 *Politics of Public Opinion in Times of Crisis*

5.1 Introduction

The 2015-16 Refugee Crisis was a watershed moment in European politics.[103] Driven by conflict in Afghanistan, Syria, and elsewhere, nearly 1 million refugees arrived in Europe in 2015 alone. This inflow of refugees prompted a swift political backlash across Europe, leading to unprecedented new developments like internal border controls and to a sharp uptick in anti-refugee and anti-immigrant sentiments. Although the refugee crisis affected all of Europe, the political backlash was particularly noticeable in Central Europe, which lay along the overland route that many refugees followed. In Hungary, for example, the Fidesz government of Viktor Orbán capitalized on the refugee crisis to mobilize political support, characterizing refugees as an existential threat to Hungarian security—and to European civilizational identity (Juhász, Hunyadi, and Zgut 2015).[104]

Seven years later, the Russian invasion of Ukraine produced a second mass influx of millions of people into Central and Western Europe. Although most Ukrainians sought protection from conflict in the form of temporary protected status, they are described in most popular commentary as refugees—just like those who fled conflict in 2015-16.[105] The number of civilians fleeing war in Ukraine far exceeded the total from 2015: as of September 2022, 2.5 million Ukrainians had entered Hungary alone (UNHCR 2022; Erőss 2022), with millions more having fled to Hungary's neighbors.

Much popular and political commentary has described the Ukrainian refugee crisis as unprecedented in recent European history, but this is only true if large-scale entry of Ukrainians into Central Europe is fundamentally different from a large-scale entry of Syrian, Afghan, or others seeking refuge in Central Europe. Indeed, much critical commentary on the 2022 refugee crisis has focused on Europe's "refugee hypocrisy" (Traub 2022) and the plainly different standards to which Ukrainians have been held in comparison to non-European, non-Christian, non-white refugees from countries like

[103] This Chapter is co-authored with Professor Thomas B. Pepinsky and Ádám Reiff.

[104] Fidesz (Alliance of Young Democrats) has dominated Hungarian politics since its landslide victory in the 2010 national elections in alliance with the Christian Democratic People's Party (KDNP), securing enough seats to achieve a two-thirds majority in the National Assembly in 2010, in 2014, in 2018 and again in 2022. In this study, Fidesz refers to the Fidesz–KDNP allience.

[105] In Appendix AD, we explain different legal concepts that are relevant for involuntary migration, distinguishing the temporary protected status sought by most Ukrainians and asylum-seekers coming from other war-torn countries. We also argue that these differences in legal status are unlikely to affect our analyses, noting that these precise legal distinctions are generally irrelevant from the perspective of mass public opinion.

CEU eTD Collection

Afghanistan. Yet the political implications of the Ukrainian crisis remain unknown. In highly exclusionary political environments such as Orbán's Hungary, in which anti-migrant and anti-refugee sentiments are commonly invoked by the ruling government, how are mass publics responding to large-scale influx of foreigners from a conflict on its own borders?

In this paper, we combine original survey data with detailed settlement-level demographic data to describe a dramatic change in Hungarian public opinion towards refugees following the 2022 Ukrainian refugee crisis. Comparing multiple rounds of public opinion data across the past decade with newly collected data from April and November 2022, we demonstrate that the 2022 Ukrainian crisis was accompanied by a large increase in tolerance for refugees, reversing what had previously been one of the most anti-refugee public opinion environments in Europe. To explain this difference, we combine survey experiments with data on respondents' local environments to investigate how conflict proximity and racial and religious identity shape openness to refugees. We find that the distinguishing feature of the 2022 crisis was that those arriving in Central Europe were mostly white European Christians driven from their home country by conflict. Additional descriptive information and further experimental evidence on the desired characteristics of immigrants demonstrate that the civilizational characteristics are important for explaining aggregate patterns in Hungarian public opinion towards refugees in 2022. Consistent with existing work on Hungarian politics, they are particularly important among supporters of the ruling Fidesz party, and for some groups of religious voters. We find no systematic evidence that these individual patterns are explained by regional factors within Hungary, although we do find that settlement-level religious identity explains the individual-level correlation between religious identity and support for refugees.

Our findings make two main contributions to the literature on public opinion towards refugees and migrants, especially in times of crisis (Goodman 2021; Vachudova 2020; Hangartner et al. 2019; Dinas et al. 2019; Kustov, Laaker, and Reller 2021; Bansak, Hainmueller, and Hangartner 2016; Brader, Valentino, and Suhay 2008). First, we show that mass public opinion is indeed responsive to exogenous events. Ours is the most rigorous quantitative evidence yet available that the 2022 Ukrainian refugee crisis actually shifted public opinion towards refugees in a country where anti-migrant and anti-refugee sentiments were widely expressed, strongly held, and politically valuable to the incumbent government. Second, we show that this shift in public opinion is conditional on the specific nature of the refugee shock: our evidence indicates that the shift in public opin-

CEU eTD Collection

ion towards refugees was driven by the specific characteristics of the refugee population in question. We argue that what we term "civilizational" factors—Ukrainians as white, Christian, European refugees—are responsible for the favorable shift in Hungarian public opinion towards refugees in 2022.

Separately, our findings also contribute new evidence on public opinion formation in Hungary, helping us to better understand contemporary politics in a country that has been a focal point for discussions of illiberal politics in Europe and around the world, including the United States (Enyedi 2018; Haggard and Kaufman 2021; Scheppele 2022). That our findings hold especially among Fidesz supporters points to the intricate relationship between mass preferences and government policy in competitive authoritarian contexts, even in the face of externally-generated crises.

5.2 Refugee Crises and European Politics

The 2015 European refugee crisis was a humanitarian emergency with social, economic, and political consequences for refugees fleeing conflict. It also fundamentally shaped politics in both sending and receiving countries. As our focus in this paper is on how European—and specifically Hungarian—public opinion has responded to recent refugee crises, we refer readers to existing work that explains the origins, details, and personal tragedies of the 2015 crisis (McDonald-Gibson 2016; Barlai, Fähnrich, and Griessler 2017). The 2015 refugee crisis is nevertheless an important political milestone for European politics and society as well, as one of a series of crises that has tested European governments and Europe's supranational institutions following the Global Financial Crisis of 2008-09 (see e.g. Jones, Kelemen, and Meunier 2021).

There is abundant evidence that the 2015 refugee crisis in Europe shaped public attitudes towards refugees, migrants, and policies governing refugees, asylees, and migrants more generally (Hangartner et al. 2019; Brug and Harteveld 2021; Stockemer et al. 2020; Lutz and Karstens 2021; Peshkopia, Bllaca, and Lika 2022; Sik, Simonovits, and Szeitl 2016). The refugee crisis heightened anti-immigrant attitudes among Europeans, with electoral consequences that strengthened anti-immigrant parties like Fidesz in Hungary, Golden Dawn in Greece, and Alternative für Deutschland in Germany. Although several studies have estimated the causal effects of *exposure to* refugees on anti-immigrant attitudes and voting patterns (Dinas et al. 2019; Hangartner et al. 2019), we emphasize that the refugee crisis is a contextual variable as well as an individual one. Even Europeans who never personally encountered a refugee during the crisis or in its aftermath live in countries in

CEU eTD Collection

which the refugee crisis was a prominent news item and a subject of extensive political discourse.

In addition to the administrative, logistical, and ethical challenges that receiving countries like Hungary faced during the 2015 refugee crisis, the arrival of hundreds of thousands of refugees from the Middle East, South Asia, and Africa in Europe prompted new questions about European identity (Ammaturo 2019). Subsequent analyses focus on its implications for nationalism and national identities (Schenk 2021), for religious identity and the politics of religion (Schmiedel and Smith 2018; Peker 2022), and through a lens of racialization (Burrell and Hörschelmann 2019; Rexhepi 2018).

Given the importance attributed to race, religion, and European identity in shaping the discourse around the 2015 refugee crisis in Europe, we view the key distinction between the 2015 and 2022 crises to be the identity of those fleeing conflict. Whereas the refugees entering Europe in 2015 were not Europeans, mostly not Christians, and racialized as non-white, those fleeing Ukraine were mostly white Christian Europeans.[106] Of course, there are other differences between the refugee populations entering Central and Western Europe between 2015 and 2022, such as the nature of the conflict that drives the current crisis, and its proximity to Europe. These all might produce a more accommodating environment for Ukrainians than had been the case for Afghan refugees.

We propose that race, religion, and national identity are central to how mass publics interpret refugee crises. Although there are non-white and non-Christian Ukrainian refugees, and there are Christian Syrian refugees, we argue that it is more profitable to conceptualize race, religion, and national (or regional) identity as three manifestations of what we term *civilizational* differences between European and non-European refugees. We use this term guardedly, aware that it is also used by racists, bigots, and xenophobes to describe conflict between Europeans and non-European Others. Yet it also reflects how mass publics themselves conceptualize differences among world regions, and our usage is consistent with how some political scientists conceptualize contemporary world politics (see e.g. Huntington 1993; Katzenstein 2009). We employ this term not to endorse it, but rather because it captures the essential features of the political forces that we study here. As Rogers Brubaker (2017) has argued, contemporary populist discourses in Europe should be understood not just in nationalist terms, but also in civilizational terms.

[106]There are important exceptions. For example, many Black Africans fleeing Ukraine experienced systematic discrimination at the border; see e.g. Mehdi Chebil, "'Pushed back because we're Black': Africans stranded at Ukraine-Poland border," *France24*, https://www.france24.com/en/europe/20220228-pushed-back-because-we-re-black-africans-stranded-at-ukraine-poland-border.

CEU eTD Collection

The ongoing 2022 Ukrainian crisis has not yet generated a significant body of academic research on its effects, although preliminary work has already identified some important contrasts between European responses to refugees from Ukraine versus Syria (see e.g. Paré 2022). Comparing general trends in public opinion requires post-February 2022 public opinion data, and key sources like the European Social Survey have not yet released data that covers that period. Beyond the specific issue of Ukrainians in Central and Western Europe, though, early analyses have highlighted the often-surprising degree of European solidarity with Ukraine since the outbreak of the crisis (Bosse 2022; Allin and Jones 2022). They have also noted, however, that European supporters of Ukraine might not support resettlement within their own communities, implying that there are limits to such solidarity (see Clayton, Ferwerda, and Horiuchi 2022).

5.3 The Hungarian Case

The 2015 refugee crisis deeply affected Hungarian politics and society. Prior to the crisis, Hungary's increasingly authoritarian regime had undermined many of the pillars of liberal democracy (see Bánkuti, Halmai, and Scheppele 2012; Krekó and Enyedi 2018; Bernhard 2021). Today, Hungary is best described as a competitive authoritarian regime (Levitsky and Way 2020). In this political context, with anti-immigrant rhetoric already a central feature of Hungarian right-wing politics (Korkut 2014), the inflow of refugees was easily politicized by the incumbent Fidesz government.

Orbán and his supporters characterized refugees as threats to the Hungarian nation and to state stability (Cantat and Rajaram 2019; Stivas 2023). This was accomplished at the discursive level through such tactics as erecting signs *in Hungarian*—thus for a Hungarian rather than a refugee audience—that warned refugees about their obligation to respect Hungarian culture and not to take Hungarian jobs, and through push polls distributed on behalf of Orbán that contained leading questions about refugees. Additionally, the government launched a broader campaign against supranational institutions such as the European Union, lambasting their unwillingness to protect European civilization and culture, and emphasizing national sovereignty to protect Hungary as a Christian European nation (Fekete 2016; Majtényi, Kopper, and Susánszky 2019).

Government rhetoric also legitimized anti-immigrant public opinion. In 2018, in his annual state of the nation speech, Orbán addressed the issue of migration and claimed that *"they [Western countries in the EU] want us to adopt their policies: the policies that made them immigrant countries and that opened the way for the decay of Christian culture and the expansion*

CEU eTD Collection

of Islam. They want us to allow in migrants and to become a country with mixed populations".[107] A few months later, in his speech on the 170th anniversary of the Hungarian Revolution of 1848, he added that *"Europe is now under invasion...Brussels is not defending Europe and does not stop immigration, but supports and organizes the inflow of people. It wants to dilute the population of Europe and to replace it, to cast aside our culture, our way of life and everything which separates and distinguishes us, Europeans from the other peoples of the world"*.[108] Recent work has documented that during the election campaign in 2018, the framing of the refugee crisis made it a salient domestic issue that shaped voter opinion (Cantat and Rajaram 2019; Márton and Goździak 2018). Moreover, Hungarian settlements where refugees were present were subsequently more likely to vote for far-right candidates and to support anti-immigrant positions (Gessler, Tóth, and Wachs 2021).

Given the depth of the anti-immigrant sentiment in Hungary, a renewed influx of people from another foreign conflict might have been similarly politicized—the same government still holds power, and the 2022 Ukrainian crisis began just over a month before Hungary's 2022 elections. And yet there is no evidence of anti-refugee rhetoric following Russia's invasion of Ukraine. Following his visit to the humanitarian transit zone in March 2022, the Hungarian Prime Minister claimed that *"[f]or them [refugees from Ukraine] fleeing war is a shocking experience, a traumatic experience. After fleeing war, the first good news in their lives comes here in Budapest ... when they are provided with food and water—and also accommodation for those who need it. We are also providing special care for children, we have medical services, and soon there will be employment agency representatives. Some people—the majority—move on; but those who stay in Hungary not only need food and shelter, but they eventually need jobs. In Hungary, fortunately, today there are more jobs than people in their working age...we in Budapest offer a happier future for those in need. . . "*.[109] Shortly after his election victory in May 2022, the Prime Minister once again made it clear that Hungary is devoted to help refugees from Ukraine: *"In this war, Ukraine has been attacked and Russia is the aggressor. We are supporting Ukraine, and we have launched the largest humanitarian aid operation in Hungary's history. Proportionally, we have allowed in the largest number of refugees, and we are providing help for those in need. We will help Ukrainian refugees...Ukrainians can*

[107] Available on the website of the *Cabinet Office of the Prime Minister* at https://miniszterelnok.hu/orban-viktor-evertekelo-beszede-2/.

[108] Available on the website of the *Cabinet Office of the Prime Minister* at https://www.miniszterelnok.hu/orban-viktor-unnepi-beszede-az-1848-49-evi-forradalom-es-szabadsagharc-170-evfordulojan/.

[109] Available on the website of the *Cabinet Office of the Prime Minister* at https://miniszterelnok.hu/orban-viktor-facebook-nyilatkozata-a-humanitarius-tranzitpont-meglatogatasat-kovetoen/.

CEU eTD Collection

count on Hungary and on the Hungarian government".[110] At the outset of the crisis, this lack of anti-refugee politicking might have been explained by the fact that some of the first refugees entering Hungary were from Ukraine's small Hungarian-speaking minority, many of whom already held Hungarian citizenship (Erőss 2022). But this number was small relative to the vast majority of refugees who were Ukrainian speakers without any ethnic, national, or linguistic connection to Hungary.

The *civilizational* differences between refugees from Europe and non-European countries were particularly emphasized by the government. Orbán claimed that assisting refugees from Ukraine is an *"elementary human, Christian instinct"* and added that one does not have to be a *"rocket scientist"* to see the difference between *"masses arriving from Muslim regions in hope of a better life in Europe"* and helping Ukrainian refugees who have come to Hungary fleeing war.[111] The Prime Minister framed the migration waves from outside of Europe as part of a *"great European population replacement programme, which seeks to replace the missing European Christian children with migrants, with adults arriving from other civilizations"* and warned the Hungarian population about the danger of people arriving from outside of Europe: *"There is a world in which European peoples are mixed together with those arriving from outside Europe. Now that is a mixed-race world. And there is our world, where people from within Europe mix with one another, travel around, work, and move to other places. So, for example, in the Carpathian Basin we are not mixed-race: we are simply a mixture of peoples living in our own European homeland ... creating [our] own new European culture... we are willing to mix with one another, but we do not want to become peoples of mixed-race"*.[112]

Hungary's experience with the 2022 Ukrainian crisis is particularly interesting because its government has proven least cooperative with NATO and the EU on issues related to managing the Russian invasion.[113] Noting that Hungary's nationalist approach to migration policy will have long-term implications for the European Union's approach to migration, refugees, and asylum, Hungary's response to the humanitarian crisis caused by Russia's invasion of Ukraine has first-order implications for migration policy across

[110] Available on the website of the *Cabinet Office of the Prime Minister* at https://miniszterelnok.hu/orban-viktor-beszede-a-miniszterelnoki-eskutetelet-kovetoen-2/.

[111] Available at the website of the *International Communications Office of the Cabinet Office of the Prime Minister* at https://abouthungary.hu/news-in-brief/pm-orban-every-refugee-arriving-in-hungary-from-ukraine-must-be-helped.

[112] Available on the website of the *Cabinet Office of the Prime Minister* at https://miniszterelnok.hu/orban-viktor-eloadasa-a-xxxi-balvanyosi-nyari-szabadegyetem-es-diaktaborban/.

[113] See Krisztina Than, "Orban urges new EU strategy on Ukraine, says sanctions have failed," *Reuters* https://www.reuters.com/world/europe/hungarys-orban-calls-new-eu-strategy-ukraine-war-says-sanctions-failed-2022-07-23/.

CEU eTD Collection

Europe.

5.4 Data

To study the evolution of Hungarian public opinion towards refugees over the course of the past decade, we conducted two original surveys of Hungarian voters in April 2022 (just as refugees began flowing into Hungary) and in November 2022. We partnered with the Hungarian survey firm TÁRKI, one of the most well-established polling firms in Hungary. TÁRKI selects respondents via random selection sampling resulting in surveys that are representative of the Hungarian adult population.[114] Our sample included 1023 Hungarian adults in April and 1000 adults in November. We collected data on the demographic characteristics and political orientations of the survey respondents, among other variables. We merged these data with administrative data on local demographic and economic factors in order to situate our respondents in their local contexts.

We combined this original survey data with two existing sources of data on Hungarian public opinion. First, we use four surveys conducted by TÁRKI in previous years that include questions about refugees. These were conducted in April 2014, January 2016, October 2016, and January 2017. The timing of these surveys allows us to compare Hungarian public opinion prior to the 2015 crisis (April 2014) with subsequent public opinion changes, culminating in our surveys that follow the Russian invasion. Second, we combine our 2022 survey results with recent survey data from ESS, which is also administered in Hungary by TÁRKI. For these analyses, we use ESS data from the previous six rounds (2010 through 2020, at two-year intervals). Again, the timing of the ESS rounds allows us to compare Hungarian public opinion prior to the 2015 crisis to subsequent survey rounds.[115]

[114]Specifically, TÁRKI uses probability samples. In each survey, a stratified random sample of Hungarian settlements is drawn. Settlements with more than 78,000 inhabitants are automatically selected, while smaller settlements are selected as a result of a randomization process. A target number of interviews is calculated for each settlement based on the actual size of adult population in the settlement. Survey respondents are selected using the method of random walk. The final sample is weighed so that the sample is representative for the Hungarian adult population in four dimensions: gender, age group, settlement type, and education of the respondent. Thus, the final sample matches the proportions of all population cells in these four dimensions in the census.

[115]Tables 67 and 68 in Appendix AE and AF provide summary statistics on the main variables, while Table 69 in Appendix AG presents a complete list of variable definitions.

CEU eTD Collection

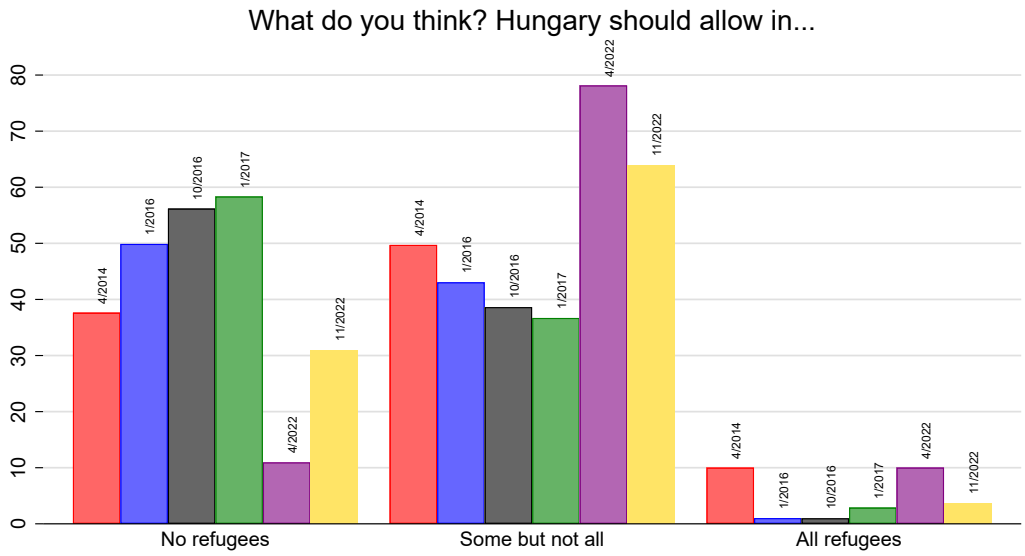

Figure 8: Trends in Public Opinion towards Refugees, 2014-2022

5.5 *Results*

We begin by examining trends in Hungarian public opinion over time using the TÁRKI's data. Figure 8 shows the results for six survey waves in which respondents were asked their views about refugees. The trends are clear. Prior to the 2015 refugee crisis, a plurality of Hungarians favored admitting at least some refugees, but Hungarian public opinion trended in a steadily anti-refugee direction in subsequent years, resulting the majority of Hungarian respondents opposing *all* refugees by the end of 2016. With the onset of the war in Ukraine, public opinion towards refugees improved dramatically, with the result that nearly 90% of all respondents reported that Hungary should admit some or all refugees in April 2022. That number declined by November 2022, but still remained significantly higher than at any time in the past decade.[116]

It is helpful to compare these results to existing findings about the durability of migration attitudes (see Kustov, Laaker, and Reller 2021). We find a major change in public opinion towards refugees in Hungary in 2022, whereas existing research based on cross-national panel data finds these attitudes to be stable.[117] Our repeated cross-sections of

[116] Appendix AH shows that the increase in anti-immigrant sentiments by November 2022 is not explained by the decline in non-response rates between April and November.

[117] In line with the political socialization literature, Kustov, Laaker, and Reller (2021) also find that younger individuals are more likely to change their views toward immigration than the elderly cohort. To test this finding on our dataset and to see whether our results are preliminary driven by the younger generation, Figure 55 plots opponents to admitting all refugees to Hungary by their age cohort between 2006 and 2022.

CEU eTD Collection

public opinion data do not allow us to track individual public opinion over time, but the sheer magnitude of this shift in public opinion means a substantial proportion of the Hungarian population must have changed its views about refugees between 2017 and 2022. The difference between our results may be attributed to one of three factors. First, it could be that Hungary's experience is not representative of other European contexts, owing to the sheer depth of the anti-immigrant and anti-refugee rhetoric nurtured by Orbán and Fidesz since 2015. Second, it could be that attitudes about refugees are distinct from general attitudes about migrants and migration policy. Third, perhaps the Ukrainian crisis has had a qualitatively different impact on public opinion that have previous migrant, economic, or other shocks.[118] Future research can help to disentangle these possibilities, although the November 2022 results suggest a reversion towards earlier patterns in Hungarian public opinion as Russia's war in Ukraine continues.

To what extent are these changes driven by—or conditioned by—political developments within Hungary itself? Recall that the incumbent Fidesz government prevailed in national elections in April 2022, which suggests that these swings in public opinion must have also occurred among Fidesz supporters themselves. In Figure 9, we break down opponents to admitting all refugees to Hungary by their partisan affiliation (Fidesz supporters, Opposition supporters, and other non-aligned voters).[119] These data reveal,

While we find that the standard deviation of the attitudes of the younger cohort are larger (14.4%) than of the elderly cohort (12.4%) between 2006 and 2022, the trend and the changing nature of attitudes are similar across all age cohorts. Thus, Figure 55 provides evidence that changes in immigration attitudes were not driven by the younger cohort only.

[118]One possibility is that the Soviet occupation of Hungary between September 1944 and June 1991 had a lasting effect on Hungarian public opinion. Communists took over the country by taking control of the secret police (*Államvédelmi Hatóság*, AVH) which created a climate of fear, arresting anyone who spoke out against communism (e.g.: even something as simple as listening to "Western" music could lead to arrest). Additionally, Hungarians had no freedom of speech and the Russian language was made obligatory. Thousands of Soviet troops and officials were stationed in Hungary, draining the Hungarian economy and creating economic hardship for ordinary people. One might argue that welcoming attitudes for Ukrainians are driven by memories of the past, and that Hungarian citizens feel a strong empathy for Ukrainians because they themselves were victims of Soviet aggression. Nonetheless, Figures 31 and 32 in Appendix AQ show that the attitudes of the older survey respondents (who might have stronger historical consciousness) are roughly the same across different source countries. The older cohort, in general, has a slightly more welcoming attitudes towards migrants, and this holds even towards Russians (see Figures 33 and 32) suggesting that memory fades and that our results are not driven by the historical memory of the older generation.

[119]Classifying supporters of Jobbik (The Movement for a Better Hungary – Jobbik Magyarországért Mozgalom) requires care. Jobbik was the radical-right party in Hungary during the first four survey waves, but since 2016 Jobbik has moved towards a centre-right position, and in 2022 Jobbik ran with the United Opposition. Therefore, in Figure 9, Jobbik voters are in the "opposition" category. A natural concern about the trend of the opposition voters before 2022, however, is that this might be driven by strong anti-migrants attitudes of the then far-right Jobbik voters. At the same time, while attitudes of the far-right voters are in

CEU eTD Collection

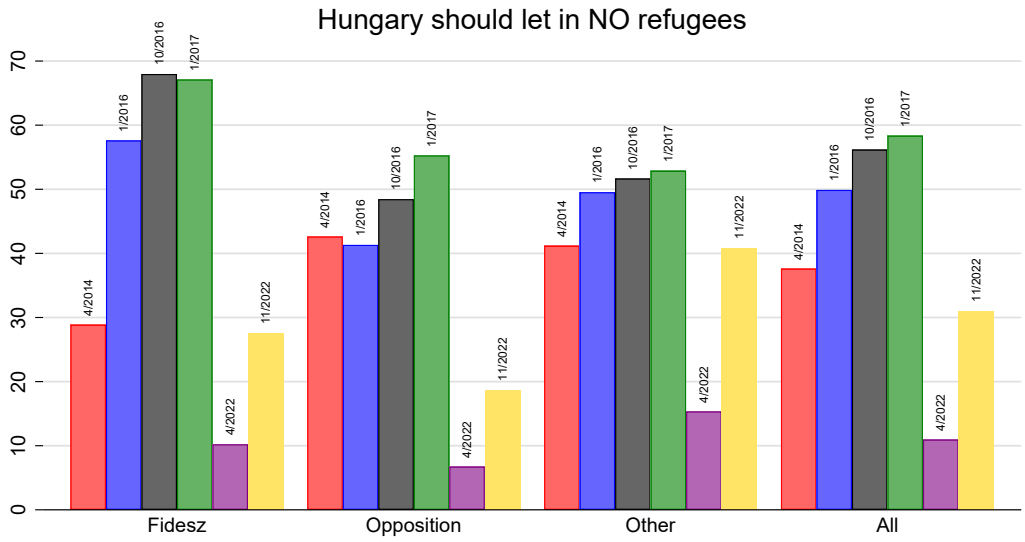

Figure 9: Opposition to Refugees by Party, 2014-2022

first, that prior to the 2015 refugee crisis, Fidesz supporters were not particularly opposed to refugees; they turned decisively against refugees only after 2015. And yet even Fidesz supporters shifted decisively in a pro-refugee direction in 2022. Looking at respondents in the April 2022 survey only, we find that Fidesz supporters overwhelmingly supported admitting some refugees to Hungary, and were only slightly less open to admitting all refugees than were members of the opposition (see Figure 10).[120]

This shift in Hungarian public opinion is surprising. Over the last decade, Fidesz has developed close relations with Russia as part of its *Eastern Opening* policy. The Russian-financed Paks nuclear power plant and long-term gas contracts both provide evidence of close economic ties between the Fidesz government and Russia. Foreign relations are also closely linked: after Russia annexed Crimea in 2014, Hungary used its veto powers in NATO to block high-level NATO-Ukraine meetings and joint military exercises (Visnovitz and Jenne 2021). After the 2022 Russian invasion of Ukraine, Orbán described Ukrainian president Volodymyr Zelensky as his opponent, and blamed the EU's Russia policy for

the "opposition" category before 2022, voters of the new radical right party (formed in 2018), Mi Hazánk Mozgalom (Our Homeland Movement) is in the "other" category in 2022. Figure 35 in Appendix AS shows that irrespective of the categorization, the attitudes of Fidesz voters were more welcoming prior to the refugee crisis in 2014, whereas the contrast between Fidesz voters' and the opposition voters' attitudes are even sharper during the first refugee crisis.

[120]Figure 40 in Appendix AW.1 breaks down respondents' opinion towards refugees by partisanship in November 2022, while Figure 41 highlights the difference between survey responses from April *versus* from November.

CEU eTD Collection

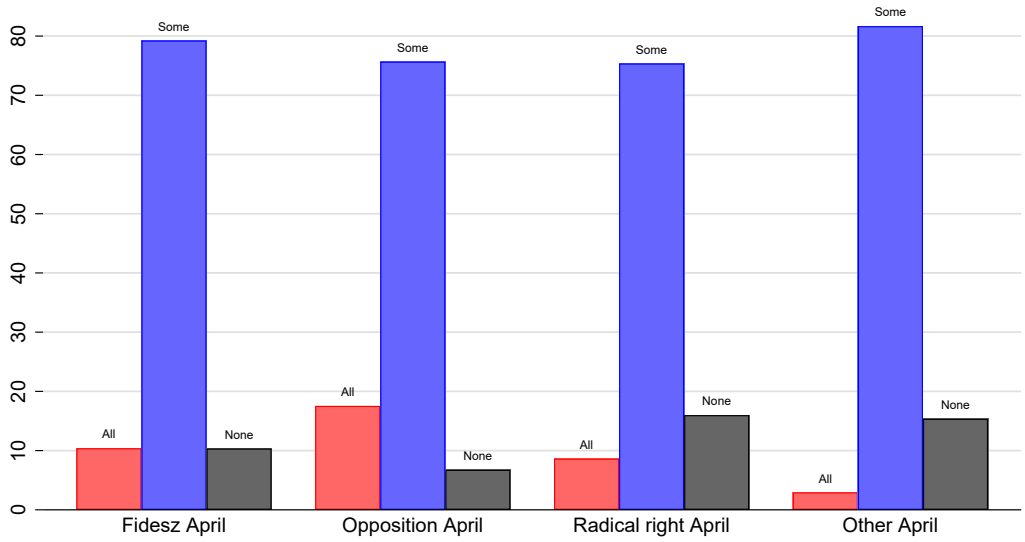

Figure 10: Public Opinion towards Refugees by Party, April 2022

inflation and soaring energy prices.

Indeed, there is ample evidence that Fidesz government rhetoric has moderated the public's historical aversion to Russia, with opinion polls indicating that the population's sympathy toward Russia has increased during the Fidesz era (Krekó 2016).[121] A recent survey from May 2022 also indicates that 33% of the Hungarian population claimed that Hungary should be moving closer to Russia even after its invasion of Ukraine.[122] We infer from these developments that the shift in public opinion that we have identified is not likely to be driven by popular perceptions of Russia as a security threat. If anything, a generally pro-Russian political environment should have decreased empathy for Ukrainians.

We also emphasize that Ukrainians have not historically been characterized as part of Hungary's Christian, European heritage, and that Hungarian political discourse did not emphasize any cultural similarity between Ukrainians and Hungarians. Prior to February 2022, Ukraine appeared in popular media for three main reasons. The first was in

[121] Using survey data from April 2014, Krekó (2016) reveals that following Russian annexation of Crimea, Hungarians were the least emphatic for Ukrainians among survey respondents from other 11 European countries. Additionally, only a small proportion of the Hungarians agreed that Russia should not be allowed to invade East Ukrainian territory; while Hungarians rather did not agree with the provision of assistance to Ukraine (relative to the rest of the survey respondents). Finally, Hungarian survey respondents were rather against any sanctions on Russia.

[122] While 83% of opposition voters would remain distanced from Russia, this ratio is only 27% among Fidesz supporters. See https://telex.hu/english/2022/06/11/research-reveals-how-hungarians-see-putin-and-other-world-leaders.

CEU eTD Collection

discussions of EU enlargement. Hungary generally supported Ukraine's membership in the EU, although this was justified on economic rather than cultural or religious grounds. The second focused on the Hungarian diaspora. In 2017, Ukraine introduced a language law that curbed minorities' access to education in their native tongues, which affected the Hungarian minority. In response, Hungary blocked Ukraine's membership in NATO until Ukraine restores ethnic Hungarian language rights.[123] The third was in the context of energy security. In September 2021, Hungary signed a 15-year natural gas supply agreement with Russia that guaranteed supplies through new routes via Serbia and Austria, bypassing Ukraine. Under this new deal, Ukraine lost millions of dollars in transit fees, leading Ukraine's foreign ministry to state that Hungary's gas deal was a "purely political, economically unreasonable decision" that was taken "to the detriment of Ukraine's national interests and Ukrainian-Hungarian relations".[124] In response, the Hungarian news media was flooded with articles claiming that Ukraine's opposition to a new gas deal with Russia threatened both Hungary's economic sovereignty and its national security.[125]

Changes in Hungarian public opinion over time remain robust when we control for survey respondents' socio-demographic characteristics. We estimate the following linear probability model for survey respondents who are opposed to admitting all refugees to Hungary on a pooled cross-section dataset between April 2014 and November 2022:

$$y_{it} = \alpha + \beta_1 Fidesz_{it} + \sum_{t=2}^{6} \beta_t Fidesz_{it} \times Wave_t + \sum_{t=2}^{6} \gamma_t Wave_t + X'_{it}\delta + \epsilon_{it}, \qquad (18)$$

where y_{it} is a dummy variable indicating that respondent i in wave t is opposed to admitting any refugees; $Fidesz_{it}$ is a Fidesz voter dummy; $Wave_t$ are wave dummies; and X'_{it} is a vector of socio-demographic variables such as education, age, gender, settlement type, activity, and variables on religiosity (self-declared level of religiosity and frequency of participating in religious services). To understand the changing attitudes of Fidesz voters over time, we interact the Fidesz voter dummy and the wave dummies, while also allowing the wave dummies to control for time-specific factors, such as the general economic situation of the country, that could confound these relationships.

[123]This statement is available on the website of the Permanent Delegation of Hungary to NATO https://nato-brusszel.mfa.gov.hu/news/szijjarto-peter-a-nato-kueluegyminiszterek-talalkozojan.

[124]The source is available: https://www.euronews.com/2021/09/28/ukraine-anger-as-hungary-signs-gas-supply-deal-with-russia-s-gazprom.

[125]See https://mandiner.hu/cikk/20210928_az_ukran_nagykovetet_mara_a_kulugyminiszteriumba_bekerettuk.

CEU eTD Collection

Column 1 of Table 30 shows that on average, Fidesz voters are more hostile towards migrants than non-Fidesz voters. Column 2 allows this relationship to differ across survey waves and shows that while in 2014 and in 2022 the probability that a Fidesz voter is opposed to admitting refugees was not larger than for non-Fidesz voters, during the first refugee crisis, it was significantly larger (by 11.3-17.6 percentage points). We also note that general hostility towards immigrants was particularly high in 2016-2017, when migration was a salient domestic issue in Hungary, but dropped significantly by 2022—as the wave dummies show.

	Oppose migrants		Oppose migrants	
Fidesz	0.040***	(2.96)	..	..
Fidesz × (Apr 2014)	..	..	-0.115***	(-3.44)
Fidesz × (Jan 2016)	..	..	0.113***	(3.10)
Fidesz × (Oct 2016)	..	..	0.176***	(5.28)
Fidesz × (Jan 2017)	..	..	0.118***	(3.29)
Fidesz × (Apr 2022)	..	..	0.005	(0.23)
Fidesz × (Nov 2022)	..	..	-0.047	(-1.34)
Jan 2016	0.141***	(5.89)	0.069**	(2.35)
Oct 2016	0.194***	(8.33)	0.100***	(3.48)
Jan 2017	0.201***	(8.39)	0.127***	(4.27)
Apr 2022	-0.281***	(-13.97)	-0.314***	(-12.13)
Nov 2022	-0.077***	(-3.20)	-0.094***	(-3.15)
Freq serv part	-0.051**	(-2.36)	-0.048**	(-2.23)
Occ serv part	-0.074***	(-5.08)	-0.071***	(-4.90)
Secondary school	-0.081***	(-5.21)	-0.079***	(-5.12)
College / University	-0.163***	(-8.66)	-0.162***	(-8.69)
Individual controls	Yes		Yes	
Constant	0.469***	(6.08)	0.510***	(6.56)
N	5852		5852	

Notes: Robust *t* statistics in parentheses. *, ** and *** denote significance at 10%, 5% and 1% level, respectively. The dependent variable is a dummy variable indicating that respondents are opposed to admitting any refugees. Control variables are included (see Appendix AG).

Table 30: Linear Probability Model Results

Table 30 also shows that religious service participation and education are highly correlated with individuals' attitudes towards migrants. More educated people, and people who participate in religious services, are significantly less likely to oppose the entry of refugees.

To provide further evidence on changes in Hungarians' attitudes towards immigrants

CEU eTD Collection

during the two crises, we also analyzed data from European Social Survey (ESS) between 2010 and 2020.[126] We find similar results based on the ESS dataset. Figure 28 in Appendix AL shows that before the 2015 refugee crisis, Hungarians had a rather neutral opinion on whether Hungary became a worse or better place by people coming to live there, but during the first refugee crisis, Hungarian public opinion trended in an anti-refugee direction with a peak in the anti-immigrant sentiments in 2016. Following the invasion of Ukraine, public opinion towards refugees improved dramatically, especially among Fidesz supporters. Examining trends over time, we find that Fidesz voters had similar attitudes towards immigrants than non-Fidesz voters in 2010 and 2012, but were particularly opposed to admitting refugees to Hungary between 2014 and 2020. By April 2022, however, they were similar to non-Fidesz voters. While the ratio of respondents in support of immigrants declined by November, the pro-immigrants sentiments were still higher than at any time in the past survey waves.[127]

In the remainder of this section, we focus our analysis on data from April 2022, as analyses using data from November 2022 produce substantively identical findings.[128] The exception is for analyses of gender and religion, our focus in Section 5.5.3 below.

5.5.1 Civilizational Factors and Refugee Preferences: Experimental Evidence

What explains the decisive shift in Hungarian public opinion towards refugees in 2022? On one hand, it could be that the existence of a refugee crisis within Europe has shifted Hungarian public opinion about all refugees, showing that ordinary civilians may face political conditions that are not of their own making. But on its face, this appears less plausible than an alternative interpretation—commonly invoked to explain not just Hungary's responses to the Ukrainian crisis, but those across Europe more generally (Traub 2022)—that the distinctive feature of Ukrainians in 2022 relative to the 2015-16 refugee crisis is that the latter involved non-white, non-European Muslims, and the former affected mostly white European Christians.

To adjudicate between these possibilities, we embedded two experiments within our April 2022 survey that asked respondents about their receptivity to refugees fleeing conflict

[126] As noted above, the ESS surveys were conducted by TÁRKI. Here, we rely on the question of *"Hungary is made a worse or better place to live by people coming to live here from other countries"* that was also asked in our April as well as in our November 2022 surveys. In our surveys, we used the same wording as well as the same response category: a 0-10 scale, where 0 is the *much worse* and 10 is the *much better* end of the spectrum. For the sake of comparability, we re-scaled these, and all subsequent answers, to a 0-100 scale.

[127] See the estimated equations and the regression outputs in Table 76, in Appendix AL.

[128] In Appendix AW, all subsequent figures and tables are replicated for the November 2022 survey wave.

CEU eTD Collection

in a particular country. In the first, respondents were randomly assigned to respond to a question about either Afghanistan or Pakistan. In the second, they were randomly assigned either Ukraine or Belarus. Answers to these questions fall on a five-point Likert scale ranging from strongly disagree to strongly agree.[129]

The logic of our survey experiment is as follows. We suspect that one proximate driver of refugee flows is conflict, and another is what we term the *civilizational characteristics* of the refugees: their race, religion, and national identity. By asking respondents about refugees from Afghanistan versus Pakistan, we can hold roughly constant the civilizational features of refugees while allowing the presence of conflict to vary. The same is true of a comparison of refugees from Ukraine and Belarus: at the time that our survey was fielded, it was an open question whether Belarus would send its own conscripts to fight alongside Russia in Ukraine, or if Russian troops would be stationed *en masse* in Belarus, so this was not a country presently at war but a future with Belarussian refugees was conceptually possible. If respondents are equally open to all potential refugees, we may conclude that the pro-refugee shift in Hungarian public opinion is unconditional. If they are more open to refugees from Ukraine and Afghanistan than from Belarus and Pakistan, we can conclude that the existence of conflict is the key feature explaining shifts in public opinion. If they are open only to refugees from Ukraine, we can conclude that the change in preferences is driven by the fact that the 2022 crisis affected mostly white European Christians fleeing conflict.

Figure 11 shows the distribution of responses across the four categories: the Hungarian mass public is more receptive to Ukrainians than to any other refugee population.[130] To analyze these results further, we estimate an OLS regression that predicts the level of support for refugees (1 = lowest, 5 = highest) as a function of the interaction between presence or absence of conflict (present for Afghanistan and Ukraine, absent for Pakistan and Belarus) and whether or not the country is in Europe. This is equivalent to a difference-

[129]The precise wording of the questions is included in Table 70 of Appendix AI, both in English and in Hungarian, with italics highlighting the manipulation, while Table 71 presents the characteristics of randomly assigned respondents across the different questions.

[130]While the legal statuses of the people who have fled Ukraine and Afghanistan are different (see the definition in Appendix AD), it is unlikely that this difference explains these results. First, the vast majority of Hungarians never personally encountered a refugee during the 2015-16 crisis given the extremely low number of people staying in Hungary (see Tables 63 and 64). Mass public opinion is led by political discourse rather than personal experience. Second, public opinion is unlikely to be driven by any meaningful difference in the social costs associated with having refugees or people with temporary protection status (see Table 66). In sum, we argue that Hungarians' attitudes are not primarily affected by individual contact or by rational cost calculus. Instead, the refugee crisis is a contextual factor that affects public opinion responses in the aggregate.

CEU eTD Collection

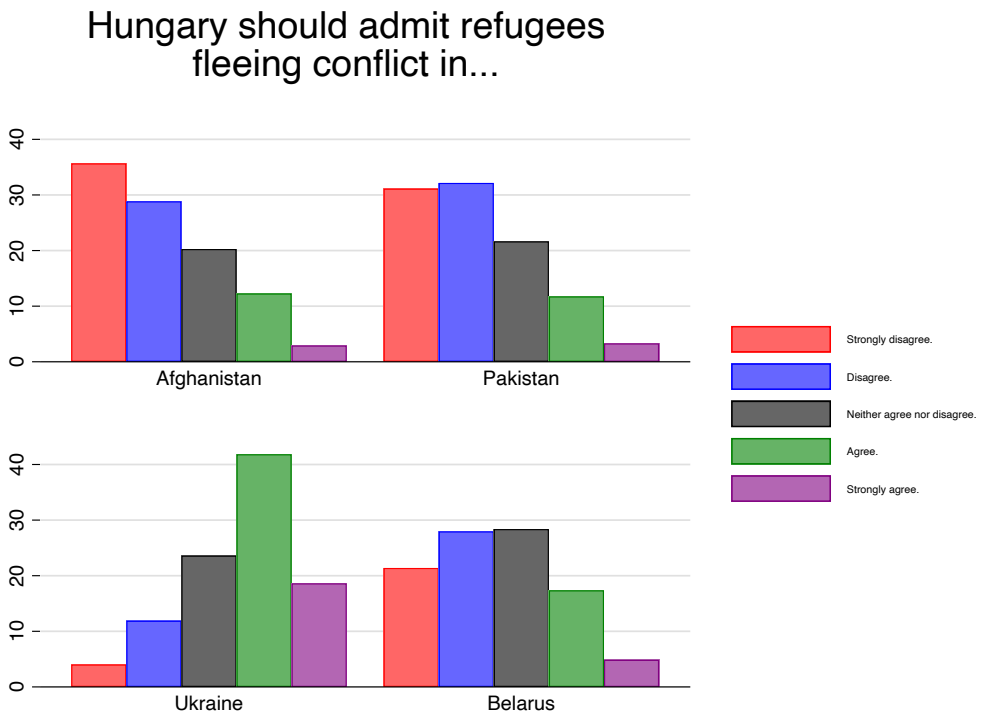

Figure 11: Public Opinion towards Refugees by Source Country, April 2022

in-differences design, which we estimate via

$$Support_{ij} = \alpha + \beta Europe_j + \gamma Conflict_{ij} + \delta(Europe_j \times Conflict_{ij}) + \eta_i + \epsilon_{ij} \quad (19)$$

where $Support$ measures support for admitting refugees, *Europe* takes the value of 1 for the survey question comparing Ukraine and Belarus and 0 otherwise, *Conflict* takes the value of 1 for respondents assigned Ukraine and Afghanistan and 0 otherwise, η_i are respondent fixed effects, and ϵ_{ij} is an error term, with standard errors clustered at the level of the respondent. We also estimated a fixed effects logistic regression model, where the outcome is 1 if the respondent agrees or strongly agrees that Hungary should welcome refugees from conflict in that country, and 0 otherwise.

The results appear in Table 31. The positive and highly statistically significant coefficient on *Europe* × *Conflict* signifies that respondents were far more likely to agree to welcome refugees from Ukraine relative to refugees from any other country. The OLS model estimates an increase of 1.1 (on a 5 point scale, equivalent to a full standard deviation in magnitude) in support of refugees from a European country in conflict, compared

CEU eTD Collection

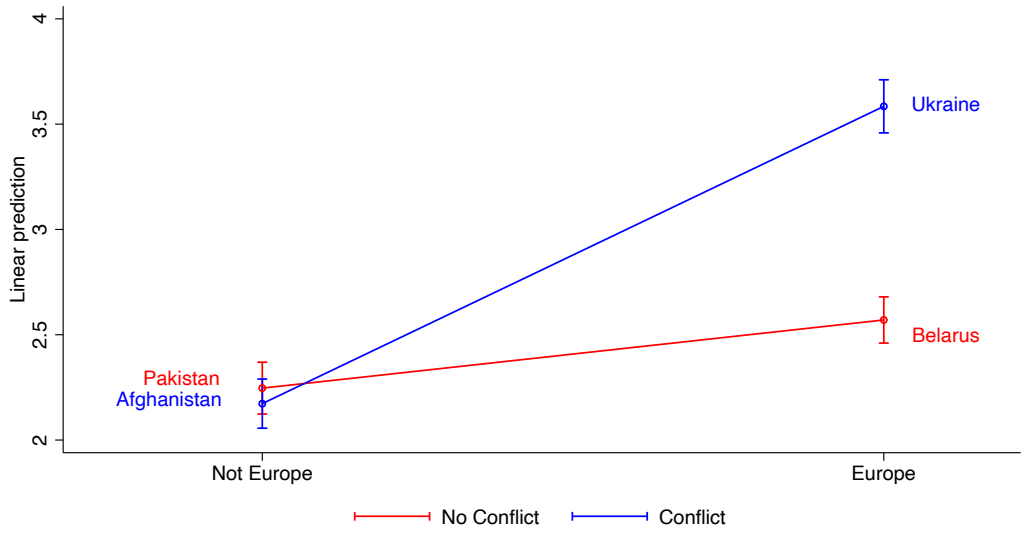

Figure 12: Predicted Support for Refugees, Difference-in-Differences Design

to the increased support for refugees from a non-European country in conflict. The coef-

	OLS		Logit	
Europe	0.324***	(3.60)	1.454***	(4.63)
Conflict	-0.0737	(-0.67)	-0.0392	(-0.10)
Europe × Conflict	1.088***	(6.91)	2.312***	(3.66)
Constant	2.247***	(35.85)		
N	1991		756	

Cluster-robust *t* statistics in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$
Both OLS and Logit models include respondent fixed effects.

Table 31: Difference-in-Differences Results

ficient on *Europe* provides further evidence of the importance of civilizational factors in explaining support for refugees in 2022, showing that respondents were more supportive of refugees from a non-conflict country in Europe (Belarus) than from a non-conflict country outside of Europe (Pakistan).

To convey the magnitude of these relationships, Figure 12 plots the predicted level of support, calculated from the OLS results in Table 31, for each of the four countries as defined by the interaction of *Conflict* and *Europe*. The 2022 crisis has shifted Hungarian public opinion in favor of refugees, but overwhelmingly in favor of white Christian European refugees fleeing open conflict.

CEU eTD Collection

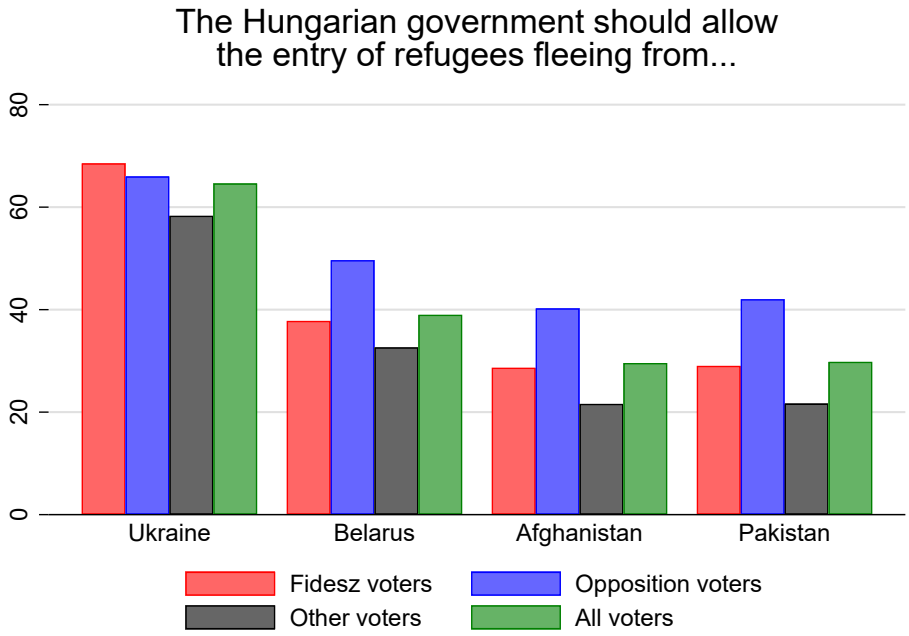

Figure 13: Public Opinion towards Refugees by Source Country and by Party, April 2022

5.5.2 Civilizational Factors and Refugee preferences: Additional Evidence

In this section, we provide additional evidence that reveals how respondents' attitudes—especially Fidesz voters' attitudes—are affected by the demographic characteristics and ethnicity of the immigrants. Figure 13 shows the average support of refugees from different source countries by partisanship.[131] While Fidesz voters are more supportive towards refugees fleeing conflict in Ukraine than the population average, they are slightly less welcoming towards refugees from the other three countries.

In Appendix AN, we model the relationship between respondents' socio-demographic characteristics, partisanship, religious identity, and their attitudes towards immigrants.[132] Figure 14 shows the relative support of Fidesz voters when we control for individuals' socio-demographic characteristics (thus, the bars represent the estimated coefficients of the Fidesz voter dummy in Equation (36)). To test the robustness of our estimates, panels include different sets of control variables (as in Table 77). Figure 14 reveals that Fidesz voters (relative to non-Fidesz voters) are more open – by 3.1-4.5 points on a 100-point

[131] We transformed all ordinal scales to a scale of 0-100, so that we are able to compare the strength of the effects across different questions with different ordinal scales. For example, answer x on a 1-5 Likert scale is equivalent with an answer of (x-1)*25 on the 0-100 scale.

[132] See the estimated equations and the regression outputs in Appendix AN.

CEU eTD Collection

scale, depending on the exact specification – for refugees fleeing from Ukraine, while Fidesz voters' attitude towards refugees from the other three source countries are always more negative (although insignificant).

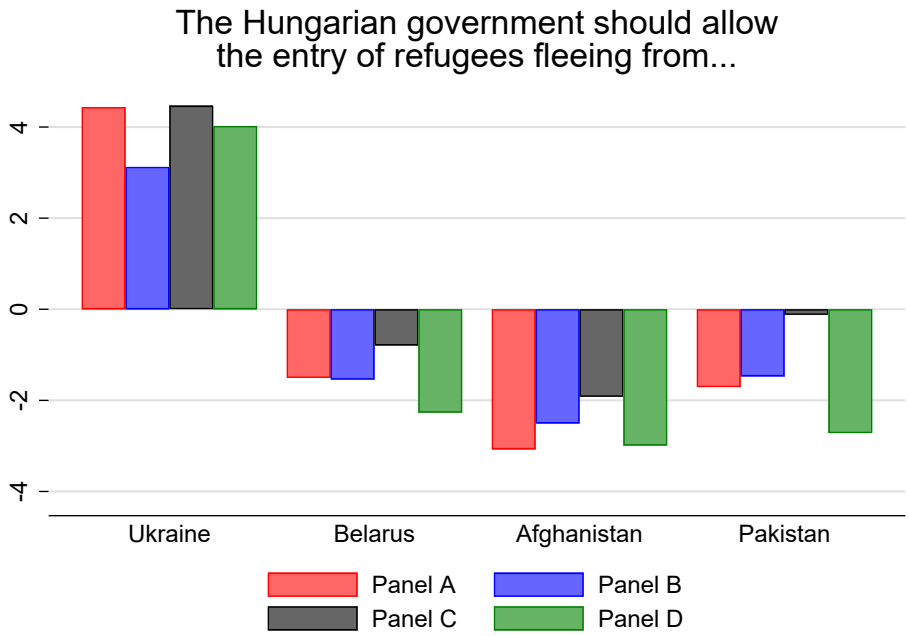

Figure 14: The Relative Support of Fidesz Voters (to non-Fidesz Voters) Towards Refugees from Different Source Countries (Estimated Coefficients), April 2022

Note: The figure visualizes the magnitude of the estimated parameters for the effect of individuals' partisanship on their attitudes for refugees from different source countries. Control variables included as explained in Appendix AN and results are weighted.

In the April 2022 survey, we included four additional questions designed to measure the importance of various skills or civilizational characteristics in shaping Hungarian public opinion. This allows us to disentangle among the three dimensions of civilizational characteristics—race, religion, and values—that we previously treated as different manifestations of the same latent concept. To probe more deeply into how culture and its different manifestations affect respondents' opinion on migrants, we included an experimental treatment within one of these questions, to compare the importance of two manifestations of culture: values and race. This randomization allows us to test whether racial *versus* values-based explanations for support for refugees are distinct from one another. The wording of the questions was *"How important should it be for refugees to have good educational qualifications/work skills that Hungary needs/ having the same values as Hungarians*

CEU eTD Collection

do/arriving from a country with white European heritage; and being Christian?"[133]

First, we test whether or not asking about the importance of white European heritage or common values with Hungarians affects respondents' views (see Table 32). We find no difference in the distribution of responses based on which of these questions we ask: $\chi^2(3) = 5.7, p = 0.13$.[134]

	White European	Same values	Total
Not important	10.77	9.76	10.24
Somewhat important	29.90	26.79	28.25
Important	29.74	36.82	33.50
Very important	29.58	26.63	28.01
Observations	488	526	1014

Notes: This table compares the distribution of responses to a question about the importance of refugees have a specific characteristic, where two options were assigned randomly to respondents: arriving from a country with white European heritage *versus* having the same values as Hungarians. Responses of "Don't know/refuse to answer" are excluded. The table shows the weighted distribution across the share of the responses.

Table 32: Experimental Results Comparing Race and Values, April 2022

This is evidence that race and values are indistinguishable from one another as explanations for Hungarian public opinion on refugees. Treating each experimental group as its own question, we then compare them to the importance of refugees being Christian, asked of all respondents (see Table 33). We find that among Hungarian respondents, views about the importance of the three civilizational characteristics that we have identified are strongly related to one another, but views about race and values are more closely aligned with one another than they are with views about religion.

Figure 15 examines how these views relate to respondents' party preferences, showing the average importance of these five characteristics across Fidesz, opposition, and other voters. We see lower importance attributed to Christianity than to race and values, a conclusion that holds across parties. Figure 15 also indicates that Fidesz voters' opinions about the importance of the necessary work skills and education do not differ from non-

[133]Possible answers ranged on a scale of 1-4 (with 1 being "not at all important", and 4 being "very important"), which we again transform to a scale of 0-100 for the sake of comparability. The third and fourth of these options were assigned randomly, so we have a total of four questions with five outcomes. Table 72 in Appendix AJ lists the questions used to capture subjects' opinion on the importance of different cultural, educational and religious background of immigrants, with italics highlighting the randomized part of questions, while Table 73 provides descriptive evidence for the successful randomization.

[134]The null hypothesis is that the distributions of the two responses are identical, thus, with a p-value of 0.13, we fail to reject this hypothesis.

CEU eTD Collection

Panel A: Christian and White Heritage

	Not	Some	Important	Very	Total
Not important	35.26	6.21	0	1.38	10.80
Somewhat important	40.62	53.64	10.06	4.87	29.74
Important	16.23	23.11	65.16	10.07	29.81
Very important	7.89	17.04	24.78	83.69	29.65
Observations	108	154	127	98	487

$\chi^2(9) = 354.8, p < 0.001$

Panel B: Christian and Same Values

	Not	Some	Important	Very	Total
Not important	44.36	3.17	0	1.38	9.80
Somewhat important	25.54	54.53	4.85	5.30	26.82
Important	21.53	31.22	70.58	6.71	36.88
Very important	8.57	11.09	24.58	86.62	26.51
Observations	99	189	148	87	523

$\chi^2(9) = 463.9, p < 0.001$

Notes: The panels compare the distribution of responses of the importance of refugees being Christian (column variable) with the importance of coming from a country with a white heritage or the same values as Hungarians (row variables). Responses of "Don't know/refuse to answer" are excluded. Columns of the table show the weighted distributions across the share of the responses. Figure 29 shows the distribution of responses for Panel A, while Figure 30 presents the distribution for Panel B.

Table 33: Race, Values, and Religion Compared, April 2022

Fidesz voters' opinion. But Fidesz voters have a much stronger preference for immigrants with the same values as Hungarians, who come from a country with white European heritage, and who are Christian. These results also hold in a multivariate context.[135]

Finally, we also investigate how ethnicity affects mass public opinion (and how this differs across individuals' partisanship). To this end, we added the following question to our April 2022 survey: *"Should Hungary welcome immigrants from these ethnic backgrounds, so long as they are entering the country legally and have no record of criminal activity?"*, with seven different ethnicities: Hungarian, German, Russian, Chinese, Arab, Piresian and Piresistani. The last two of these—Piresians and Piresistani—are fictional ethnic groups; we include them in order to measure the respondents' general hostility towards truly unknown people. Possible answers were on a 4-point Likert scale, with 1 corresponding

[135]See the estimated equations in Appendix AO and the regression outputs in Table 78.

CEU eTD Collection

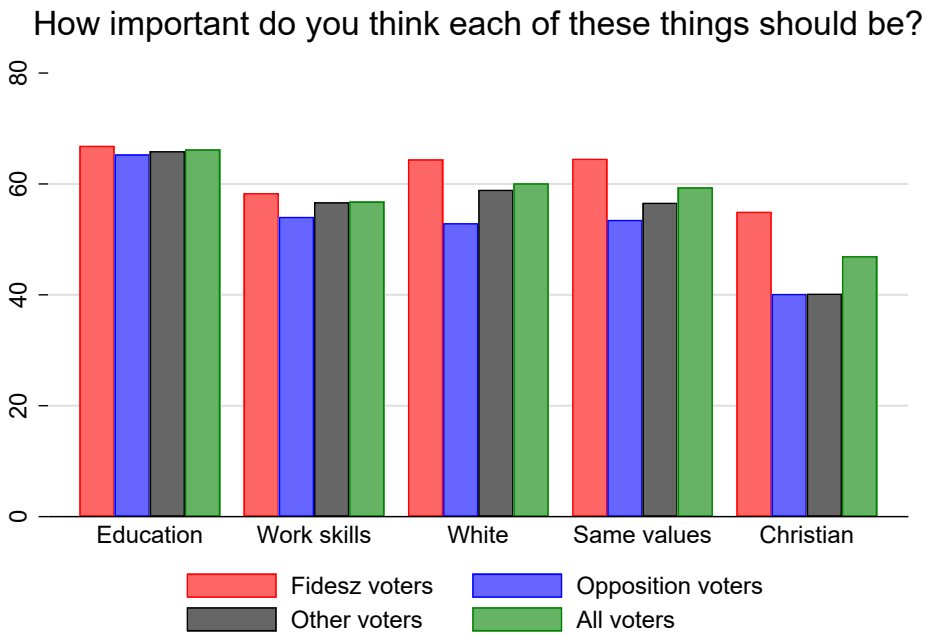

Figure 15: The Importance of Immigrants' Civilizational Characteristics and Various Skills by Party, April 2022

to "should not at all be welcome", and 4 to "should be welcome".[136]

Figure 16 shows the changing altitudes of Hungarians across immigrants' ethnicity by partisanship. Hungarians in general are very welcoming towards ethnic Hungarians and German immigrants. They are, however, rather opposed to Russians and Chinese, and mostly hostile to Arabs, Piresians, and Piresistani. Fidesz voters are more welcoming the ethnic Hungarian immigrants—who have the same civilizational characteristics by definition—than any other groups of voters and they have similar views as other voter groups towards Germans, Russians, Chinese and even Piresians, and are only more hostile (especially if we compare them with the opposition voters) towards the Arabs and the Piresistani. Again, these findings hold in a multivariate context.[137]

[136] A similar question about "Piresians" was asked multiple times in previous TÁRKI survey waves over the past two decades. "Piresistani" is our invention: their ethnicity should also be unknown for the respondents, but their name sounds even less Christian than "Piresians." We note that we randomized these two questions so that a random half of our sample obtained the question with Piresians, and the other half obtained the Piresistani. Again, we transform the 4-point Likert scale to a scale of 0-100. Table 74 in Appendix AK lists the questions in English and in Hungarian, while Table 75 shows that randomization was successful.

[137] See the estimated equation in Appendix AP and the regression outputs in Table 79.

CEU eTD Collection

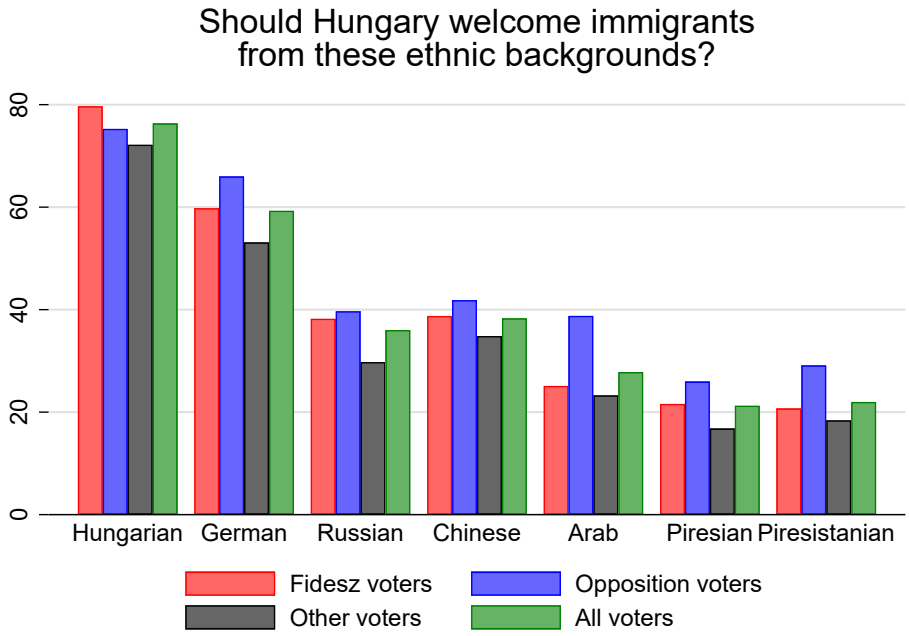

Figure 16: The Importance of Different Ethnic Background of Immigrants by Partisanship, April 2022

5.5.3 Gender and Religion: Additional Results from November 2022

As noted above, nearly all results using April 2022 data are substantively identical when using November 2022 data. There are two notable exceptions. First, our November survey contained a new item designed to adjudicate how the anticipated gender composition of refugees affects Hungarian public opinion. Second, the relationship between religion and refugee support differs dramatically between April and November. We discuss these two findings in turn.

In addition to framing refugees with reference to their civilizational characteristics, Orbán has also noted repeatedly that arriving Ukrainians are mainly women and children, while refugees coming from Africa, the Middle East, and South Asia were young men. He argued that *"everyone can see the difference between the frightened women fleeing from the fighting in our neighbouring country with their bags and children, and the migrants from thousands of kilometres away besieging our borders. Hungary helps refugees, but continues to reject migration."*[138] Indeed, in 2015, Orbán claimed that 80% of immigrants are male and

[138] https://2015-2022.miniszterelnok.hu/orban-viktor-unnepi-beszede-az-1848-49-evi-forradalom-es-szabadsagharc-174-evfordulojan/

CEU eTD Collection

that *"they [male immigrants] look like an army rather than a group of refugees... even if other European countries deal with their demographic issue with allowing in young, warrior-like males, we cannot accept this..."*.

Thus, a natural concern is that our results may be driven by the Hungarian government's framing of the gender composition of Ukrainian refugees.[139] If true, Hungarians are more welcoming of Ukrainian refugees than Afghan refugees because they assume that Ukrainian refugees are mostly women and children, whereas they assume that Afghan refugees are young men.

To address this concern, we designed another survey experiment in the November wave that asked respondents about their receptivity to *male* versus *female and children* refugees fleeing from *Afghanistan* versus from *Ukraine*.[140] We predict refugee attitudes as a function of refugee gender/age (males vs females/children) and the source country of refugees (Ukraine vs Afghanistan) using the following specification

$$Support_i = \alpha + \beta Female_i + \gamma Europe_i + \delta(Europe_i \times Female_i) + \omega X_i + \varepsilon_i, \quad (20)$$

where $Support$ measures support for admitting refugees, *Europe* takes the value of 1 for the survey question comparing Ukraine and 0 for Afghanistan, *Female* takes the value of 1 for respondents assigned female and children refugees and 0 for male refugees, and ϵ_i is the error term. In these regressions, X_i captures respondents' socio-demographic characteristics, their party preferences, and religiosity.

Table 34 indicates that Hungarian respondents are significantly more welcoming towards women and children than men (a difference of 11-14 points on a 0-100 scale). But as shown in Figure 17, Hungarians are still more receptive to Ukrainians, revealing the continued importance of civilizational characteristics.

Turning now to religion, we observe a meaningful difference between April 2022 and November 2022 in how religious participation relates to refugee support.[141] To put these

[139] Appendix BA breaks down refugees and Ukrainians with TP status staying in Hungary by their age and gender. The sheer number of accepted refugees (male and female alike) in Hungary were very low during the first refugee crisis and this rules out the concern that our results are driven by Hungarians' personal encounters with male refugees (Tables 91 and 92). It is, however, true that majority of the Ukrainians with TP status are female (66%) (Table 94).

[140] The question was worded as follows: *"To what extent do you agree or disagree with the following statement? The Hungarian government should allow the entry of [adult men]/[adult women and children] fleeing conflict in [Ukraine/ Afghanistan]"*?

[141] Tables 77, 78 and 79 in Appendices AN, AO and AP show that in April 2022, individual service participation did not play a significant role in anti-immigrant sentiments towards refugees with different skills and characteristics. By November, this changed dramatically: more frequent service participants were

CEU eTD Collection

	Dependent variable: welcoming refugees (0-100 scale)					
	Without religiosity		With relig. identity		With relig. practice	
Female refugee	13.77***	11.30***	13.47***	10.68***	13.41***	10.94***
Ukrainian refugee	17.93***	15.54***	18.47***	15.78***	17.92***	15.53***
Female x Ukrainian	..	5.02	..	5.68	..	5.03
Fidesz	0.51	0.37	-0.07	-0.22	0.12	-0.04
Very religious	..	..	4.50	4.40	..	..
Somewhat rel	..	..	10.22***	10.33***	..	..
Freq serv part	..	..	..	..	5.03	5.16
Occ serv part	..	..	..	..	4.46	4.38
Observations	984	984	983	983	982	982

Notes: The dependent variable is welcoming refugees on a 0-100 scale. *, ** and *** denote significance at 10%, 5% and 1% level, respectively.

Table 34: Regression Results of the Role of Refugee Gender and Source Country on Public Opinion towards Refugees

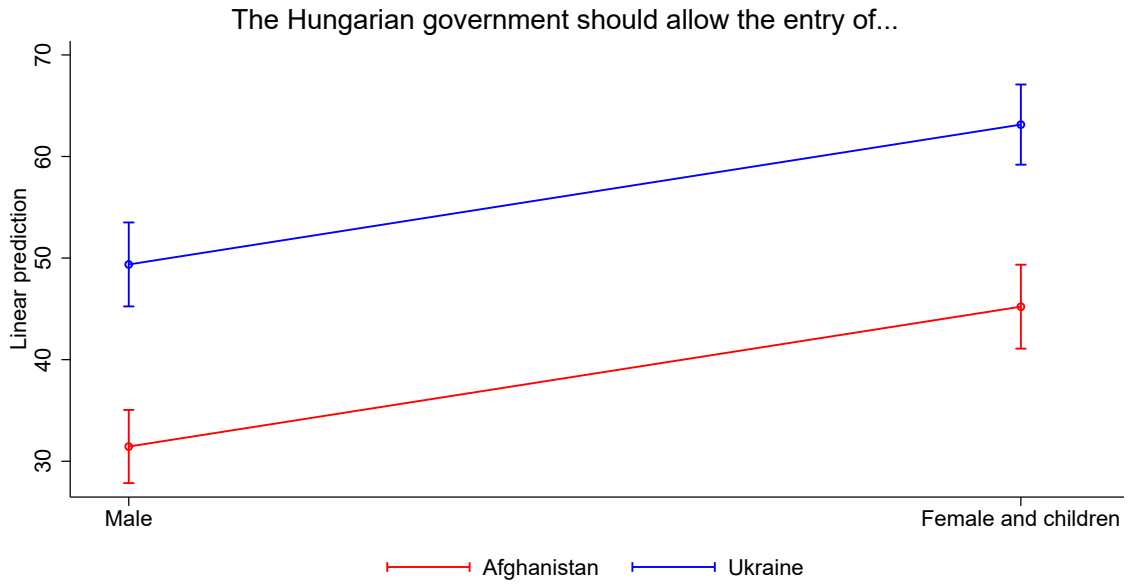

Figure 17: Predicted Support for Refugees by Source Country and by Gender, November 2022

differences in context, we collected historical data on the anti-immigrant sentiments of various religious and non-religious groups from the first half of the 2010s, i.e. from a

significantly more supportive towards any types of refugees, as can be seen from Tables 84, 87 and 88 of Appendix AW.

CEU eTD Collection

period when immigration was not an important or salient issue. Figure 18 shows the proportion of respondents who say that no immigrants should be allowed to Hungary, by the frequency of service participation, in ten survey waves between 2011 and 2022.[142]

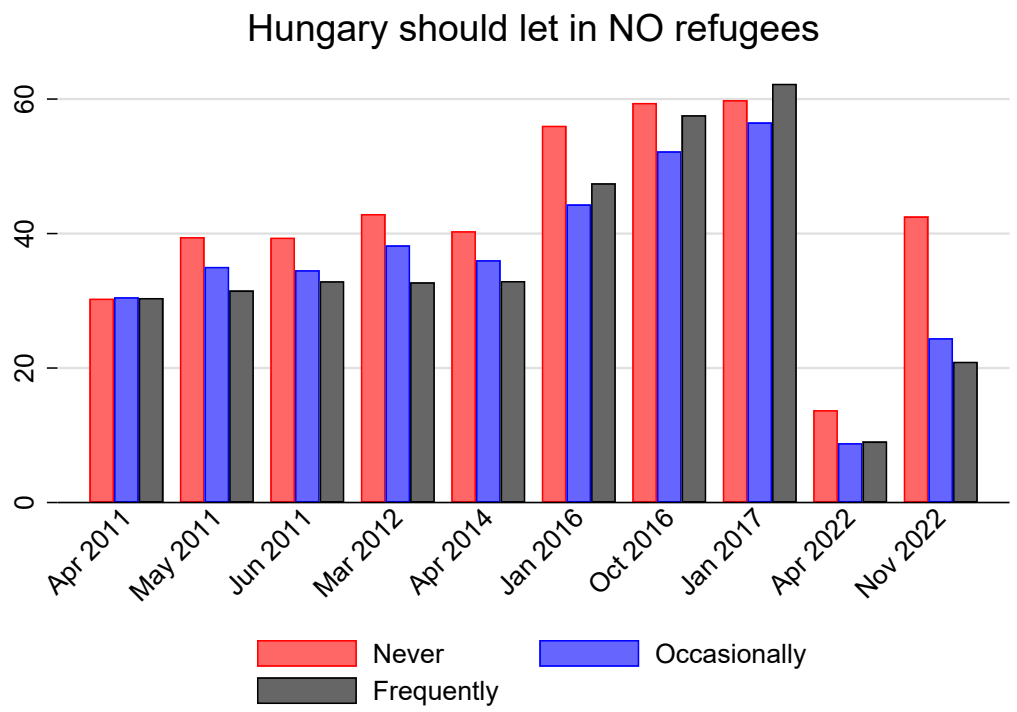

Figure 18: Opposition to Refugees by Religious Service Participation, 2011–2022

Prior to 2015, frequent religious participation is associated with lower opposition to admitting refugees. As anti-refugee sentiment increased in 2016 and afterwards, differences in refugee support generally disappeared, suggesting that religious Hungarians were particularly receptive to rhetoric about civilizational characteristics. April 2022 saw the dramatic drop in opposition to refugees that we identified previously. But by November 2022, the rise in anti-refugee sentiments was much larger among those who never participated in religious services than among religious participants.[143]

To investigate the sources of the November 2022 changes, we model support for refugees as a function of the interaction between individual religiosity and survey wave.[144]

[142] All survey were made by TÁRKI, and the wording of the question was exactly the same.

[143] This trend also holds for changes in public opinion towards refugees by source country (Figure 51) and by ethnicity (Figure 52).

[144] Our specific model is Equation (41) in Appendix AX.

CEU eTD Collection

Figure 19 predicts the probabilities that respondents oppose the admission of all refugees, and shows that even when we control for individual's socio-demographic characteristics, religious service participants were generally less opposed to refugees prior to the the first refugee crisis. We conclude that Russia's invasion of Ukraine generated strong support for refugees in its immediate aftermath, over time the relationship between religion and refugee support in Hungary has returned to its pre-crisis baseline pattern (see also Kustov, Laaker, and Reller 2021).

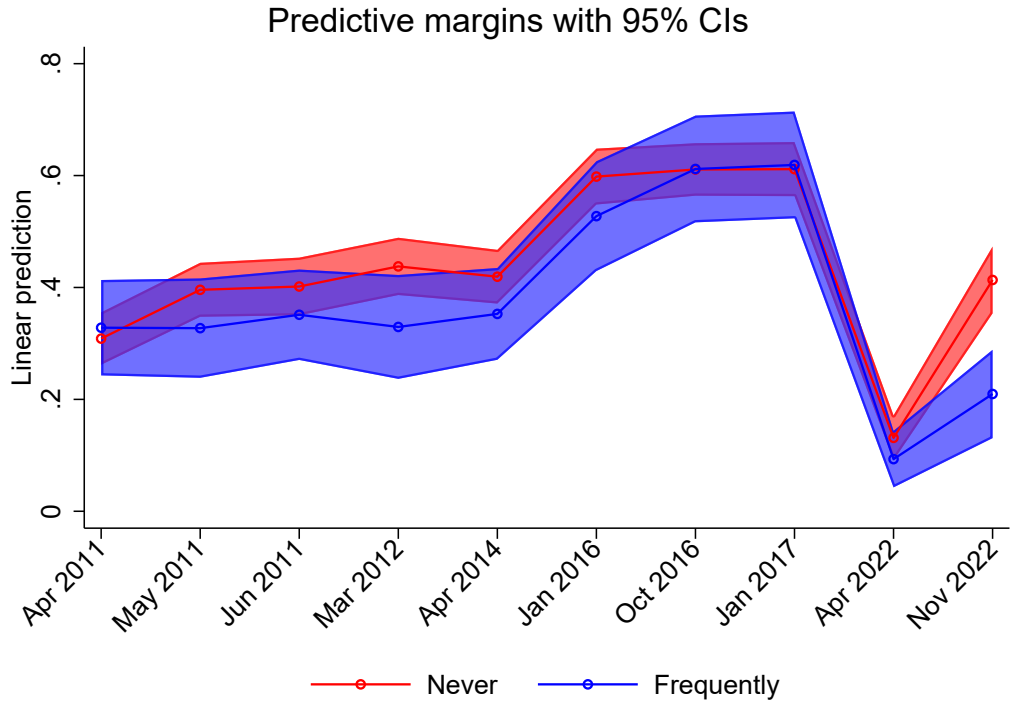

Figure 19: Opposition to Refugees by Religious Service Participation, 2011–2022

Note: The figure shows the predicted margins of responses among frequent religious service participants and among those who never participate in religious services (we estimate Equation (41)). The dependent variable is a dummy indicating that a respondent is opposed to admitting any refugees. Control variables are included, results are weighted.

5.6 *Contextual Factors and Refugee Support*

In this section, we complement our individual-level results with additional analyses that incorporate information about respondents' local environments. This extends our argument about civilizational factors to a different level of analysis, to examine how factors

CEU eTD Collection

such as the local strength of Fidesz and local demographic composition shape respondents' views. These analyses also allow us to test whether geographic factors or local economic conditions explain support for refugees, giving us further insights into the correlates of refugee support.

Before proceeding, we note that none of the analyses in this section overturn the substantive conclusions we have drawn in previous sections. Although we will show that respondents' local environments explain additional variation in refugee support, our argument that civilizational characteristics explain the sharp increase in support for Ukrainian refugees in 2022 remains unchanged, as do our empirical findings about the individual-level predictors of public opinion towards refugees across survey waves.

We study the contextual determinants of public opinion by merging our April and November 2022 surveys with settlement-level data compiled from the Hungarian Central Statistical Office. Settlements are the smallest administrative units in the country; there are a total of 3177 settlements in Hungary, including the 23 districts of Budapest. In our survey, data are drawn from 81 settlements and 23 districts from Budapest in April and 82 settlements and 23 districts in November (see the map of survey respondents across Hungarian settlements in Appendix AT). We collect data on local demographic factors like Christian population share, Roma population share, and income per capita, as well as other local factors such as Fidesz vote share and the distance to Hungary's border with Serbia and with Ukraine.[145]

Adopting a multilevel modeling approach (Steenbergen and Jones 2002), we begin with a simple variance decomposition (as specified in Equation (39) in Appendix AV) to estimate the relative importance of settlement-level factors in explaining individual attitudes, and then model contextual factors directly using

$$\begin{aligned} y_{ij} &= \alpha_j + X'_{ij}\beta + \varepsilon_{ij} \\ \alpha_j &= \alpha_{00} + Z'_j\alpha_{01} + \alpha_{0j}. \end{aligned} \tag{21}$$

where y_{ij} is the attitudes toward immigration (on a 0-100 scale), Z'_j is a vector of settlement-level explanatory variables and X'_{ij} is a vector of individual explanatory variables, α_{00} is the average level of support, α_{0j} is the settlement-level random error term with variance σ^2_α and ε_{ij} is the random error term at the individual level.

[145]We also included the share of Catholics and Protestants separately, net income per capita (instead of gross), and unemployment rate, but all of these turned out to be insignificant in all specifications so we do not report them here.

CEU eTD Collection

Our results appear in Tables 35–38.

	Source country			
	Ukraine	Belarus	Afghanistan	Pakistan
Panel A: Variance decomposition				
Mean (α_{00})	65.87	40.19	30.85	32.48
Variance	669.74	831.83	833.18	766.09
Between variance (%)	38%	44%	43%	49%
Panel B: Simple MLM model				
Distance SRB	-0.0178	-0.0182	-0.0851**	-0.0271
Christian share	-22.83	-41.11**	-30.08*	-38.65**
Roma share	48.53	17.12	55.59	41.38
Income pc	1.67	0.70	6.71	10.54**
Individual controls	Yes	Yes	Yes	Yes
Explained between variance	14.4%	15.6%	25.6%	27.5%

Table 35: Variance Decomposition and MLM Estimation for Individuals' Attitude about Immigrants by Source Country, April 2022

	Source country			
	Ukraine	Belarus	Afghanistan	Pakistan
Panel A: Variance decomposition				
Mean (α_{00})	47.74	33.98	28.47	26.49
Variance	883.12	680.20	681.08	660.53
Between variance (%)	52%	46%	46%	46%
Panel B: Simple MLM model				
Distance SRB	-0.0440	-0.0672	-0.0867	-0.0248
Christian share	6.11	-11.27	-3.73	-11.21
Roma share	-95.01*	6.85	-61.78	-95.25**
Income pc	-15.94**	1.30	-0.11	-3.49
Fidesz vote share	-28.51	43.60	57.37	74.43**
Foreigner share	607.26	1115.18***	956.49***	1547.70***
Individual controls	Yes	Yes	Yes	Yes
Explained between variance	9.5%	20.8%	21.0%	21.7%

Table 36: Variance Decomposition and MLM Estimation for Individuals' Attitude about Immigrants by Source Country, November 2022

CEU eTD Collection

	Ethnicity						
	Eth. Hung.	German	Arab	Russian	Chinese	Piresian	Piresistani
Panel A: Variance decomposition							
Mean (α_{00})	76.81	59.72	28.97	38.48	40.29	24.71	22.89
Variance	583.74	946.59	852.13	953.70	993.77	871.25	742.08
Betw. var. (%)	37%	43%	32%	38%	44%	39%	41%
Panel B: Simple MLM model							
Distance SRB	-0.0034	0.0075	-0.0311	0.0548	0.0215	0.0704*	-0.0132
Christian share	-12.59	-28.31*	-24.80	-56.62***	-38.54**	-62.37***	-20.01
Roma share	-11.80	-70.07*	-19.22	-56.42	-44.80	-55.84	-16.44
Income pc	1.68	-5.99	-4.35	-9.66	-1.41	-5.81	5.32
Indiv. controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Expl. betw. var.	7.8%	9.6%	14.1%	17.8%	7.8%	19.7%	14.7%

Table 37: Variance Decomposition and MLM Estimation for Individuals' Attitude about Immigrants with Different Ethnic Background, April 2022

CEU eTD Collection

	Ethnicity						
	Eth. Hung.	German	Arab	Russian	Chinese	Piresian	Piresistani
Panel A: Variance decomposition							
Mean (α_{00})	68.54	52.78	21.08	31.33	33.92	19.40	21.09
Variance	788.72	951.13	756.03	919.61	916.39	783.33	891.51
Betw. var. (%)	47%	41%	37%	47%	49%	49%	54%
Panel B: Simple MLM model							
Distance SRB	-0.1305***	-0.0865*	-0.0626	-0.0887	-0.0758	-0.0646	-0.0241
Christian share	6.00	0.25	-14.11	4.17	-2.46	-24.16	-31.12
Roma share	31.14	-123.31**	-129.01***	-75.01	-155.77***	-122.92**	-160.45**
Income pc	12.58**	-17.25**	-17.31***	-10.53	-12.32*	-15.70**	-15.83*
Fidesz vote share	3.02	-11.47	76.03**	50.81	76.73**	42.00	158.84***
Foreigner share	-626	71	1107***	1461***	1462***	1002***	2130***
Indiv. controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Expl. betw. var.	22.3%	14.5%	12.5%	11.8%	15.9%	11.5%	20.9%

Table 38: Variance Decomposition and MLM Estimation for Individuals' Attitude about Immigrants with Different Ethnic Background, November 2022

CEU eTD Collection

Our first result is that settlement-level factors matter: a substantial proportion (32-54%) of total variation is due to variation between settlements (see last rows of each Panel A). Approximately 8-28% of this between-settlement variation is explained by the settlement-level explanatory variables that we included. We also find that, consistent with our expectations, the settlement-level Christian population share is negatively correlated with support for non-Ukrainians (Table 35) and non-Hungarians (Table 37) in the April survey wave. By contrast, settlement-level Roma population share is negatively correlated with support for non-Ukrainians (Table 36) and non-Hungarians (Table 38) in November. We also find in November that respondents in settlements with a larger foreign population share are more welcoming of non-European refugees and immigrants.

Finally, in Appendix AV we investigate whether the effect of residential exposure to religious majority is larger for religious individuals by allowing the effect of individual religiosity on attitudes towards immigrants to vary across settlements with different Christian share.[146] We find that settlement-level Christian population share explains anti-immigrant attitudes primarily among religious voters (Table 81 and Table 82).[147] Religion not only influences individual's anti-immigrant sentiments, but a religiously homogeneous context exerts stronger effect on religious individuals.[148] Table 81 and Table 82 show that the effect of settlement-level Christian population share on anti-immigrant attitudes is stronger for those supporting the incumbent government.

Although our main conclusions about the dramatic pro-refugee shift in Hungarian public opinion remain unchanged in the multilevel analysis, the results in this section further reveal how our argument about civilizational factors fares when examining individual public opinion in its local context. Respondents in settlements with large Christian majorities and large Roma populations are particularly opposed to non-European refugees, which is consistent with our argument about the primacy of civilizational factors for explaining refugee opinion. Further research can explore these and other dimensions of local context in shaping public opinion towards immigrants and refugees.

[146] We estimate Equation (40) as specified in Appendix AV. We only do this analysis for the April wave, when the settlement-level share of Christians is strongly significant.

[147] This heterogeneous effect is significant for attitudes towards immigrants with different ethic background except towards Ukrainians and ethnic Hungarians.

[148] Here, in asking how the effect of individual-level religiosity differs across religious settlements, we tested three aspects of individual religiosity: identity, practice and affiliation. All measures suggest similar results.

CEU eTD Collection

5.7 Conclusion

This paper has used new survey data from Hungary to study how the Ukrainian refugee crisis of 2022 has shaped public opinion towards refugees in a highly illiberal political environment in which anti-migrant rhetoric has been a mainstay of political discourse for over a decade. The 2022 crisis produced an overwhelming shift in public opinion in favor of accepting refugees in Hungary, countering a trend of growing anti-refugee public opinion. This finding is substantively important on its own, as it reveals the power of external events to shape public opinion on refugees in profound ways.

But our main finding is that this shift in public opinion is specifically driven by reactions to Ukrainian refugees, and does not apply generally. The Hungarian mass public remains opposed to refugees entering from countries that are outside of Europe, even those facing violent conflict that drives their citizens to seek refuge abroad. Ours is the most comprehensive quantitative evidence available that Europe's alleged "refugee hypocrisy" (Traub 2022) is widely felt among the mass public. We have also documented that civilizational factors are particularly important predictors of attitudes towards migrants among Fidesz supporters. Looking at the interaction between individual and contextual factors reveals that in general, the negative relationship between settlement-level religiosity and support for non-Ukrainian refugees and non-Hungarian immigrants is particularly strong among religious respondents and Fidesz supporters.

Future research may examine these civilizational factors in more depth. When Hungarians are asked about the desirable characteristics of refugees entering their country, views on race, values, and religion are all closely aligned with one another. In addition to exploring how these patterns vary across Europe, future research may build on these results—following the approach of Helbling and Traunmüller (2020) and/or Adida, Lo, and Platas (2019)—to distinguish among the various facets of civilizational conflict in contemporary European politics.

Scholars of public opinion in competitive authoritarian regimes can build on our findings to characterize how public opinion shapes—and is shaped by—Fidesz's governing strategy. The Ukrainian refugee crisis of 2022 shortly preceded legislative elections that returned Fidesz to power with a strong majority, meaning that a highly anti-immigrant party won an election in the midst of a serious refugee crisis. We have shown that Fidesz voters did indeed follow other Hungarians in becoming more open to refugees in the wake of the 2022 refugee crisis, but our analysis of the civilizational foundations of Hungarian public opinion towards refugees is consistent with the Fidesz government's emphasis on

CEU eTD Collection

European civilization as defined in racial and religious terms. These results from Hungary suggest that even as the war in Ukraine has upended politics as usual in Central Europe, it may not have fundamentally changed the logic of illiberal politics in Europe's authoritarian regimes.

CEU eTD Collection

6 *Conclusion*

The dissertation has examined the political economy of transfers and the question of how these transfers alter the behavior and attitudes of the mass public. Additionally, the dissertation has had a special focus on the role of government in shaping how citizens receive certain transfers and respond to exogenous events. The principal argument of the dissertation is that mass behavior and public opinion cannot be adequately understood without attention to how it is influenced by external transfers and public policy; while different types of transfer (aid transfers and distributive allocations of public policies) cannot be adequately analyzed apart from their effects on mass opinion. This dissertation has elucidated that citizens' behavior and political actions are shaped by the broad policy environment including government actions and are influenced by direct encounters with specific transfer programs.

Chapter 2 has examined the effect of erratic external transfers on the stability of the recipient countries. Chapter 2 has acknowledged that for many developing countries, aid constitutes a large share of state revenue, a high proportion of which is vastly volatile and unpredictable. The Chapter has focused on the impact of shocks in foreign aid disbursement on the stability of poor countries, specially on two-sided conflict (internal armed conflict), one-sided conflict from the government (purges) and one-sided conflict from the opposition (assassination, riots and terrorism). The effect of erratic aid disbursement is conditional on how recipient governments react to these shocks and on their ability to make credible commitments. To estimate the effect of an aid shock on conflict and to test how state capacity mediates this relationship, an instrumental variable strategy has been proposed based on donors' Gross National Income (GNI). The main findings have indicated that negative (positive) aid shocks increase (decrease) one-sided conflict from the opposition, suggesting that negative aid shocks primarily trigger social unrest from the population; and the effect of negative aid shocks on one-sided conflict from the opposition is especially large in countries with weak state capacity.

While Chapter 2 has examined how (violently) people react to shocks in external transfer, Chapter 3 has advanced useful ways to think about the mechanisms that allow transfers of public policies to influence voting behavior. The Chapter has analyzed the effect of large targeted government spending programs: the Rural Family Housing Allowance Program and the Hungarian Village Program. The Chapter has identified the effect of receiving transfers on the support for the incumbent government, to ultimately advance our understanding of voters' decision making and to learn more about how the government designs

CEU eTD Collection

its targeted spending programs. By exploiting the plausibly exogenous policy eligibility threshold and relying on a difference in differences estimation strategy, we have shown that the policy increased voters' turnout as well as the vote share of the incumbent party in policy eligible settlements. At the same time, the Chapter has provided descriptive evidence that the incumbent government rewarded core settlements and mobilized its supporters.

Chapter 4 has complemented and added to Chapter 3 and has examined citizens' view about the appropriateness of supporting a party based on material handouts and whether the mass public interprets this as a socially undesirable and stigmatized behavior. The Chapter has studied the attitudes and policy preference of the mass public following a large-scale, unconditional government spending program. In 2022, the Hungarian government implemented a large-scale pre-election spending program, paying out the country's largest pension bonus and giving families a huge tax refund. Beyond the size of the payment, these measures provided unconditional cash transfers to a large share of voters and rewarded the relatively better off people. While receiving these handouts was not illegal, people are still reluctant to admit that they support a party based on material rewards. The resulting reluctance of admitting allegedly inappropriate behavior is called social desirability bias. To elicit unbiased answers about this sensitive behavior and to understand how much of a problem is sensitivity bias in this case, we employ a list experiment technique. Our results have suggested that these transfers worked mainly by demobilizing opposition voters, while material rewards influenced the party preference of around 20% of the incumbent voters.

Finally, public opinion is not only responsive to transfers, but also to exogenous events and to the political discourse framing these events. Chapter 5 has studied public opinion towards refugees in Hungary, a highly exclusionary political environment in which anti-migrant and anti-refugee sentiments are commonly invoked by the ruling government. Combining historical public opinion data from the past decade with original survey data collected in April 2022, we have demonstrated that the Ukrainian refugee crisis was accompanied by a large increase in tolerance for refugees, reversing what had previously been one of the most antirefugee public opinion environments in Europe. To explain this reversal, we have used a series of survey experiments coupled with detailed settlement-level demographic data to investigate how conflict proximity and racial, religious and national identity (three manifestations of what we term civilizational characteristics) shape openness to refugees. The Chapter has demonstrated that the distinguishing feature of

CEU eTD Collection

the 2022 refugee crisis was that refugees were mostly white European Christians driven from their home country by conflict.

6.1 Implications and Future Research Agenda

These Chapters have had important implications for four different bodies of theoretical literature in political economy. First, the dissertation has contributed to the foreign aid and conflict literature empirically by providing a new way of measuring shocks in transfer (that is an aid shock) and by developing a new instrumental variable approach; while it has specified the mechanisms that link shocks in aid to violent mass responses. Second, the dissertation had advanced our understanding about the question of who receives government transfers (the core and swing voter debate) and has contributed to the literature on the political returns of public policy allocations by providing rigorous quantitative evidence about the electoral effect of a targeted policy. Third, we have contributed to the survey literature addressing the issue of social desirability bias by testing whether survey responses suffer from misreporting and nonresponse even when the appropriateness of supporting a party based on material handouts is not straightforward. Finally, we have complemented the literature linking public opinion and exogenous events by providing the most rigorous quantitative evidence yet available that the 2022 Ukrainian refugee crisis actually shifted public opinion towards refugees in a country where anti-migrant and anti-refugee sentiments were widely expressed, strongly held, and politically valuable to the incumbent government.

We conclude by offering a few thoughts on the research agenda for studying the effect of transfers and other exogenous events on mass behavior and attitudes. First, research on the effect of transfers on mass behavior can be advanced by focusing on a specific feature of the transfers. We can gain new insights by understanding, for instance, whether and up to what degree a transfer was expected and predicted by the recipient and what are the implications of the unexpected oscillations in these transfers are. Further, by distinguishing between the resources delivered by a policy (e.g.: cash or a certain form of investment in settlements); the mechanisms of their delivery (e.g.: conditional or unconditional transfer), and the unit of targets (e.g.: individuals, municipalities or countries), we might gain a more nuanced understanding of the effect of transfers. In other words, to precisely trace why transfers produce different reactions from the mass public, we need to understand what feature of the policy have significance for mass public.

Second, it is equally important to pay a special attention to the processes that mediate

CEU eTD Collection

the effect of transfers on the mass public. The amount of allocations or the policy design in itself will not adequately explain public responses, these transfers have their effect because of the political processes that put them in motion and because of how the government interacts with these transfers. To properly assess the effect of these transfers, we first have to understand the particular ways these transfers fit into ongoing political transactions. To take a step back, not only it is important to understand the role of government in estimating the effect of transfers but also in studying the effect of any exogenous events. To understand how exogenous events (shocks in aid in case of poor countries, or refugee shocks in case of advanced countries), we should begin to trace the processes and identify the main mechanisms linking exogenous events to mass responses. Scholars should carefully illuminate mechanisms that produce effects in the broader public and that explain possible heterogeneous effects.

Third, research explaining how external events and transfers of public policies affect mass behavior should be more individual-centered. To understand with confidence not only the material effects of transfers and exogenous events, but also their symbolic effects, we have to understand the meaning of these events in the life of individuals. On the one hand, the introduction of transfers often conveys positive messages to public about their place in the society and why they deserve these transfers. On the other hand, understanding how transfers and exogenous events fit into the lives of individuals and social groups allows us to trace different effects, depending on individual and group characteristics. Individuals receiving different messages and living under different circumstances may draw different lessons from their encounters with transfers and exogenous events.

CEU eTD Collection

References

Adida, Claire L., Adeline Lo, and Melina R. Platas (2019). "Americans preferred Syrian refugees who are female, English-speaking, and Christian on the eve of Donald Trump's election." *PLOS ONE* 14.10 (10), pp. 1–18.

Ahlquist, John, Mark Copelovitch, and Stefanie Walter (2020). "The political consequences of external economic shocks: evidence from Poland." *American Journal of Political Science* 64.4, pp. 904–920.

Ahmed, Faisal Z (2016). "Does foreign aid harm political rights? Evidence from US aid." *Quarterly Journal of Political Science* 11.2, pp. 183–217.

Allin, Dana H. and Erik Jones (2022). "Sleepwalking to solidarity? Russia, Ukraine and the European dream." *Survival* 64 (3), pp. 213–222.

Ammaturo, Francesca Romana (2019). "Europe and whiteness: Challenges to European identity and European citizenship in light of Brexit and the 'refugees/migrants crisis'." *European Journal of Social Theory* 22 (4), pp. 548–566.

Angrist, Joshua D and Alan B Krueger (1999). "Empirical strategies in labor economics." *Handbook of Labor Economics*. Vol. 3. Elsevier, pp. 1277–1366.

Angrist, Joshua D and Jörn-Steffen Pischke (2010). "The credibility revolution in empirical economics: How better research design is taking the con out of econometrics." *Journal of Economic Perspectives* 24.2, pp. 3–30.

Anzia, Sarah F, Jake Alton Jares, and Neil Malhotra (2022). "Does receiving government assistance shape political attitudes? Evidence from agricultural producers." *American Political Science Review* 116.4, pp. 1389–1406.

Baicker, Katherine and Amy Finkelstein (2019). "The impact of Medicaid expansion on voter participation: evidence from the Oregon health insurance experiment." *Quarterly Journal of Political Science* 14.4, 383–400.

Baker, Michael, Jonathan Gruber, and Kevin Milligan (2008). "Universal child care, maternal labor supply, and family well-being." *Journal of Political Economy* 116.4, pp. 709–745.

Bánkuti, Miklós, Gábor Halmai, and Kim Lane Scheppele (2012). "Hungary's illiberal turn: Disabling the constitution." *Journal of Democracy* 23 (3), pp. 138–146.

Bansak, Kirk, Jens Hainmueller, and Dominik Hangartner (2016). "How economic, humanitarian, and religious concerns shape European attitudes toward asylum seekers." *Science* 354 (6309), pp. 217–222.

Barlai, Melani, Birte Fähnrich, and Christina Griessler, eds. (2017). *The Migrant Crisis: European Perspectives and National Discourses*. Zürich: Lit Verlag.

Barone, Guglielmo and Helena Kreuter (2021). "Low-wage import competition and populist backlash: The case of Italy." *European Journal of Political Economy* 67, p. 101970.

Bazzi, Samuel and Christopher Blattman (2014). "Economic shocks and conflict: Evidence from commodity prices." *American Economic Journal: Macroeconomics* 6.4, pp. 1–38.

Beath, Andrew, Fotini Christia, and Ruben Enikolopov (2017). *Can development programs counter insurgencies?: Evidence from a field experiment in Afghanistan*. MIT Political Sci-

CEU eTD Collection

ence Department Research Paper No. 2011-14. Cambridge, MA: MIT Political Science Department.

Bechtel, Michael M and Jens Hainmueller (2011). "How lasting is voter gratitude? An analysis of the short-and long-term electoral returns to beneficial policy." *American Journal of Political Science* 55.4, pp. 852–868.

Békés, Gábor and Gábor Kézdi (2021). *Data analysis for business, economics, and policy*. Cambridge University Press.

Bell, Elizabeth (2020). "The politics of designing tuition-free college: How socially constructed target populations influence policy support." *The Journal of Higher Education* 91.6, pp. 888–926.

Berman, Nicolas and Mathieu Couttenier (2015). "External shocks, internal shots: The geography of civil conflicts." *Review of Economics and Statistics* 97.4, pp. 758–776.

Bernhard, Michael (2021). "Democratic backsliding in Poland and Hungary." *Slavic Review* 80 (3), pp. 585–607.

Berry, Christopher R, Barry C Burden, and William G Howell (2010). "The president and the distribution of federal spending." *American Political Science Review* 104.4, pp. 783–799.

Besley, Timothy and Torsten Persson (2010). "State capacity, conflict, and development." *Econometrica* 78.1, pp. 1–34.

Bischof, Daniel and Roman Senninger (2018). "Simple politics for the people? Complexity in campaign messages and political knowledge." *European Journal of Political Research* 57.2, pp. 473–495.

Blair, Graeme, Alexander Coppock, and Margaret Moor (2020). "When to worry about sensitivity bias: A social reference theory and evidence from 30 years of list experiments." *American Political Science Review* 114.4, pp. 1297–1315.

Blattman, Christopher, Mathilde Emeriau, and Nathan Fiala (2018). "Do anti-poverty programs sway voters? Experimental evidence from Uganda." *Review of Economics and Statistics* 100.5, pp. 891–905.

Bluhm, Richard, Martin Gassebner, Sarah Langlotz, and Paul Schaudt (2019). "Fueling conflict? De-escalation and bilateral aid." *CESifo Working Paper No. 6125*.

Bol, Damien, Marco Giani, André Blais, and Peter John Loewen (2021). "The effect of COVID-19 lockdowns on political support: Some good news for democracy?" *European Journal of Political Research* 60.2, pp. 497–505.

Bosse, Giselle (2022). "Values, rights, and changing interests: The EU's response to the war against Ukraine and the responsibility to protect Europeans." *Contemporary Security Policy*, pp. 1–16.

Bound, John, David A Jaeger, and Regina M Baker (1995). "Problems with instrumental variables estimation when the correlation between the instruments and the endogenous explanatory variable is weak." *Journal of the American Statistical Association* 90.430, pp. 443–450.

CEU eTD Collection

Brader, Ted, Nicholas A. Valentino, and Elizabeth Suhay (2008). "What triggers public opposition to immigration? Anxiety, group cues, and immigration threat." *American Journal of Political Science* 52 (4), pp. 959–978.

Brollo, Fernanda and Tommaso Nannicini (2012). "Tying your enemy's hands in close races: The politics of federal transfers in Brazil." *American Political Science Review* 106.4, pp. 742–761.

Brown, Caitlin and Cristina Corduneanu-Huci (2020). "Conflict and trust in institutions: The Sudanese experience." *Working Paper, https://sites.google.com/site/caitbrownecon/*.

Brubaker, Rogers (2017). "Between nationalism and civilizationism: The European populist moment in comparative perspective." *Ethnic and Racial Studies* 40 (8), pp. 1191–1226.

Brug, Wouter van der and Eelco Harteveld (2021). "The conditional effects of the refugee crisis on immigration attitudes and nationalism." *European Union Politics* 22 (2), pp. 227–247.

Bueno, Natália S (2018). "Bypassing the enemy: Distributive politics, credit claiming, and nonstate organizations in Brazil." *Comparative Political Studies* 51.3, pp. 304–340.

— (2021). "The Timing of Public Policies: Political Budget Cycles and Credit Claiming." *American Journal of Political Science*.

Bulut, Alper T. (2020). "How Clientelistic Parties Go Programmatic." *Comparative Politics* 52.2, pp. 333–354.

Burrell, Kathy and Kathrin Hörschelmann (2019). "Perilous journeys: Visualising the racialised 'refugee crisis'." *Antipode* 51 (1), pp. 45–65.

Bustikova, Lenka and Cristina Corduneanu-Huci (2017). "Patronage, trust, and state capacity: The historical trajectories of clientelism." *World Politics* 69.2, pp. 277–326.

Campbell, Andrea Louise (2012). "Policy makes mass politics." *Annual Review of Political Science* 15, pp. 333–351.

— (2002). "Self-interest, social security, and the distinctive participation patterns of senior citizens." *American Political Science Review* 96.3, pp. 565–574.

Campbell, John L (2004). *Institutional change and globalization*. Princeton University Press.

Cantat, Céline and Prem Kumar Rajaram (2019). "The politics of the refugee crisis in Hungary: Bordering and ordering the nation and its others." *The Oxford Handbook of Migration Crises*. Ed. by Cecilia Menjívar, Marie Ruiz, and Immanuel Ness. Oxford University Press, pp. 181–196.

Cecchini, Simone and Bernardo Atuesta (2017). "Conditional cash transfer programmes in Latin America and the Caribbean: Coverage and investment trends." *Available at SSRN 3037640*.

Chassang, Sylvain and Gerard Padro-i Miquel (2009). "Economic shocks and civil war." *Quarterly Journal of Political Science* 4.3, pp. 211–228.

Chen, Jowei (2013). "Voter partisanship and the effect of distributive spending on political participation." *American Journal of Political Science* 57.1, pp. 200–217.

Chong, Alberto, Ana L De La O, Dean Karlan, and Leonard Wantchekon (2015). "Does corruption information inspire the fight or quash the hope? A field experiment in

CEU eTD Collection

Mexico on voter turnout, choice, and party identification." *The Journal of Politics* 77.1, pp. 55–71.
Clayton, Jeremy Ferwerda, and Yusaku Horiuchi (2022). "The Stability of Not-In-My-Backyard Attitudes toward Refugees: Evidence from the Ukrainian Refugee Crisis." *SocArXiv*. URL: https://doi.org/10.31235/osf.io/wn32u.
Clinton, Joshua D and Michael W Sances (2018). "The politics of policy: The initial mass political effects of Medicaid expansion in the states." *American Political Science Review* 112.1, pp. 167–185.
Colantone, Italo and Piero Stanig (2018). "The Economic Determinants of the'Cultural Backlash': Globalization and Attitudes in Western Europe." *BAFFI CAREFIN Centre Research Paper* 2018-91.
Conover, Emily, Román A Zárate, Adriana Camacho, and Javier E Baez (2020). "Cash and ballots: Conditional transfers, political participation, and voting behavior." *Economic Development and Cultural Change* 68.2, pp. 541–566.
Cordella, Tito and Harun Onder (2020). "Sharing oil rents and political violence." *European Journal of Political Economy* 63, p. 101882.
Corstange, Daniel (2018). "Clientelism in competitive and uncompetitive elections." *Comparative Political Studies* 51.1, pp. 76–104.
Cox, Gary W and Mathew D McCubbins (1986). "Electoral politics as a redistributive game." *The Journal of Politics* 48.2, pp. 370–389.
Crost, Benjamin, Joseph Felter, and Patrick Johnston (2014). "Aid under fire: Development projects and civil conflict." *American Economic Review* 104.6, pp. 1833–56.
Cruz, Cesi (2019). "Social networks and the targeting of vote buying." *Comparative Political Studies* 52.3, pp. 382–411.
Cunningham, Scott (2021). *Causal inference: The mixtape*. Yale University Press.
Dahlberg, Matz and Eva Johansson (2002). "On the vote-purchasing behavior of incumbent governments." *American Political Science Review* 96.1, pp. 27–40.
Dal Bó, Ernesto, Frederico Finan, Olle Folke, Torsten Persson, and Johanna Rickne (2018). "Economic losers and political winners: Sweden's radical right." *Unpublished manuscript, Department of Political Science, UC Berkeley*.
Dang, Hai-Anh, Stephen Knack, and F Halsey Rogers (2013). "International aid and financial crises in donor countries." *European Journal of Political Economy* 32, pp. 232–250.
Dassonneville, Ruth and Michael S Lewis-Beck (2019). "A changing economic vote in Western Europe? Long-term vs. short-term forces." *European Political Science Review* 11.1, pp. 91–108.
De Kadt, Daniel and Evan S Lieberman (2020). "Nuanced accountability: Voter responses to service delivery in southern Africa." *British Journal of Political Science* 50.1, pp. 185–215.
De La O, Ana L (2013). "Do conditional cash transfers affect electoral behavior? Evidence from a randomized experiment in Mexico." *American Journal of Political Science* 57.1, pp. 1–14.

CEU eTD Collection

De Ree, Joppe and Eleonora Nillesen (2009). "Aiding violence or peace? The impact of foreign aid on the risk of civil conflict in Sub-Saharan Africa." *Journal of Development Economics* 88.2, pp. 301–313.
Dinas, Elias, Konstantinos Matakos, Dimitrios Xefteris, and Dominik Hangartner (2019). "Waking up the golden dawn: Does exposure to the refugee crisis increase support for extreme-right parties?" *Political Analysis* 27 (2), pp. 244–254.
Dixit, Avinash and John Londregan (1996). "The determinants of success of special interests in redistributive politics." *The Journal of Politics* 58.4, pp. 1132–1155.
Dorsch, Michael T, Karl Dunz, and Paul Maarek (2015). "Macro shocks and costly political action in non-democracies." *Public Choice* 162, pp. 381–404.
Drazen, Allan and Marcela Eslava (2005). "Electoral manipulation via expenditure composition: theory and evidence." *National Bureau of Economic Research, Working Paper 11085*.
— (2010). "Electoral manipulation via voter-friendly spending: Theory and evidence." *Journal of Development Economics* 92.1, pp. 39–52.
Dreher, Axel, Vera Z Eichenauer, and Kai Gehring (2018). "Geopolitics, aid, and growth: The impact of UN Security Council membership on the effectiveness of aid." *World Bank Economic Review* 32.2, 268—286,
Dreher, Axel and Sarah Langlotz (2017). "Aid and growth. New evidence using an excludable instrument." *CESifo Working Paper Series*.
Dreher, Axel, Jan-Egbert Sturm, and James Raymond Vreeland (2009). "Global horse trading: IMF loans for votes in the United Nations Security Council." *European Economic Review* 53.7, pp. 742–757.
Dube, Oeindrila and Suresh Naidu (2015). "Bases, bullets, and ballots: The effect of US military aid on political conflict in Colombia." *The Journal of Politics* 77.1, pp. 249–267.
Dube, Oeindrila and Juan F Vargas (2013). "Commodity price shocks and civil conflict: Evidence from Colombia." *The Review of Economic Studies* 80.4, pp. 1384–1421.
Dunning, Thad (2012). *Natural experiments in the social sciences: a design-based approach*. Cambridge University Press.
Enyedi, Zsolt (2018). "Democratic backsliding and academic freedom in Hungary." *Perspectives on Politics* 16 (4), pp. 1067–1074.
Enyedi, Zsolt (2020). "Right-wing authoritarian innovations in Central and Eastern Europe." *East European Politics* 36.3, pp. 363–377.
Erőss, Ágnes (2022). "Landscape in transition in the shadow of 2022 Russia's invasion in Ukraine–notes from Hungary." *Border and Regional Studies* 10 (1), pp. 71–86.
Fair, Ray C (1978). "The effect of economic events on votes for President." *Review of Economics and Statistics* 6.2, pp. 159–173.
Fauvelle-Aymar, Christine and Mary Stegmaier (2008). "Economic and political effects on European Parliamentary electoral turnout in post-communist Europe." *Electoral Studies* 27.4, pp. 661–672.
Fekete, Liz (2016). "Hungary: power, punishment and the 'Christian-national idea'." *Race & Class* 57 (4), pp. 39–53.

CEU eTD Collection

Finan, Frederico and Laura Schechter (2012). "Vote-buying and reciprocity." *Econometrica* 80.2, pp. 863–881.
Fiorina, Morris P (1981). *Retrospective Voting in National American Elections*. Yale University Press.
Fjelde, Hanne and Indra De Soysa (2009). "Coercion, co-optation, or cooperation? State capacity and the risk of civil war, 1961—2004." *Conflict Management and Peace Science* 26.1, pp. 5–25.
Frye, Timothy, Ora John Reuter, and David Szakonyi (2014). "Political machines at work voter mobilization and electoral subversion in the workplace." *World Politics* 66.2, pp. 195–228.
Gans-Morse, Jordan, Sebastian Mazzuca, and Simeon Nichter (2014). "Varieties of clientelism: Machine politics during elections." *American Journal of Political Science* 58.2, pp. 415–432.
Gáspár, Attila, Gyozo Gyöngyösi, and Balázs Reizer (2023). "Patronized Agents: Workfare and Clientelism in Hungary." *Working Paper*.
Gehring, K., Kaplan Lennart, and Melvin H. L. Wong. (2019). "Aid and Conflict at the Sub-National Level: Evidence from World Bank and Chinese Development Projects in Africa." *AidData Working Paper*.
Gessler, Theresa, Gergő Tóth, and Johannes Wachs (2021). "No country for asylum seekers? How short-term exposure to refugees influences attitudes and voting behavior in Hungary." *Political Behavior*, pp. 1–29.
Geys, Benny (2006). "Explaining voter turnout: A review of aggregate-level research." *Electoral Studies* 25.4, pp. 637–663.
Gingrich, Jane (2014). "Visibility, values, and voters: The informational role of the welfare state." *The Journal of Politics* 76.2, pp. 565–580.
Glynn, Adam N (2013). "What can we learn with statistical truth serum? Design and analysis of the list experiment." *Public Opinion Quarterly* 77.S1, pp. 159–172.
Golden, Miriam A and Lucio Picci (2008). "Pork-barrel politics in postwar Italy, 1953–94." *American Journal of Political Science* 52.2, pp. 268–289.
Gonzalez-Ocantos, Ezequiel, Chad Kiewiet De Jonge, Carlos Meléndez, Javier Osorio, and David W Nickerson (2012). "Vote buying and social desirability bias: Experimental evidence from Nicaragua." *American Journal of Political Science* 56.1, pp. 202–217.
Goodman, Sara Wallace (2021). "Immigration threat, partisanship, and democratic citizenship: Evidence from the US, UK, and Germany." *Comparative Political Studies* 54 (11), pp. 2052–2083.
Greskovits, Béla (2015). "The hollowing and backsliding of democracy in East Central Europe." *Global Policy* 6, pp. 28–37.
Guardado, Jenny and Leonard Wantchekon (2018). "Do electoral handouts affect voting behavior?" *Electoral Studies* 53, pp. 139–149.
Gutting, Raynee and Martin C Steinwand (2017). "Donor fragmentation, aid shocks, and violent political conflict." *Journal of Conflict Resolution* 61.3, pp. 643–670.

CEU eTD Collection

Haggard, Stephan and Robert Kaufman (2021). *Backsliding: Democratic Regress in the Contemporary World*. Cambridge University Press.
Hangartner, Dominik, Elias Dinas, Moritz Marbach, Konstantinos Matakos, and Dimitrios Xefteris (2019). "Does exposure to the refugee crisis make natives more hostile?" *American Political Science Review* 113 (2), pp. 442–455.
Harold, Lasswell (1936). "Politics: who gets what, when, how." *New York: McGraw Hall*.
Havnes, Tarjei and Magne Mogstad (2011). "No child left behind: Subsidized child care and children's long-run outcomes." *American Economic Journal: Economic Policy* 3.2, pp. 97–129.
Helbling, Marc and Richard Traunmüller (2020). "What is Islamophobia? Disentangling citizens' feelings toward ethnicity, religion and religiosity using a survey experiment." *British Journal of Political Science* 50 (3), 811–828.
Hern, Erin (2017). "In the gap the state left: Policy feedback, collective behavior, and political participation in Zambia." *Studies in Comparative International Development* 52, pp. 510–531.
Hicken, Allen (2011). "Clientelism." *Annual Review of Political Science* 14, pp. 289–310.
Hicken, Allen and Noah L Nathan (2020). "Clientelism's red herrings: dead ends and new directions in the study of nonprogrammatic politics." *Annual Review of Political Science* 23, pp. 277–294.
Hill, Seth J (2017). "Changing votes or changing voters? How candidates and election context swing voters and mobilize the base." *Electoral Studies* 48, pp. 131–148.
Hopkins, Daniel J and Kalind Parish (2019). "The medicaid expansion and attitudes toward the affordable care act: Testing for a policy feedback on mass opinion." *Public Opinion Quarterly* 83.1, pp. 123–134.
Hudson, John (2013). "Promises kept, promises broken? The relationship between aid commitments and disbursements." *Review of Development Finance* 3.3, pp. 109–120.
Huet-Vaughn, Emiliano (2019). "Stimulating the vote: ARRA road spending and vote share." *American Economic Journal: Economic Policy* 11.1, pp. 292–316.
Huntington, Samuel P. (1993). "The clash of civilizations?" *Foreign Affairs* 72 (3), pp. 24–49.
Im, Dong-Kyun and Tianguang Meng (2016). "The policy–opinion nexus: The impact of social protection programs on welfare policy preferences in China." *International Journal of Public Opinion Research* 28.2, pp. 241–268.
Imai, Kosuke, Gary King, and Carlos Velasco Rivera (2020). "Do nonpartisan programmatic policies have partisan electoral effects? Evidence from two large-scale experiments." *The Journal of Politics* 82.2, pp. 714–730.
Imbens, Guido W and Donald B Rubin (2015). *Causal inference in statistics, social, and biomedical sciences*. Cambridge University Press.
Incerti, Trevor (2020). "Corruption information and vote share: A meta-analysis and lessons for experimental design." *American Political Science Review* 114.3, pp. 761–774.
Jakli, Laura and Matthew Stenberg (2021). "Everyday illiberalism: How Hungarian subnational politics propel single-party dominance." *Governance* 34.2, pp. 315–334.

CEU eTD Collection

Jensenius, Francesca R and Pradeep Chhibber (2023). "Privileging one's own? Voting patterns and politicized spending in India." *Comparative Political Studies* 56.4, pp. 503–529.
Jones, Erik, R. Daniel Kelemen, and Sophie Meunier (2021). "Failing forward? Crises and patterns of European integration." *Journal of European Public Policy* 28 (10), pp. 1519–1536.
Juhász, Attila, Bulcsú Hunyadi, and Edit Zgut (2015). *Focus on Hungary: Refugees, Asylum and Migration*. Prague: Heinrich-Böll-Stiftung.
Kahneman, Daniel and Amos Tversky (1979). "Prospect theory: An analysis of decision under risk." *Econometrica* 47.2, pp. 363–391.
Katzenstein, Peter J., ed. (2009). *Civilizations in World Politics: Plural and Pluralist Perspectives*. Routledge.
Keele, Luke (2015). "The statistics of causal inference: A view from political methodology." *Political Analysis* 23.3, pp. 313–335.
Kitschelt, Herbert (2018). "Party systems and radical right-wing parties." *The Oxford Handbook of the Radical Right*, pp. 166–199.
Korkut, Umut (2014). "The migration myth in the absence of immigrants: How does the conservative right in Hungary and Turkey grapple with immigration?" *Comparative European Politics* 12 (6), pp. 620–636.
Kostelka, Filip, André Blais, and Elisabeth Gidengil (2019). "Has the gender gap in voter turnout really disappeared?" *West European Politics* 42.3, pp. 437–463.
Kouba, Karel, Jakub Novák, and Matyáš Strnad (2021). "Explaining voter turnout in local elections: A global comparative perspective." *Contemporary Politics* 27.1, pp. 58–78.
Kramer, Gerald H (1971). "Short-term fluctuations in US voting behavior, 1896-1964." *The American Political Science Review* 65.1, pp. 131–143.
Krekó, Péter and Zsolt Enyedi (2018). "Explaining Eastern Europe: Orbán's laboratory of illiberalism." *Journal of Democracy* 29 (3), pp. 39–51.
Krekó, Péter (2016). "Russia in Hungarian Public Opinion." *TÁRKI Social Report*, pp. 358–371.
Kustov, Alexander, Dillon Laaker, and Cassidy Reller (2021). "The stability of immigration attitudes: Evidence and implications." *Journal of Politics* 83 (4), pp. 1478–1494.
Kwon, Hyeok Yong (2005). "Targeting public spending in a new democracy: Evidence from South Korea." *British Journal of Political Science* 35.2, pp. 321–341.
Larreguy, Horacio, John Marshall, and Pablo Querubin (2016). "Parties, brokers, and voter mobilization: How turnout buying depends upon the party's capacity to monitor brokers." *American Political Science Review* 110.1, pp. 160–179.
Larsen, Erik Gahner (2020). "Personal politics? Healthcare policies, personal experiences and government attitudes." *Journal of European Social Policy* 30.4, pp. 467–479.
Levi, Margaret (2006). "Presidential address: Why we need a new theory of government." *Perspectives on Politics* 4.1, pp. 5–19.
Levitsky, Steven and Lucan Way (2020). "The New Competitive Authoritarianism." *Journal of Democracy* 31 (1), pp. 51–65.

CEU eTD Collection

Lindbeck, Assar and Jörgen W Weibull (1987). "Balanced-budget redistribution as the outcome of political competition." *Public Choice* 52.3, pp. 273–297.
Linos, Elizabeth (2013). "Do conditional cash transfer programs shift votes? Evidence from the Honduran PRAF." *Electoral Studies* 32.4, pp. 864–874.
Lipset, Seymour Martin (1960). "Political Man: The Social Bases of Politics." *New York: Doubleday and Company, Inc* 19, p. 59.
Lutz, Philipp and Felix Karstens (2021). "External borders and internal freedoms: How the refugee crisis shaped the bordering preferences of European citizens." *Journal of European Public Policy* 28 (3), pp. 370–388.
Majtényi, Balázs, Ákos Kopper, and Pál Susánszky (2019). "Constitutional othering, ambiguity and subjective risks of mobilization in Hungary: Examples from the migration crisis." *Democratization* 26 (2), pp. 173–189.
Manacorda, Marco, Edward Miguel, and Andrea Vigorito (2011). "Government transfers and political support." *American Economic Journal: Applied Economics* 3.3, pp. 1–28.
Mares, Isabela, Aurelian Muntean, and Tsveta Petrova (2018). "Economic intimidation in contemporary elections: Evidence from Romania and Bulgaria." *Government and Opposition* 53.3, pp. 486–517.
Mares, Isabela and Lauren Young (2019). "Varieties of clientelism in Hungarian elections." *Comparative Politics* 51.3, pp. 449–480.
Márton, Péter and Elżbieta M Goździak (2018). "Where the wild things are: Fear of Islam and the anti-refugee rhetoric in Hungary and in Poland." *Central and Eastern European Migration Review*, pp. 1–27.
Matsubayashi, Tetsuya and Jun-Deh Wu (2012). "Distributive politics and voter turnout." *Journal of Elections, Public Opinion and Parties* 22.2, pp. 167–185.
Matsusaka, John G and Filip Palda (1993). "The Downsian voter meets the ecological fallacy." *Public Choice* 77.4, pp. 855–878.
McDonald-Gibson, Charlotte (2016). *Cast Away: True Stories of Survival from Europe's Refugee Crisis*. London: Portobello Books.
McGillivray, Fiona (2004). *Privileging industry*. Princeton University Press.
McGuirk, Eoin and Marshall Burke (2020). "The economic origins of conflict in Africa." *Journal of Political Economy* 128.10, pp. 3940–3997.
Mesquita, Ethan Bueno de (2013). "Rebel tactics." *Journal of Political Economy* 121.2, pp. 323–357.
Mettler, Suzanne, Lawrence R Jacobs, and Ling Zhu (2023). "Policy Threat, Partisanship, and the Case of the Affordable Care Act." *American Political Science Review* 117.1, pp. 296–310.
Mettler, Suzanne and Jeffrey M Stonecash (2008). "Government program usage and political voice." *Social Science Quarterly* 89.2, pp. 273–293.
Miguel, A, Robins Hernan, and M James (2020). *Causal Inference: What If*. CRC PRESS.
Minasyan, Anna, Peter Nunnenkamp, and Katharina Richert (2017). "Does aid effectiveness depend on the quality of donors?" *World Development* 100, pp. 16–30.

CEU eTD Collection

MNB (2022). "Public Finance Report: Semi-annual analysis of public finance developments, 2022 October." *Available at https://www.mnb.hu/letoltes/mnb-public-finance-report-2022-october.pdf*.

Mons, Ute, Gera E Nagelhout, Romain Guignard, Ann McNeill, Bas Van den Putte, Marc C Willemsen, Hermann Brenner, Martina Pötschke-Langer, and Lutz P Breitling (2012). "Comprehensive smoke-free policies attract more support from smokers in Europe than partial policies." *The European Journal of Public Health* 22, pp. 10–16.

Morgan, Kimberly J and Andrea Louise Campbell (2011). *The delegated welfare state: Medicare, markets, and the governance of social policy*. Oxford University Press.

Morrison, Kevin M (2009). "Oil, nontax revenue, and the redistributional foundations of regime stability." *International Organization* 63.1, pp. 107–138.

Nichter, Simeon (2008). "Vote buying or turnout buying? Machine politics and the secret ballot." *American Political Science Review* 102.1, pp. 19–31.

Nielsen, Richard A, Michael G Findley, Zachary S Davis, Tara Candland, and Daniel L Nielson (2011). "Foreign aid shocks as a cause of violent armed conflict." *American Journal of Political Science* 55.2, pp. 219–232.

Nordhaus, William D (1975). "The political business cycle." *The Review of Economic Studies* 42.2, pp. 169–190.

Nunn, Nathan and Nancy Qian (2014). "US food aid and civil conflict." *American Economic Review* 104.6, pp. 1630–66.

Ortega, Daniel and Michael Penfold-Becerra (2008). "Does clientelism work? Electoral returns of excludable and non-excludable goods in Chavez's Misiones programs in Venezuela." *Presented at 2008 Meeting of the American Political Science Association*, pp. 28–31.

Pacheco, Julianna and Jason Fletcher (2015). "Incorporating health into studies of political behavior: Evidence for turnout and partisanship." *Political Research Quarterly* 68.1, pp. 104–116.

Paré, Céline (2022). "Selective solidarity? Racialized othering in European migration politics." *Amsterdam Review of European Affairs* 1 (1), pp. 42–61.

Parker, Susan W. and Petra E. Todd (2017). "Conditional Cash Transfers: The Case of Progresa/Oportunidades." *Journal of Economic Literature* 55.3, pp. 866–915.

Peker, Efe (2022). "Finding religion: Immigration and the populist (re) discovery of Christian heritage in western and Northern Europe." *Religions* 13 (2), p. 158.

Pepinsky, Thomas B (2007). "Autocracy, elections, and fiscal policy: evidence from Malaysia." *Studies in Comparative International Development* 42, pp. 136–163.

— (2019). "The return of the single-country study." *Annual Review of Political Science* 22, pp. 187–203.

Peshkopia, Ridvan, Liri Kosovare Bllaca, and Jonida Lika (2022). "Individual similarities and regional differences: The impact of 2015 refugee crisis on Europeans' attitudes toward immigration." *European Politics and Society* 23.5, pp. 660–678.

Pop-Eleches, Cristian and Grigore Pop-Eleches (2012). "Targeted government spending and political preferences." *Quarterly Journal of Political Science* 7.3, pp. 285–320.

CEU eTD Collection

Qian, Nancy (2015). "Making progress on foreign aid." *Annual Review of Economics* 7.1, pp. 277–308.
Raddatz, Claudio (2007). "Are external shocks responsible for the instability of output in low-income countries?" *Journal of Development Economics* 84.1, pp. 155–187.
Rendleman, Hunter and Jesse Yoder (2020). "Do Government Benefits Affect Officeholders' Electoral Fortunes? Evidence from State Earned Income Tax Credits." *Working Paper, Harvard University*.
Rexhepi, Piro (2018). "Arab others at European borders: Racializing religion and refugees along the Balkan Route." *Ethnic and Racial Studies* 41 (12), pp. 2215–2234.
Ricks, Jacob I and Thanapan Laiprakobsup (2021). "Becoming citizens: Policy feedback and the transformation of the Thai rice farmer." *Journal of Rural Studies* 81, pp. 139–147.
Robinson, James A and Thierry Verdier (2013). "The political economy of clientelism." *The Scandinavian Journal of Economics* 115.2, pp. 260–291.
Rommel, Tobias and Stefanie Walter (2018). "The electoral consequences of offshoring: how the globalization of production shapes party preferences." *Comparative Political Studies* 51.5, pp. 621–658.
Rubin, Donald B (1980). "Randomization analysis of experimental data: The Fisher randomization test comment." *Journal of the American statistical association* 75.371, pp. 591–593.
Samii, Cyrus (2016). "Causal empiricism in quantitative research." *The Journal of Politics* 78.3, pp. 941–955.
Samuels, David J (2002). "Pork barreling is not credit claiming or advertising: Campaign finance and the sources of the personal vote in Brazil." *The Journal of Politics* 64.3, pp. 845–863.
Sances, Michael W and Joshua D Clinton (2021). "Policy effects, partisanship, and elections: How Medicaid expansion affected public opinion toward the affordable care act." *The Journal of Politics* 83.2, pp. 498–514.
Schenk, Caress (2021). "The migrant other: Exclusion without nationalism?" *Nationalities Papers* 49 (3), pp. 397–408.
Scheppele, Kim Lane (2022). "How Viktor Orbán wins." *Journal of Democracy* 33 (3), pp. 45–61.
Schmiedel, Ulrich and Graeme Smith, eds. (2018). *Religion in the European Refugee Crisis*. Springer.
Schuster, Steven Sprick (2020). "Does Campaign Spending Affect Election Outcomes? New Evidence from Transaction-Level Disbursement Data." *The Journal of Politics* 82.4, pp. 1502–1515.
Sekhon, Jasjeet S (2009). "Opiates for the matches: Matching methods for causal inference." *Annual Review of Political Science* 12, pp. 487–508.
Sik, Endre, Bori Simonovits, and Bianka Szeitl (2016). "Az idegenellenesség alakulása és a bevándorlással kapcsolatos félelmek Magyarországon és a visegrádi országokban." *Regio* 24(2), 81–108.

CEU eTD Collection

Simonovits, Gabor, Sean Kates, and Blanka Szeitl (2019). "Local economic shocks and national election outcomes: Evidence from Hungarian administrative data." *Political Behavior* 41.2, pp. 337–348.
Steenbergen, Marco R and Bradford S Jones (2002). "Modeling multilevel data structures." *American Journal of Political Science*, pp. 218–237.
Stivas, Dionysios (2023). "The art of securitising. Orbán's handling of the European refugee crisis." *Journal of Contemporary European Studies* 31.1, pp. 184–198.
Stockemer, Daniel, Arne Niemann, Doris Unger, and Johanna Speyer (2020). "The refugee crisis, immigration attitudes, and euroscepticism." *International Migration Review* 54 (3), pp. 883–912.
Stokes, Susan C (2005). "Perverse accountability: A formal model of machine politics with evidence from Argentina." *American Political Science Review* 99.3, pp. 315–325.
Stokes, Susan C, Thad Dunning, Marcelo Nazareno, and Valeria Brusco (2013). *Brokers, voters, and clientelism: The puzzle of distributive politics*. Cambridge University Press.
Strange, Austin M, Axel Dreher, Andreas Fuchs, Bradley Parks, and Michael J Tierney (2017). "Tracking underreported financial flows: China's development finance and the aid–conflict nexus revisited." *Journal of Conflict Resolution* 61.5, pp. 935–963.
Traub, James (2022). "The moral realism of Europe's refugee hypocrisy." *Foreign Policy*. URL: https://foreignpolicy.com/2022/03/21/ukraine-refugees-europe-hyporcrisy-syria/.
Tsuchiya, Takahiro, Yoko Hirai, and Shigeru Ono (2007). "A study of the properties of the item count technique." *Public Opinion Quarterly* 71.2, pp. 253–272.
UNHCR (2022). *Hungary: Ukraine Refugee Situation Operational Update*. URL: https://reliefweb.int/report/hungary/unhcr-hungary-ukraine-refugee-situation-operational-update-7-june-2022.
Vachudova, Milada Anna (2020). "Ethnopopulism and democratic backsliding in Central Europe." *East European Politics* 36 (3), pp. 318–340.
Verner, Emil and Győző Gyöngyösi (2020). "Household debt revaluation and the real economy: Evidence from a foreign currency debt crisis." *American Economic Review* 110.9, pp. 2667–2702.
Visnovitz, Péter and Erin Kristin Jenne (2021). "Populist argumentation in foreign policy: the case of Hungary under Viktor Orbán, 2010–2020." *Comparative European Politics* 19.6, pp. 683–702.
Watson, Sara (2015). "Does welfare conditionality reduce democratic participation?" *Comparative Political Studies* 48.5, pp. 645–686.
Weingast, Barry R and Donald Wittman (2008). *The Oxford Handbook of Political Economy*. Oxford University Press.
Werker, Eric, Faisal Z Ahmed, and Charles Cohen (2009). "How is foreign aid spent? Evidence from a natural experiment." *American Economic Journal: Macroeconomics* 1.2, pp. 225–44.
Woods, Ngaire (2005). "The shifting politics of foreign aid." *International Affairs* 81.2, pp. 393–409.

CEU eTD Collection

Wright, Austin L (2021). *Economic shocks and rebel tactics*. URL: https://www.austinlwright.com.

Zimmermann, Laura (2021). "The Dynamic Electoral Returns of a Large Antipoverty Program." *Review of Economics and Statistics* 103.5, pp. 803–817.

Zucco Jr, Cesar (2013). "When payouts pay off: Conditional cash transfers and voting behavior in Brazil 2002–10." *American Journal of Political Science* 57.4, pp. 810–822.

CEU eTD Collection

The Political Economy of Transfers, Public Opinion and Policy Preferences

Supplementary Material

CEU eTD Collection

A Appendix: A Brief Review of the Literature on Aid and Conflict

A.1 Income and Conflict

The effect of income shocks on civil conflict has been at the core of intense debates in the field of development economics. On the one hand, potential rebels take into account the comparison between the living provided by insurgency versus by the regular economy (opportunity cost theory). On the other, in areas with low opportunity cost of conflict the benefits of military control are also lower, while there are fewer resources to fight over (state as a prize theory) (Bazzi and Blattman 2014). Additionally, the absence of state capacities to raise revenue is a key factor in explaining the ease of capturing rent as well as the incentives of doing so. Weak states tend to be hopelessly poor, unable to maintain basic economic functions and raise the revenue required to deliver basic services, and as a result, they are often plagued by outright conflict (Besley and Persson 2010). Several studies test these contradictory theories and harness exogenous economic shocks to avoid the bias in simple income-conflict regressions. While Brückner and Ciccone (2010) use international commodity price indexes, Besley and Persson (2008) construct country-specific price indexes for agricultural products, minerals and oils, Bazzi and Blattman (2014) disaggregate trade shocks into commodity classes according to whether the impact on incomes should disproportionately affect the state or household. To estimate income from annual agricultural activities (that likely accrue to households), the literature uses either agricultural commodity prices (Fjelde 2015; McGuirk and Burke 2020) or a climate variable (Harari and Ferrara 2018; Miguel, Satyanath, and Sergenti 2004; Sarsons 2015). However, recent researches call into question the validity of climate-related instruments, given the many possible channels linking climate to conflict (Sarsons 2015; Burke, Hsiang, and Miguel 2015; Dell, Jones, and Olken 2014). To instrument income from extractive products which are more likely to accrue to states, the literature typically focuses on variations in prices of natural resources (Berman et al. 2017) or on resource discoveries as an identification device (Lei and Michaels 2014; Cotet and Tsui 2013). A notable piece by Gehring, Langlotz, and Kienberger (2020) investigates the role of opium-related income changes in fuelling or abating violence in Afghanistan. The paper accounts for law enforcement in illegal production and trading of resources as well as for the number of groups competing for resource control.

CEU eTD Collection

A.2 Foreign Aid and Conflict

One branch of the literature finds that aid has a conflict-enhancing effect and argues that (1) aid makes the state a more valuable prize, and increases incentives to seize it (Arcand and Chauvet 2001); (2) foreign aid bypasses the government and may be distributed in a manner such that potential rebels can loot it to fund rebellion (Bradbury and Kleinman 2010); (3) not just rebels, but some weak, fragmented governments could resort to looting to fund violence (Uvin 1998) (4) successful implementation of government-supported projects would weaken insurgents' position among the population, thus aid increases conflict initiated by insurgents (Crost, Felter, and Johnston 2014); (5) aid can alleviate the pressure of government to provide basic services to their constituencies, freeing up resources that can be invested in conflict (Polman 2010). In contrast, others argue that aid decreases the likelihood of conflict and explain that (1) foreign aid (as a mean of poverty alleviation and as an engine for economic development) improves the general economic opportunity of an individual, thus increases the opportunity cost of fighting (Collier and Hoeffler 2004); (2) aid revenue strengthens government administrative, military, and policy capacity to increase public spending and "buys-out" of potential rebels (Besley and Persson 2011b); (3) aid allows recipient governments to boost their military spending which in turn should deter potential rebels (Collier and Hoeffler 2007).

Drawing on the rational explanations for conflict (Powell 2002; Acemoglu and Robinson 2005), recent literature works with the assumption that issue indivisibility, asymmetric information and the commitment problem, rather than the irrationality of any party cause conflict (Filson and Werner 2002; Powell 2006). Thus bargains can avert conflict, and aid might directly contribute to bargaining success or failure depending on the circumstances. Nielsen et al. (2011) argue that aid shocks trigger civil war through commitment problems as aid-dependent governments are unable to maintain deterrence or make side payments to the population. In line with the commitment problem theory, Dal Bó and Powell (2009) suggest that in bad times (for example, when negative aid shocks occur), governments may offer assistance to opposition groups, but the opposition fears it is being low-balled and therefore rejects the deal in favour of conflict. This argument also hinges on uncertainty (and information asymmetry) about the size of the spoils; the overall balance of power is known, and both parties understand whether times are generally good or bad, but rebels are uncertain over precisely how good or bad times really are.

CEU eTD Collection

B *Appendix: Theory and Limitations – The Effect of an Aid Shock on Conflict*

An unexpected and unpredictable aid shock restricts a government's room for financial manoeuvre and that probes what Levi calls *quasi voluntary compliance* (Levi 2006). The quasi voluntary compliance is conditional: it requires that governments can buy out potential rebels; but it also requires some level of commitment. While the former is subject to the government, the later is linked to the state. A government at a particular point in time is in charge of the state but it is a short-lived collection of individuals whereas the state – in its ideal type at least – is a long-lived entity consisting of many bureaucratic agencies and departments that have a measure of independence from the particular government that is in charge (McBride, Milante, and Skaperdas 2011). A government cannot overturn all the decisions that have been made by previous legislatures, courts, and executives, a condition that allows the state to have some capacity to commit to some previous decisions that may be against a current government's wishes (McBride, Milante, and Skaperdas 2011; Levi 1988). However, no low-income countries are anywhere close to satisfying the conditions of having such a state and their capacity to commit is rather limited.

The ability of the government to make credible commitment is a key theme in conflict studies (North, Wallis, Weingast, et al. 2009; Besley and Persson 2011a). Accordingly, large, rapid shifts in the distribution of power (as a result of an external shock) undermine peaceful settlements. Therefore, to avoid conflict, a temporarily weak state must promise its adversary at least as much as it can get by fighting. However, when the once-weak bargainer returns to relative strength, it will exploit its better bargaining position and renege on its earlier promise.

There are some potential concerns with the proposed hypotheses. First, inherent in my argument is an understanding that aid is part of governments' revenue and that governments enjoy some degree of flexibility in their ability to reallocate aid toward particular types of expenditures even if this is not explicitly permitted under the terms of the aid flow.[149] The literature typically analyses the channel of aid delivery as well as the composition of aid to show whether aid is set of government resources or it bypasses the government (Bermeo 2017; Winters and Martinez 2015). Over the sample period, data on channel of aid delivery, which captures whether aid was delivered through the public

[149] Aid fungibility can be defined as aid resources intended to finance a specific expenditure that are ultimately used to finance an entirely different expenditure.

CEU eTD Collection

sector, NGOs or multilateral organisations reveals that nearly 60% of aid was channelled through public sector.[150] Some, however, argue that not necessary the channel of aid delivery but rather the composition of aid reflects the degree of involvement of a recipient's government, as donors can respond to the decrease in capacity and/or willingness to use aid for development in poorly governed states by altering the composition of aid (Bermeo 2017). Table in Appendix 39 presents the breakdown of aid by sector for general budget support, economic infrastructure, production sectors, social sectors, and humanitarian assistance. Bermeo (2017) and Winters and Martinez (2015) both find that involvement of the recipient government varies based on the sector to which aid is given and this involvement decreases for sectors moving from left to right in Table 39. Data reveals, that while most of the aid is devoted (by definition) to social sector, 60% is channelled through public sector and that the second most aided sector is the public sector in the form of budget support.

Even if aid bypasses the government, a government plays indirectly an important role in determining how to use foreign aid and what the impact of aid on the overall stability is. If aid is not fully fungible and aid revenues are targeted at particular types of programs, aid can still free up resources that governments may have already allocated for these expenses, thereby allowing these resources to be redirected to other needs (arms, for example) (Morrison 2012). While the use of (for instance) project aid might reduce the likelihood that aid will be stolen outright, it does not necessarily reduce recipient influence over aid allocations. [151] There is now a fair amount of evidence regarding the inability of projects to succeed in the context of a poor policy environment (Easterly 2002; Morrison 2012).[152] Even under very unfavourable circumstances, recipient leaders can exercise a strong influence over sub-national project aid allocations (Walle 2007).[153]

Second, an aid shock may affect only a few specific sectors, in which case the general public may be directly unaffected by the shock. However, Savun and Tirone (2012) show that government spending programs draw on the aggregated revenues of the government, therefore, shocks in a particular sector may translate into spending cuts that affect a

[150]Data are drawn from Creditor Reporting System of OECD.

[151]Project-based aid is meant to reduce the discretion of recipient countries in terms of how to spend the money and to increase the role of donors in setting priorities and designing programs (Morrison 2012).

[152]If a donor builds a road, for example, in a country where there is no funding for maintenance from the government, or where the economic policies do not encourage new investment and entrepreneurship, the road is likely to be ineffective in spurring economic development.

[153]Some may argue that project level aid in the longer term contribute to a rise of a newly rich strata of the society who will begin to demand better institutions, however there is no particular historical or theoretical reason to expect this (Hoff and Stiglitz 2005).

CEU eTD Collection

significantly larger portion of the population. An aid shock in a particular economic sector could increase domestic economic grievances and create an opportunity for domestic conflict entrepreneurs to capitalize on the newly created void in social welfare generated by the government retrenchment (Savun and Tirone 2012).

Third, my argument on the relationship between a foreign aid shock and conflict is also explicitly a short-term phenomenon and I anticipate that aid's effect on the risk of conflict will be most pronounced in the period immediately following the shock. The key argument outlined above is centered around the unexpected nature of an aid shock and on the (in)ability of the government to quickly react to this. Repeated aid shocks and the failure or success of the government to react to them might influence conflict through general trust (or mistrust) and expectation of the population. At the same time, in the long-run, successful irregular campaigns demonstrate to the population that rebel capacity is relatively high, therefore repeated successful irregular attacks after an aid shock lead to an increase in mobilisation that intensifies conflict and may ultimately allow rebel leaders to shift from irregular to conventional tactics (Mesquita 2013). Nonetheless, this paper does not account for the long-term consequences.[154]

	Aid disbursed (USD million)	Budget Support	Economic infrastructure	Production sectors	Social sectors	Humanitarian relief
2002	58 712.78	4 507.93	4 288.83	2 954.50	15 862.29	4 229.77
2003	69 333.00	5 804.83	4 641.21	3 849.24	21 536.06	6 284.87
2004	70 860.17	7 083.60	6 947.72	4 204.97	23 495.79	6 618.36
2005	99 492.65	9 946.67	9 023.46	4 466.84	29 736.05	8 761.95
2006	94 730.13	8 801.28	9 993.77	4 712.65	30 898.78	7 726.25
2007	86 607.02	10 109.00	10 778.93	4 754.57	33 761.13	7 127.61
2008	98 242.97	11 844.07	12 147.67	5 355.91	38 340.81	9 426.88
2009	94 743.10	12 907.88	12 073.00	5 582.59	40 190.48	9 479.76
2010	102 302.05	12 540.76	13 524.56	7 129.65	41 006.32	9 797.87
2011	101 659.05	12 489.55	13 157.72	6 996.21	40 902.12	9 390.36
2012	96 186.13	13 060.47	13 042.27	6 563.19	40 621.98	8 415.21
2013	104 977.33	11 971.51	13 992.58	6 866.97	40 094.99	10 523.02
2014	103 408.92	12 540.55	14 849.16	6 939.47	40 788.22	12 843.74
2015	111 565.72	11 767.79	15 876.98	7 259.71	38 812.23	14 010.02

Note: Foreign aid refers to Official Development Assistance (ODA) and is expressed in million U.S. dollar. The table includes transfers (gross disbursement) from OECD DAC countries to OECD recipient countries.

Table 39: Foreign Aid Composition Over the Period of 2002-2015

[154] Within the larger literature on aid effectiveness, the long-run equilibrium is unclear (Nunn 2019).

CEU eTD Collection

C *Appendix: Histograms of Internal Armed Conflict, Purges, Assassinations, Riots and Terrorism with Frequencies*

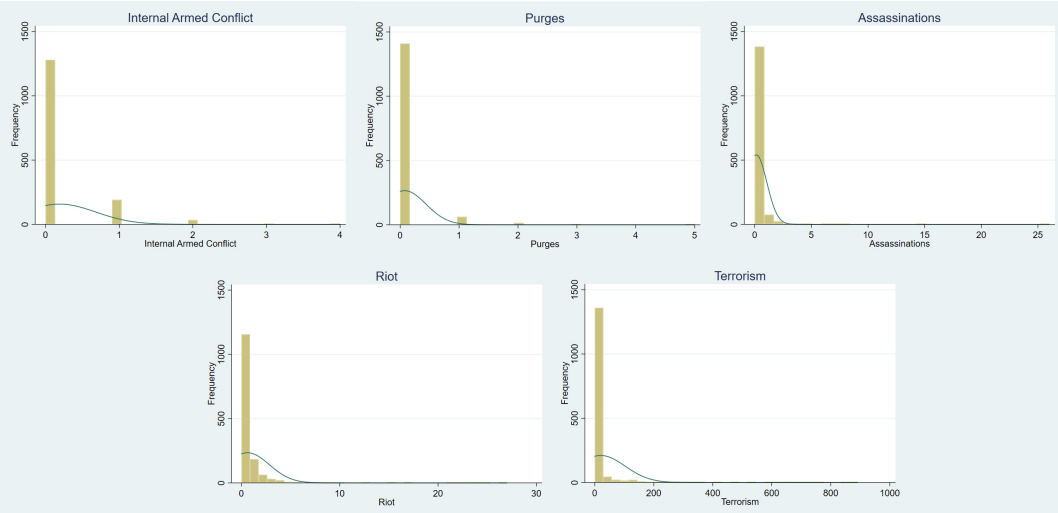

Figure 20: Histogram of Internal Armed Conflict, Purges, Assassinations, Riots and Terrorism Variables with Frequencies and Overlaid Normal Density Curve in Aid Recipient countries

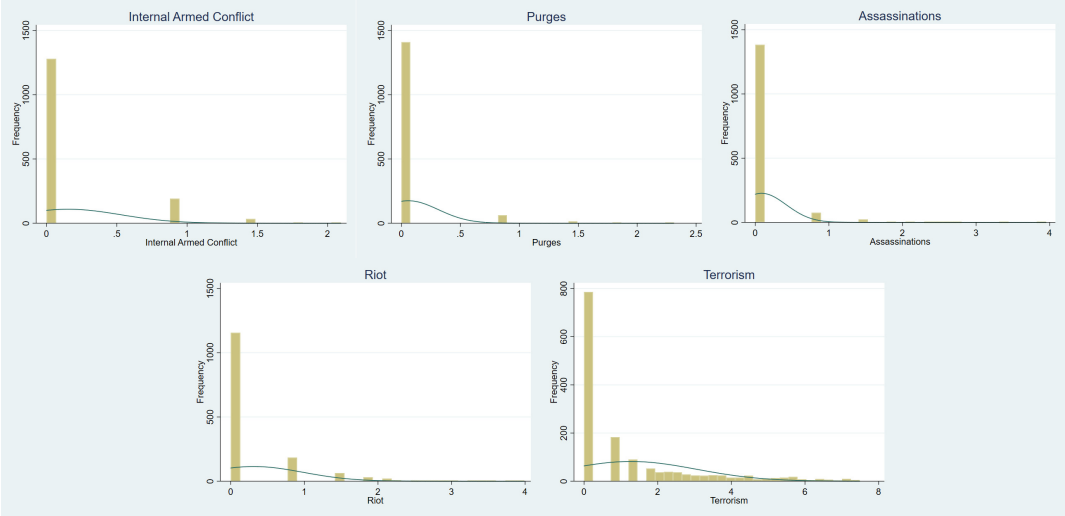

Figure 21: Histogram of Inverse Hyperbolic Sine (IHS) Transformed Internal Armed Conflict, Purges, Assassinations, Riots and Terrorism Variables with Frequencies and Overlaid Normal Density Curve in Aid Recipient Countries

CEU eTD Collection

D Appendix: List of Aid Recipients

List of Aid Recipients

Albania, Algeria, Angola, Argentina, Armenia, Azerbaijan, Bangladesh, Belarus, Benin, Bhutan, Bolivia, Bosnia-Herzegovina, Botswana, Brazil, Burkina Faso, Burundi, Cambodia, Cameroon, Central African Republic, Chad, China, Colombia, Comoros, Costa Rica, Cuba, Democratic Republic of the Congo, Djibouti, Dominican Republic, East Timor, Ecuador, Egypt, El Salvador, Equatorial Guinea, Eritrea, Ethiopia, Fiji, Gabon, Gambia, Georgia, Ghana, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Indonesia, Iran, Ivory Coast, Jamaica, Jordan, Kazakhstan, Kenya, Kosovo, Kyrgyzstan, Laos, Lebanon, Lesotho, Liberia, Libya, Macedonia, Madagascar, Malawi, Malaysia, Maldives, Mali, Mauritania, Mexico, Moldova, Morocco, Mozambique, Myanmar, Namibia, Nepal, Nicaragua, Niger, Nigeria, Panama, Papua New Guinea, Paraguay, Peru, Republic of the Congo, Rwanda, Senegal, Sierra Leone, Solomon Islands, Somalia, South Africa, Sri Lanka, Sudan, Suriname, Swaziland, Tajikistan, Tanzania, Thailand, Togo, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, Uzbekistan, Venezuela, Vietnam, West Bank and Gaza Strip, Yemen, Zambia, Zimbabwe.

The panel dataset is strongly balanced. In Tables 2 and 3, for internal armed conflict and terrorism variables, there are 1259 observations, as there are 37 missing values in the OECD DAC database for aid disbursement and thus for the aid shock variables. Looking at the specifications with control variables (Columns 2 and 4 in Table 2 and Columns 2, 4 and 6 in Table 3), there are 1166 observations. In addition to the missing 37 aid variables, most of the missing values come from the accommodative state capacity measures with 43 missing values and from the unemployment variable with 23 missing value.

E Appendix: List of Donor Countries

List of the Organisation for Economic Co-operation and Development's (OECD) Development Assistance Committe (DAC) countries. The European Union is not regarded as single donor country as the Union does not have a well-defined GNI measure.

Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, The Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, United Kingdom, United States.

CEU eTD Collection

F Appendix: Aid Shock as Defined by Nielsen et al. 2011

Nielsen et al. (2011) dichotomise the aid variable and first they calculate changes in aid (standardised by GDP) for each country-year; then they average changes over the previous two years to account for the time gap between aid commitments and the time at which countries actually receive (or fail to receive) aid. Finally, they define the bottom 15% of these aid changes to be a negative aid shock and the top 15% of these changes as a positive aid shock.

While in the main specifications, Nielsen et al. (2011) use data on aid commitments rather than aid disbursements because *"no reliable data on disbursements exist prior to roughly 2002"*, I replicate their measure using both aid disbursement and aid commitment data as my sample period is between 2002 and 2015.

Using aid disbursement data, a negative aid shock corresponds to negative aid changes less than or equal to -0.00448 or 45 cents per 100 dollars of GDP (this threshold was -0.0054 dollars in Nielsen et al. (2011)). Hence, I code a negative aid shock when:

$$1/2*\left[\frac{Disbursement_{i,t-1}}{GDP_{i,t-1}} - \frac{Disbursement_{i,t-2}}{GDP_{i,t-2}} + \frac{Disbursement_{i,t-2}}{GDP_{i,t-2}} - \frac{Disbursement_{i,t-3}}{GDP_{i,t-3}}\right] \leq -0.0048 \tag{22}$$

The cut-off for a positive shock is defined as changes in the two-year average of aid flows that are above the 85th percentile of all such changes. The 85th percentile cut-off for positive aid changes is 0.0035 (this threshold was 0.0052 in Nielsen et al. (2011)). Positive aid shock equals one if:

$$1/2*\left[\frac{Disbursement_{i,t-1}}{GDP_{i,t-1}} - \frac{Disbursement_{i,t-2}}{GDP_{i,t-2}} + \frac{Disbursement_{i,t-2}}{GDP_{i,t-2}} - \frac{Disbursement_{i,t-3}}{GDP_{i,t-3}}\right] \geq 0.0035 \tag{23}$$

Based on aid commitment data, the cut-off point is -0.0045 for a negative aid shock and .00352 for a positive aid shock. Table 40 reports estimates of the correlation between aid shock dummies and the number of any conflict. The estimate is very close to zero and statistically insignificant.

CEU eTD Collection

	Internal armed conflict	Purges	Assassinations	Riots	Terrorism
	(1)	(2)	(3)	(4)	(5)
Panel A - Disbursement Data					
A negative aid shock	0.019	0.006	0.045*	-0.003	0.034
	(0.030)	(0.024)	(0.027)	(0.048)	(0.092)
A positive aid shock	-0.017	0.003	0.029	0.083*	0.068
	(0.025)	(0.020)	(0.032)	(0.045)	(0.093)
Panel B - Commitment Data					
A negative aid shock	0.013	0.009	-0.029	0.057	0.025
	(0.026)	(0.022)	(0.027)	(0.039)	(0.095)
A positive aid shock	-0.038*	-0.022	0.009	0.083	-0.047
	(0.023)	(0.017)	(0.027)	(0.052)	(0.089)
Capacity Measures	Yes	Yes	Yes	Yes	Yes
Human development	Yes	Yes	Yes	Yes	Yes
Regime characteristics	Yes	Yes	Yes	Yes	Yes
Horizontal inequality	Yes	Yes	Yes	Yes	Yes
Economic ties	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes
Observations	1,386	1,386	1,386	1,386	1,386

Note: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. An observation is a country and a year. Inverse hyperbolic sine transformed dependent variables are presented. The sample includes aid recipient countries for the years 2004 and 2015. The controls included are indicated by yes or no. Coefficients are reported with robust standard errors clustered at the country level in parentheses.

Table 40: The Effect of an Aid Shock on Conflict as Specified by Nielsen *et al.* - an Ordinary Least Squares Estimation

CEU eTD Collection

G Appendix: Difference between Aid Disbursement and Commitment by Country

	Observations	Mean	Standard Deviations	Minimum	Maximum
Albania	14	-17.77	54.18	-129.35	76.22
Algeria	14	-13.51	55.12	-126.89	86.55
Angola	14	-4.70	46.77	-134.76	30.15
Argentina	14	-6.15	48.19	-163.88	34.223
Armenia	14	-42.77	99.63	-272.85	98.025
Azerbaijan	14	-13.01	110.67	-250.82	142.72
Bangladesh	14	-331.02	367.70	-789.87	368.13
Belarus	14	-2.45	7.96	-23.58	10.743
Benin	14	-43.72	133.35	-414.26	164.02
Bhutan	14	-0.87	27.64	-62.76	38.16
Bolivia	14	-36.06	53.26	-124.60	69.66
Bosnia-Herzegovina	14	-41.69	53.57	-140.03	53.983
Botswana	14	-5.97	69.26	-199.22	125.49
Brazil	14	-22.89	279.37	-689.18	570.16
Burkina Faso	14	-23.88	218.40	-695.22	206.07
Burundi	14	-19.05	32.97	-79.69	47.01
Cambodia	14	-83.45	98.27	-249.34	77.58
Cameroon	14	-67.05	145.33	-383.96	132.84
Central African Republic	14	-4.65	22.76	-77.47	14.89
Chad	14	-28.74	25.46	-69.35	18.08
China	14	113.42	318.33	-406.95	779.72
Colombia	14	-165.64	211.79	-605.71	235.09
Comoros	14	-0.06	4.79	-10.82	7.25
Costa Rica	14	-9.81	65.78	-128.84	70.135
Cuba	14	-4.04	8.26	-17.26	11.08
Democratic Republic of the Congo	14	117.87	477.15	-367.95	1623.04
Djibouti	14	-3.37	11.67	-32.52	19.04
Dominican Republic	14	-9.17	85.19	-159.88	124.05
East Timor	14	-17.58	26.06	-60.61	18.27
Ecuador	14	-18.28	55.16	-112.12	81.06
Egypt	14	-46.29	334.86	-531.40	371.10
El Salvador	14	-52.38	167.73	-465.53	123.86
Equatorial Guinea	14	1.35	2.77	-2.032	7.95
Eritrea	14	3.05	13.42	-18.71	30.48

Note: Data are from Creditor Reporting System (CRS) of the Organisation for Economic Co-operation and Development's Development Assistance Committee. Data are in constant USD.

Table 41: The Average Difference Between the Amount of Aid Disbursed and the Amount of Aid Committed by Country Over 2002 and 2015 – Million USD

CEU eTD Collection

	Observations	Mean	Standard Deviations	Minimum	Maximum
Ethiopia	14	-42.96	252.45	-454.06	439.68
Fiji	14	-5.53	15.18	-34.40	15.56
Gabon	14	-9.95	49.88	-122.33	65.96
Gambia	14	0.045	6.63	-12.35	8.56
Georgia	14	-41.40	121.24	-346.93	82.41
Ghana	14	-96.61	276.67	-640.54	266.90
Guatemala	14	-9.53	47.94	-85.95	70.49
Guinea	14	7.98	36.91	-40.98	114.18
Guinea-Bissau	14	2.53	6.14	-8.245	13.899
Guyana	14	-8.38	49.27	-166.93	41.67
Haiti	14	-80.44	112.73	-390.23	47.17
Honduras	14	-18.70	98.86	-245.24	147.46
Indonesia	14	-418.76	606.79	-1703.39	469.97
Iran	14	4.53	14.75	-18.90	44.73
Ivory Coast	14	3.53	189.83	-366.03	501.49
Jamaica	14	9.69	11.71	-11.54	33.991
Jordan	14	-151.18	145.89	-530.16	26.58
Kazakhstan	14	10.76	56.44	-94.54	102.08
Kenya	14	-371.10	472.66	-1703.23	306.43
Kosovo	14	5.54	25.41	-40.89	63.11
Kyrgyzstan	14	-16.45	26.14	-64.21	29.21
Laos	14	-25.03	52.02	-171.69	34.65
Lebanon	14	-62.96	127.75	-262.02	260.509
Lesotho	14	-9.50	101.97	-339.65	99.36
Liberia	14	-58.68	107.71	-249.78	134.43
Libya	14	9.54	57.16	-27.19	204.61
Macedonia	14	-1.46	35.53	-73.81	43.24
Madagascar	14	-9.97	72.56	-181.12	146.45
Malawi	14	-23.78	156.69	-375.84	219.93
Malaysia	14	86.90	185.19	-499.93	296.56
Maldives	14	-0.71	11.49	-27.31	19.50
Mali	14	-84.89	180.37	-504.47	231.7
Mauritania	14	-3.35	27.05	-40.03	32.3
Mexico	14	-101.61	174.29	-519.41	73.65
Moldova	14	-7.34	85.71	-267.94	110.27
Morocco	14	-171.29	407.62	-1349.29	265.31
Mozambique	14	-107.28	296.27	-607.43	393.56
Myanmar	14	-108.03	366.96	-1301.18	225.21

Note: Data are from Creditor Reporting System (CRS) of the Organisation for Economic Co-operation and Development's Development Assistance Committee. Data are in constant USD.

Table 42: The Average Difference Between the Amount of Aid Disbursed and the Amount of Aid Committed by Country Over 2002 and 2015 – Million USD

CEU eTD Collection

	Observations	Mean	Standard Deviations	Minimum	Maximum
Namibia	14	-22.55	85.98	-253.28	99.85
Nepal	14	-32.98	106.01	-316.62	81.57
Nicaragua	14	-15.01	102.68	-233.47	154.93
Niger	14	-24.37	47.96	-143.77	55.81
Nigeria	14	-5.49	217.11	-278.66	366.19
Panama	14	-5.43	51.78	-171.71	61.11
Panama	14	-5.43	51.78	-171.71	61.11
Papua New Guinea	14	-57.87	145.50	-298.17	132.51
Paraguay	14	-1.82	77.39	-177.26	68.29
Peru	14	-6.57	123.08	-154.25	207.22
Republic of the Congo	14	-4.67	49.06	-141.59	67.57
Rwanda	14	-24.56	106.88	-234.22	123.24
Senegal	14	-72.73	175.27	-617.45	125.49
Sierra Leone	14	8.03	58.20	-91.36	83.48
Solomon Islands	14	-15.23	32.41	-62.57	42.17
Somalia	14	-6.28	55.56	-147.62	65.23
South Africa	14	-79.03	149.76	-334.82	208.87
Sri Lanka	14	-83.59	156.89	-439.35	241.75
Sudan	14	-41.11	219.17	-534.97	315.34
Suriname	14	-3.95	30.39	-65.34	48.66
Swaziland	14	-2.65	9.03	-22.60	10.96
Tajikistan	14	-18.82	48.45	-109.56	69.67
Tanzania	14	-179.83	465.25	-1057.71	418.95
Thailand	14	77.19	305.12	-536.74	433.42
Togo	14	2.53	24.14	-28.05	76.86
Tunisia	14	-124.74	171.62	-450.10	71.01
Turkey	14	-93.68	445.56	-1291.55	352.24
Turkmenistan	14	-0.04	4.61	-9.73	8.34
Uganda	14	-88.87	147.17	-310.26	132.38
Ukraine	14	-112.47	321.04	-1210.81	59.17
Uzbekistan	14	-118.01	174.09	-552.89	64.43
Venezuela	14	1.86	11.18	-11.09	36.59
Vietnam	14	-446.60	408.78	-1160.31	396.37
West Bank and Gaza Strip	14	-52.05	191.23	-358.01	419.02
Yemen	14	-39.43	80.39	-192.39	129.69
Zambia	14	-71.31	114.83	-325.42	74.22
Zimbabwe	14	17.57	72.21	-144.86	166.29

Note: Data are from Creditor Reporting System (CRS) of the Organisation for Economic Co-operation and Development's Development Assistance Committee. Data are in constant USD.

Table 43: The Average Difference Between the Amount of Aid Disbursed and the Amount of Aid Committed by Country Over 2002 and 2015 – Million USD

CEU eTD Collection

H Appendix: Deviation of Disbursed Foreign Aid From Expected Amount of Aid Between 2004 and 2015

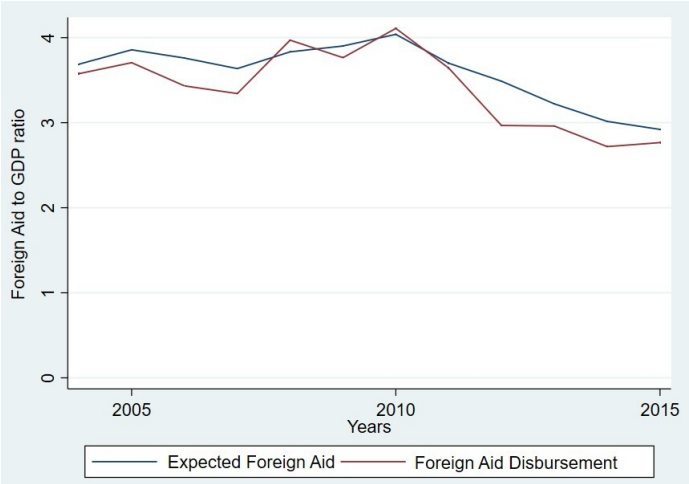

Figure 22: Deviation of Disbursed Foreign Aid from Expected Amount of Aid between 2004 and 2015

CEU eTD Collection

I Appendix: Accommodative Capacity Measure

To measure accommodative capacity, the Relative Political Capacity (RPC) database is used in the empirical analysis in Section 2.4. There are three sub-measures in the RPC database. The first measure is the Relative Political Extraction which approximates the ability of governments to appropriate portions of the national output to advance public goals. This is a fiscal measure that assesses the government's efficiency at extracting resources from the population, compared with other states with similar resource endowments and level of development. The measure is the ratio of extracted taxes relative to the expected taxes, given a certain set of economic characteristics.

In case of developing societies, the Relative Political Extraction is calculated in the following way:

$$\frac{Tax}{GDP} = \alpha + \beta_1 \frac{Mining}{GDP} + \beta_3 \frac{Agriculture}{GDP} + \beta_4 \frac{Exports}{GDP} + \beta_5(OECD) + \beta_6(Inclusion) + \epsilon \quad (24)$$

where

$\frac{Tax}{GDP}$= General Government Tax Revenues to GDP;
$\frac{Mining}{GDP}$ = Total mining revenues to GDP;
$\frac{Agriculture}{GDP}$ = Total agriculture revenues to GDP;
$\frac{Exports}{GDP}$ = Value of exported goods and services to GDP;
GDP per capita = GDP per capita in 2005 constant US dollars;
OECD = Dummy variable, which takes 1 if the country is an OECD member, 0 otherwise;
Inclusion = Dummy variable, which takes 1 if the country is to be included in the regression, 0 otherwise.

CEU eTD Collection

J Appendix: First Stage

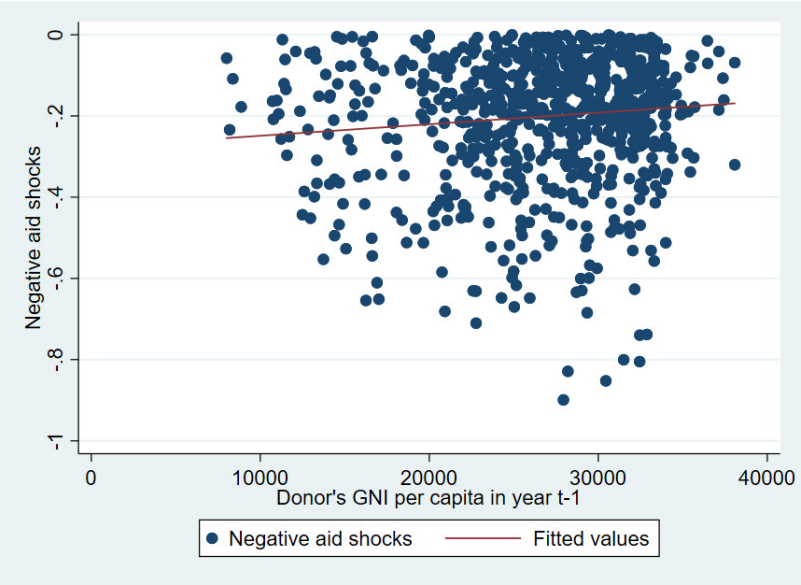

Figure 23: A Negative Aid Shock and Donors' GNI_{t-1}

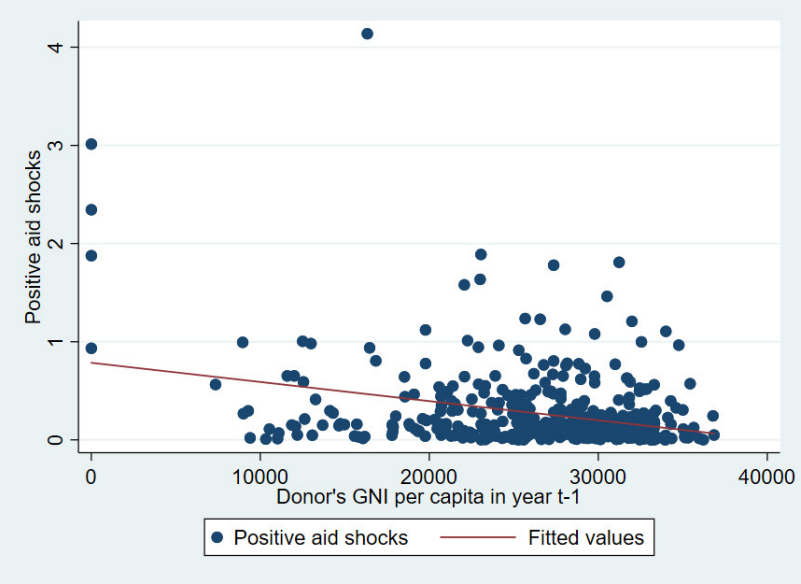

Figure 24: A Positive Aid Shock and Donors' GNI_{t-1}

CEU eTD Collection

K Appendix: Evidence for the Relationship between Donors' Wealth and Aid

Frot (2009) compares the aid budgets of donors who did and did not experience a financial crisis and provides evidence for a drastic drop in foreign aid budgets following financial crises in six donor countries since 1970. He also finds that a negative shock to GDP growth significantly reduces aid disbursements, and that the effects are both long-lasting and take time to fully occur. Dabla-Norris, Minoiu, and Zanna (2015) show that donors significantly reduce their aid disbursements during periods of severe economic stress, defined as years when deviations from the GDP growth trend fall into the bottom quartile of the donor-specific distribution. Similarly, Dang, Knack, and Rogers (2013) find that banking crises of donor countries are a strong predictor of decreased aid disbursements, while Mendoza, Jones, and Vergara (2009) argue that stock market uncertainty (as a proxy for financial volatility and economic uncertainty) reduces aid.

Economic crises in rich and developed countries – such as the 2007–08 financial crisis or the Eurozone crisis in 2009 – unequivocally affected aid budget of the OECD DAC countries. Such concerns were repeatedly articulated by aid supporters, international organisations, and non-governmental organisations imploring donor governments not to cut back on their aid commitments. For instance, in 2012, in response to two successive falls in total aid provided by major donor countries, OECD Secretary-General Angel Gurría said *"The fall of ODA is a source of great concern, coming at a time when developing countries have been hit by the knock-on effect of the crisis and need it most ... the crisis should not be used as an excuse to reduce development cooperation contributions"*.[155] The United Nations Secretary-General, Ban Ki-moon, echoed similar sentiments, stating *"[T]o the traditional donors, I say: do not let this economic crisis, do not let short-term austerity deflect you from your long-term commitment to the world's poorest people [. . .] Cutting aid will not balance your budgets. But it will hurt the poor—the most vulnerable of the human family"*. However, most donors did not heed such calls to stay steady on foreign aid after the financial crises. Additionally, aid cuts by donors are not unique for the 2007-08 financial crises, as Roodman notes *"After each previous financial crisis in a donor country since 1970, the country's aid has declined. "Every" in this case refers to four instances: Japan after its real estate and stock bubble burst in 1990; and Finland, Norway, and Sweden after their shared crisis in 1991"* (Roodman 2008).

[155] "Development: Aid to developing countries falls because of global recession" OECD Newsroom, April 4, 2012.

CEU eTD Collection

L Appendix: Anecdotal Evidence: The Case of the Democratic Republic of the Congo

In late 2011, the U.S. Congress has passed a consolidated 2012 spending bill that includes more than 8 billion USD in cuts to U.S. President Barack Obama's budget request for State and foreign operations.[156] The spending bill provides 42.1 billion USD in discretionary funding for the U.S. Department of State, U.S. Agency for International Development and related programs. This is 8.69 billion USD less than Obama's request of 50.79 billion USD. As a result, in 2012 net ODA flows amounted to 30.5 billion USD representing a fall of -2.8% in real terms compared to 2011.[157] ODA from the United States as a share of GNI also fell from 0.20% in 2011 to 0.19% in 2012. Jeremy Konyndyk, the director of policy and advocacy for the international aid group Mercy Corps noted that *"The impact [of this budget cut] around the world is enormous"*.[158] Indeed, the impact proved to be especially enormous in the Democratic Republic of Congo (DRC).

After the 1960 independence, the Democratic Republic of the Congo (DRC) was regarded as one of the most promising countries in Africa and yet, by the early 1990s, despite abundant natural resources, it was fraught with political instability and armed clashes.[159] DRC is heavily dependent on foreign aid, according to a DAC report from 2011, *"DRC is the world's largest ODA recipient ... ODA was equivalent to 52% of GNI, the third highest in 2006"*.[160] From 2002, the government has been technically, financially and militarily supported by Western donor countries, international organisations and International Financial Institutions. The 2006 as well as the 2011 elections, in which Joseph Kabila was elected president, induced a large influx of foreign aid and assistance. In general, Kabila's regime was financed and maintained by foreign aid; Matti (2010) argues that in DRC, *"foreign aid creates stability by introducing a different form of revenue that rent-seeking elites can access through non-violent measures. Stability on this basis necessitates high levels of foreign aid; as a result it is not an option for long-term economic growth. Like resource rents foreign aid acts*

[156] Devex, "US Congress cuts $8B in foreign aid" 19 December 2011.

[157] "Aid to poor countries slips further as governments tighten budgets" OECD Newsroom, April 3, 2013.

[158] New York Times "Foreign Aid Set to Take a Hit in U.S. Budget Crisis", October 3, 2011.

[159] The origins of the violence are in the massive refugee crisis and spillover from the 1994 genocide in Rwanda. Hutu génocidaires fled to eastern DRC and formed armed groups and at the same time, opposing Tutsi and other opportunistic rebel groups arose. Despite a peace deal in 2002 and the formation of a transitional government in 2003, ongoing violence perpetrated by armed groups against civilians in the eastern region has continued, largely due to poor governance, weak institutions, and rampant corruption (Eichstaedt 2011).

[160] Development Initiatives "Investments to End Poverty Chapter 10: Congo Dem. Rep." September, 2013.

CEU eTD Collection

as a substitute for domestic revenue while allowing the same level of expenditure".

In 2012, the tenuous peace unraveled when aid flows to DRC were drastically reduced from 5406 million USD in 2011 to 1620 million USD, substantially weakening the government and preventing it from buying out potential rebels. This drop was mainly driven by the cuts in U.S. foreign aid budget that is historically the largest aid donor country in DRC. From 2011 to 2012, there was a 1670 million USD drop in aid disbursed by the United States. While this drop was – up to certain degree – excepted (on the one hand, there was an intended peak in aid around the 2011 elections that is controlled for by year fixed effect, and on the other, the overall aid commitment of OECD DAC countries was somewhat lower for 2012), aid disbursed by the United States were 23 percentage point lower than previously committed. The rationally expected amount for 2012 (based on aid in the previous two years and the committed amount of aid for 2012) was 13.22 % of the country's GDP, when the actually received aid was less than 6 % of its' GDP. Without the flush of foreign aid, the March 23 Movement (M23) initiated their rebellion against the Congolese government army (FARD) for supposedly reneging on a peace deal signed in 2009.[161] The March 23 Movement (M23) are made up primarily of ethnic Tutsis who were allegedly supported by the Rwandan government. Historically, the Congolese Tutsi community has intermittently been subject to violence and discrimination. However, according to the International Peace Information Service, *"there are a number of indicators that an agenda beyond grievances and North Kivu ha[d] existed since M23's creation"*.[162] The report argues that M23's strategy on the battlefield does not suggest that protecting the Tutsi population was their primary objective, while it also provides some anecdotal evidence that control over minerals are not their main priority either. *"None of the operations it has launched in the past months have targeted mining sites...it is clear that establishing full military control over mining areas to maximise profits is not M23's priority for now"*.[163] The eruption of the M23 rebellion in May 2012 and the soldiers' mutiny that preceded it a month earlier was a response to President Kabila's *"attempt . . . to rotate ex-CNDP soldiers out of the Kivus in a bid to smash the ex-CNDP parallel chains of command' within the North Kivu military region and to 'break up the mafia controlling the east of the country"*.[164] Thus, the mutineers justified their revolt on the basis of their growing frustration over poor living and working conditions and the

[161] United States Institute of Peace "Instability in the DRC" August 8, 2012.
[162] International Peace Information Service, "Mapping Conflict Motives: M23", 2012.
[163] International Peace Information Service, "Mapping Conflict Motives: M23", 2012.
[164] Jones Pete, "Rwanda's connection to the M23 rebels must not be ignored" Open Democracy, October 8, 2012.

CEU eTD Collection

alleged failure of the Congolese government to meet the terms of the March 2009 Goma peace deal (Koko 2014).

M Appendix: Falsification Tests

M.1 Controlling for Primary Commodity Export

This section focuses on the issue that variation in donors' GNI can affect primary commodity prices, which may, in turn, affect conflict (Dube and Vargas 2013). To mitigate this concern, region-year fixed effects are included to allow time effects to differ across regions and to control for changes over time that affect countries within a region similarly (e.g.: the price of primary commodity in a given region). To be cautious, Table 44 addresses the possibility that price change over time may have differential effects on countries with high reliance on primary commodities for foreign exchange. Thus, Table 44 controls for the interaction of year fixed effects with a country's share of export trade in manufactured goods allowing the effect of commodity prices to differ across countries depending on the extent to which they rely on the export of primary commodities. The sign and the significance of the coefficients on assassinations and terrorism remain stable.

	Internal armed conflict	Purges	Assassinations	Riots	Terrorism
	(1)	(2)	(3)	(4)	(5)
Aid shock	-0.055	-0.080	-0.336**	0.174	-2.222**
	(0.137)	(0.126)	(0.166)	(0.334)	(0.968)
Export in manuf. goods x year FE	Yes	Yes	Yes	Yes	Yes
Capacity Measures	Yes	Yes	Yes	Yes	Yes
Human development	Yes	Yes	Yes	Yes	Yes
Regime characteristics	Yes	Yes	Yes	Yes	Yes
Horizontal inequality	Yes	Yes	Yes	Yes	Yes
Economic ties	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes
Observations	1,189	1,189	1,189	1,189	1,189
First Stage Cragg-Donald Wald F statistic	32.11	32.11	32.11	32.11	32.11
Kleibergen-Paap Wald rk F statistic	5.11	5.11	5.11	5.11	5.11

Note: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. An observation is a country and a year. Inverse hyperbolic sine transformed dependent variables are presented. The sample includes aid recipient countries for the years 2004 and 2015. The instruments (donors' GNI and legal fractionalisation) are in one-year lag. The controls included are indicated by yes or no. Coefficients are reported with robust standard errors clustered at the country level in parentheses.

Table 44: The Effect of Aid Shocks on Violence in Aid Recipient Countries: Controlling for Different Effects of International Primary Commodity Prices on Countries with High versus Low Reliance on Primary Commodities

CEU eTD Collection

M.2 Alternative Specification for an Aid Shock

As an additional robustness check, this section tests whether the results remain stable across other specifications of the *expected amount of aid*. To start with, the first specification concentrates only on the aid committed in year t and in year $t-1$ and construct the shock variable as a deviation from this two variables' moving average (see Equation (25)).

$$Expected_{i,t} = 1/2 * \left(\frac{Commitment_{i,t-1}}{GDP_{i,t-1}} + \frac{Commitment_{i,t}}{GDP_{i,t}} \right) \tag{25}$$

The second case (Equation (26)) treats commitment in year $t-2$, $t-1$ and t as the rationally *expected amount*.

$$Expected_{i,t} = 1/3 * \left(\frac{Commitment_{i,t-2}}{GDP_{i,t-2}} + \frac{Commitment_{i,t-1}}{GDP_{i,t-1}} + \frac{Commitment_{i,t}}{GDP_{i,t}} \right) \tag{26}$$

Thus, in both cases an aid shock is defined as the deviation of the aid disbursement in year t from the expected amount of aid (Equation (27)).

$$AidShock_{i,t} = \left[\frac{\frac{Disbursement_{i,t}}{GDP_{i,t}} - Expected_{i,t}}{Expected_{i,t}} \right] \tag{27}$$

	Expected Aid with one year lag Aid Commitment					Expected Aid with two years lag Aid Commitment				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Internal armed conflict	Purges	Assassinations	Riots	Terrorism	Internal armed conflict	Purges	Assassinations	Riots	Terrorism
Aid shock	-0.246	-0.143	-0.657**	0.166	-5.190**	-0.139	-0.090	-0.359**	-0.004	-2.569***
	(0.278)	(0.206)	(0.329)	(0.580)	(2.361)	(0.131)	(0.112)	(0.140)	(0.292)	(0.919)
Capacity Measures	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Human development	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Regime characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Horizontal inequality	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Economic ties	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
First Stage										
Cragg-Donald Wald F statistic	11.63	11.63	11.63	11.63	11.63	35.02	35.02	35.02	35.02	35.02
Kleibergen-Paap Wald rk F statistic	3.75	3.75	3.75	3.75	3.75	6.75	6.75	6.75	6.75	6.75
Observations	1,287	1,287	1,287	1,287	1,287	1,189	1,189	1,189	1,189	1,189

Note: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. An observation is a country and a year. Inverse hyperbolic sine transformed dependent variables are presented. The sample includes aid recipient countries for the years 2004 and 2015. The controls included are indicated by yes or no. Coefficients are reported with robust standard errors clustered at the country level in parentheses.

Table 45: The Effect of an Aid Shock on Violence in Aid Recipient Countries: Alternative Specifications for Aid Shocks

Table 45 confirms that an aid shock variable has a similar sign, magnitude and significance level even when the variable is constructed based on the deviation from the amount of aid committed by the donors.

CEU eTD Collection

M.3 Placebo Tests

In this section, I provide additional evidence for the validity of the identification strategy by undertaking two placebo tests. In the first test, the endogenous aid variable is instrumented by the GNI of those donors which did *not* send any foreign aid to the recipient countries at the given year (yet these countries are part of OECD DAC community). The second placebo test proves that if aid at year *t-1* is instrumented by donors' GNI at year *t*, the statistically significant relationship between the endogenous aid shock and violence no longer hold (see Table 46 and 47).

	Internal armed conflict	Purges	Assassinations	Riots	Terrorism
	(1)	(2)	(3)	(4)	(5)
Aid shock	0.243	0.019	-0.123	0.892	-0.653
	(0.345)	(0.232)	(0.224)	(0.770)	(1.376)
Capacity Measures	Yes	Yes	Yes	Yes	Yes
Human development	Yes	Yes	Yes	Yes	Yes
Regime characteristics	Yes	Yes	Yes	Yes	Yes
Horizontal inequality	Yes	Yes	Yes	Yes	Yes
Economic ties	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes
Observations	1,166	1,166	1,166	1,166	1,166
First Stage Cragg-Donald Wald F statistic	9.02	9.02	9.02	9.02	9.02
Kleibergen-Paap Wald rk F statistic	3.89	3.89	3.89	3.89	3.89

Note: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. An observation is a country and a year. Inverse hyperbolic sine transformed dependent variables are presented. The sample includes aid recipient countries for the years 2004 and 2015. The instruments (donors' GNI and legal fractionalisation) are in one-year lag. The controls included are indicated by yes or no. Coefficients are reported with robust standard errors clustered at the country level in parentheses.

Table 46: The Effect of an Aid Shock on Conflict in Aid Recipient Countries – Instrumenting Aid with the Average GNI of Donor Countries Not Aiding a Recipient Country at a Given Year

CEU eTD Collection

	Internal armed conflict	Purges	Assassinations	Riots	Terrorism
	(1)	(2)	(3)	(4)	(5)
Aid shock	-3.175	16.187	1.618	19.080	10.766
	(34.232)	(170.034)	(18.756)	(203.479)	(123.173)
Capacity Measures	Yes	Yes	Yes	Yes	Yes
Human development	Yes	Yes	Yes	Yes	Yes
Regime characteristics	Yes	Yes	Yes	Yes	Yes
Horizontal inequality	Yes	Yes	Yes	Yes	Yes
Economic ties	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes
Observations	1,069	1,069	1,069	1,069	1,069
First Stage Cragg-Donald Wald F statistic	0.01	0.01	0.01	0.01	0.01
Kleibergen-Paap Wald rk F statistic	0.01	0.01	0.01	0.01	0.01

Note: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. An observation is a country and a year. Inverse hyperbolic sine transformed dependent variables are presented. The sample includes aid recipient countries for the years 2004 and 2015. The instruments (donors' GNI and legal fractionalisation) are in one-year lag. The controls included are indicated by yes or no. Coefficients are reported with robust standard errors clustered at the country level in parentheses.

Table 47: The Effect of an Aid Shock on Violence in Aid Recipient Countries – Instrumenting Aid at Year *t-1* with Donors' GNI at Year *t*

CEU eTD Collection

N Appendix: Descriptive Statistics

	Variables	Number of observations	Means	Standard deviation	Minimum	Maximum	Database
Capacity	Accommodative capacity	1470	0.94	0.42	-0.37	3.47	RPCD
H. Development	Life expect.	1526	64.67	8.98	40.64	79.63	OECD
	Unempl. rate	1471	0.16	0.14	-0.01	0.61	RPCD
Regime	Freedom House	1526	8.50	3.23	0	14	FHD
Horiz. Ineq.	Ethnic fract.	1506	0.63	0.25	0.16	1	EPR
	Religious fract.	1515	80.20	18.25	31.39	99.84	WRD
	Eq. distr. of resour.	1526	0.52	0.22	0.07	0.98	V-dem
Econ. Ties	Inflow of FDI(%GDP)	1526	4.40	6.80	-8.40	103.33	WB
	Econ. Divers.	1526	35.92	1.05	34.10	38.38	WB

Note: An observation is a country and year. The sample includes 108 recipient countries for the years 2002 and 2015. Econ. diverse stands for the export trade in manufactured goods as a percentage of GDP. Further abbreviation; RPCD= Relative Political Capacity Database, FFP= Fund for Peace, CSP = Center for Systematic Peace, FHD= Freedom House Database, EPR= Ethnic Power Relations Dataset, WRD= World Religion Database, V-dem= Varieties of Democracies Database.

Table 48: Descriptive Statistics of the Main Variables

O Appendix: Control Variables

In line with the economics of conflict rationale, the first *human development indicators* control group proxy well-being and the degree of prosperity of the population (data are from World Bank and OECD database). Gross domestic product (GDP) per capita is introduced to the model based on purchasing-power-parity (PPP) to proxy poverty in relative terms. The second variable is the life expectancy at birth that measures how long, on average, a newborn can expect to live, if current death rates do not change (OECD 2018).

The second group refers to *regime and governance characteristics* measured by the Freedom House Index. The measures include both the civil liberties index ranging from 1 (free) to 7 (not free) and the political rights index ranging from 1 to 7, composed of a 1 and 14 range numerical rating. Additionally, a measure of fragmentation is used (data are drawn from Center for Systematic Peace (CSP)) to control for *'the operational existence of a separate polity, or polities, comprising substantial territory and population within the recognised borders of the state and over which the coded polity exercises no effective authority'* (Marshall, Jaggers, and Gurr 2012). The measure ranges from zero to 3 where zero indicates no fragmentation and the value of 3 indicates that twenty-five percent and up to fifty percent of the country's territory is effectively ruled by local authority.

The third control group considers the role of *horizontal inequalities* in causing conflict and includes measures of forms and intensity of horizontal inequalities in the society.

CEU eTD Collection

Existing cleavages between ethnic and religious groups are traditionally seen as important drivers of conflict (Esteban and Ray 1999; Esteban, Mayoral, and Ray 2012; Michalopoulos and Papaioannou 2016; Morelli and Rohner 2015). Religious fractionalisation (World Religion Database) and ethnic fractionalisation (Ethnic Power Relations Dataset Dataset) are used as control variables based on the share of the dominant religious and ethnic groups within the population. At the same time, the equal distribution of resources index is used (varieties of democracy dataset) to measure the extent to which resources – both tangible and intangible – are distributed in society (ranging from 0 to 1).

Fourth, to measure economic hard times combined with the assumption that the developing economies depending on wealthier countries for trade, financial flows, and investment, the control group of *economic ties* is constructed. Within this group, the first variable, the share of export trade in manufactured goods (Word Bank 2018) is included to test whether countries with a higher percentage of income from primary commodity export are more prone to conflict. To measure how integrated the country is to the word economy, net inflow of foreign direct investment expressed as a percentage of GDP (Word Bank 2019) is also part of this control group.

One further control variable, the level of population in the recipient country is also added to account for the fact that more populous countries have a larger pool for violent individuals. Following the literature, population using its natural log and its quadratic specification is introduced (Berthélemy and Tichit 2004). In addition, time and country fixed effect are also included.

P Appendix: Data in Supply Side Analysis: The Politics of Aid Giving

P.1 Legal and Political Fractionalization

First, to measure the institutional characteristics of the donor countries, legislative and political fragmentation of the donor countries are used. Data are drawn from the database of Political Institutions which defines legal fractionalisation as the probability that two deputies picked at random from the legislature will be of different parties, whilst government fractionalisation is defined as the probability that any two randomly-chosen deputies of the parties forming the government represent different parties (2001).

The political and legal fractionalisation literature is nearly unanimous in believing

CEU eTD Collection

that government or legislative fractionalisation positively affect government expenditures (Roubini and Sachs 1989), whilst higher government expenditures also imply higher aid budgets (Brech and Potrafke 2014), which in turn might be translated into higher aid disbursements. To instrument the endogenous aid allocation, Bluhm et al. (2019) use political fractionalisation in donor countries interacted with the probability of receiving aid as the primary source of exogenous variation at the donor-recipient level. Similarly, Ahmed (2016) estimates the effect of US aid on the level of democracy in a recipient country and exploits variation in the composition of the United States' House of Representatives.

P.2 Donors' Commitment to International Development

To measure another aspect of donors' politics, I rely on the Commitment to Development Index. The Commitment to Development Index is a multifaceted index produced by the Center for Global Development that aims to highlight the strengths and weaknesses of OECD countries' policies with respect to how they help poorer countries. The index comprises seven components; aid, trade, finance, migration, environment, security, and technology, while each component is underpinned by a series of indicators of policy effectiveness in these areas. Yet, to ensure the exclusion criteria, the categories of aid and security are excluded from the CDI instrument.

Additionally, the quality of aid measure is also designed to quantify donors' commitment to aiding the poor. The quality of aid, this paper uses, are from CDI and from the Quality of Official Development Assistance (QuODA) database where the indicators are grouped into four dimensions that reflect international best practices of aid effectiveness: maximising efficiency, fostering institutions, reducing the burden on recipient countries, and transparency and learning.

Iceland and Slovenia are not recorded in this index, thus in this case, there are 27 instead of 29 donor countries.

CEU eTD Collection

Q Appendix: Further Evidence from ACLED Data in Africa

To further investigate the effect of aid shocks on different forms of violent events, demonstrations and non-violent events, this section tests whether an aid shock only triggers violent incidences or whether it also affects non-violent forms of conflict. I use 46 African

countries to provide further evidence.[165] Africa is the continent most affected by conflict, all countries experienced at least one battle, at least one riot and at least one act of violence against civilians; 37 endured at least once an explosion and a protest. In addition to this, many of the low-income countries in Africa received historically unprecedented aid flows. For instance in 2017, developing countries in total received net 162 billion USD aid, out of which ODA to Africa was 52.8 billion USD. There is ample evidence highlighting that the region is aid dependent and aid typically amounts to 4.2% of recipients' GDP in the continent (Moss, Pettersson Gelander, and Walle 2006). Thus, it is especially important to understand how peace in these countries, which is already imperiled by their low levels of economic development, is further jeopardised by aid shocks.

	Observations	Mean	Standard Deviations	Minimum	Maximum
Battles	672	41.73	130.85	0	1535
Explosions and Remote violence	672	12.51	53.19	0	601
Violence against civilians	672	37.44	94.87	0	694
Protests	672	27.44	82.69	0	1140
Riots	672	16.69	58	0	773
Aid shock	547	-0.03	0.40	-0.90	4.14

Note: An observation is a country and year. Inverse hyperbolic sine transformed dependent variables are presented. The sample includes 46 recipient countries from Africa for the years 2002 and 2015. The construction of the aid shock variable relies on a two years moving average, thus, an aid shock variable is shown for the years 2004 and 2015.

Table 49: Descriptive Statistics for ACLED Events and Aid Shocks in Sub-Saharan Africa by Year

Data are from the Armed Conflict Location and Event Data (ACLED) Project, which collects details of reported political violence and protest events across a broad range of country. Events are defined within three broad categories; violent events, demonstrations and non-violent actions. Within the three broad categories, ACLED distinguishes between Battles, Explosions/Remote violence, and Violence against civilian within violent event; between Protest and Riots within demonstrations and strategic developments within non-violent actions.[166] Table 49 presents the descriptive statistics for the main conflict variables and the aid shock variable which reveals that the most common category across all years and all countries are battles.

Table 50 lists the regression results of Equation (3) using battle (Panel A), explosions/remote violence (Panel B), violence against civilians (Panel C), protests (Panel D) and riots (Panel E) as dependent variables. The results elucidate that an aid shock has statisti-

[165]The list of countries are in Appendix R.

[166]Precise definition of the terms used are detailed in Appendix S.

CEU eTD Collection

cally significant effect on the number of battles and on the number of explosions/remote violence which are both categorised as violent events. A 10% negative aid shock implies, on average, 3.4 more battles, while a 10% positive aid shock decreases the number of battles by 3.4. The effect of an aid shock is statistically significant on the number of explosions and remote violence revealing that 10% negative shock triggers 2 more attacks whilst 10% positive shock decreases the number of incidence by 2, on average.

	OLS estimation			Two Stage Least Square Estimation		
	(1)	(2)	(3)	(4)	(5)	(6)
	Number of incidences	Number of incidences	Number of incidences	Number of incidences	Number of incidences	Number of incidences
Panel A. Battle						
Aid shock	-6.999	-7.221	-8.254	-31.304*	-27.295**	-34.204**
	(5.694)	(5.703)	(6.117)	(17.567)	(13.558)	(13.505)
Accommodative capacity	No	-6.546	-7.035	No	-9.445	-10.458
	No	(7.290)	(10.274)	No	(7.783)	(9.751)
Observations	547	547	536	547	547	536
Panel B. Explosions/Remote violence						
Aid shock	-1.384	-1.387	-1.869	-14.528**	-13.732**	-21.864**
	(2.662)	(2.686)	(3.030)	(6.512)	(5.950)	(8.979)
Accommodative capacity	No	-0.091	0.973	No	-1.873	-1.664
	No	(4.003)	(5.019)	No	(3.933)	(4.582)
Observations	547	547	536	547	547	536
Panel C. Violence against civilians						
Aid shock	-9.910**	-9.550**	-9.454*	12.889	7.355	-18.209
	(4.368)	(4.169)	(4.749)	(33.910)	(24.922)	(15.270)
Accommodative capacity	No	10.598	13.001	No	13.038	11.846
	No	(17.714)	(15.342)	No	(20.348)	(14.399)
Observations	547	547	536	547	547	536
Panel D. Protests						
Aid shock	-4.488	-4.753	-3.766	-33.203	-28.434	-12.562
	(6.185)	(6.481)	(7.283)	(44.303)	(38.374)	(28.472)
Accommodative capacity	No	-7.817	-4.021	No	-11.236	-5.181
	No	(12.761)	(15.686)	No	(13.381)	(14.786)
Observations	547	547	536	547	547	536
Panel E. Riots						
Aid shock	-0.170	-0.088	0.258	-19.293	-19.155	-8.897
	(3.733)	(3.818)	(4.094)	(32.515)	(30.555)	(26.871)
Accommodative capacity	No	2.426	7.794	No	-0.327	6.586
	No	(6.918)	(9.836)	No	(7.559)	(8.931)
Observations	547	547	536	547	547	536
Human dev. indicators	No	No	Yes	No	No	Yes
Regime characteristics	No	No	Yes	No	No	Yes
Horizontal Inequality	No	No	Yes	No	No	Yes
Economic Ties	No	No	Yes	No	No	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes

Note: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. An observation is a country and a year. The sample includes SSA aid recipient countries for the years 2004 and 2015. The controls included are indicated by yes or no. Coefficients are reported with robust standard errors clustered at the country level in parentheses.

Table 50: The Effect of an Aid Shock on Different Types of Violent Activities in Sub-Saharan Africa

R Appendix: List of Aid Recipients in Africa

Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Democratic Republic of the Congo, Djibouti, Egypt, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Ivory Coast, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Morocco, Mozambique, Namibia, Niger, Nigeria, Republic of the Congo, Rwanda, Senegal, Sierra Leone, Somalia,

CEU eTD Collection

South Africa, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe.

S Appendix: Definition of events by ACLED

1. Battles:

    - A violent interaction between two politically organized armed groups at a particular time and location. Battles can occur between armed and organised state, non-state, and external groups.

2. Explosion/Remote violence

    - One-sided violent events in which the tool for engaging in conflict creates asymmetry by taking away the ability of the target to respond. The tools used in instances of 'Explosions/Remote violence' are explosive devices, including, but not limited to, bombs, grenades, improvised explosive devices (IEDs), artillery fire or shelling, missile attacks, heavy machine gun fire, air or drone strikes, or chemical.

3. Violence against civilians

    - Violent events where an organised armed group deliberately inflicts violence upon unarmed non-combatants. By definition, civilians are unarmed and cannot engage in political violence. The perpetrators of such acts include state forces and their affiliates, rebels, militias, and external/other forces.

4. Protests

    - Public demonstration in which the participants do not engage in violence, though violence may be used against them. Events include individuals and groups who peacefully demonstrate against a political entity, government institution, policy, group, tradition, businesses or other private institutions.

5. Riots

    - Violent events where demonstrators or mobs engage in disruptive acts, including but not limited to rock throwing, property destruction, etc. They may target other individuals, property, businesses, other rioting groups or armed actors.

CEU eTD Collection

T Appendix: Exploring Underlying Mechanisms – Public Spending

The conflict literature is nearly unanimous in their belief that governments may buy out potential rebels by committing a sufficient flow of resources to make them unwilling to seek more through fighting. Views on how public spending affects civil conflict are diverge. Azam (1995) explicitly links redistributive policy adopted by states with domestic peace, pointing out the importance of governments' spending decisions in preventing violent conflict. Fjelde and De Soysa (2009) show that higher government expenditure enables governments to effectively buy off opposition and increase the welfare of marginalized groups that reduces the appeal of violent challenges. Taydas and Peksen (2012) find that spending resources on social welfare policies leads to loyalty and support from citizens, which increases the difficulty of rebel recruitment. They also argue that social spending promotes economic development, thereby raising further the opportunity cost of rebellion. In line with these findings, other papers provide evidence that the level of education spending has a positive impact on preventing civil conflict onset by 1) mitigating relative deprivation among citizens and reducing grievance; 2) increasing opportunity costs for the youth to take up arms; and 3) nurturing social stability and people's generosity (Collier and Hoeffler 2004; Thyne 2006).

While Equation (3) includes accommodative state capacity measure – that assesses the government's efficiency at extracting resources from the population – to capture another aspect of state capacity, I use government's expenditure (per capita) as an indicator of the economic capacity (Fjelde and De Soysa 2009). It includes all government current expenditures for purchases of goods and services (including compensation of employees) as well as some expenditure on national defense and security, but excludes government military expenditures that are part of government capital formation. Data are drawn from the Cross-National Time-Series (CNTS) Data Archive and are used in log format.

To examine the sensitivity of total government expenditure to an aid shock, the following specification is estimated:

$$y_{it} = \beta_1 X_{it-1} + \beta_2 W_{it-1} + \beta_3 X_{it-1} * W_{it-1} + \phi_t + \psi_i + \epsilon_{i,t} \tag{28}$$

I use interaction terms between the measure of an aid shock and a measure of expenditure data. All time-varying variables are lagged one year (Bodea, Higashijima, and Singh 2016). The number of violent attacks is denoted by $y_{i,t}$, $X_{i,t-1}$ is the one-year lagged aid

CEU eTD Collection

shock variable, W_{it-1} is the one-year lagged government expenditure variable and this is followed by the interaction term of the two. Finally, ϕ_t denotes time fixed effect, and ψ_i is the region-fixed effect.

The aid shock and the national government expenditure variables are jointly significant at 10% level for all types of conflict except for purges. The negative coefficients on the interaction terms and on the expenditure data in Table 51 show that after a negative aid shock, more government spending has a conflict-reducing effect (in line with the buying out hypothesis), while after a positive aid shock, the conflict-reducing effect of government expenditure is even larger.

	Internal armed conflict	Purges	Assassinations	Riots	Terrorism
	(1)	(2)	(3)	(4)	(5)
$Aidshock_{t-1}$	0.030	-0.058	0.264	0.557	0.809
	(0.608)	(0.086)	(0.337)	(0.317)	(1.774)
$GovernmentExpenditurePerCapita_{t-1}$	-0.070**	-0.006	-0.003	-0.060	-0.219*
	(0.023)	(0.012)	(0.015)	(0.033)	(0.120)
$Aidshock_{t-1}XGovernmentExpenditurePerCapita_{t-1}$	-0.005	0.006	-0.028	-0.050	-0.072
	(0.052)	(0.009)	(0.031)	(0.030)	(0.163)
Observations	856	856	856	856	856

Note: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. An observation is a country and a year. Inverse hyperbolic sine transformed dependent variables are presented. The sample includes aid recipient countries for the years 2004 and 2015. Coefficients are reported with robust standard errors clustered at the region level in parentheses.

Table 51: The Effect of Aid Shocks on Different Types of Conflict in Aid Recipient Countries: Instrumenting an Aid Shock with an Interaction Term

CEU eTD Collection

U Appendix: The Demand Side: Different State Capacities

The occurrence of conflict after an aid shock depends to a great extent on the ability of the recipient's government as well as on the level of credible commitment the government is able to make (see Section 2.2). To parametrically test for the heterogeneous relationship, I add a triple interaction between the continuous aid shock variable, an aid shock dummy indicating negative versus positive aid shock, and a continuous state capacity variable. I estimate the following equation:

$$y_{it} = \beta_1 X_{it} + \beta_2 W_{it} + \beta_3 X_{it} * W_{it} + \beta_4 X_{it} * d_{it} + \beta_5 W_{it} * d_{it} + \beta_6 X_{it} * W_{it} * d_{it} + \beta_7 d_{it} + C'_{it}\gamma + \phi_t + \psi_i + \epsilon_{i,t} \tag{29}$$

where Equation (29) is the second stage of the 2SLS estimation and the number of incidences is denoted by $y_{i,t}$, $X_{i,t}$ is the continuous aid shock variable, $W_{i,t}$ is the state capacity measure and d_{it} is the binary variable (0 for a positive and 1 for a negative aid shock), $C'_{i,t}$ is a vector of country-year covariates, ϕ_t denotes time fixed effect, and ψ_i is the region-fixed effect.

There are three terms of potentially endogenous variables; aid shock variable, the shock dummy and state capacity measures, three instrument and hence three first-stage equations.

The first stage equation for the aid shock variable is:

$$X_{it} = \alpha_1 Z_{1,it} + \alpha_2 Z_{2,it} + \alpha_3 Z_{3,it} + C'_{it}\gamma + \phi_t + \psi_i + \nu_{it} \tag{30}$$

The first stage equation for the aid shock dummy is:

$$d_{it} = \alpha_1 Z_{1,it} + \alpha_2 Z_{2,it} + \alpha_3 Z_{3,it} + C'_{it}\gamma + \phi_t + \psi_i + \nu_{it} \tag{31}$$

The first stage equation for the state capacity measure is:

$$W_{i,t} = \alpha_1 Z_{1,it} + \alpha_2 Z_{2,it} + \alpha_3 Z_{3,it} + C'_{it}\gamma + \phi_t + \psi_i + \nu_{it} \tag{32}$$

To develop a valid instrument for the endogenous aid shock dummy variable, a reduced form probit is estimated using all exogenous variables (Wooldridge 2010).[167] The fitted probabilities of this probit estimate is the instrument for the shock variable itself, denoted

[167]The estimate uses random-effect as fixed-effect estimates with probit specification is biased.

CEU eTD Collection

by $Z_{2,it}$. Similarly, capacity measure is instrumented by fitted probabilities of a linear regression estimate on state capacity using all exogenous variables that is denoted by $Z_{3,it}$ (Wooldridge 2010). Donors' GNI (denoted by $Z_{1,it}$) remains the instrument for the aid shock variable as explained in Equation (5). The interaction terms are instrumented with the interactions between the associated instruments.

The main findings in Table 52 echo the theoretical assumptions. β_1, β_2 β_3 are not significant, thus a positive aid shock does not have a statistically significant effect under this specification. For a negative aid shock, coefficients on two-sided conflict and on assassination and terrorism turn to be statistically significant. For example, the marginal effect of a negative aid shock on terrorism (Column 5 in Table 52) is (approximately 51.5-27.3 x state capacity) positive in countries with weak state capacities, but close to zero or even negative in countries with strong state capacities.[168]

[168]

$$\frac{\partial y}{\partial shock}|aid\_shock < 0 = \beta_1 + \beta_4 + capacity * (\beta_3 + \beta_6) \tag{33}$$

The value for a strong state is the maximum value of the accommodative state capacity variable in the sample (3.4728), while the value for a weak state is given by the minimum value of the sample (0.0631). The sign of the estimated coefficients remain the same when I replace the values for strong and weak states with the mean of the lowest one-third countries' accommodative state capacity measure and with the mean of the upper one-third of the countries' state capacity measures.

CEU eTD Collection

	Two-sided and Government One-sided conflict		Opposition One-sided conflict		
	(1)	(2)	(3)	(4)	(5)
	Internal armed conflict	Purges	Assassinations	Riots	Terrorism
Aid shock	-1.265	-0.519	-0.218	-1.620	-8.101
	(1.027)	(0.445)	(0.207)	(1.894)	(7.972)
State capacity	-0.954	-0.070	0.428	-0.374	-4.741
	(1.327)	(0.257)	(0.654)	(2.582)	(9.355)
Aid shock X State capacity	-0.417	-0.000	-0.210	0.848	1.705
	(3.414)	(0.421)	(1.334)	(5.408)	(24.783)
Aid shock X Binary Shock	7.819**	1.430*	-1.478	11.528	59.611*
	(3.175)	(0.779)	(2.052)	(10.244)	(32.987)
State capacity X Binary Shock	-0.927	-0.207	-0.233	-0.939	-2.332
	(2.932)	(0.494)	(1.252)	(3.734)	(18.872)
Aid shock X State capacity X Binary Shock	-5.473***	-0.882	1.914**	-3.500	-29.047**
	(1.932)	(1.420)	(0.876)	(5.144)	(14.346)
Binary Shock	0.679	-0.034	0.108	2.282	5.255
	(1.848)	(0.315)	(0.826)	(2.509)	(10.197)
Observations	1,193	1,193	1,193	1,193	1,193
First Stage: Sanderson-Windmeijer (SW) F statistics					
Donors' GNI	14.54	14.54	14.54	14.54	14.54
Linear pred. for capacity	5.37	5.37	5.37	5.37	5.37
Donors' GNI X Linear pred. for capacity	5.64	5.64	5.64	5.64	5.64
Donors' GNI X Pred. for aid shock	2.29	2.29	2.29	2.29	2.29
Pred. for aid shock X Linear pred. for capacity	3.95	3.95	3.95	3.95	3.95
Donors' GNI X Pred. for aid shock X Linear pred. for capacity	4.78	4.78	4.78	4.78	4.78
Pred. for aid shock	5.63	5.63	5.63	5.63	5.63

Note: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Aid shock dummy is zero for positive aid shock and 1 for negative aid shock An observation is a country and a year. Inverse hyperbolic sine transformed dependent variables are presented. The sample includes aid recipient countries for the years 2004 and 2015. Coefficients are reported with robust standard errors clustered at the regional level in parentheses. The equations include time and region fixed effects.

Table 52: Heterogeneous Effects of Aid Shocks on Internal Armed Conflict, Purges, Assassination, Riots and Terrorism in Countries with Strong versus Weak State Capacities – a Two-Stage Least Square Estimation

CEU eTD Collection

V Appendix: Replicating the Existing Scholarly Practice – Instrumenting Aid Shocks with an Interaction Term

	Internal armed conflict	Purges	Assassinations	Riots	Terrorism
	(1)	(2)	(3)	(4)	(5)
Aid shock	-0.408	0.232	-0.898*	-0.116	-3.308*
	(0.325)	(0.293)	(0.540)	(0.592)	(1.892)
Time FE	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes
Observations	1,259	1,247	1,247	1,247	1,259
First Stage					
Cragg-Donald Wald F statistic	8.53	8.22	8.22	8.22	8.53
Kleibergen-Paap Wald rk F statistic	1.25	1.20	1.20	1.20	1.25

Note: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. An observation is a country and a year. Inverse hyperbolic sine transformed dependent variables are presented. The sample includes aid recipient countries for the years 2004 and 2015. Coefficients are reported with robust standard errors clustered at the country level in parentheses.

Table 53: The Effect of Aid Shocks on Different Types of Conflict in Aid Recipient Countries: Instrumenting an Aid Shock with an Interaction Term

CEU eTD Collection

W Appendix: The Average Number of Donor Countries in Recipient Countries by Years

	2004	2006	2008	2010	2012	2014
Albania	17	19	20	22	23	23
Algeria	17	18	18	21	21	21
Angola	18	22	20	20	22	24
Argentina	18	20	22	23	24	24
Armenia	16	18	19	19	20	21
Azerbaijan	15	18	17	20	17	18
Bangladesh	20	22	22	22	23	24
Belarus	0	15	20	17	20	25
Benin	17	19	18	19	20	22
Bhutan	11	15	14	13	13	14
Bolivia	19	19	20	22	22	23
Bosnia-Herzegovina	18	20	21	23	24	26
Botswana	17	15	17	16	11	16
Brazil	19	22	22	24	24	27
Burkina Faso	17	19	20	22	20	23
Burundi	18	21	19	22	22	25
Cambodia	19	22	22	21	22	26
Cameroon	18	20	20	22	21	21
Central African Republic	15	17	20	18	16	26
Chad	17	17	20	22	19	16
China	22	23	23	24	25	28
Colombia	21	23	23	23	23	26
Comoros	6	7	9	8	10	12
Costa Rica	16	16	17	17	18	20
Cuba	15	17	20	19	20	22
Democratic Republic of the Congo	19	23	23	23	23	22
Djibouti	10	12	11	14	14	15
Dominican Republic	14	17	17	18	19	20
East Timor	17	20	19	16	18	16
Ecuador	18	20	20	21	20	21
Egypt	21	22	23	23	24	27
El Salvador	18	19	19	21	24	21
Equatorial Guinea	9	10	10	11	12	11
Eritrea	19	18	20	19	17	12
Ethiopia	21	23	23	23	26	28
Fiji	10	9	12	11	9	11
Gabon	11	9	11	12	13	14
Gambia	14	18	17	19	21	20

Note: Data are from Creditor Reporting System (CRS) of the Organisation for Economic Co-operation and Development's Development Assistance Committee. Donors are counted if the recipient country received a positive amount of aid at the given year.

Table 54: Average Number of Donor Countries in a Recipient Country by Selected Years

CEU eTD Collection

	2004	2006	2008	2010	2012	2014
Georgia	17	19	20	21	23	25
Ghana	20	22	22	23	24	23
Guatemala	18	20	21	22	23	22
Guinea	16	18	17	16	20	22
Guinea-Bissau	15	17	19	18	21	20
Guyana	13	12	11	12	12	12
Haiti	19	22	20	24	24	25
Honduras	18	22	22	23	23	22
Indonesia	21	23	23	22	24	26
Iran	21	16	18	19	22	21
Ivory Coast	18	21	21	22	22	20
Jamaica	15	18	15	16	12	14
Jordan	18	19	20	20	23	27
Kazakhstan	17	17	17	17	16	20
Kenya	21	23	23	24	25	26
Kosovo	0	0	0	17	20	24
Kyrgyzstan	16	19	19	22	18	20
Laos	18	18	21	20	19	22
Lebanon	17	23	22	22	23	26
Lesotho	14	14	17	14	14	15
Liberia	18	19	19	21	20	21
Libya	0	10	12	13	22	18
Macedonia	16	16	18	18	21	23
Madagascar	17	19	19	20	19	20
Malawi	20	22	21	23	23	21
Malaysia	15	19	17	17	21	18
Maldives	10	17	14	14	15	16
Mali	19	19	19	22	22	24
Mauritania	15	18	17	15	19	17
Mexico	19	19	21	22	22	26
Moldova	16	18	19	22	22	26
Morocco	18	20	20	20	22	24
Mozambique	20	22	23	22	24	22
Myanmar	17	20	22	21	21	23

Note: Data are from Creditor Reporting System (CRS) of the Organisation for Economic Co-operation and Development's Development Assistance Committee. Donors are counted if the recipient country received a positive amount of aid at the given year.

Table 55: Average Number of Donor Countries in a Recipient Country by Selected Years

CEU eTD Collection

	2004	2006	2008	2010	2012	2014
Namibia	20	22	21	20	21	25
Nepal	19	23	22	22	24	24
Nicaragua	19	20	20	21	23	22
Niger	17	19	19	22	23	20
Nigeria	20	23	21	21	22	25
Panama	12	12	15	15	18	19
Papua New Guinea	14	18	17	19	14	13
Paraguay	16	17	18	19	19	20
Peru	20	23	23	23	24	26
Republic of the Congo	16	19	18	17	21	19
Rwanda	20	23	22	23	24	25
Senegal	17	21	20	21	23	24
Sierra Leone	18	21	21	24	23	24
Solomon Islands	7	8	11	10	9	13
Somalia	16	22	22	22	25	25
South Africa	21	23	23	24	25	26
Sri Lanka	21	23	23	23	25	24
Sudan	21	23	23	22	22	25
Suriname	8	10	8	10	9	12
Swaziland	13	14	17	16	15	19
Tajikistan	15	20	19	21	22	20
Tanzania	20	22	22	22	24	26
Thailand	22	22	23	23	25	26
Togo	14	16	19	21	20	19
Tunisia	16	17	18	17	22	25
Turkey	16	18	19	21	23	25
Turkmenistan	8	10	10	15	10	11
Uganda	20	22	22	22	24	28
Ukraine	0	18	19	22	22	28
Uzbekistan	16	16	15	17	19	18
Venezuela	17	19	18	19	20	20
Vietnam	22	23	22	23	24	26
West Bank and Gaza Strip	20	23	23	23	26	29
Yemen	15	17	19	22	19	23
Zambia	19	22	21	20	22	23
Zimbabwe	20	23	23	22	23	24

Note: Data are from Creditor Reporting System (CRS) of the Organisation for Economic Co-operation and Development's Development Assistance Committee. Donors are counted if the recipient country received a positive amount of aid at the given year.

Table 56: Average Number of Donor Countries in a Recipient Country by Selected Years

CEU eTD Collection

X *Appendix: Are Donors in a Recipient Country at a Given Year Endogenous?*

To ensure that the presence of donors in a particular recipient country i at a particular year t is not endogenous, I run a regression of the decision of the donor countries to aid a recipient country at year t on conflict variables at year *t+1*. I follow the specification of Bermeo (2017) and estimate the following equation using linear probability estimation:

$$y_{it} = \beta X_{i,t+1} + \alpha X_{i,t-1} + C'_{it-1}\gamma + \phi_t + \psi_i + \xi_i \epsilon_{i,t} \tag{34}$$

where y_{it} in Equation (34) is a binary variable equals one if donor country j aids recipient country i at year t and zero otherwise.

To measure whether donors anticipate future instability in a recipient and to test whether they provide aid to stall that, the number of violent attacks in year t+1 ($X_{i,t+1}$) is included in the equation. While conflict at year t+1 should not affect the decision of donor j at year t, conflict events in the past certainly do, therefore Equation (34) includes the number of conflict events at $t-1$ ($X_{i,t-1}$). $C'_{i,t-1}$ is a one-year lagged of the vector of country-year covariates (Bermeo 2017). ϕ_t denotes year fixed effect, and ψ_i is the region specific time trend. Bermeo (2017) argues that aid is a pure manifestation of economic and political interest of the donor, thus ξ_i is a dyadic fixed effect to capture the time-invariant elements of the donor-recipient relationships.

The explanatory variables in $C'_{i,t}$ are in line with the theories framing the question of why aid is given (Bermeo 2017). A vector of recipient level variables including GDP per capita, life expectancy at birth and population are added (definition and source of data are in Appendix O). A measure of democracy is also added that reflects the average of a recipient's values on the civil liberties and political rights variables published by Freedom House (see the definition in O) as well as economic measures of recipient countries.

Column 3 in Table 57 shows that donors' decision on aiding a recipient country at year t is not affected by the number of future conflict. This results remain stable across specification controlling for the number of current conflict only or for the number of conflict at year *t-1* only.

CEU eTD Collection

	Probability of aiding a recipient country	Probability of aiding a recipient country	Probability of aiding a recipient country
Number of conflict event at year t+1	0.0000615	0.0000504	0.0000531
	0.0000404	0.0000382	0.0000409
Number of conflict event at year t	No	Yes	Yes
Number of conflict event at year t-1	Yes	No	Yes
Time FE	Yes	Yes	Yes
Donor-recipient pair FE	Yes	Yes	Yes
Region specific time trend	Yes	Yes	Yes
Observations	35,757	35,757	35,757

Note: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. An observation is a donor-recipient pair and a year. Controls are included. Coefficients are reported with robust standard errors clustered at donor-recipient pair level in parentheses.

Table 57: The Effect of Future Conflicts on Donors Decision of Aiding a Country

CEU eTD Collection

Y Appendix: Descriptive Statistics of the Main Variables

	Number of Observations	Mean	Standard Deviations	Minimum	Maximum
Changes in Fidesz vote share	3,131	0.0411	0.0723	-0.2371	0.5727
Per capita HVP subsidy (10000 HUF)	3,154	0.7374	2.1198	0	249.8199
Per capita Rural CSOK for pre-owned houses (10000 HUF)	3,154	0.2332	0.5983	0	37.4468
Per capita Rural CSOK for newly bought houses (10000 HUF)	3,154	0.0575	0.1757	0	8.2609
Population (ln)	3,154	9.1784	1.7408	2.3026	12.2124
Change in population rate (between 2003 and 2019)	3,144	0.9680	0.1637	0.2985	3.0531
Per capita labour income (ln)	3,154	7.1772	0.2273	5.2709	8.7621
Share of settlements with one mayor candidate	3,154	0.1378	0.3448	0	1
Share of settlements with two mayor candidates	3,154	0.2941	0.4557	0	1
Share of settlements with Fidesz mayor candidate	3,154	0.6346	0.4816	0	1
Share of settlements with Roma mayor candidates	3,154	0.0024	0.0488	0	1
Margin of victory at the local election	3,154	34.1862	32.1217	0	100
Share of foreigners	3,154	0.2433	0.4292	0	1
Per capita government subsidies (CSOKU) in 10000 HUF	3,154	0.5904	0.8740	0	32.2230
Per capita government subsidies (CSOKH) in 10000 HUF	3,154	0.2342	0.1599	0	2.9184
Per capita government subsidies (TAMHIT) in 10000 HUF	3,154	1.2371	1.4506	0	53.2403
Fidesz vote share at the European Parliament election	3,154	0.2255	0.0505	0.0447	0.8846
Share of women (18–54 age)	3,154	0.2458	0.0129	0.0833	0.3600
Share of children (0-17 age)	3,154	0.1757	0.0298	0	0.4981
Share of unemployed	3,154	0.0471	0.0345	0	0.4217
Share of population with primary education only	3,153	0.5014	0.1130	0.077	0.8730
Share of population with no education	3,153	0.0557	0.0359	0	0.6920
Share of atheists	3,153	0.0112	0.0075	0	0.1001
Share of protestants	3,153	0.1194	0.1217	0	0.8635
Share of catholics	3,153	0.3990	0.1693	0	1
Share of evangelists	3,153	0.0221	0.0492	0	0.6971
Share of Roma residents	3,153	0.0336	0.0566	0	0.9429
Distance to Budapest (km)	3,154	153.8094	75.9380	19.33	335.67

Note: Means are population weighted.

Table 58: Descriptive Statistics

Definition and sources of the variables:

- *Fidesz vote share*
  - *Definition*: The number of Fidesz votes to the number of eligible voters.
  - *Source*: National Election Office
- *Population*:

CEU eTD Collection

  - *Definition*: Population at the middle of the year.
  - *Source*: Databank of the Center for Economic and Regional Studies – Hungarian Academy of Sciences.

- *Changes in population*:
  - *Definition*: The proportion of the population at the middle of the year in 2019 to the population at the middle of the year in 2003.
  - *Source*: Databank of the Center for Economic and Regional Studies – Hungarian Academy of Sciences.

- *Income per capita*:
  - *Definition*: Total personal income tax base in 2018 to population at the middle of the year in 2018.
  - *Source*: Databank of the Center for Economic and Regional Studies – Hungarian Academy of Sciences.

- *The number of candidate at the 2019 local election*:
  - *Definition*: The number of mayor candidates at the 2019 local election
  - *Source*: National Election Office

- *Fidesz candidate*:
  - *Definition*: A binary variable equals one if any of the running mayor candidate was supported by Fidesz or zero otherwise.
  - *Source*: National Election Office

- *Roma candidate*:
  - *Definition*: A binary variable equals one if any of the running mayor candidate was supported by a party with a name including the word of *Roma* and zero otherwise.
  - *Source*: National Election Office

- *Margin of victory*:

CEU eTD Collection

  - *Definition*: Winner's margin at local election in 2019 expressed in percentage point.
  - *Source*: National Election Office

- *Foreign residents*:
  - *Definition*: This variable is defined based on the proportion of foreigners in 2019 local elections as well as on the number of foreigners in 2019 local elections. A binary variable equals one if the proportion of foreigners – as calculated by the number of eligible voters in October 2019 (where foreigners are eligible to vote) and in May 2019 (where foreigners are not eligible to vote) – is larger than 10% *and* if there are at least 150 foreigners in a given settlement.
  - *Source*: National Election Office

- *Family Housing Allowance Program or CSOK*:
  - There are three categories within the Housing Subsidy for Families (CSOK) scheme:
    * Per capita Family Housing Allowance Subsidies for the purpose of building or purchasing new flats.
    * Per capita Family Housing Allowance Subsidies for purchasing old flats or the enlargement of existing dwellings.
    * Per capita subsidised loan for buying or building new homes or purchasing old apartment.
  - *Source*: Hungarian State Treasury
  - More details on the Family Housing Allowance Program are in Section 3.2.

- *Share of women (18–54 years)* :
  - *Definition*: Proportion of 18-54 year old females among permanent residents.
  - *Source*: Databank of the Center for Economic and Regional Studies – Hungarian Academy of Sciences.

- *Share of children (0–17 years)* :
  - *Definition*: Proportion of 0–17 year old children among permanent residents.

CEU eTD Collection

  - *Source*: Databank of the Center for Economic and Regional Studies – Hungarian Academy of Sciences.

- *Share of unemployed*:
  - *Definition*: Number of individuals registered as unemployed to the size of the working-age population. Working-age population is the number of permanent residents between the ages of 18 and 59.
  - *Source*: Databank of the Center for Economic and Regional Studies – Hungarian Academy of Sciences.

- *Level of education*:
  - *Definition*: Binary variables equal to one for the share of population with primary education only/no education and zero otherwise.
  - *Source*: T-STAR Database

- *Religion*:
  - *Definition*: Proportion of atheist/protestant/catholic/evangelical to the population.
  - *Source*: T-STAR Database

- *Ethnic minority*:
  - *Definition*: Proportion of Roma people to the population.
  - *Source*: T-STAR Database

- *Distance to Budapest*:
  - *Definition*: Distance to Budapest (capital city of Hungary) in the fastest way possible in kilometer in 2019.
  - *Source*: T-STAR Database

- *Public work share*
  - *Definition*: The share of public work program participants relative to the working age (18-59) population.
  - *Source*: T-STAR Database

CEU eTD Collection

Z Appendix: The Effect of Public Work Scheme in the Local Elections

Figure 25 shows the share of public workers (as defined as the share of public work program participants relative to the working age (18-59) population at settlement level in the last month before the elections) in Rural CSOK eligible *versus* non eligible settlements in different elections. This figure reveals that the Hungarian government scaled up the public work program right before local elections in October 2014. In particular, the share of public workers in eligible settlements were much higher than in the non-eligible settlements. We, therefore, allow the effect of public workers on Fidesz support to differ in local elections and estimate the heterogeneous effect on vote share including election and settlements fixed effects along with the usual set of control variables. To estimate the causal effect of policy eligibility on Fidesz support, we control for the heterogeneous effect of the public work programs.

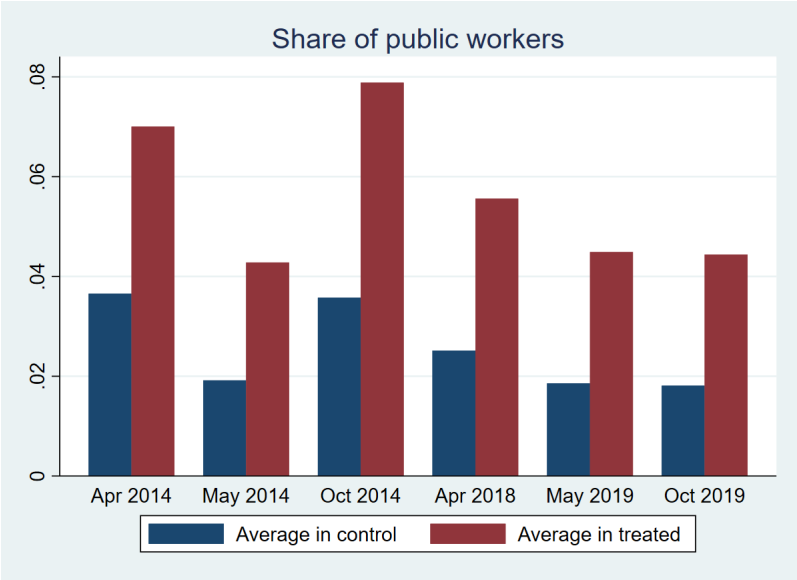

Figure 25: Average Share of Public Workers in Rural CSOK Eligible and non-Eligible Settlements before the Elections

Note: Monthly, settlement-level public work share data are drawn from T-STAR Database. Means are population weighted.

CEU eTD Collection

AA Appendix: Comparing CSOK and Rural CSOK

The general goal of the CSOK program is to support families with children and to reverse a demographic decline. In particular, the policy was designed to support married couples with children, the program has two core components: it offers 1) a non-refundable state subsidy for the purchase, renovation or enlargement of a house/flat; 2) and a major value-added tax deduction for each home, and a capped-interest loan. In 2019, CSOK was further expanded with new measures aimed at correcting Hungary's demographic course. The program covers 1) interest-free, all-purpose loans 2) extension of CSOK; 3) mortgage deductions; 4) exemption from personal income tax for women with four children 5) car purchase program; 6) 21,000 more nursery places; and 7) childcare allowance for grandparents.

The main elements of Rural CSOK as compared to CSOK are summarised in Table 59. The amount granted within rural CSOK is similar to CSOK, however, a maximum 50% of the subsidy can be spent on purchasing a pre-owned house, while the remaining part must be used for modernisation and renovation. Rural CSOK can also be used to modernise/renovate/enlarge owned houses.

CEU eTD Collection

Children	Type	**CSOK** for New Houses	**CSOK** for Pre-Owned Houses	**Rural CSOK** for Pre-Owned Houses
1	Subsidy	HUF 600,000	HUF 600,000	HUF 300,000 + 300,000
2	Subsidy	HUF 2,600,000	HUF 1,430,000	HUF 1,300,000 + 1,300,000
	Mortage loan	HUF 10,000,000	HUF 10,000,000	HUF 10,000,000
3	Subsidy	HUF 10,000,000	HUF 2,200,000	HUF 5,000,000 + 5,000,000
	Mortage loan	HUF 15,000,000	HUF 15,000,000	HUF 15,000,000
4+	Subsidy	HUF 10,000,000	HUF 2,750,000	HUF 5,000,000 + 5,000,000
	Mortage loan	HUF 15,000,000	HUF 15,000,000	HUF 15,000,000

Note: **"CSOK for new houses"** category is designed for buying or building new houses (within the category of one child, a house must be 70 m^2 or larger and a flat must be at least 40 m^2 or larger; within the category of two children, a house must be 80 m^2 or larger and a flat 50 m^2 or larger; within the three or more children category, a house should be 90 m^2 or larger and a flat 60 m^2 or larger). The **"CSOK for pre-owned houses"** is for buying or enlarging pre-owned houses (the house/flat must be 1) at least 40 m^2 with one children; 2) at least 50 m^2 with two children; 3) at least 60 m^2 with three children; and 4) at least 70 with four or more children). Finally, the **"rural CSOK for pre-owned houses"** category is either for buying and modernising/renovating/enlarging pre-owned houses or for modernising/renovating/enlarging the owned house (the house/flat must be 1) at least 40 m^2 with one children; 2) at least 50 m^2 with two children; 3) at least 60 m^2 with three children; and 4) at least 70 with four or more children).

Table 59: The Family Housing Allowance Program (CSOK) and the Rural Family Housing Allowance Program (Rural CSOK) for Pre-Owned Houses

CEU eTD Collection

AB Appendix: The Effect of Receiving Different Subsidies on Party Preferences

We re-estimated Equation (15) with dummies for the four different types of subsidies as explanatory variables, instead of the dummy for the recipients of any of the four types of subsidies. Table 60 shows that the estimates of these subsidy dummies are mostly positive but very imprecise, and remain insignificant in all specifications despite some sizeable point estimates (e.g. 5-9 percentage points for Family Housing Allowance Program recipients, and 3-6 percentage points for tax refund recipients). We note that in these specifications, individual religiosity has the highest explanatory power when we measure it with religious attendance, so from now on, whenever necessary, we use this measure of religiosity in all specifications.

	Measure of religiosity					
	degree		attendance		denomination	
Tax refund recipient	0.032	(0.49)	0.048	(0.73)	0.056	(0.80)
13th pension recipient	-0.014	(-0.21)	-0.028	(-0.40)	0.008	(0.10)
FHAP recipient	0.088	(0.77)	0.046	(0.43)	0.093	(0.87)
Home renovation recipient	0.043	(0.30)	-0.016	(-0.11)	0.015	(0.12)
Any subsidy recipient	0.028	(0.48)	0.032	(0.55)	0.053	(0.85)
Socio-demogr controls	Yes		Yes		Yes	
Settlement fixed effects	Yes		Yes		Yes	

Clustered t statistics are reported in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 60: Linear Probability Model on the Determinants of Voting for Fidesz

CEU eTD Collection

AC Appendix: The Heterogeneous Effect of Receiving Subsidies on Party Preferences

A natural question arises whether subsidies had any effect in some sub-groups of the society. In particular, we investigate the effect of subsidies by education level, by settlement type and by income categories. We do this by allowing the effect of the subsidies on the probability of voting for Fidesz to be heterogeneous across these different groups of the society, which we do by interacting the subsidy recipient dummy with the categorical variable on education, settlement type or income in Equation (15). As Table 61 shows, we find that all types of subsidies remain insignificant in all specifications; however, the point estimate of the effect of receiving tax refund among respondents with primary education, or who live in villages is sizeable (more than 10 percentage points), and we also see a large effect (16 percentage points) of the 13th month pension among those recipients who live in Budapest.

	Dependent variable: Fidesz voter dummy					
	Effect of the following subsidy:					
	Any subsidy		Tax refund		13th pension	
	Panel A: By education level					
Primary education	0.055	(0.76)	0.103	(1.09)	0.006	(0.08)
Secondary education	-0.011	(-0.14)	0.070	(0.77)	-0.091	(-0.98)
Tertiary education	0.044	(0.49)	-0.058	(-0.64)	-0.001	(-0.01)
Whole population	0.032	(0.55)	0.048	(0.73)	-0.028	(-0.40)
	Panel B: By settlement type					
Village	0.044	(0.53)	0.171	(1.59)	-0.085	(-0.84)
Small town	-0.038	(-0.54)	-0.036	(-0.45)	-0.039	(-0.54)
County capital	0.047	(0.43)	0.022	(0.15)	-0.033	(-0.33)
Budapest	0.160	(1.63)	0.037	(0.36)	0.161	(1.38)
Whole population	0.032	(0.55)	0.048	(0.73)	-0.028	(-0.40)
	Panel C: By income category					
Less than median	0.101	(1.42)	0.017	(0.17)	0.049	(0.62)
More than median	-0.012	(-0.18)	0.060	(0.78)	-0.139	(-1.79)
Whole population	0.032	(0.55)	0.048	(0.73)	-0.028	(-0.40)

Robust t statistics in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.
Socio-demographic controls and settlement dummies are included in all specifications.

Table 61: The Heterogeneous Effect of Subsidies on the Willingness to Vote for Fidesz, in Certain Sub-Groups

CEU eTD Collection

AD Appendix: Temporary Protection versus Refugees

Temporary protection status (TPS): In February 2022, the EU introduced (for the first time) the temporary protection as an exceptional measure to provide immediate protection to people fleeing the war in Ukraine. The European Commission identified a clear risk that "*the asylum systems of EU countries would be unable to process applications within the deadlines set. This would negatively affect the efficiency of national asylum processes and adversely affect the rights of people applying for international protection*".[169] Thus, the introduction of the temporary protection status – by definition – replaced the refugee status for those fleeing from Ukraine. The temporary protection status provides free health care, education, right to reside in Hungary, state-provided accommodation and financial assistance. The TP status is the best available option for people fleeing Ukraine, as the administrative procedure itself is fast and the rights are granted to the person immediately upon application (in contrast to the lengthy refugee status procedure). Indeed, recent data from Eurostat show that no-one from Ukraine sought asylum in Hungary after the outbreak of the war.[170] [171]

Asylum-seeker: Asylum is a form of protection provided by a foreign state to an individual whose own country of origin does not provide protection. All people have the right to seek asylum, to ask for the protection of a country if they cannot return to their own country of origin or residence if they fear persecution, harm due to their race, religion, nationality, political opinion or because they belong to a certain social group.[172] In Hungary, if an asylum-seeker has successfully registered the asylum application, the immigration authority examines the application (2-3 months but often longer) and the asylum-seeker will receive one of the four decisions:

1. Refugee status[173]

2. Subsidiary protection [174]

[169] See https://home-affairs.ec.europa.eu/policies/migration-and-asylum/common-european-asylum-system/temporary-protection_en.

[170] Data are from https://ec.europa.eu/eurostat/web/migration-asylum/asylum/database?node_code=migr_asytp.

[171] Temporary protection must be requested. Once a Ukrainian applied for the TP status, she or he is entitled for a humanitarian residence permit. The authorities are required to make a decision within 55 days.

[172] The definition is available at https://help.unhcr.org/hungary/asylum/.

[173] The status falls under mandatory review every three years; the status provides the right to have an ID card, an address card and work permit. Refugees can bring their families to Hungary, and children can go to school.

[174] The status falls under mandatory review every three years. The main difference between this status

CEU eTD Collection

3. Humanitarian protection/tolerated status[175]

4. Rejected asylum application

While we acknowledge the differences between the temporary protected status of the Ukrainian and the refugee/subsidy protection status of Afghans and the others fleeing conflict, we argue that 1) most Hungarians personally never encountered anyone fleeing war (at least not for a long term) because only a few of them have stayed in Hungary; 2) Hungarian public opinion is unlikely to be driven by any meaningful differences in the social costs associated with having people with refugee *versus* with temporary protection status.

First, the small number of people with TP status in Hungary (see in Tables 63 and 64) underpins our argument that Hungarians' attitude are not primarily affected by individual contact, but the refugee crisis is a contextual factor that affects public opinion responses in the aggregate. Table 63 shows the number of granted temporary protected status, the number of application for TP status (that is a good measure for the intention to stay in the country) and the total number of Ukrainian crossing the Hungarian border by months. Table 63 reveals that the majority of the Ukrainians did not stay in Hungary (e.g.: a month before our survey was recorded, only 1.24% of the Ukrainians crossing the border applied for the temporary protected status with 0.28% of them receiving the TP status, while 3.7% of the Ukrainians entering the country applied for TP status and 2.29% of them received it in the month of our survey).[176]

It is equally unlikely that many Hungarians encountered a refugee during the first refugee crisis or in its aftermath. Table 62 shows data about the number of asylum seekers and the number of positive decisions between 2013 and 2021 (including the first refugee crisis).[177] The first column clearly shows that the number of applications skyrocketed

and refugee status is that people with subsidiary protection can only bring their family to Hungary under special circumstances defined by the law.

[175]This is a one year status, people with this status can work in accordance with the law regulating the work permit of third-country nationals, while they cannot bring their families to Hungary.

[176]Those who already applied for temporary protection, but not yet received it have a humanitarian residence permit (for 60 days at most) that already grants some rights for the Ukrainians. Nonetheless, we assume that most Ukrainians who are planning to stay in Hungary apply for the TP status as quickly as possible as the humanitarian residence permit already grants some rights to them and decision on temporary protection status is relatively quick (no longer than 55 days). While there might be some Ukrainian who entered the country and did not apply for TP status yet with temporary residence permit (so-called 'ideiglenes tartózkodásra jogosító igazolás'), they are most likely traveling through the country and will definitely not stay in Hungary for a long time.

[177]The difference between applications and decisions is explained by the large number of withdrawn applications.

CEU eTD Collection

in 2014-2016, with a peak in 2015. Nonetheless, only 300-500 asylum seekers received positive decision during this time period (with the exception of 2017, when there were 1290 positive decisions).

Year	Applications	Decision	Rejected	Accepted
2013	18 895	4 540	4 180	360
2014	42 775	5 445	4 935	510
2015	177 135	3 340	2 915	425
2016	29 430	5 105	4 675	425
2017	3 390	4 170	2 880	1 290
2018	670	960	590	365
2019	500	710	650	60
2020	115	475	345	130
2021	40	60	20	40

Source: Eurostat data on first instance decisions on applications and on asylum applicants

Table 62: Number of Asylum Applications and Accepted Refugees 2013–2021

In 2016, only 425 people received granted protection (154 refugee and 271 subsidiary protection status) (see Table 64), even though majority of asylum-seekers (67 %) came from war- and terror-torn countries, including 17 % from Syria, 38 % from Afghanistan, 12 % from Iraq and 1 % from Somalia.[178] Similarly in 2017, 1216 asylum-seekers were granted protection (106 refugee and 1110 subsidiary protection status) while 2880 applications were rejected. Table 65 reveals that recognition rates for those arriving from war- and terror-torn countries remain low. In 2017, the majority of asylum-seekers (83 %) came from war- and terror-torn countries, including 17% from Syria, 42% from Afghanistan, 24% from Iraq and 0,3% from Somalia.[179]

Not only very few people received protection (either a refugee status or a subsidiary protected status), but the newly introduced measures of the government made it very difficult to even seek asylum in Hungary. For instance, in July 2016, Hungary introduced a law that allows police officers to send back people detained within eight kilometres (five miles) of its southern frontier to the Serbian side of the border fence. As no more than 15 asylum-seekers were allowed to enter the transit zones per day, those pushed back are

[178]The report is available at: https://helsinki.hu/wp-content/uploads/HHC-Hungary-asylum-figures-1-January-2017.pdf. To put these numbers in context, Germany took in 890000 asylum-seekers in 2015 and 280000 in 2016.

[179]The report is available at: https://helsinki.hu/wp-content/uploads/HHC-Hungary-asylum-figures-1-January-2018.pdf.

CEU eTD Collection

stranded for several days or weeks in the transit zones. Later in 2017, the daily limit of people admitted to enter the transit zone was reduced to 5-5 people during working days.

It comes as no surprise, that as of the beginning of 2022 (few months before our survey was recorded), very few people lived in Hungary with protection status; there were 1435 people with refugee, 1521 people with subsidiary protection and 119 people with humanitarian statuses.[180]

Second, Table 66 shows the right of people with refugee (and subsidiary protection status) and with temporary protection status that might be a rough proxy for social costs associated with both statuses (we, however, acknowledge that education, healthcare and shelter are not the only costs associated with these statuses). The table shows that people with both statuses have roughly the same rights and thus granting these statuses implies the same social costs (if anything, people from Ukraine might impose higher social cost), suggesting that our results are not likely to be driven by public's fear of high social costs of refugees.[181]

	2022					
	March	April	May	June	July	Aug
No of Granted TPS	1 440	7 075	6 935	5 650	2 795	1 555
No of TPS applications	6 379	11 579	4 697	2 890	1 781	1 324
Ukr. from Ukraine	27 6613	151 026	167 484	180 529	202 733	223 697
Ukr. from Romania	236 551	158 426	163 222	156 197	186 564	273 685
Total number of Ukr.	513 164	309 452	330 706	336 726	389 297	497 382

Notes: Data are from UNHCR and from the National Directorate-General for Aliens Policing. TPS is temporary protected status. "Ukr. from Ukraine/Romania" is the number of Ukrainian crossing the border from Ukraine and from Romania respectively.

Table 63: Number of Ukrainians Crossing Border and the Number of Granted Temporary Protected Statuses between March and August 2022

[180]Data is available at: http://www.bmbah.hu/index.php?option=com_k2&view=item&layout=item&id=177&Itemid=1232&lang=hu.

[181]Ukrainians who already applied for TP status but have not received the status yet, are issued a humanitarian residence permit. While the authorities should make a decision within 55 days, Ukrainians with humanitarian residence permit have the right to: access Hungarian medical care; request state-provided accommodation; request free of charge translation of personal documents; work within Hungary without any special permit; schooling for children, preschools and day-care and 6 months of free meals for children; request discounted travel tickets. See https://helsinki.hu/en/information-ukraine-stateless-recognized-refugees/.

CEU eTD Collection

	2016			2017		
	Total Number	Asylum-seekers regist. in Hun.	Granted protection	Total Number	Asylum-seekers regist. in Hun.	Granted protection
Jan.	553	433	57	3 240	536	21
Feb.	2 398	2 175	57	3 399	433	13
Mar.	3 412	4 574	57	1 034	321	39
Apr.	3 946	5 812	57	191	205	28
May	3 244	4 752	12	837	247	82
Jun.	3 768	4 745	12	1 785	237	138
Jul.	4 968	1 688	38	1 735	238	123
Aug.	4 363	1 402	35	2 478	274	174
Sept.	2 506	1 118	27	2 244	234	187
Oct.	3 266	1 198	28	1 577	234	150
Nov.	2 365	728	18	2 050	228	120
Dec.	3 279	629	27	1 147	210	141
Total	38 219	29 432	425	21 717	3 397	1 216

Notes: Data are drawn from the reports of the Hungarian Helsinki Committee. "Total Number" are the number of people who crossed or tried to cross border (including blocked entries at the border fence; escorts to the external side of the border fence; irregular migrants apprehended). Granted protection includes granted refugee status and subsidiary protection status. For January – April 2016; May – June 2016; September – October 2016, only aggregated data are available for the number of granted applications. In these cases, monthly data are calculated from the aggregate number.

Table 64: Number of People Crossing Border and the Number of Granted Protected Statuses in 2016 and in 2017

Source Country	All in-merit decisions	Granted Protection	Refused Protection
Afghanistan	1 749	529 (20 RS, 509 SPS)	1 220
Iraq	688	178 (10 RS 168 SPS)	510
Somalia	15	12 (1 RS, 11 SPS)	3
Syria	957	384 (10 RS, 374 SPS)	573

Notes: Data are from the Hungarian Helsinki Committee.

Table 65: Number of People from War- and Terror-Torn Countries and the Number of Granted Protections (Refugee Statuses (RS) and Subsidiary Protection Statuses (SPS)) in 2017

CEU eTD Collection

	Temporary protection	Refugee
Residency	The right to reside in Hungary until 4 March 2023	The right to reside for three years
Healthcare	Free	Free for 6 months
Education	Free	Free below the age of 21
Shelter	State-provided accommodation	Stay in the asylum reception facilities for 30 days
Financial support	HUF 22,800 per month per adult and HUF 13,700 per month per child until the start of a work contract	

Notes: Data are from UNHCR. People with subsidiary protection have the same rights, thus the social costs are the same, but they have no right to vote; they receive different travel document; they have access to citizenship after 8 years of residing in Hungary. Education refers to public education (nurseries, kindergartens, elementary and high schools).

Table 66: The Rights of People with Temporary Protection Status and with Refugee Status

CEU eTD Collection

AE Appendix: Summary Statistics – TÁRKI

	Omnibusz survey year and month					
	April 2014	January 2016	October 2016	January 2017	April 2022	November 2022
Fidesz supporter	31.25%	31.28%	32.80%	33.31%	45.50%	36.05%
	(46.38)	(46.39)	(46.97)	(47.16)	(49.82)	(48.04)
Female	53.37%	53.37%	53.37%	53.37%	53.37%	53.59%
	(49.91)	(49.91)	(49.91)	(49.91)	(49.91)	(49.89)
Primary education	50.99%	50.99%	50.99%	50.99%	50.99%	50.78%
	(50.02)	(50.02)	(50.02)	(50.02)	(50.02)	(50.02)
Secondary education	31.33%	31.33%	31.33%	31.33%	31.33%	32.58%
	(46.40)	(46.40)	(46.40)	(46.40)	(46.40)	(46.89)
Higher education	17.68%	17.68%	17.68%	17.68%	17.68%	16.64%
	(38.17)	(38.17)	(38.17)	(38.17)	(38.17)	(37.26)
Age	48.11	48.46	47.95	47.91	48.45	48.45
	(17.68)	(16.74)	(16.39)	(16.01)	(17.58)	(16.99)
Married	54.48%	49.77%	51.18%	46.98%	54.18%	56.65%
	(49.82)	(50.03)	(50.01)	(49.93)	(49.85)	(49.58)
Divorced	12.40%	14.98%	17.13%	16.05%	12.31%	13.24%
	(32.98)	(35.70)	(37.69)	(36.72)	(32.88)	(33.91)
Widowed	12.45%	12.57%	13.02%	13.72%	13.99%	11.77%
	(33.04)	(33.16)	(33.67)	(34.42)	(34.71)	(32.24)
Single	20.56%	21.37%	18.44%	22.53%	19.51%	18.33%
	(40.44)	(41.01)	(38.80)	(41.81)	(39.65)	(38.71)
Student	4.98%	3.14%	2.28%	2.42%	3.00%	0.97%
	(21.76)	(17.46)	(14.94)	(15.38)	(17.08)	(9.81)
Unemployed	7.43%	4.86%	3.70%	3.22%	2.44%	2.75%
	(26.24)	(21.51)	(18.89)	(17.66)	(15.45)	(16.37)
Retired	31.49%	29.43%	28.47%	27.02%	24.96%	24.13%
	(46.47)	(45.59)	(45.15)	(44.42)	(43.30)	(42.81)
Church attendance	15.57%	13.81%	12.23%	10.05%	14.58%	12.27%
	(36.27)	(34.52)	(32.79)	(30.07)	(35.30)	(32.82)
Very religious	14.61%	8.47%	9.36%	5.63%	10.71%	7.75%
	(35.34)	(27.85)	(29.13)	(23.06)	(30.94)	(26.74)

Notes: Data comes from TÁRKI Omnibusz surveys. Means are population weighted. Standard errors are in parentheses. Definition of variables are presented in Table 69.

Table 67: Summary Statistics (TÁRKI surveys)

CEU eTD Collection

AF Appendix: Summary Statistics – ESS

	Survey year						
	2010	2012	2014	2016	2018	2020	2022
Fidesz supporter	35.25%	31.04%	23.71%	35.05%	30.64%	31.57%	45.48%
	(47.79)	(46.28)	(42.54)	(47.73)	(46.11)	(46.49)	(49.82)
Attitude*	41.60	44.13	40.24	34.75	39.37	40.75	43.57
	(20.92)	(21.17)	(20.18)	(21.67)	(20.14)	(19.98)	(18.08)
Female	53.36%	53.14%	53.13%	52.95%	52.87	62.94	53.36
	(49.90)	(49.91)	(49.92)	(49.93)	(49.93)	(48.31)	(49.91)
Primary education	53.73%	51.92%	53.55%	51.30%	48.05%	47.41%	50.99%
	(49.88)	(49.98)	(49.89)	(50.00)	(49.98)	(49.95)	(50.01)
Secondary education	32.27%	32.39%	29.74%	30.91%	33.11%	37.52%	31.33%
	(46.77)	(46.81)	(45.73)	(46.23)	(47.07)	(48.43)	(46.41)
Higher education	13.94%	15.40%	16.24%	17.48%	18.65%	14.51%	17.68%
	(34.65)	(36.11)	(36.89)	(37.99)	(38.96)	(35.23)	(38.17)
Age	46.39	46.65	47.72	48.05	48.64	50.55	48.45
	(18.68)	(18.57)	(18.91)	(18.82)	(19.03)	(18.64)	(17.58)
Married	47.05%	43.40%	46.34%	47.46%	44.38%	53.35%	54.18%
	(49.93)	(49.57)	(49.88)	(49.95)	(49.70)	(49.90)	(49.85)
Divorced	11.97%	13.20%	11.55%	9.50%	9.84%	9.12%	12.32%
	(32.47)	(33.86)	(31.97)	(29.33)	(29.79)	(28.80)	(32.88)
Widowed	11.22%	12.50%	12.39%	12.61%	12.72%	13.64%	13.99%
	(31.57)	(33.08)	(32.96)	(33.21)	(33.33)	(34.33)	(34.70)
Single	29.76%	30.91%	29.72%	30.43%	33.06%	23.90%	19.52%
	(45.73)	(46.22)	(45.71)	(46.03)	(47.06)	(42.66)	(39.65)
Student	9.07%	9.58%	8.42%	6.90%	8.11%	5.21%	3.00%
	(28.73)	(29.43)	(27.78)	(25.36)	(27.30)	(22.22)	(17.08)
Unemployed	6.92%	8.36%	4.36%	2.37%	2.44%	2.57%	2.44%
	(25.38)	(27.69)	(20.43)	(15.22)	(15.43)	(15.82)	(15.45)
Retired	30.48%	25.92%	26.59%	25.85%	25.55%	30.00%	24.96%
	(46.05)	(43.83)	(44.19)	(43.79)	(43.63)	(45.84)	(43.30)
Church attendance	17.25%	14.08%	14.78%	15.81%	16.34%	18.16%	14.58%
	(37.79)	(34.79)	(35.50)	(36.50)	(36.99)	(38.57)	(35.30)
Very religious	18.88%	14.14%	10.16%	12.94%	11.07%	14.78%	10.71%
	(39.15)	(34.85)	(30.22)	(33.57)	(31.38)	(35.50)	(30.94)

Notes: Data comes from ESS surveys (2010–2020) and TÁRKI Omnibusz survey (April 2022). Means are population weighted. Standard errors are in parentheses. Definition of variables are presented in Table 69. *Attitude variable is survey respondents' attitudes towards immigrants (on a 0-100 scale).

Table 68: Summary Statistics (ESS and TARKI surveys)

CEU eTD Collection

AG Appendix: Variable Definition

Variables	Description
Fidesz supporter	Dummy equal to 1 if supported Fidesz–KDNP allience
Female	Dummy equal to 1 if individual is female
Primary education	Dummy equal to 1 if highest level of education is elementary school (általános iskola)
Secondary education	Dummy equal to 1 if highest level of education is high school (gimnázium) or vocational training school (szakmunkásképzö iskola) secondary school with matriculation (szakközépiskola)
Higher education	Dummy equal to 1 if highest level of education is a Bachelor's, Mater's or Doctoral degree
Age	Age in years
Married	Dummy equal to 1 if married
Divorced	Dummy equal to 1 if divorced
Widowed	Dummy equal to 1 if widowed
Single	Dummy equal to 1 if single
Student	Dummy equal to 1 if student
Unemployed	Dummy equal to 1 if unemployed
Retired	Dummy equal to 1 if retired
Church attendance	Dummy equal to 1 if participating in religious services at least once a month
Very religious	Dummy equal to 1 if being religious and following the teaching of the Bible

Table 69: Variable Definition for Data from TÁRKI and ESS Survey Waves

CEU eTD Collection

AH Appendix: Analysis of Non-Response Rates – April and November 2022

It is important to think carefully about item non-response (that occurs when some measurements are present for a survey respondent, but at least one measure of interest is missing (Berinsky 2008)) and about the potential implications of these missing items on our results. Figure 26 shows the non-response rates to immigration questions in April and in November 2022, and it reveals that non-response rates to immigration questions decreased systematically from April to November.[182] For the questions on refugees from different source countries, non-response rate decreased to below 2% from the initial proportions of 3-7%.[183] Similarly, while non-response rate to immigrants' ethnicity question was around 4-5% in April, this proportion decreased to around 2% by November.[184]

Research has shown that *"do not know"* responses arise due to question wording, interviewer behavior, and respondent characteristics (Berinsky 2008). It would be, therefore, a mistake to interpret the *"do not know"* responses as an evidence for the lack of views or opinion.

To obtain an accurate picture of the public opinion, we should understand whether those who did not respond to any immigrants questions are systematically different from those who did and if so how this difference affects the conclusion we draw. Non-response bias might arise, for instance, if majority of the non-respondents in April were simply not comfortable expressing strong anti-immigrant attitudes during a then promoted "welcome culture" towards refugees. If this is true, then we systematically overestimate the magnitude of the change in anti-immigrant attitudes from April to November. In fact, Krosnick (2002) echoes this claim and writes that *"the vast majority of NO responses are not due to completely lacking an attitude and instead result from a decision not to reveal a potentially embarrassing attitude, ambivalence, or question ambiguity"* (p. 99). Similarly, Berinsky (2004) argues that some individuals are likely to hide their socially unacceptable opinions behind a *"do not know"* response.

Thus, to consider the meaning of the *"do not know"* responses in our surveys, we examine the answers that non-respondents give to other immigrant-related questions on

[182] We define non-response rate as the sum of the proportions of those respondents who have marked one of the following two options: "I do not know" or "Refuse to answer".

[183] Non-response rate for refugees from Ukraine, however, were remarkably small in both waves.

[184] The exception is ethnic Hungarians, where the non-response rate is only around 1% in both waves. From the non-response analysis, we omitted the questions about Piresians and Piresistani (with non-response rates between 23-30% in both waves.), as in these cases, *"do not know"* is the legitimate answer.

CEU eTD Collection

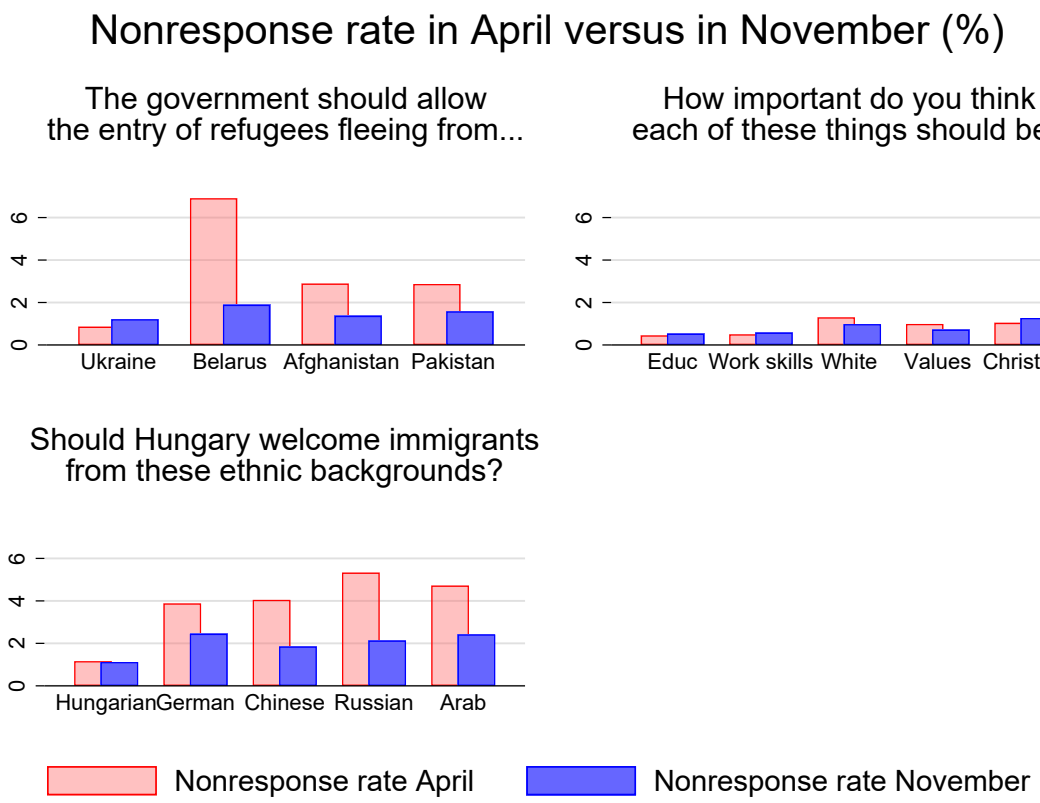

Figure 26: Non-Response Rate in April *versus* in November (%) to Three Types of Immigration Questions

the same survey. To do so, we created a group of non-respondents which consists of all respondents who failed to answer *at least one* of the eleven immigration questions.[185] We define this group as the *non-respondent group* that includes 130 respondents in April (out of 1,023), and 91 respondents in November (out of 1,000). The distribution of the number of questions that non-respondents failed to answer showed that both in April and November, most of the non-respondents did not answer at most 4 questions (out of 11). Thus, we have a good knowledge about the general immigrant attitudes of the non-respondents, which allows us to compare the mean of the available answers of the non-respondent group with the overall mean of responses. With the aid of a close examination of the comparisons, Figure 27 reveals that the opinion of non-respondents is not much different from the population average; if anything, non-respondents have a more favourable view of migrants and refugees, both in April and November. This provides some evidence that the

[185]Two questions on source countries, four questions on importance of values and five questions on immigrant's ethnicity.

CEU eTD Collection

decision to abstain from a survey question does not mean that the respondent is devoid of relevant predilections. From these results we conclude that the systematically decreasing proportion of non-respondents, from April to November, is unlikely to contribute to the worsening of the migrant-related sentiment of the Hungarian population in November.

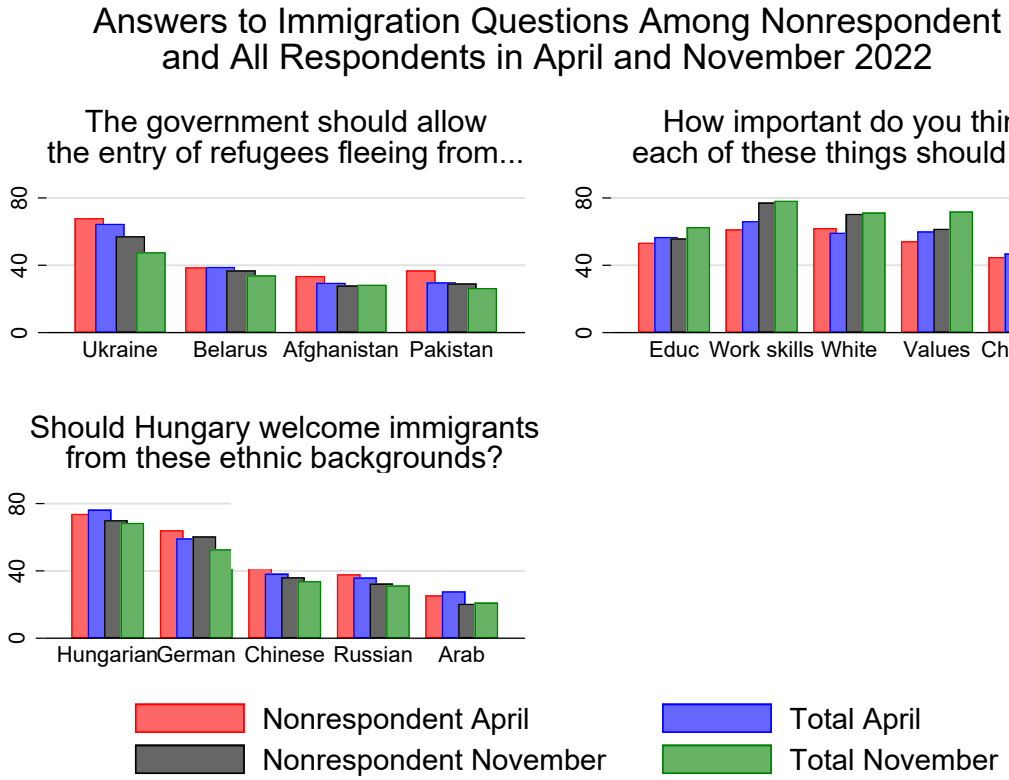

Figure 27: Public Opinion towards Immigrants among non-Respondents and Respondents in April *versus* in November 2022

CEU eTD Collection

AI Appendix: Experimental Approach I. – Refugees Fleeing from Different Countries

Questions in English	Questions in Hungarian
To what extent do you agree or disagree with the following statement? The Hungarian government should allow the entry of refugees fleeing *Afghanistan/Pakistan*	Ön milyen mértékben ért egyet a következő állítással? A magyar kormánynak be kellene engednie azokat a menekülteket, akik *Afganisztánból/Pakisztánból* menekülnek?
To what extent do you agree or disagree with the following statement? The Hungarian government should allow the entry of refugees fleeing *Ukraine/Belarus*	Ön milyen mértékben ért egyet a következő állítással? A magyar kormánynak be kellene engednie azokat a menekülteket, akik *Ukrajnából/Fehéroroszországból* menekülnek?

Table 70: Experimental Question Wording I.

CEU eTD Collection

	Afghanistan *versus* Pakistan			Ukraine *versus* Belarus		
	Afghanistan	Pakistan	t-stat.	Ukraine	Belarus	t-stat.
Fidesz supporter	46.24%	44.70%	0.42	42.14%	49.01%	-1.90
Opposition supporter	24.81%	23.12%	0.54	25.60%	22.26%	1.07
Primary education	51.48%	50.48%	0.27	50.03%	52.00%	-0.54
Secondary education	32.07%	30.57%	0.45	31.74%	30.90%	0.25
Higher education	16.45%	18.95%	-0.89	18.23%	17.10%	0.40
Female	53.72%	53.00%	0.19	52.60%	54.17%	-0.43
Age	48.42	48.49	-0.05	48.81	48.08	0.54
Married	50.20%	58.28%	-2.22	55.71%	52.56%	0.86
Divorced	14.26%	10.31%	1.80	11.85%	12.80%	-0.43
Widowed	15.02%	12.93%	0.91	13.64%	14.36%	-0.31
Single	20.52%	18.48%	0.63	18.80%	20.28%	-0.46
Roma	5.01%	3.26%	1.04	2.84%	5.53%	-1.58
Student	2.63%	3.39%	-0.55	2.64%	3.39%	-0.54
Unemployed	2.80%	2.08%	0.59	2.13%	2.78%	-0.53
Retired	24.29%	25.64%	-0.46	24.51%	25.43%	-0.32
Inactive	3.46%	3.93%	-0.34	3.16%	4.25%	-0.78
Self-employed	7.08%	5.98%	0.56	7.11%	5.93%	0.60

Table 71: Randomization – Options Afghanistan *versus* Pakistan and Ukraine *versus* Belarus

AJ Appendix: Experimental Approach II. – Culture

CEU eTD Collection

Questions in English	Questions in Hungarian
How important do you think each of these things should be in deciding whether someone born and living outside Hungary should be able to come and live here?	Ön mit gondol: a külföldön született és ott élő emberek befogadásakor az alábbi tényezők mennyire fontosak?
How important should it be for them to . . .	Mennyire fontos, hogy . . .
. . . have good educational qualifications?	. . . iskolázottak legyenek?
. . . be Christian?	. . . keresztények legyenek?
. . . be useful workforce that Hungary needs?	. . . az ország számára hasznos munkaerőt jelentsenek?
. . . come from a country with a similar cultural background *[one with white European heritage]/ [where they have the same values as Hungarians do]*	... hasonló kulturális hátterű országból érkezzenek, *[ami a fehér, európai kulturális örökség része?] [ahol a magyarokéhoz hasonló értékeket követnek?]*

Table 72: Experimental Question Wording II.

	with white European heritage	with the same values as Hungarians do	t-stat.
Fidesz supporter	44.86%	46.03%	-0.32
Opposition supporter	25.41%	22.70%	0.87
Primary education	50.28%	51.62%	-0.37
Secondary education	32.51%	30.29%	0.66
Higher education	17.22%	18.09%	-0.31
Female	57.01%	50.14%	1.86
Age	47.96	48.90	-0.70
Married	51.78%	56.30%	-1.24
Divorced	13.39%	11.36%	0.92
Widowed	14.45%	13.58%	0.38
Single	20.37%	18.76%	0.50
Roma	4.19%	4.11%	0.05
Student	2.63%	3.34%	-0.52
Unemployed	3.27%	1.71%	1.24
Retired	25.87%	24.14%	0.60
Inactive	4.47%	3.00%	1.04
Self-employed	7.79%	5.44%	1.19

Table 73: Randomization — Options "white European heritage" versus "the same values as Hungarians do"

CEU eTD Collection

AK Appendix: Experimental Approach III. – Ethnicity

Questions in English	Questions in Hungarian
Regardless of their country of origin, immigrants may come from many different ethnic backgrounds. Should Hungary welcome immigrants from these ethnic backgrounds, so long as they are entering the country legally and have no record of criminal activity?	Függetlenül attól, hogy melyik országból érkeznek, a bevándorlók különböző nemzetiségűek lehetnek. Ha ezek a bevándorlók büntetlen előéletűek és legális úton érkeznek az országba, akkor Ön szerint Magyarországnak be kellene-e fogadnia . . .
Hungarians beyond the borders	. . . a határon túli magyarokat?
Germans	. . . a németeket?
Arabs	. . . az arabokat?
Russians	. . . az oroszokat?
Chinese	. . . a kínaiakat?
Piresian	*. . . a pirézeket?*
Piresistani	*. . . a pirézisztániakat?*

Table 74: Experimental Question Wording III.

	Piresistani	Piresian	t-stat.
Fidesz supporter	43.53%	47.36%	-1.06
Opposition supporter	24.86%	23.12%	0.55
Primary education	52.07%	49.94%	0.58
Secondary education	29.70%	32.90%	-0.95
Higher education	18.22%	17.15%	0.38
Female	52.74%	53.97%	-0.33
Age	48.54	48.38	0.12
Married	55.54%	52.86%	0.74
Divorced	12.84%	11.81%	0.47
Widowed	12.99%	14.95%	-0.85
Single	18.62%	20.38%	-0.55
Roma	5.07%	3.26%	1.07
Student	3.15%	2.86%	0.21
Unemployed	2.80%	2.10%	0.57
Retired	25.02%	24.89%	0.04
Inactive	3.09%	4.27%	-0.85
Self-employed	6.51%	6.56%	-0.03

Table 75: Randomization – Options "Piresistani" *versus* "Piresian"

CEU eTD Collection

AL Appendix: Trends in Hungarian Public Opinion Over Time Using ESS Data

Figure 28 shows the changing tendency in respondents' migration attitude over time that are broken down by respondents' party affiliations. While survey respondents were almost neutral towards immigrants in the 2010 and 2012 waves with an average score of 43, we see a sharp uptake in anti-immigrant sentiment after the first refugee crisis, as the average score declines to 35 in 2016. This is followed by a gradual increase in support for immigrants showing that Hungarians became more welcoming towards immigrants following Russia's invasion of Ukraine. This trend is driven by Fidesz voters. Whereas Fidesz supporters were more hostile towards immigrants than non-Fidesz voters in 2016, by April 2022, Fidesz voters were just as welcoming towards foreigners as the opposition. In line with the previous findings on TARKI data, we also see some increase in anti-immigrant attitudes by November suggesting that pro-immigrant attitudes cool down by time.

To investigate the changing attitude of Hungarian voters towards migrants over time, we merged our two survey waves from 2022 with six ESS rounds (between 2010-2020) and produced a pooled cross-section dataset. We estimate a regression model—similar to the one in Equation (18)—with survey respondents' attitude towards immigrants as the dependent variable, but now using previous rounds of ESS data merged with our two waves from 2022. We estimate the following equation:

$$y_i = \alpha + \beta_1 Fidesz_i + \sum_{t=2}^{8} \beta_t Fidesz_i \times Round\_t_i + \sum_{t=2}^{8} \gamma_t Round\_t_i + X_i'\delta + \epsilon_i, \qquad (35)$$

where y_i is a scale variable capturing respondent i's opinion on whether Hungary is a worse or better place by people coming to live in Hungary from other countries.[186] We include an interaction term between Fidesz voters dummy and the round dummies to allow the effect of partisanship on migration attitudes to differ over time, while we also allow round dummies to capture any time-specific shocks to public opinion.

Column 3 in Table 76—similar to the descriptive evidence on Figure 28—shows that Fidesz voters had similar attitudes towards immigrants than non-Fidesz voters in 2010-2014, while they were particularly opposed to admitting refugees to Hungary between

[186]The running index t is referring to the ESS rounds: t=1 for the round in 2010, t=2 for the round in 2012, ..., and t=7 for our November survey in 2022. The round in 2010 is the omitted category.

CEU eTD Collection

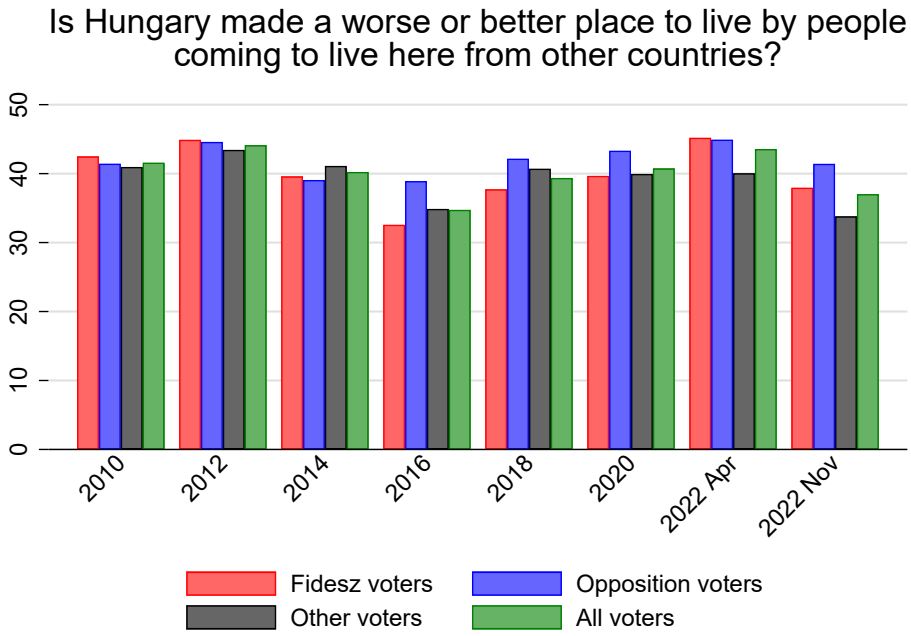

Figure 28: Changing Tendency in Respondents' Attitudes Towards Immigrants over Time and by Party (2010–2022)

2016 and 2020. By 2022, however, they again turn to be just as welcoming (if not even more welcoming) than non-Fidesz voters. We again find that the level of education and religious service attendance is strongly correlated with respondents' attitudes towards immigrants: being more educated and attending religious services more frequently both make respondents more welcoming towards immigrants.

CEU eTD Collection

	Worse/better place		Worse/better place	
Fidesz	-0.53	(-1.23)	..	..
Fidesz × (Round 2010)	..	..	1.00	(0.85)
Fidesz × (Round 2012)	..	..	1.05	(0.98)
Fidesz × (Round 2014)	..	..	-1.39	(-1.15)
Fidesz × (Round 2016)	..	..	-2.88**	(-2.32)
Fidesz × (Round 2018)	..	..	-2.63**	(-2.31)
Fidesz × (Round 2020)	..	..	-1.64	(-1.57)
Fidesz × (Round 2022A)	..	..	2.15	(1.57)
Fidesz × (Round 2022N)	..	..	1.18	(0.80)
Round 2012	2.85***	(3.76)	2.88***	(3.04)
Round 2014	-1.48*	(-1.87)	-0.75	(-0.78)
Round 2016	-7.10***	(-8.57)	-5.73***	(-5.47)
Round 2018	-2.77***	(-3.48)	-1.57	(-1.58)
Round 2020	-1.00	(-1.33)	-0.12	(-0.13)
Round 2022A	1.96**	(2.16)	1.23	(1.00)
Round 2022N	-4.66***	(-4.92)	-4.78***	(-3.91)
Freq serv part	4.20***	(6.75)	4.12***	(6.63)
Occ serv part	3.34***	(7.45)	3.31***	(7.38)
Secondary school	4.05***	(8.80)	4.02***	(8.74)
College / University	7.89***	(13.37)	7.87***	(13.34)
Individual controls	Yes		Yes	
Constant	41.00***	(16.14)	40.58***	(15.70)
N	11417		11417	

Robust t statistics in parentheses.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 76: Pooled OLS Estimation Results

CEU eTD Collection

AM Appendix: Distribution of Responses on the Importance of Refugees' Civilizational Characteristics

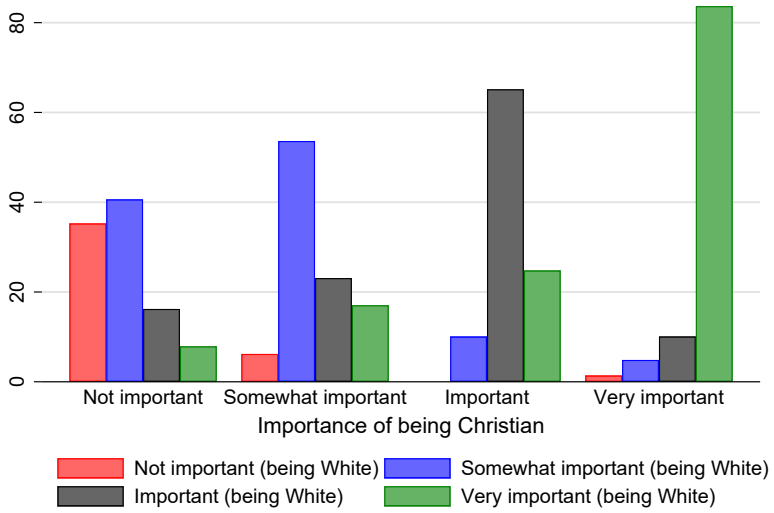

Figure 29: Distribution of Survey Responses on the Importance of Refugees Being White across the Importance of being Christian

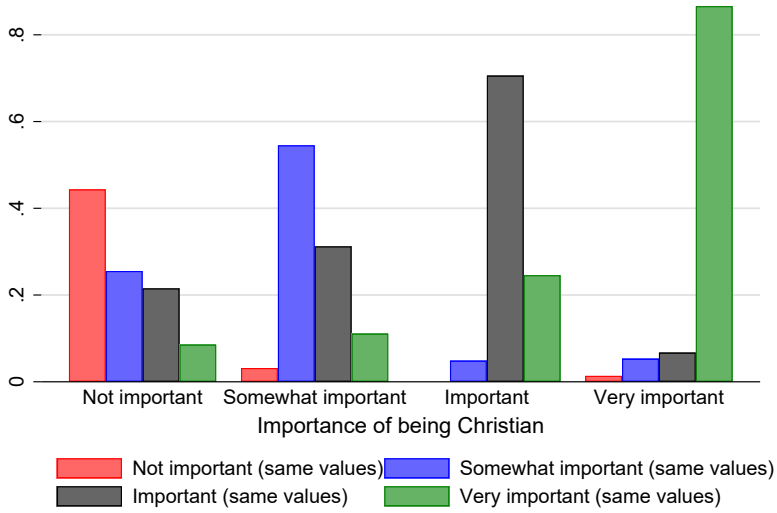

Figure 30: Distribution of Survey Responses on the Importance of Refugees Having the Same Values across the Importance of being Christian

CEU eTD Collection

AN Appendix: Regression Results – Public Opinion towards Refugees by Source Country, 2022

We model the relationships among respondents' socio-demographic characteristics, partisanship, religious identity and attitudes towards migrants using the following equation:

$$allow_i = \alpha + \beta Fidesz_i + \gamma relig_i + X_i'\delta + \epsilon_i, \tag{36}$$

where $allow_i$ is respondent i's opinion on whether Hungary should allow the entry of refugees on a 0-100 scale, $Fidesz_i$ is a dummy variable for being a Fidesz voter, $relig_i$ is the religiosity indicator, and the vector X_i' contains socio-demographic characteristics such as age, education, settlement type, marital status, type of activity. We measure religiosity with three different indicators: self-declared degree of religiosity, frequency of participation in religious services, and self-declared religious denomination.

Table 77 reveals that Fidesz voters (relative to non-Fidesz voters) are more open – by 3.1-4.5 points on a 100-point scale – for refugees fleeing from Ukraine, while Fidesz voters' attitude towards refugees from the other three source countries are always negative (although insignificant). This result implies that in 2022, Fidesz voters were more welcoming towards Ukrainian refugees only. Another important finding is that religious voters tend to support refugees from Ukraine, but oppose refugees from Afghanistan or Pakistan, and this pattern is robust to different measurements of religiosity.

CEU eTD Collection

	Source country							
	Ukraine		Belarus		Afghanistan		Pakistan	
Panel A: Socio-demographic controls								
Fidesz	4.4*	(1.75)	-1.5	(-0.48)	-3.1	(-1.02)	-1.7	(-0.65)
Panel B: Degree of religiosity included								
Fidesz	3.1	(1.25)	-1.5	(-0.49)	-2.5	(-0.82)	-1.5	(-0.54)
Very relig	6.9	(1.54)	1.4	(0.23)	-4.5	(-0.75)	-4.1	(-0.86)
Somewhat relig	11.5***	(3.64)	-0.8	(-0.20)	-0.6	(-0.17)	2.1	(0.72)
Panel C: Religious service participation included								
Fidesz	4.5*	(1.79)	-0.8	(-0.24)	-1.9	(-0.64)	-0.1	(-0.04)
Freq serv part	1.2	(0.29)	-3.4	(-0.66)	-6.9	(-1.42)	-9.1**	(-2.30)
Occ serv part	7.5***	(2.66)	-1.3	(-0.32)	2.4	(0.73)	-0.8	(-0.27)
Panel D: Religious denomination included								
Fidesz	4.0	(1.55)	-2.3	(-0.73)	-3.0	(-1.01)	-2.7	(-1.02)
Catholic	6.5*	(1.74)	4.9	(1.00)	-9.9**	(-2.24)	6.1*	(1.77)
Protestant	-0.1	(-0.02)	-2.3	(-0.44)	-14.9***	(-3.37)	0.9	(0.27)

Notes: The table shows relative support of Fidesz voters and various religious groups for allowing in refugees fleeing from four source countries. Panel A shows the estimated coefficients with socio-demographic control variables only. Panels B-D present estimates whith religiosity included. The coefficients of Fidesz voters represent extra support, relative to non-Fidesz voters, on a 0-100 scale. The coefficients of various religious groups show extra support, relative to non-religious voters, on a 0-100 scale. Robust t statistics are reported in parentheses. *, ** and *** denote significance at 10%, 5% and 1% level, respectively. Graphical representation of the estimated Fidesz parameters are in Figure 14.

Table 77: OLS Estimation Results for Different Source Countries, April 2022

CEU eTD Collection

AO Appendix: Regression Results – The Importance of Immigrants' Civilizational Characteristics and Various Skills, 2022

We now estimate the effect of partisanship and other individual-level characteristics on the importance of various skills and civilizational characteristics. For the five skills and characteristics, we estimate – for each of the five characteristics separately – the following equation:

$$importance_i = \alpha + \beta Fidesz_i + \gamma relig_i + \delta X_i + \epsilon_i, \tag{37}$$

where $importance_i$ is respondent i's opinion about the importance of the given characteristic on a 0-100 scale, and all other explanatory variables are the same as in the previous specification.

Table 78 contains the results. Among Fidesz voters, being Christian is much more important determinant of support for accepting immigrants than for non-Fidesz voters, even if we control for individual-level religiosity: our estimates indicate that their subjective importance is 11-14 points higher, on a 100-point scale, than for non-Fidesz voters. Fidesz voters find almost equally important that immigrants should come from a country with white European heritage or should have same values as Hungarians do: their average score of importance for these characteristics is 7-11 points larger than of non-Fidesz voters, and is highly statistically significant in all specifications. On the other hand, Fidesz voters' evaluation of the importance that migrants should be well-educated and have the necessary work skills is similar to the evaluation of the rest of the society. We interpret these results as further evidence that civilizational characteristics of the refugees shape Fidesz voters' opinion about refugees in 2022.

CEU eTD Collection

	Skills				Civilizational characteristics					
	Education		Work skills		White		Same values		Christian	
Panel A: Socio-demographic controls only										
Fidesz	3.6*	(1.78)	0.6	(0.28)	9.6***	(2.83)	8.3***	(2.64)	14.4***	(5.96)
Panel B: Degree of religiosity included										
Fidesz	4.0*	(1.86)	-0.3	(-0.12)	9.6***	(2.64)	7.5**	(2.24)	11.6***	(4.68)
Very relig	-1.9	(-0.50)	7.9**	(2.02)	0.3	(0.05)	2.7	(0.50)	18.1***	(4.62)
Somewhat	-3.3	(-1.35)	-3.5	(-1.35)	3.2	(0.78)	4.8	(1.32)	11.1***	(3.94)
Panel C: Religious service participation included										
Fidesz	3.2	(1.47)	0.6	(0.26)	8.8**	(2.41)	7.1**	(2.19)	11.2***	(4.52)
Freq serv	2.9	(0.84)	0.1	(0.04)	4.5	(0.81)	7.3	(1.59)	19.0***	(5.20)
Occ serv	-4.7*	(-1.93)	-5.7**	(-2.35)	-1.0	(-0.23)	-3.5	(-1.05)	5.5**	(2.04)
Panel D: Religious denomination included										
Fidesz	4.2**	(1.98)	1.2	(0.57)	10.7***	(3.11)	8.1**	(2.48)	13.2***	(5.29)
Catholic	-4.9*	(-1.78)	-5.7*	(-1.94)	-6.9	(-1.55)	-1.3	(-0.28)	8.9***	(2.73)
Protestant	-3.9	(-1.23)	-6.7**	(-2.10)	-4.6	(-0.86)	-0.7	(-0.15)	9.5***	(2.63)

Notes: The table shows relative support of Fidesz voters and various religious groups for people arriving to have different skills and civilizational characteristics: have education, work skills, same values, come from a country with white European heritage or be Christian. The columns show the estimates for the different skills or characteristics. Panel A shows the estimated coefficients when only sociodemographic control variables are included. Panels B-D present estimates when explanatory variables on religiosity are additionally included. The coefficients of Fidesz voters represent extra support, relative to non-Fidesz voters, on a 0-100 scale. The coefficients of various religious groups show extra support, relative to non-religious voters, on a 0-100 scale. Robust t statistics are reported in parentheses. *, ** and *** denote significance at 10%, 5% and 1% level, respectively.

Table 78: OLS Estimation Results for the Importance of Different Skills and Characteristics, April 2022

CEU eTD Collection

AP Appendix: Regression Results – The Importance of Immigrants' Ethnicity, 2022

This part of our empirical analysis examines whether immigrants' ethnic background determines Hungarians' attitude. We estimated multivariate regressions—separately for each ethnicity—with the following specification:

$$ethnicity_i = \alpha + \beta Fidesz_i + \gamma relig_i + \delta X_i + \epsilon_i, \tag{38}$$

where $ethnicity_i$ is respondent i's opinion about welcoming a migrant of a specific ethnicity on a 0-100 scale, and all explanatory variables are the same as in the previous specifications.

CEU eTD Collection

	Ethnicity													
	Hungarian		German		Russian		Chinese		Arab		Piresian		Piresistani	
Panel A: Socio-demographic controls only														
Fidesz	6.0***	(3.63)	1.1	(0.47)	3.8*	(1.69)	0.5	(0.21)	-5.4**	(-2.49)	1.0	(0.31)	-3.5	(-1.00)
Panel B: Degree of religiosity included														
Fidesz	5.0***	(2.95)	1.9	(0.82)	4.7**	(2.04)	0.9	(0.37)	-4.1*	(-1.88)	2.2	(0.72)	-3.9	(-1.07)
Veryrel	6.4*	(1.91)	-6.8	(-1.63)	-7.6*	(-1.86)	-5.2	(-1.31)	-9.4***	(-2.64)	-8.7*	(-1.68)	2.5	(0.41)
Somewhat	3.9*	(1.85)	-1.1	(-0.43)	-0.3	(-0.12)	2.1	(0.71)	-2.3	(-0.89)	-4.2	(-1.12)	6.0*	(1.70)
Panel C: Religious service participation included														
Fidesz	5.2***	(3.07)	1.9	(0.81)	4.6*	(1.94)	1.6	(0.63)	-4.3*	(-1.87)	1.8	(0.56)	-3.9	(-1.04)
Freqserv	4.4	(1.61)	-5.6	(-1.58)	-4.3	(-1.25)	-6.4*	(-1.85)	-6.7**	(-2.15)	-4.6	(-1.04)	3.3	(0.60)
Occserv	3.4*	(1.79)	-0.1	(-0.06)	-2.0	(-0.83)	-1.4	(-0.54)	-2.8	(-1.24)	-3.3	(-0.95)	4.8	(1.45)
Panel D: Religious denomination included														
Fidesz	5.7***	(3.40)	1.3	(0.55)	2.2	(0.96)	-0.7	(-0.28)	-5.3**	(-2.39)	0.3	(0.09)	-4.2	(-1.20)
Catholic	4.5**	(2.04)	1.7	(0.57)	10.3***	(3.32)	7.9**	(2.40)	-0.2	(-0.05)	3.9	(0.86)	6.9	(1.52)
Prot	-1.7	(-0.63)	-4.0	(-1.13)	-3.1	(-0.96)	-6.5*	(-1.85)	-8.3***	(-2.68)	-7.0	(-1.61)	6.0	(1.29)

Notes: The table shows relative support of Fidesz voters and various religious groups for immigrants with different ethnicities: Hungarians, Germans, Russians, Chinese, Arabic, Piresians and Piresistani. Panel A shows the estimated coefficients with sociodemographic control variables. Panels B-D present show estimated results with variables on religiosity included. The coefficients of Fidesz voters represent extra support, relative to non-Fidesz voters, on a 0-100 scale. The coefficients of various religious groups show extra support, relative to non-religious voters, on a 0-100 scale. Robust t statistics are reported in parentheses. *,** and *** denote significance at 10%, 5% and 1% level, respectively.

Table 79: OLS Estimation Results for the Relative Support for Different Ethnicities, April 2022

CEU eTD Collection

Table 79 provides additional evidence that Fidesz voters are especially welcoming ethnic Hungarian immigrants, while the estimated parameters of the Fidesz voters are insignificant for German, Chinese and Piresian immigrants, and negative for Arabs and Piresistani (albeit insignificant in the latter case, probably due to the smaller sample size). This is another piece of evidence that the opinions of Fidesz voters—whose opinion influences the overall sentiment of Hungarians towards refugees to a large degree—are particularly sensitive to the civilizational characteristics of immigrants.

CEU eTD Collection

AQ Appendix: Cohort Analysis of the Attitudes I.

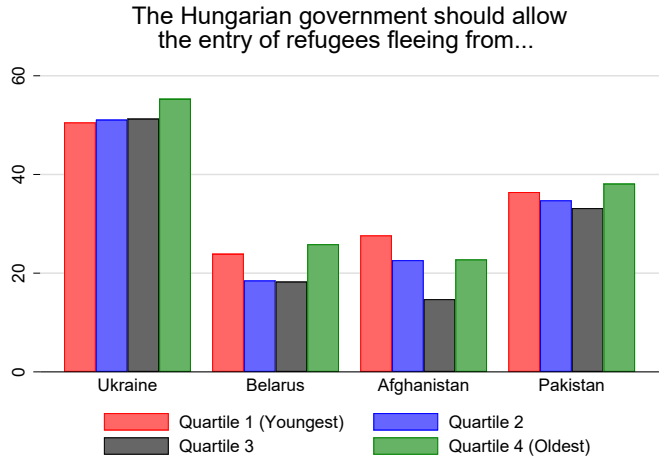

Figure 31: Public Opinion towards Refugees by Source Country and by Age Quartiles, 2022

Note: The figure visualizes the magnitude of the estimated parameters for the effect of age cohort on attitudes towards refugees. Control variables are included (as in App. AG) and results are weighted.

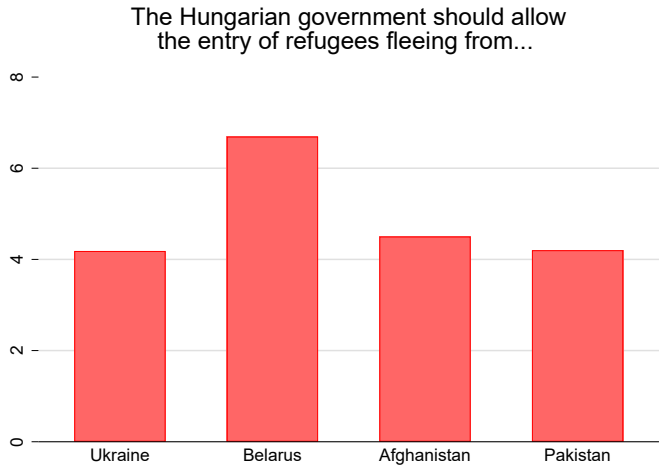

Figure 32: The Extra Score by the Oldest Age Quartile (63+ years) – Public Opinion towards Refugees by Source Country, 2022

Note: The figure visualizes the magnitude of the estimated parameters for the effect of age cohort on attitudes towards refugees. Control variables are included (as in App. AG) and results are weighted.

CEU eTD Collection

AR Appendix: Cohort Analysis of the Attitudes II.

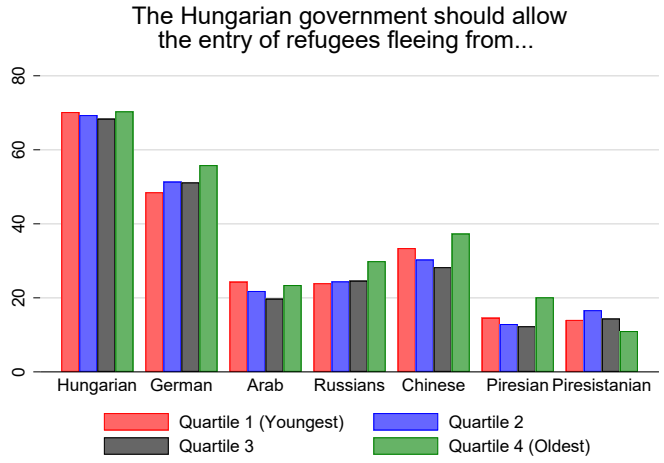

Figure 33: Public Opinion towards Refugees with Different Ethnic Background by Age Quartiles, 2022

Note: The figure visualizes the magnitude of the estimated parameters for the effect of age cohort on attitudes towards refugees. Control variables are included (as in App. AG) and results are weighted.

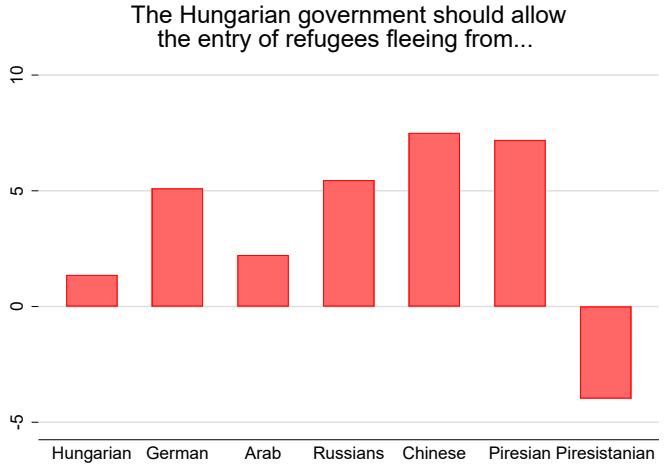

Figure 34: The Extra Score by the Oldest Age Quartile (63+ years) – Public Opinion towards Refugees with Different Ethnic Background, 2022

Note: The figure visualizes the magnitude of the estimated parameters for the effect of age cohort on attitudes towards refugees. Control variables are included (as in App. AG) and results are weighted.

CEU eTD Collection

AS Appendix: Opposition to Refugees by Party with the Far-Right Jobbik in the "Other" Category

In Figure 35, we chart the proportion of voters who are opposed to admitting all refugees to Hungary by their partisanship, however, this time, Jobbik voters are in the "other" category before the 2022 survey.

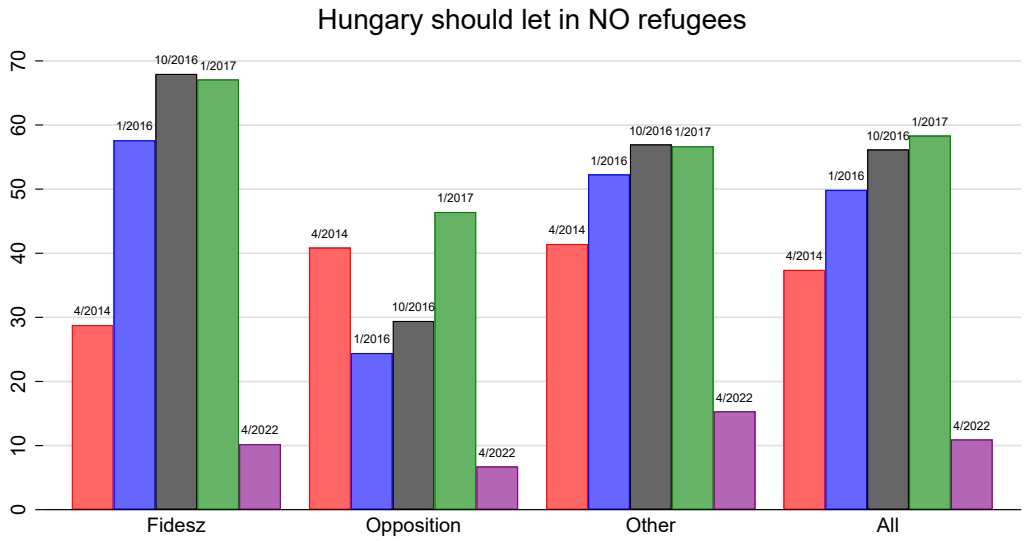

Figure 35: Opposition to Refugees by Party with Jobbik in the Other Category before 2022

CEU eTD Collection

AT Appendix: Number of Survey Respondents in April and in November 2022

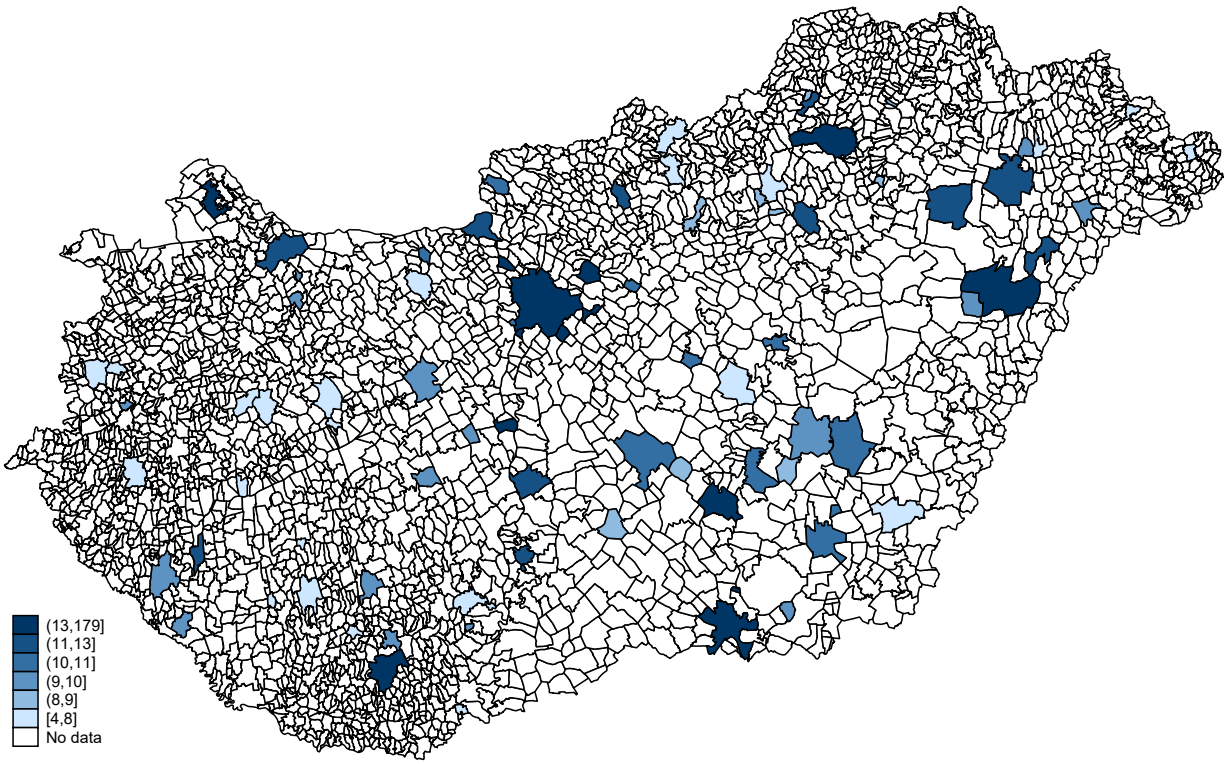

Figure 36: Number of Survey Respondents across Hungarian Settlements in April 2022

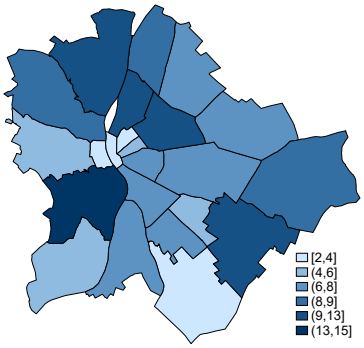

Figure 37: Number of Survey Respondents across Districts in Budapest in April 2022

CEU eTD Collection

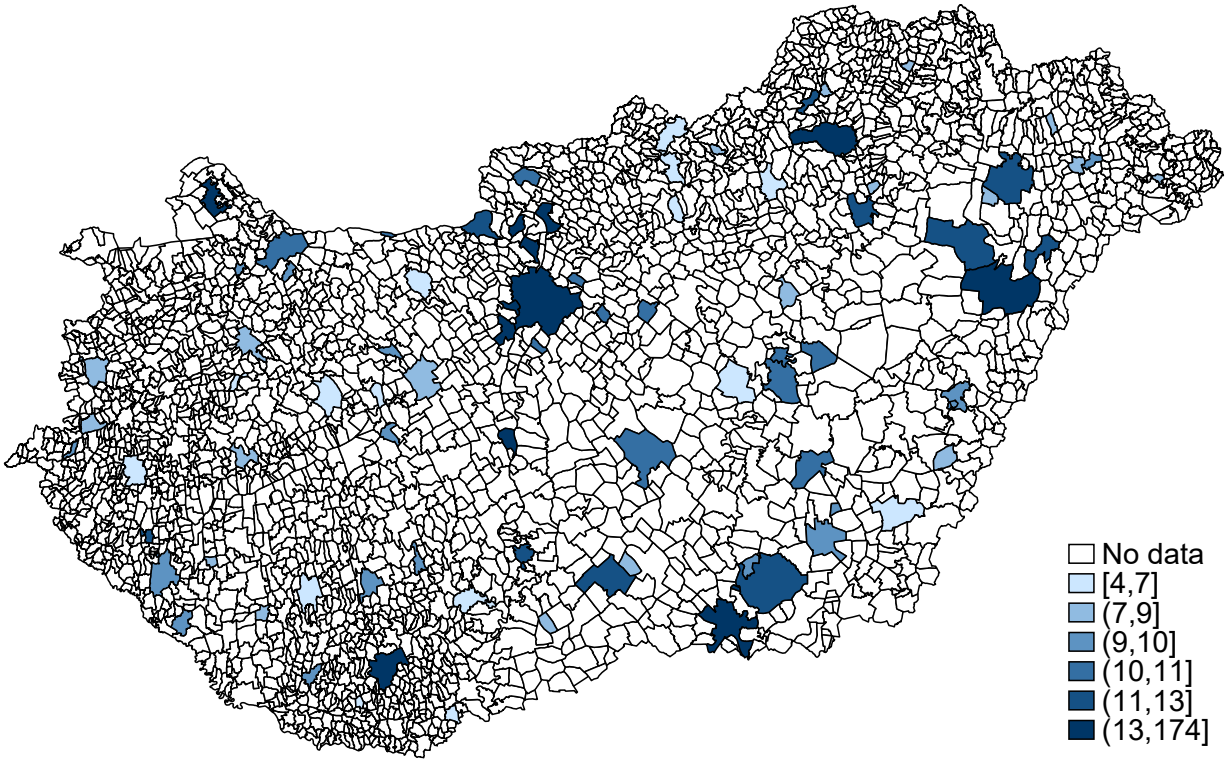

Figure 38: Number of Survey Respondents across Hungarian Settlements in November 2022

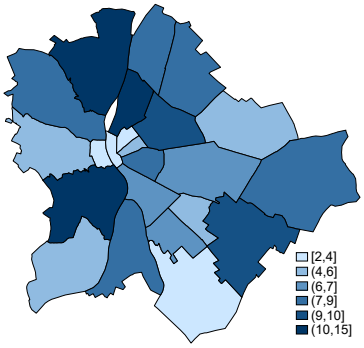

Figure 39: Number of Survey Respondents across Districts in Budapest in November 2022

CEU eTD Collection

AU Appendix: Summary Statistics and Variable Definitions – Settlement Level Characteristics

	Mean	Median	Standard Deviation	Observation
Share of Christian Population	0.538	0.506	0.146	1023
Share of Catholic Population	0.407	0.374	0.161	1023
Share of Protestant Population	0.131	0.103	0.111	1023
Share of Foreigners	0.003	0.002	0.004	1023
Share of Roma	0.032	0.013	0.045	1023
Gross Income per Capita (in million HUF)	1.679	1.690	0.425	1023
Net Income per Capita (in million HUF)	1.432	1.461	0.346	1023
Share of Public Workers	0.013	0.004	0.023	1023
Share of Unemployed	0.038	0.029	0.028	1023
Share of Long-term Unemployed	0.014	0.011	0.013	1023

Notes: Data comes from TEIR dataset. Means are population weighted.

Table 80: Summary Statistics (Settlement-Level Data)

Definition and source of the variables used at settlement-level:

Religion (source: 2011 Microcensus)

1. Share of Christian population
    - (No of Catholic + Orthodox + Protestant + Evangelist)/Population 2011
2. Share of Catholic population
3. Share of Protestant population

Ethnicity (source: 2011 Microcensus)

1. Share of Roma people
2. Share of foreigners
    - (No of Arab + Chinese + Russian + Ukrainian + Vietnamese)/ Population 2011

Income (source: 2020 Teir)

CEU eTD Collection

1. Gross per capita income (in million HUF) [187]

    - Total personal income tax base in a given settlement in 2020 to population in 2020

2. Net per capita income (in million HUF)

    - Income after taxation in a given settlement in 2020 to population in 2020.

Unemplyoment (source: 2022 Teir)

1. Share of unemployed in April 2022 (monthly, settlement-level data)

    - Number of individuals registered as unemployed to the size of the working age population (the number of permanent residents between the ages of 18 and 59)

2. Share of long-term unemployed in April 2022 (monthly, settlement-level data) – Unemployed for at least 180 days

    - Number of individuals registered as unemployed for at least 180 days to the size of the working age population (the number of permanent residents between the ages of 18 and 59)

Public workers (source: 2022 Teir)

1. Share of public workers in April 2022 (monthly, settlement-level data)

    - Number of public workers to the size of the working-age population (the number of permanent residents between the ages of 18 and 59)

Distance to the Borders

1. Distance from the Ukrainian border (from the main border-crossing from Ukraine, from Beregsurány) in kilometre

2. Distance from the Ukrainian border (from the main border-crossing from Ukraine, from Beregsurány) in minutes

[187] This is a gross measure and it shows well the economic activity in a settlement. The net per capita income measure, on the other hand, shows the disposable income in a settlement. The net measure, nonetheless, might be endogenous. For example, as a result of Fidesz family support scheme, families enjoy large reduction in their personal income tax rate.

CEU eTD Collection

3. Distance from the Serbian border (from the main border-crossing from Serbia, from Röszke) in kilometre

4. Distance from the Serbian border (from the main border-crossing from Serbia, from Röszke) in minutes

AV Appendix: Contextual Factors and Refugee Support

We calculate a simple variance decomposition using the following specification

$$\begin{aligned} y_{ij} &= \alpha_j + \varepsilon_{ij} \\ \alpha_j &= \alpha_{00} + \alpha_{0j} \end{aligned} \tag{39}$$

where i indexes individuals, j indexes settlements, y_{ij} is the attitudes toward immigration (on a 0-100 scale), α_{00} is the average level of support, α_{0j} is the settlement-level random error term with a variance of σ^2_α that is the between-settlement variation, and ε_{ij} is the random error term at the individual level with a variance of σ^2_ε indicating the within-settlement variation.

As a final analysis, we investigate whether the effect of primarily residential exposure to religious majority is larger for religious individuals using an extended specification:

$$\begin{aligned} y_{ij} &= \alpha_j + X'_{ij}\beta + \gamma_j relig_{ij} + \varepsilon_{ij} \\ \alpha_j &= \alpha_{00} + Z'_j\alpha_{01} + Christ\_sh_j\alpha_{02} + \alpha_{0j} \\ \gamma_j &= \gamma_{00} + \gamma_1 Christ\_sh_j + \delta_{0j} \end{aligned} \tag{40}$$

This specification allows the effect of individual religiosity on attitudes towards immigrants to vary across religious settlements.[188] Tables 81 and 82 report the results.

[188]Following from this specification, the effect of settlement-level share of Christian population is $\alpha_{02} + \gamma_1 relig_{ij}$, which means that it will be different for religious and non-religious respondents.

CEU eTD Collection

	Fleeing conflict in...			
	Ukraine	Belarus	Afghanistan	Pakistan
Effect of settlement-level share of Christians				
Average effect	-23.46	-40.04**	-28.77*	-38.97**
... effect among non-religious	-39.56	-22.69	-4.30	-50.22***
... effect among religious	-10.85	-55.34**	-44.06**	-30.81*
Significance of difference	-	*	**	-
... effect among non-Fidesz voters	-26.80	-23.16	-14.81	-40.22**
... effect among Fidesz voters	-20.19	-63.43***	-51.06***	-34.56*
Significance of difference	-	**	**	-

Table 81: MLM Estimation of Support for Different Source Countries, with Heterogeneous Effects of the Settlement-Level Share of Christian Population

CEU eTD Collection

	Ethnicity of refugees						
	Hungarian	German	Arabic	Russian	Chinese	Piresian	Piresistani
Effect of settlement-level share of Christians							
Average effect	-12.04	-29.15*	-24.85	-57.29***	-38.53**	-61.48***	-20.00
... among non-religious	-10.63	-19.44	-4.00	-45.14**	-34.89	-57.61**	-13.16
... among religious	-13.10	-37.96**	-37.45**	-66.10***	-46.43**	-61.49***	-24.46
Significance of difference	-	-	**	-	-	-	-
... among non-Fidesz	-8.83	-19.81	-26.24	-44.48**	-34.67*	-61.67**	-25.80
... among Fidesz	-17.21	-36.15**	-35.10**	-75.64***	-49.58**	-69.01***	-4.41
Significance of difference	-	-	*	-	-	-	-

Table 82: MLM Estimation of Support for Different Ethnicities, with Heterogeneous Effects of the Settlement-Level Share of Christian Population

CEU eTD Collection

We find that the settlement-level Christian population share explains anti-refugee (Table 81) and anti-immigrant (Table 82) attitudes primarily among religious voters and among Fidesz supporters. Taking into account the regional context of Hungarian public opinion thus reveals the nuanced relationships between individual and contextual factors in shaping public opinion towards refugees.

AW Appendix: Replicating Earlier Results using Data from November 2022

AW.1 Public Opinion towards Refugees by Party, November 2022

Similar to Figure 10, we break down respondents' view about refugees by partisanship in November 2022. Figure 40 suggests that supporters of all parties turned to a more anti-immigrant direction: while 10.25% of Fidesz supporters opposed admitting refugees in April, this ratio increased to 28.14% by November 2022. The trend is the same among supporters of other parties; while 8.43% of the opposition voters in April opposed admitting refugees, this ration was 18.67% in November. Figure 41 clearly shows that both Fidesz supporters and Opposition supporters turned against refugees by November and this trend was not driven by the supporter of one particular party.

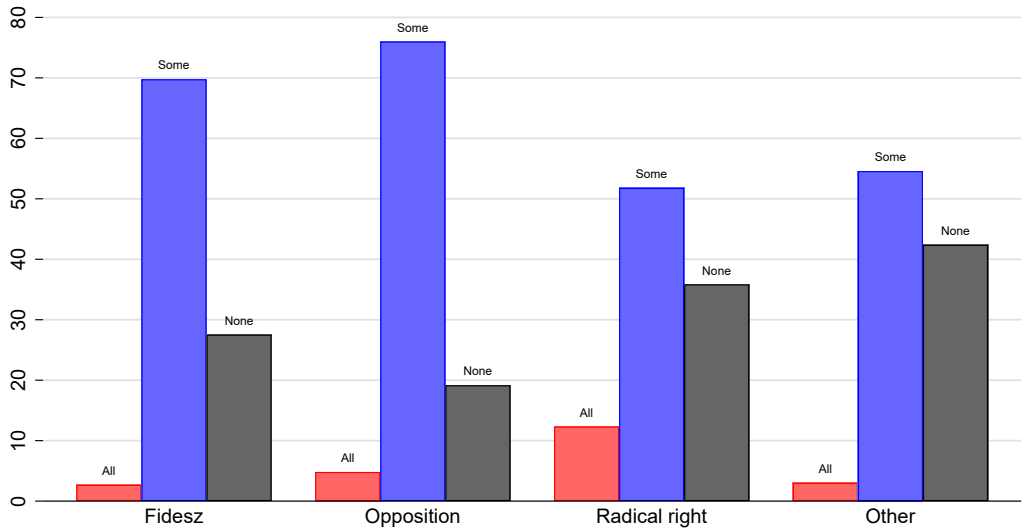

Figure 40: Public Opinion towards Refugees by Party, November 2022

CEU eTD Collection

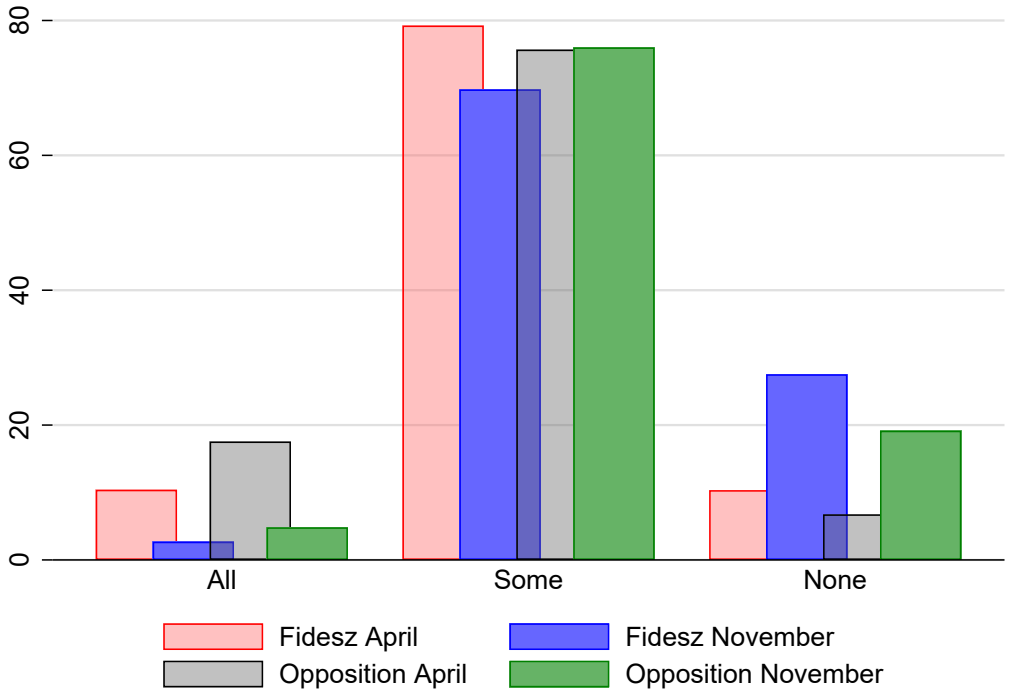

Figure 41: Public Opinion towards Refugees by Party, in April versus in November 2022

AW.2 Civilizational Factors and Refugee Preferences: Experimental Evidence from November 2022

Following our practice in Section 5.5.1, we repeated our experimental design from April 2022 and embedded two experiments in the November wave that asked respondents about their receptivity to refugees fleeing conflict from a particular country. We asked this question twice and first randomized the options of *Ukraine* vs *Belarus*; and then the options of *Afghanistan* vs *Pakistan*. In Figure 42, we show the distribution of responses across the four categories. The distribution of responses clearly indicate that the Hungarian mass public is more receptive to white, European refugees. However, while Hungarians are still more welcoming refugees from European countries and they are still leaning towards Ukrainians, their support for Ukrainians is somewhat weaker in November than it was in April.

Using our November survey, we re-estimate Equation (19). Following the specifications and the difference in differences design outlined in Section 5.5.1, Table 83 presents the main results using data data from November. The results are very similar to our April

CEU eTD Collection

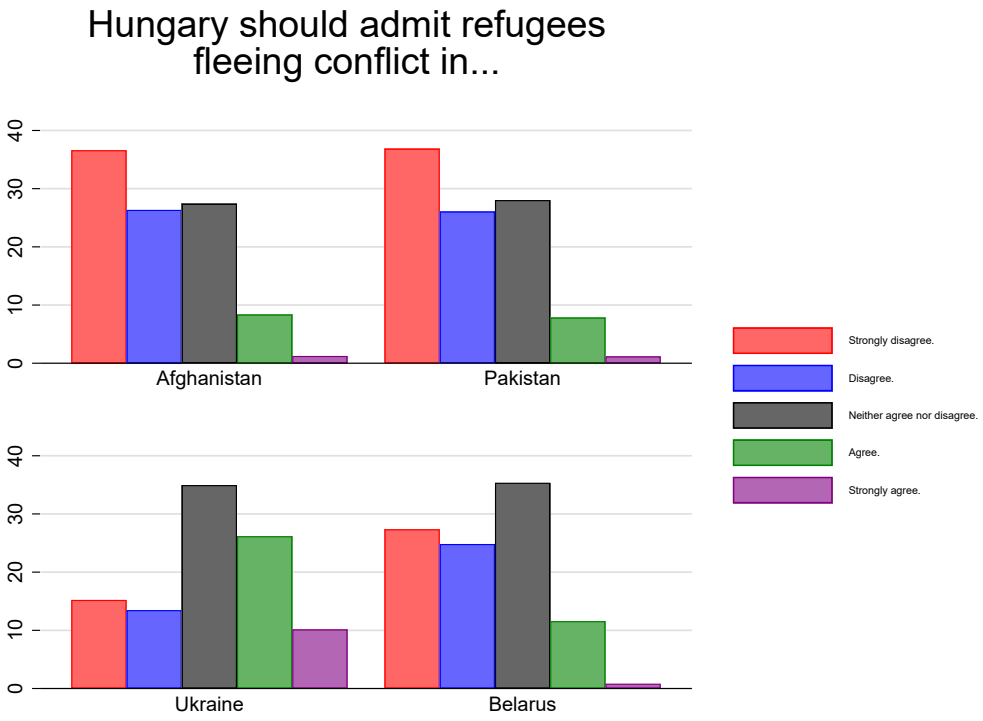

Figure 42: Public Opinion towards Refugees by Source Country, November 2022

CEU eTD Collection

survey (in Table 31), the positive and statistically significant coefficient on *Europe* × *Conflict* provides evidence that respondents were far more likely to agree to welcome immigrants from Ukraine relative to migrants from any other country. The positive and statistically significant coefficient on *Europe* signifies the importance of civilizational factors in explaining support for refugees, showing that respondents were more supportive of refugees from a non-conflict country in Europe (Belarus) than from a non-conflict country outside of Europe (Pakistan).

	OLS		Logit	
Europe	0.160**	(2.37)	0.688**	(2.51)
Conflict	-0.063	(-0.68)	-0.601	(-1.47)
Europe × Conflict	0.816 ***	(6.51)	3.108***	(4.59)
Constant	2.141***	(42.49)		
N	1975		594	

Cluster-robust *t* and *z* statistics in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$
Both OLS and Logit models include respondent fixed effects.

Table 83: Difference-in-Differences Results, November 2022

To better convey how the magnitude of these relationships changed from April to November, Figure 43 plots the predicted level of support in April (on the left) and in November (on the right). This figure clearly shows a decline in the pro-immigrant attitudes from April to November and provides evidence that the reception of immigrants in the midst of the crisis is generally very warm at first, but it somewhat cools off by time. Nonetheless, it is also clear that respondents were still far more likely to agree to welcome migrants from Ukraine relative to migrants from any other country and that they are still in favor of white Christian European refugees fleeing open conflict.

CEU eTD Collection

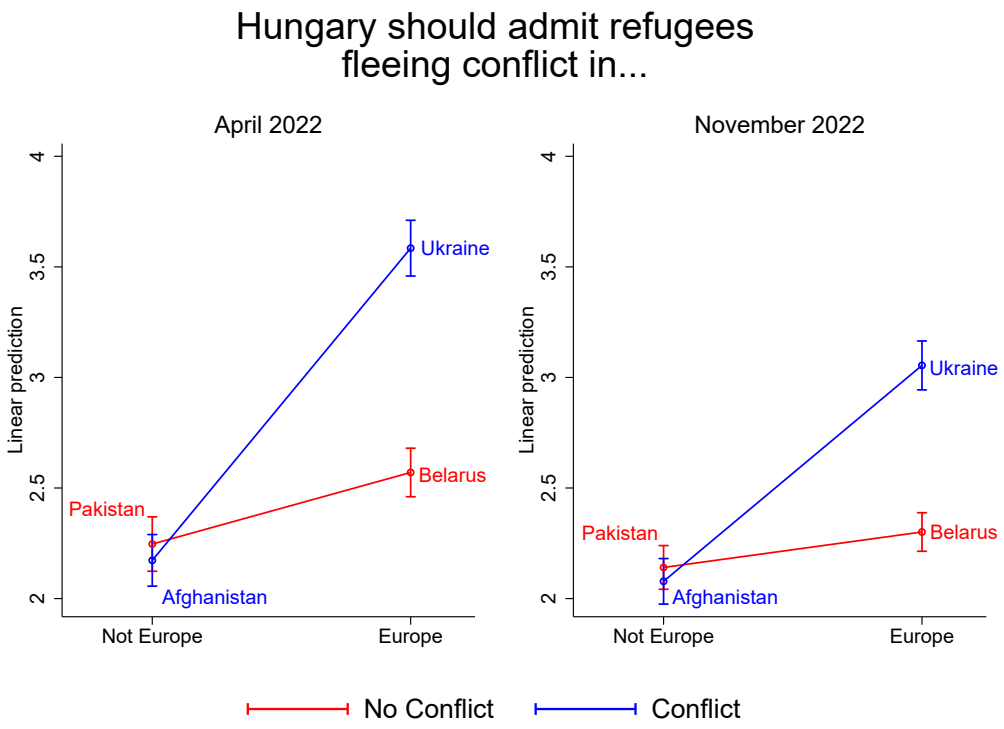

Figure 43: Predicted Support for Refugees, Difference-in-Differences Design – April versus November 2022

AW.3 Civilizational Factors and Refugee preferences: Additional Evidence from November 2022

In this section, using data from November 2022, we provide additional descriptive as well as experimental evidence that respondents' attitudes are affected by the civilizational characteristics of the immigrants. Figure 44 shows the average support of refugees from different source countries by partisanship in November 2022. While Fidesz voters are more supportive towards refugees fleeing conflict in Ukraine than the population average (51.7 *versus* 47.7), they have, however, roughly the same attitudes towards refugees from the other three countries (36.4 *versus* 33.9 for Belarus, and 29.4 *versus* 28.5 for Afghanistan and 25.7 *versus* 26.5 for Pakistan). Further, Figures 45 and 46 present respondents' attitudes in April vs in November. The Figures show that the slight anti-immigrant turn from April to November was a general trend across all respondents irrespective of their partisanship. Table 84 shows the results in a multivariate context.

We now test – following our April survey experiment – whether the three dimensions

CEU eTD Collection

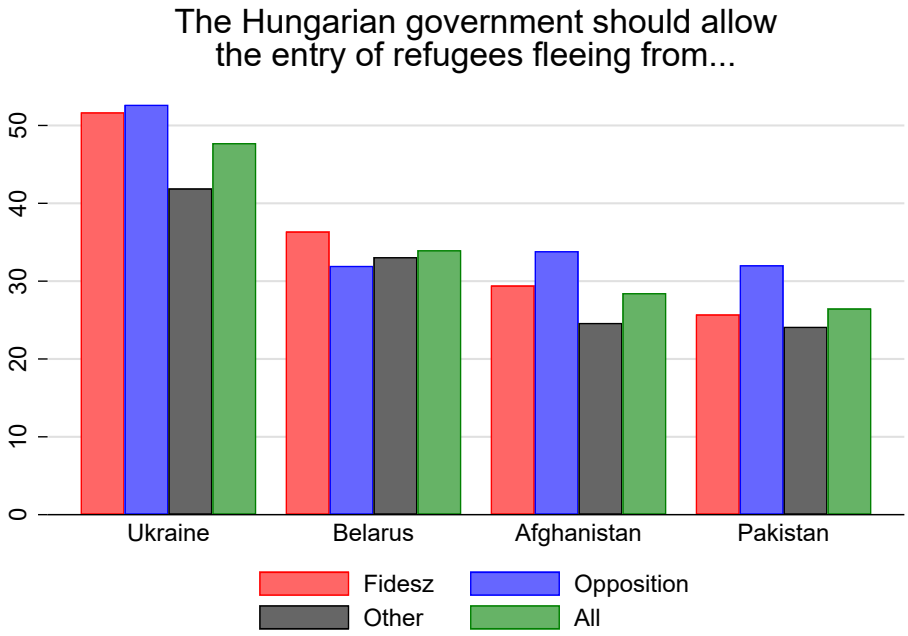

Figure 44: Public Opinion towards Refugees by Source Country and by Party, November 2022

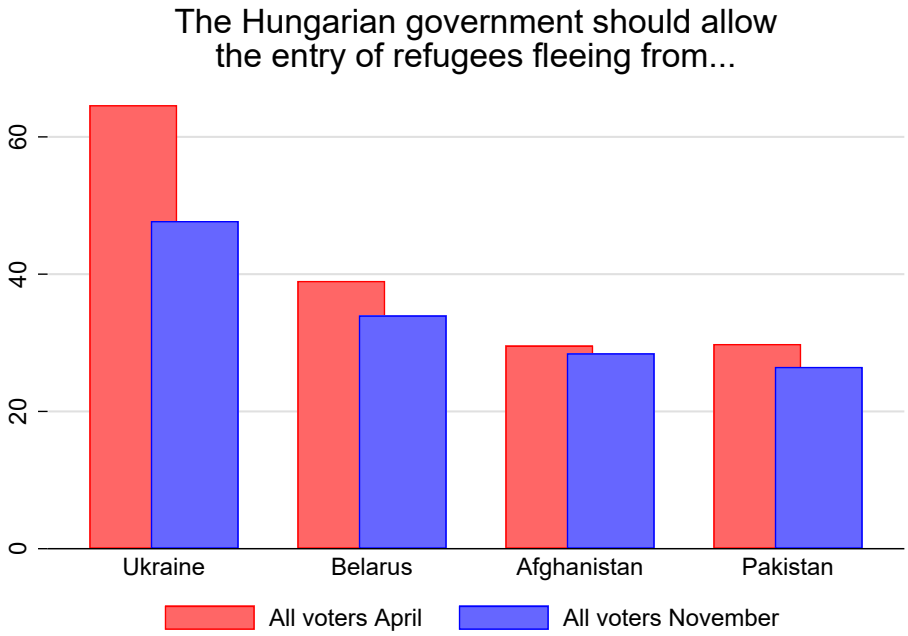

Figure 45: Public Opinion towards Refugees by Source Country, April and November 2022

CEU eTD Collection

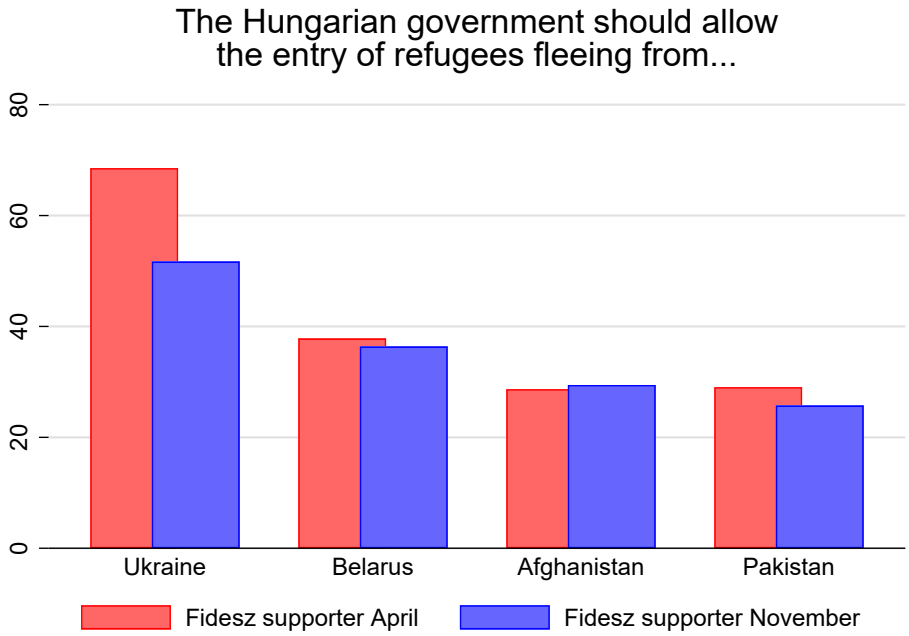

Figure 46: Public Opinion of Fidesz Supporters towards Refugees by Source Country, April and November 2022

of civilizational characteristics (race, religion, and values) are different manifestations of the same latent concept. First, to test whether racial versus values-based explanations for support for refugees are distinct from one another, we randomly asked survey respondents about the importance of refugees having *white European heritage* or *common values with Hungarians*. This randomization allows us to test whether racial versus values-based explanations for support for refugees are distinct from one another.[189]

We test whether or not asking about the importance of white European heritage or common values with Hungarians affects respondents' views (see Table 85). Similar to our previous results, we find no difference in the distribution of responses based on which of these questions we ask: $\chi^2(3) = 4.1, p = 0.25$.[190] This finding buttresses our argument that race and values are indistinguishable from one another as explanations for Hungarian public opinion on refugees.

We now compare the two experimental groups (one with the *white European heritage* and the other one with the *common values with Hungarians* questions) based on their responses

[189] We rely on the same question wording as in April 2022.

[190] The null hypothesis is that the distribution of the two responses are identical, thus, with a p-value of 0.25, we fail to reject this hypothesis.

CEU eTD Collection

	Source country							
	Ukraine		Belarus		Afghanistan		Pakistan	
Panel A: Socio-demographic controls								
Fidesz	6.8**	(2.10)	2.2	(0.79)	2.2	(0.76)	-1.6	(-0.62)
Panel B: Degree of religiosity included								
Fidesz	5.3	(1.62)	1.4	(0.50)	2.1	(0.70)	-3.5	(-1.32)
Very relig	10.7*	(1.78)	8.4*	(1.78)	1.3	(0.27)	13.7***	(2.68)
Somewhat relig	11.4***	(2.69)	8.2***	(2.73)	1.2	(0.33)	8.6***	(3.15)
Panel C: Religious service participation included								
Fidesz	5.7*	(1.74)	1.8	(0.65)	2.6	(0.89)	-3.5	(-1.27)
Freq serv part	13.5***	(2.60)	5.7	(1.27)	-2.1	(-0.46)	15.8***	(3.40)
Occ serv part	2.4	(0.63)	7.3**	(2.03)	-2.2	(-0.59)	8.4***	(2.98)

Notes: The table shows relative support of Fidesz voters and various religious groups for allowing in refugees fleeing from four source countries. Panel A shows the estimated coefficients with socio-demographic control variables only. Panels B-C present estimates whith religiosity included. The coefficients of Fidesz voters represent extra support, relative to non-Fidesz voters, on a 0-100 scale. The coefficients of various religious groups show extra support, relative to non-religious voters, on a 0-100 scale. Robust t statistics are reported in parentheses. *, ** and *** denote significance at 10%, 5% and 1% level, respectively. Graphical representation of the estimated Fidesz parameters are in Figure 14.

Table 84: OLS Estimation for Public Opinion towards Refugees by Source Country, November 2022

to the importance of refugees being Christian (asked of all respondents). We test whether the distributions of these responses are independent. Table 86 compares the distribution of responses to a question about the importance of refugees have a specific characteristic, where two options were assigned randomly to respondents: having the same values as Hungarians *versus* arriving from a country with white European heritage. The table supports our earlier findings and provides additional evidence that race, religion, and values are the manifestation of the same latent variable.

CEU eTD Collection

	White European	Same values	Total
Not important 2.58	1.71	2.14	
Somewhat important	19.35	22.26	20.84
Important	39.65	34.63	37.08
Very important	38.41	41.40	39.94
Observations	484	508	992

Notes: This table compares the distribution of responses to a question about the importance of refugees have a specific characteristic, where two options were assigned randomly to respondents: having the same values as Hungarians *versus* arriving from a country with white European heritage. Responses of "Don't know/refuse to answer" are excluded. The table shows the weighted distribution across the share of the responses.

Table 85: Experimental Results Comparing Race and Values in November 2022

Figures 47 and 48 show the importance attributed to various characteristics of refugees by survey respondents' partisanship. In line with the finding that Hungarians turned to be less pro-immigrant by November, we see an increase in the scores across the various characteristics of immigrants. This indicates that in general, people think that more conditions shall apply to foreigners to stay in Hungary. Figures show that Fidesz voters have stronger preference than non-Fidesz voters for immigrants who are Christian. These results also hold in a multivariate context (Table 87).

Finally, Figure 49 shows survey respondents' views about the importance of refugee's ethnic background by respondents' party preferences, while Figure 50 shows changes in attitudes from April to November. Similar to our April results, Hungarians are very welcoming towards ethnic Hungarians and German immigrants. They are, however, rather opposed to Arabs. Again, these findings hold in a multivariate regression specification (Table 88).

CEU eTD Collection

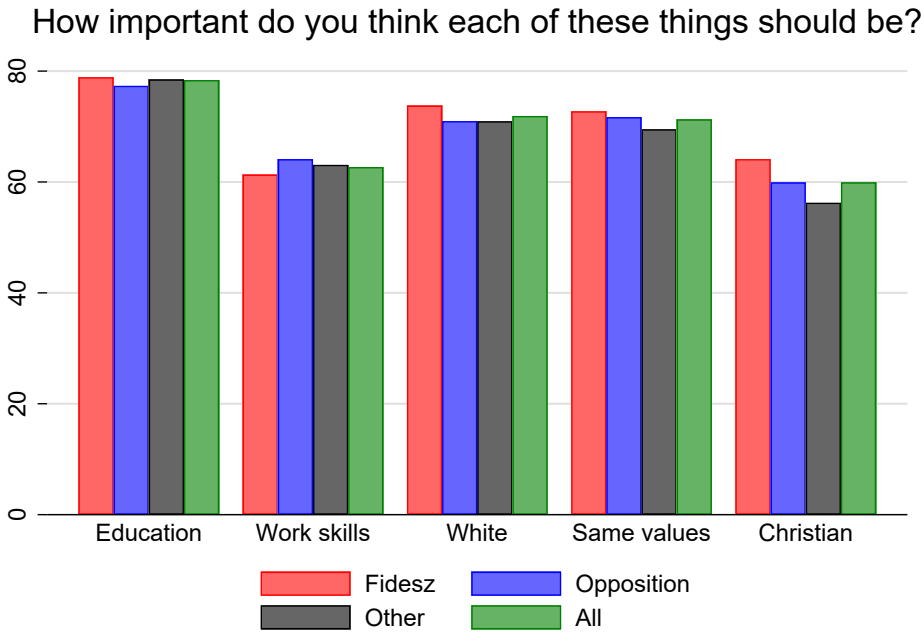

Figure 47: The Importance of Immigrants' Civilizational Characteristics and Various Skills by Party, November 2022

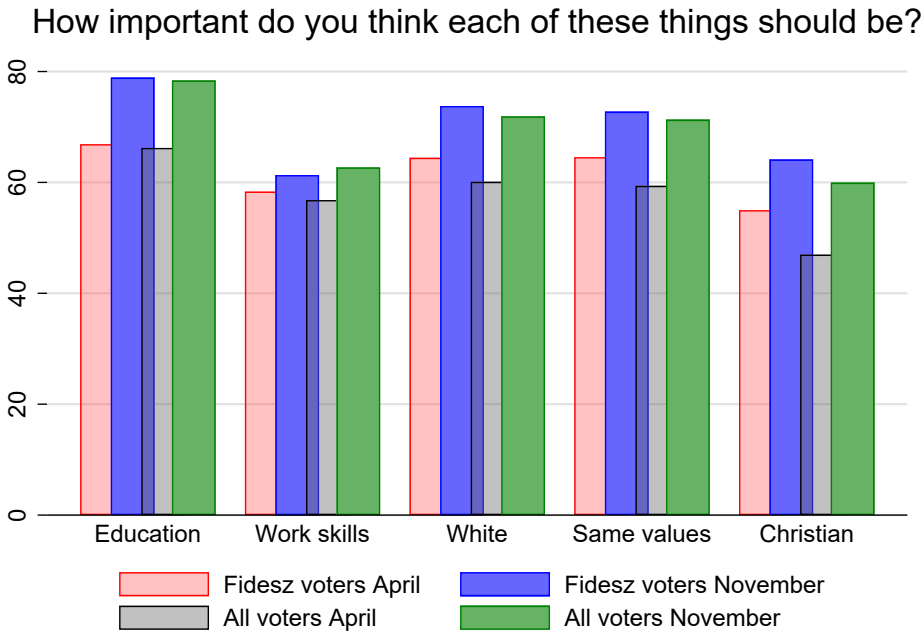

Figure 48: The Importance of Immigrants' Civilizational Characteristics and Various Skills by Party, April and November 2022

CEU eTD Collection

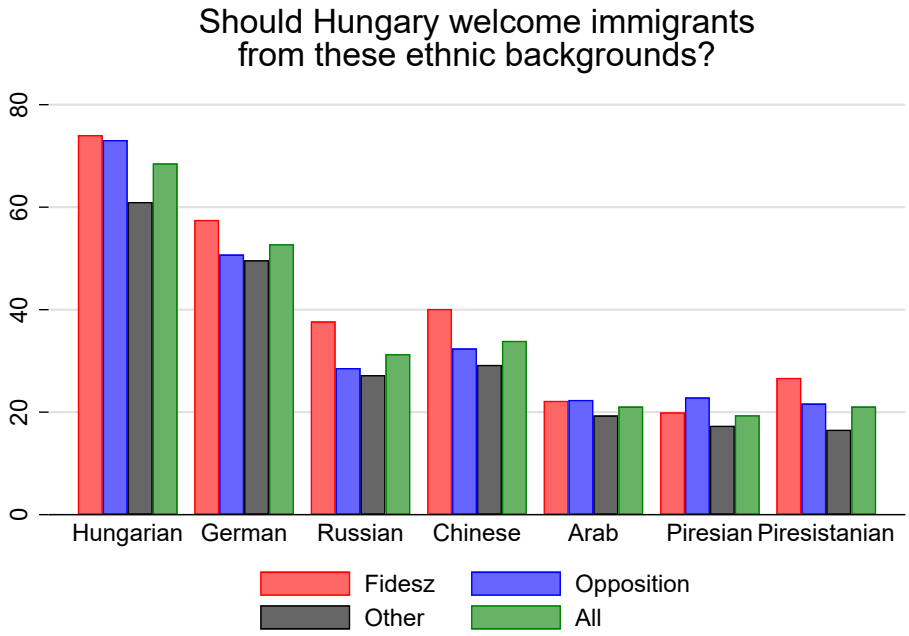

Figure 49: The Importance of Different Ethnic Background of Immigrants by Partisanship, November 2022

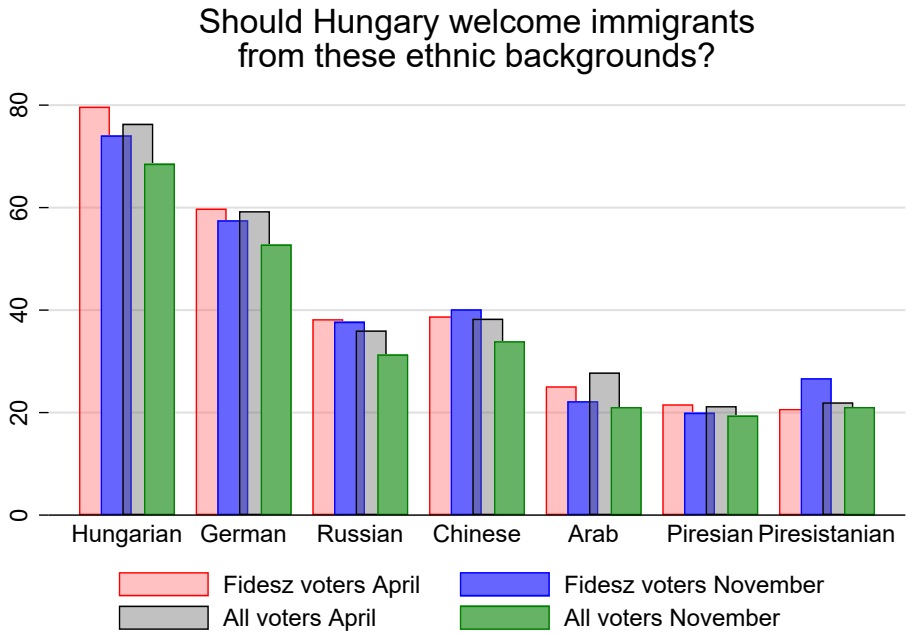

Figure 50: The Importance of Different Ethnic Background of Immigrants by Partisanship, April versus November 2022

CEU eTD Collection

Panel A: Christian and White Heritage

	Not	Some	Important	Very	Total
Not important	21.72	0.54	0.00	0.00	2.60
Somewhat important	28.79	51.37	7.56	0.00	19.07
Important	39.36	35.13	66.88	13.78	39.92
Very important	10.13	12.96	25.55	86.22	38.41
Observations	55	124	160	142	481

$\chi^2(9) = 373.1, p < 0.001$

Panel B: Christian and Same Values

	Not	Some	Important	Very	Total
Not important	13.24	1.03	0.00	0.00	1.73
Somewhat important	49.48	53.00	7.52	0.00	21.95
Important	25.39	36.46	56.50	8.12	34.66
Very important	11.89	9.51	35.98	91.88	41.66
Observations	56	132	180	138	505

$\chi^2(9) = 356.3, p < 0.001$

Notes: The panels compare the distribution of responses of the importance of refugees being Christian (column variable) with the importance of coming from a country with a white heritage or the same values as Hungarians (row variables). Responses of "Don't know/refuse to answer" are excluded. Columns of the table show the weighted distribution across the share of the responses.

Table 86: Race, Values, and Religion Compared in November 2022

CEU eTD Collection

	Skills				Civilizational characteristics					
	Education		Work skills		White		Same values		Christian	
Panel A: Socio-demographic controls only										
Fidesz	-1.5	(-0.74)	1.0	(0.51)	3.7	(1.27)	1.9	(0.63)	5.8**	(2.35)
Panel B: Degree of religiosity included										
Fidesz	-1.8	(-0.83)	0.9	(0.48)	3.4	(1.07)	1.2	(0.41)	3.8	(1.51)
Very relig	2.8	(0.64)	0.02	(0.01)	2.3	(0.39)	0.5	(0.09)	21.2***	(4.88)
Somewhat	2.4	(0.99)	2.0	(0.01)	2.6	(0.73)	6.1*	(1.81)	17.4***	(5.73)
Panel C: Religious service participation included										
Fidesz	-2.1	(-1.02)	1.2	(0.63)	3.7	(1.21)	2.1	(0.71)	4.9*	(1.96)
Freq serv	3.9	(1.31)	-3.2	(-1.15)	-2.3	(-0.55)	-2.3	(-0.47)	8.3**	(2.38)
Occ serv	-0.0	(-0.02)	-1.8	(-0.95)	-2.8	(-0.91)	0.0	(0.02)	9.4 ***	(3.47)

Notes: The table shows relative support of Fidesz voters and various religious groups for people arriving to have different skills and civilizational characteristics: have education, work skills, same values, come from a country with white European heritage or be Christian. Panel A shows the estimated coefficients when only sociodemographic control variables are included. Panels B-D present estimates when explanatory variables on religiosity are additionally included. The coefficients of Fidesz voters represent extra support, relative to non-Fidesz voters, on a 0-100 scale. The coefficients of various religious groups show extra support, relative to non-religious voters, on a 0-100 scale. Robust t statistics are reported in parentheses. *, ** and *** denote significance at 10%, 5% and 1% level, respectively.

Table 87: OLS Estimation for the Importance of Different Skills and Characteristics, November 2022

CEU eTD Collection

	Ethnicity													
	Hungarian		German		Russian		Chinese		Arab		Piresian		Piresistani	
Panel A: Socio-demographic controls only														
Fidesz	8.6***	(3.95)	7.1***	(2.98)	9.8***	(4.18)	9.7***	(4.16)	1.6	(0.73)	0.6	(0.16)	8.7**	(1.99)
Panel B: Degree of religiosity included														
Fidesz	6.8***	(3.17)	6.0**	(2.50)	8.6***	(3.58)	8.3***	(3.53)	1.3	(0.59)	-1.3	(-0.36)	6.7	(1.45)
Veryrel	15.8***	(4.73)	13.1***	(3.38)	15.1***	(3.31)	17.9***	(4.01)	3.9	(0.91)	15.0***	(2.58)	20.3**	(2.45)
Somewhat	13.6***	(5.05)	4.2	(1.45)	9.8***	(3.63)	12.0***	(4.54)	1.0	(0.39)	11.9***	(3.47)	10.1***	(2.61)
Panel C: Religious service participation included														
Fidesz	7.8***	(3.58)	6.4***	(2.65)	8.0***	(3.38)	8.1***	(3.42)	0.2	(0.09)	-2.4	(-0.69)	7.2	(1.55)
Freqserv	9.1***	(2.63)	4.6	(1.16)	16.4***	(4.42)	14.6***	(4.20)	9.2**	(2.34)	21.3***	(3.46)	11.9	(1.56)
Occserv	10.4***	(4.40)	-1.0	(-0.39)	7.9***	(3.24)	6.4***	(2.61)	-0.8	(-0.36)	7.6**	(2.25)	4.2	(1.12)

Notes: The table shows relative support of Fidesz voters and various religious groups for immigrants with different ethnicities: Hungarians, Germans, Russians, Chinese, Arabic, Piresians and Piresistani. Panel A shows the estimated coefficients with sociodemographic control variables. Panels B-C present show estimated results with variables on religiosity included. The coefficients of Fidesz voters represent extra support, relative to non-Fidesz voters, on a 0-100 scale. The coefficients of various religious groups show extra support, relative to non-religious voters, on a 0-100 scale. Robust t statistics are reported in parentheses. *, ** and *** denote significance at 10%, 5% and 1% level, respectively.

Table 88: OLS Estimation for the Relative Support for Immigrants with Different Ethnicities, November 2022

CEU eTD Collection

AX Appendix: The Changing Role of Individual Religiosity 2011 and 2022

Figures 51 and 52 compares the estimated regression coefficients on the extra support of religious respondents towards immigrants in April *versus* in November.[191] While in the April 2022, individual religiosity negatively affected survey respondent's attitudes towards immigrants, in November religious respondents turned to be more pro-immigrant than their non-religious fellows.

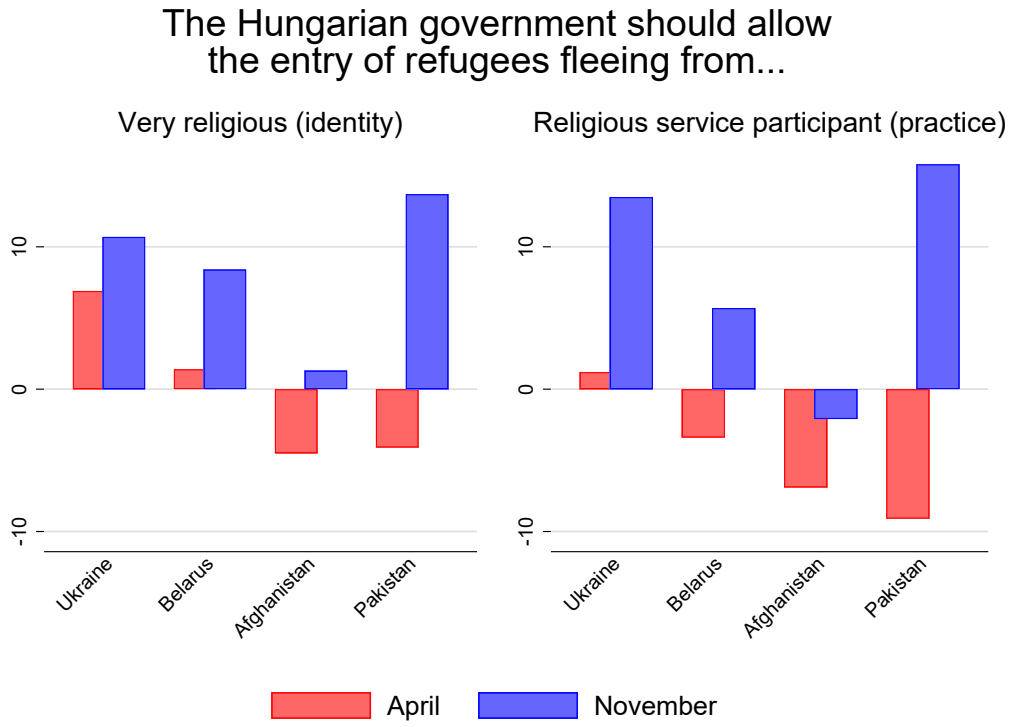

Figure 51: Changes of the Estimated Parameters of Religious Survey Respondents (April and November 2022) – Public Opinion towards Refugees by Source Country

One possible concern is that the relative support of religious respondents as compared to non-religious respondents might increase even if the absolute support of religious respondents decreases (this might be the case when the the support of non-religious participants drops by a larger magnitude). Figures 53 and 54 mitigate this concern and

[191] These coefficients were reported earlier in panels B and C of Tables 77 and 79 for the April wave, and in Panels B and C of Tables 84 and 88 for the November wave.

CEU eTD Collection

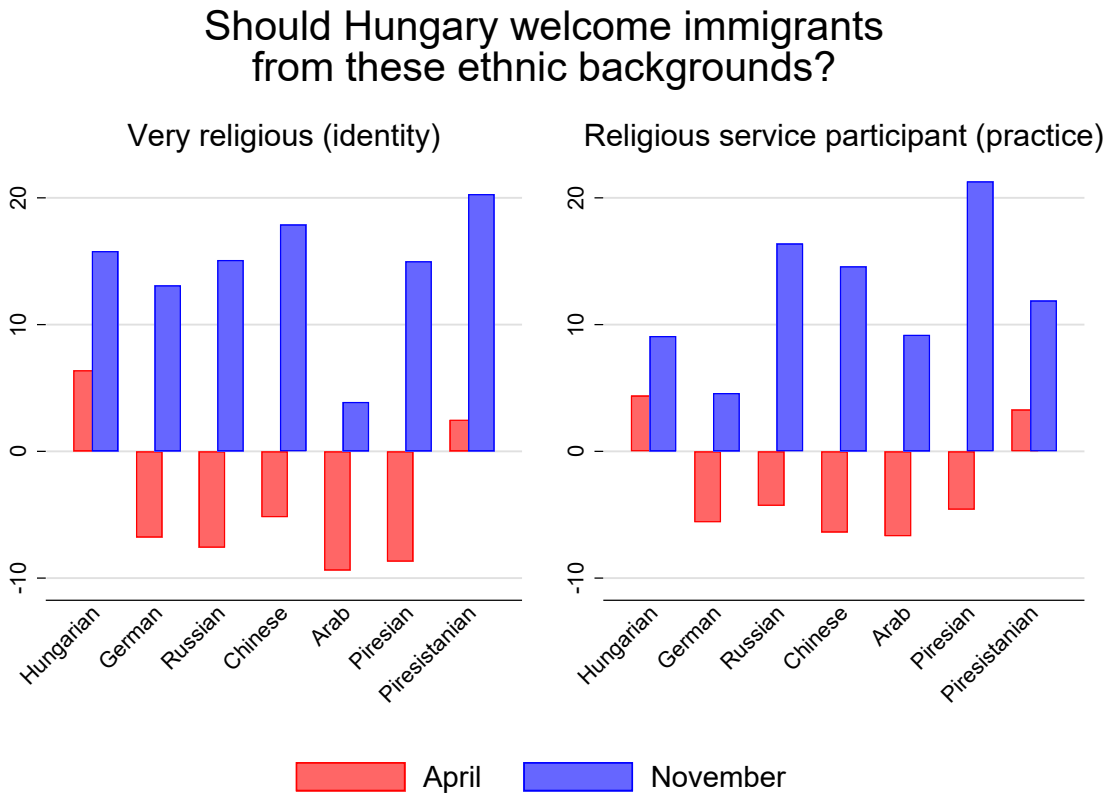

Figure 52: Changes of the Estimated Parameters of Religious Survey Respondents (April and November 2022) – Public Opinion towards Refugees by Ethnicity

show that religious respondents absolute support towards immigrants has even increased by November, despite the general declining trend in attitudes towards immigrants.

To estimate the heterogeneous effect of individual religiosity over time, we estimate the following linear probability model for survey respondents who are opposed to admitting all refugees to Hungary on a pooled cross-section dataset between April 2011 and November 2022:

$$y_{it} = \alpha + \beta_1 Religiosity_{it} + \sum_{t=2}^{10} \beta_t Religiosity_{it} \times Wave_t + \sum_{t=2}^{10} \gamma_t Wave_t + X'_{it}\delta + \epsilon_{it}, \quad (41)$$

where y_{it} is a dummy variable indicating that respondent i in wave t is opposed to admitting any refugees; $Religiosity_{it}$ measures the frequency of participating in religious services (with a value of 1 if survey respondent never attends any religious services and

CEU eTD Collection

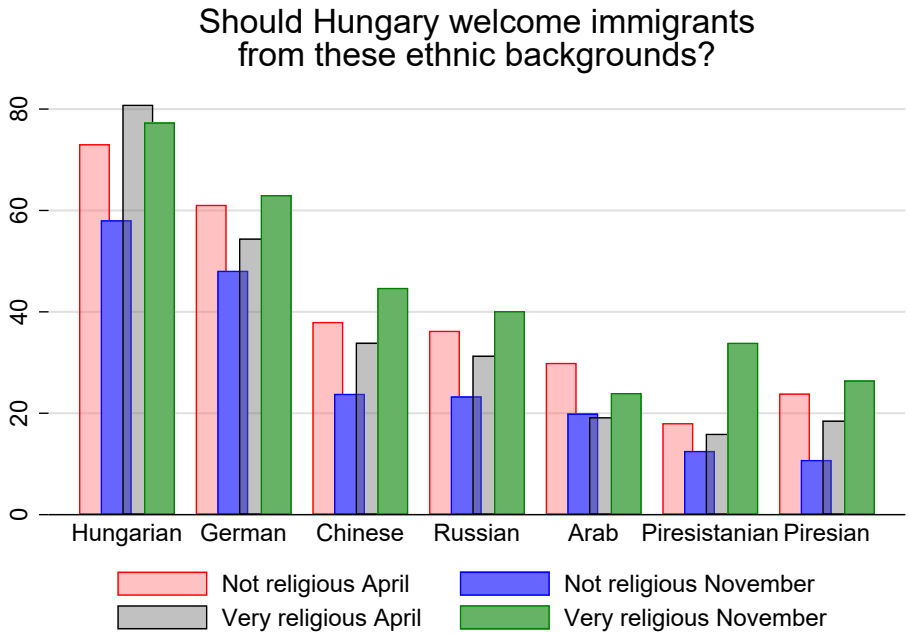

Figure 53: The Importance of Different Ethnic Background of Immigrants by Religious Identity, April versus November 2022

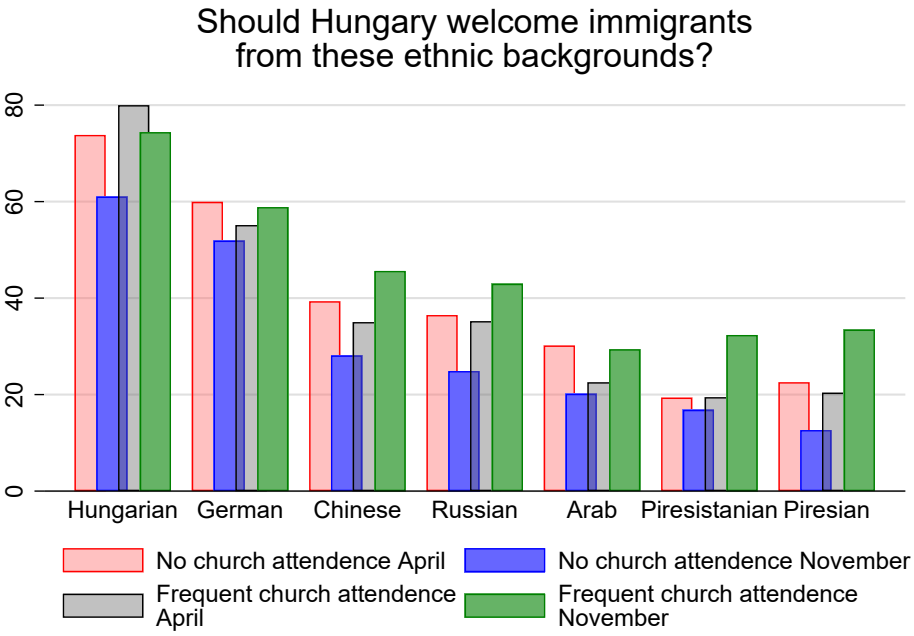

Figure 54: The Importance of Different Ethnic Background of Immigrants by Religious Practice, April versus November 2022

CEU eTD Collection

a value of 3 if a survey respondent frequently attends religious services); $Wave_t$ are wave dummies; and X'_{it} is a vector of socio-demographic variables such as education, age, gender, marital status and activity. To understand the changing attitudes of individual religiosity over time, we interact individual's religiosity and the wave dummies, while also allowing the wave dummies to control for time-specific factors, such as the general economic situation of the country, that could confound these relationships.

	Oppose migrants		Oppose migrants	
Fidesz	-0.001	(-0.08)	-0.001	(-0.06)
Jan 2016	0.161***	(8.39)	0.204***	(7.36)
Oct 2016	0.213***	(11.77)	0.222***	(8.45)
Jan 2017	0.220***	(11.65)	0.212***	(7.91)
Apr 2022	-0.258***	(-18.69)	-0.260***	(-11.08)
Nov 2022	-0.059***	(-3.10)	0.022	(0.67)
Freq serv part	-0.056***	(-3.39)	..	..
Freq serv × (before 2015)	..	..	-0.052**	(-2.29)
Freq serv × (Jan 2016)	..	..	-0.067	(-1.19)
Freq serv × (Oct 2016)	..	..	-0.001	(-0.02)
Freq serv × (Jan 2017)	..	..	0.016	(0.29)
Freq serv × (Apr 2022)	..	..	-0.038	(-1.14)
Freq serv × (Nov 2022)	..	..	-0.203***	(-4.03)
Occ serv part	-0.057***	(-5.12)	..	..
Occ serv × (before 2015)	..	..	-0.032**	(-2.06)
Occ serv × (Jan 2016)	..	..	-0.134***	(-3.56)
Occ serv × (Oct 2016)	..	..	-0.068*	(-1.94)
Occ serv × (Jan 2017)	..	..	-0.025	(-0.66)
Occ serv × (Apr 2022)	..	..	-0.031	(-1.24)
Occ serv × (Nov 2022)	..	..	-0.161***	(-4.21)
Secondary school	-0.088***	(-7.35)	-0.086***	(-7.24)
College / University	-0.191***	(-13.39)	-0.191***	(-13.39)
Constant	0.502***	(8.51)	0.485***	(8.21)
N	9760		9760	

Robust t statistics in parentheses.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 89: Linear Probability Model Results with Time-Varying Parameters for Religious Service Participation Frequencies

CEU eTD Collection

AY Appendix: Political Socialization

When are immigration attitudes likely to develop? The question of when individuals form their attitudes and how persistent these attitudes are still debated in the literature. While some studies argue that early experiences persist throughout one's life and thus, attitudes are stable (Kustov, Laaker, and Reller 2021), others claim that people consistently change their beliefs in response to contextual factors and current events (Goldstein and Peters 2014). Other work argues that younger adults are more likely to change their attitudes toward immigration than the elderly population as they have limited political experience and they are in the midst of developing their core political beliefs.

To test whether our results are merely driven by the younger cohort, in Figure 55, we break down opponents to admitting all refugees by their age cohort. The figure clearly reveals that changes in younger adults' anti-immigrant attitudes are larger than changes in attitudes of the elderly population. In particular, the standard deviation of the attitudes of the younger cohort is 14.4%, of the middle-aged cohort is 13.3% and of the elderly cohort is 12.4%. Nonetheless, Figure 55 also clearly shows that the general trend in public opinion is the same across the age cohort and that our findings are not driven by those in their "impressionable years".

CEU eTD Collection

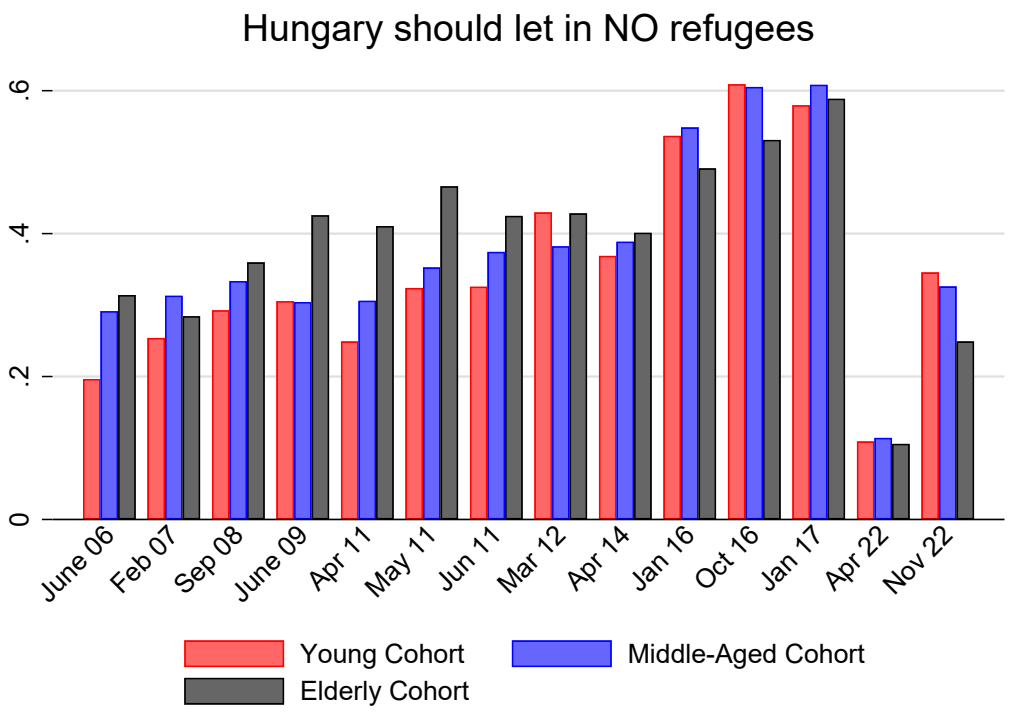

Figure 55: Opposition to Refugees by Age Cohort, 2006–2022

Note: Means are population weighted. Survey respondents between 18 and 34 are in the young cohort, between 35 and 64 are in the middle-aged cohort and survey respondents 65 years of age and older are in the elderly cohort.

CEU eTD Collection

AZ Appendix: The Changing Importance of Settlement Level Roma Share and Christian Share – 2011-14 versus 2022

In Section 5.6, we show that in 2022, the settlement-level share of Christians and the settlement-level Roma share are significant determinants of individuals' anti-immigrant sentiments.

To test whether and up to what degree respondents' local environment affected survey respondents' anti-immigrant attitudes *prior* to the refugee crises, we test the effect of settlement-level variables on individuals' attitudes between 2011 and 2014. We do this to learn more about changes in the effect of respondents' local environment on their views about refugees over time. We rely on five additional rounds of survey data (April 2011, May 2011, June 2011, March 2012 and April 2014). These surveys were conducted by TARKI applying the same sampling procedures as before, however, in the earlier survey waves, respondents were asked their views about refugees with different ethnic background for Ethnic Hungarians living abroad, Arabs, Chinese and Piresian only. Additionally, survey respondents were only asked their views about refugees *if* their earlier answers to the general anti-immigration question was that some immigrants should be allowed in, while some others should not. Another difference between these earlier surveys and our surveys is the response category; in the earlier survey waves, respondents were either in support of or against allowing in refugees (thus it was a yes or no answer category).[192]

We re-estimate our multi-level regression models of Equation (21) as in Section 5.6. The dependent variable is not a scale variable on a 0-100 interval, but a dummy variable which equals 1 if the respondent agrees to allow in an immigrant with different ethnic background.[193] The estimated parameters appear in Table 90.

Figure 56 shows the estimated parameters of the settlement-level share of Roma population for survey respondents' view on immigrants with different ethnic background between 2011 and 2014. Results indicate that the estimated parameters of the settlement-level Roma share are almost always significant and negative. Thus, respondents who live in settlements with higher share of Roma population are in general more anti-immigrant.

Figure 57 shows the estimated parameters of the settlement-level Christian share, for individuals' view about immigrants with different ethnic background. There is no clear pattern in this case: estimated parameters are sometimes negative, sometimes positive,

[192] In April and November 2022, respondents had to choose on a scale of 1-4.

[193] Hence, positive estimated parameters imply that respondents are generally more pro-immigrants.

CEU eTD Collection

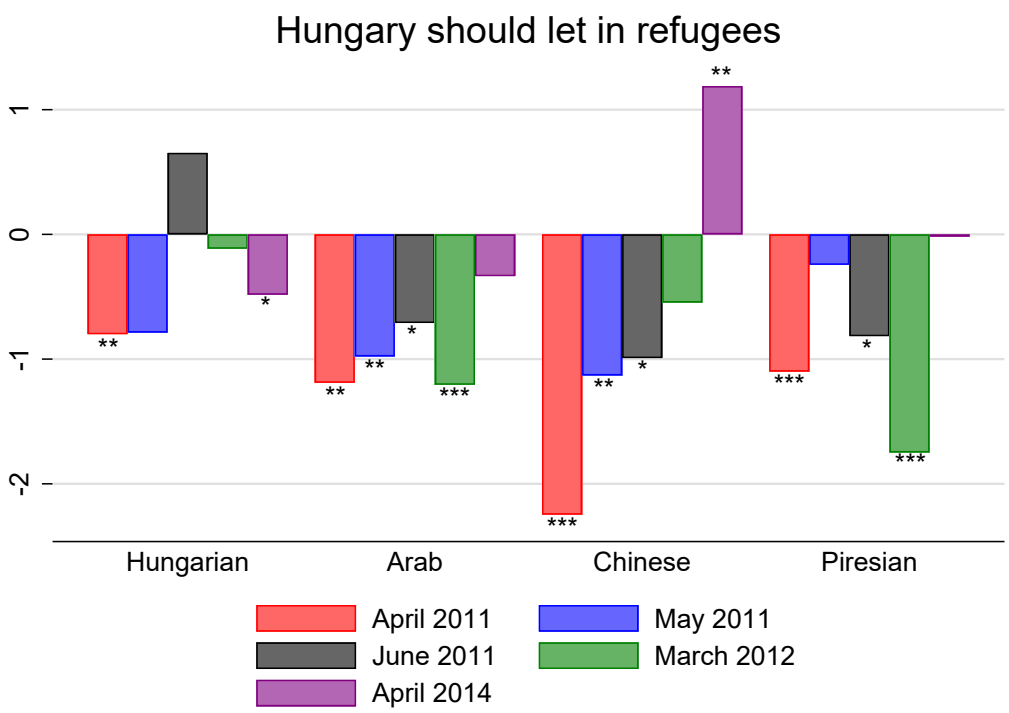

Figure 56: The Effect of Settlement-Level Roma Share on Survey Respondents' Immigrant Attitudes, 2011–2014

Note: The dependent variables are dummy variables equal to 1 if survey respondents would allow in immigrants with different ethnic background and zero if they would not. *, ** and *** denote significance at 10%, 5% and 1% level, respectively.

but mostly insignificant.[194] This result is similar to our findings in November 2022 (in Table 38), but contradicts our April 2022 results (in Table 37).

[194]Only 3 out of the 20 estimated parameters are significant at the 10% level.

CEU eTD Collection

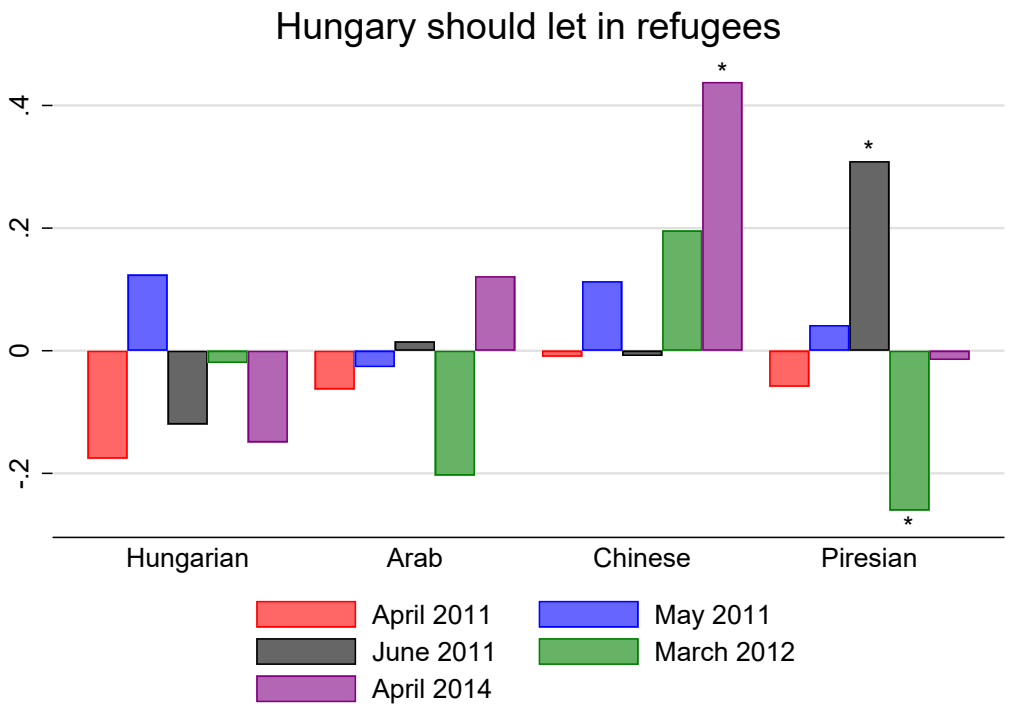

Figure 57: The Effect of Settlement-Level Christian Share on Survey Respondents' Immigrant Attitudes, 2011–2014

Note: The dependent variables are dummy variables equal to 1 if survey respondents would allow in immigrants with different ethnic background and zero if they would not. *, ** and *** denote significance at 10%, 5% and 1% level, respectively.

CEU eTD Collection

	Ethnicity			
	Eth. Hungarian	Arab	Chinese	Piresian
Panel A: April 2011				
Christian share	-0.1760	-0.0631	-0.0098	-0.0587
Roma share	-0.8016**	-1.1903**	-2.2476***	-1.1006***
Income pc	-0.0001*	-0.0001	-0.0004**	-0.0002*
Fidesz vote share	0.1724	-0.1487	-0.7990	-0.4267
Foreigner share	1.4753	-9.9554	-7.2227	-21.4602**
Panel B: May 2011				
Christian share	0.1242	-0.0268	0.1135	0.0419
Roma share	-0.7876	-0.9789**	-1.1312**	-0.2443
Income pc	-0.0001	0.0000	0.0001	0.0001
Fidesz vote share	-0.0956	-0.9364**	-1.8610***	-0.4452
Foreigner share	25.1413*	6.5500	23.8482	0.7995
Panel C: June 2011				
Christian share	-0.1202	0.0153	-0.0086	0.3092*
Roma share	0.6541	-0.7109*	-0.9923*	-0.8168*
Income pc	0.0001	-0.0000	-0.0001	0.0000
Fidesz vote share	0.2859	-0.9731**	-1.1916**	-0.7888***
Foreigner share	-10.2302	22.4046	18.2065	39.0289
Panel D: March 2012				
Christian share	-0.0200	-0.2036	0.1962	-0.2606*
Roma share	-0.1150	-1.2061***	-0.5470	-1.7488***
Income pc	-0.0002**	-0.0004**	-0.0005*	-0.0007***
Fidesz vote share	0.1561	0.3374	0.3606	0.5989
Foreigner share	5.9863	13.2556	29.5774	26.6472
Panel E: April 2014				
Christian share	-0.1495	0.1216	0.4384*	-0.0151
Roma share	-0.4841*	-0.3356	1.1893**	-0.0184
Income pc	-0.0001	-0.0002	0.0001	-0.0000
Fidesz vote share	0.2862	0.1763	-0.0202	0.0710
Foreigner share	-14.3409	33.6786*	20.3430	9.1639
Indiv. controls	Yes	Yes	Yes	Yes

Notes: *, ** and *** denote significance at 10%, 5% and 1% level, respectively. The dependent variable is a dummy variable which equals 1 if the respondent agrees to allow in an immigrant with different ethnic background and zero otherwise.

Table 90: MLM Estimation for Individuals' Attitude about Immigrants with Different Ethnic Background, 2011 – 2014

CEU eTD Collection

BA Appendix: Sociodemographic Characteristics of Refugees

Year	Accepted	Males	Females	% Male
2013	360	285	75	72.9%
2014	510	405	105	79.2%
2015	425	350	75	82.4%
2016	430	330	105	76.7%
2017	1290	750	540	58.1%
2018	365	215	155	58.9%
2019	60	40	20	66.7%
2020	130	65	65	50.0%
2021	40	20	20	50.0%

Source: Eurostat data on first instance decisions on applications

Table 91: Gender Distribution of Immigrants with Positive Decision, 2013–2021

Table 91 shows the gender distribution of asylum seekers who received positive decisions (and thus, it provides a good estimate of the gender composition of refugees staying in Hungary).[195] While the share of male refugees staying in Hungary was higher between 2013 and 2016 than the share of female refugees, in absolute term, the number of male refugees is very small ruling out the concern that our results are driven by the opinion of Hungarians who have personally encountered *male* refugees during the first refugee crisis.

Tables 92 and 93 show the distribution of refugees by age categories and citizenship. Here, we focus on 2017 with its relatively high number of positive decisions when 1290 asylum seekers received a refugee status (or any other status following a positive decision). Two important conclusions can be drawn from these tables. First, Table 92 reveals that the majority of asylum seekers who received a positive decision were children under the age of 18. Second, while Table 93 shows that in 2017, most of the accepted refugees were from countries with different *"civilizational"* background (e.g.: 90% of all refugees came from either Afghanistan, Syria or Iraq), the low number of accepted people once again provides evidence that it is very unlikely that many of our survey respondents had personal encounters with a refugee, let alone had daily contact with them.

We now turn to the descriptive analysis of the gender composition of refugees during the second refugee crisis. Table 94 shows the gender and age distribution of Ukrainian

[195]The table shows the gender composition of those who received positive decisions of *any* kind, including refugee status, subsidiary protection, humanitarian protection/tolerated status.

CEU eTD Collection

Age cohort	Accepted	Males	Females	% Male
Less than 18 years	645	385	260	59.7%
18-34 years	430	240	195	55.2%
35-64 years	205	120	85	58.5%
More than 65 years	10	5	0	100.0%
Total	1290	750	540	58.1%
% 0-17 years	50.0%	51.3%	48.1%	
% 18-34 years	33.3%	32.0%	36.1%	
% 35-64 years	15.9%	16.0%	15.7%	

Source: Eurostat data on first instance decisions on applications

Table 92: Distribution of Immigrants with Positive Decision by Age and Gender, 2017

Citizenship	Accepted	Males	Females	% Male
Afghanistan	580	335	245	57.8%
Syria	385	230	155	59.7%
Iraq	190	105	85	55.3%
Iran	35	25	15	62.5%
Unknown	25	10	10	50.0%
Pakistan	10	10	0	100%
Other	65	35	30	53.8%
Total	1290	750	540	58.1%
% Afghanistan	45.0%	44.7%	45.4%	
% Syria	29.8%	30.7%	28.7%	
% Iraq	14.7%	14.0%	15.7%	

Source: Eurostat data on first instance decisions on applications

Table 93: Distribution of Immigrants with Positive Decision by Gender and Citizenship, 2017

refugees staying in Hungary with a temporary protection status (between February 24 and December 31, 2022). While the share of accepted Ukrainian children is similar to the share of accepted children refugees during the first refugee crisis, 66% of the Ukrainian immigrants with TP status are female. This ratio is even higher among the adult cohort, 82.5% of the Ukrainian adults with TP status are women. Nonetheless, results of our experimental design in Section 5.5.3 clearly show that Hungarians are more welcoming of Ukrainian refugees in general and this is not exclusively driven by their assumption that Ukrainian refugees are mostly women and children, whereas Afghan refugees are young men.

CEU eTD Collection

Age cohort	Accepted	Males	Females	Unknown	% Male
Less than 18 years	14019	7197	6772	50	51.5%
18-64 years	14148	2469	11659	20	17.5%
More than 65 years	1452	373	1073	6	25.8%
Total	29619	10039	19504	76	34.0%
% 0-17 years	47.3%	71.7%	34.7%	65.8%	

Source: National Directorate-General for Aliens Policing of Hungary.

Table 94: Distribution of Ukrainians with Temporary Protected Status by Age and Gender, 2022

References

Acemoglu, Daron and James A Robinson (2005). *Economic Origins of Dictatorship and Democracy*. Cambridge University Press.

Ahmed, Faisal Z (2016). "Does foreign aid harm political rights? Evidence from US aid." *Quarterly Journal of Political Science* 11.2, pp. 183–217.

Arcand, Jean-Louis and Lisa Chauvet (2001). "Foreign aid, rent-seeking behavior, and civil war." *Working Paper, CERDI-CNRS, Universite d'Auvergne*.

Azam, Jean-Paul (1995). "How to pay for the peace? A theoretical framework with references to African countries." *Public Choice* 83.1-2, pp. 173–184.

Bazzi, Samuel and Christopher Blattman (2014). "Economic shocks and conflict: Evidence from commodity prices." *American Economic Journal: Macroeconomics* 6.4, pp. 1–38.

Beck, Thorsten, George Clarke, Alberto Groff, Philip Keefer, and Patrick Walsh (2001). "New tools in comparative political economy: The database of political institutions." *The World Bank Economic Review* 15.1, pp. 165–176.

Berinsky, Adam J (2004). *Silent voices: Opinion polls and political representation in America*. Princeton University Press Princeton, NJ.

— (2008). "Survey non-response." *The SAGE Handbook of Public Opinion Research*, pp. 309–321.

Berman, Nicolas, Mathieu Couttenier, Dominic Rohner, and Mathias Thoenig (2017). "This mine is mine! How minerals fuel conflicts in Africa." *American Economic Review* 107.6, pp. 1564–1610.

Bermeo, Sarah Blodgett (2017). "Aid allocation and targeted development in an increasingly connected world." *International Organization* 71.4, pp. 735–766.

Berthélemy, Jean-Claude and Ariane Tichit (2004). "Bilateral donors' aid allocation decisions - a three-dimensional panel analysis." *International Review of Economics & Finance* 13.3, pp. 253–274.

Besley, Timothy and Torsten Persson (2011a). *Pillars of prosperity: The political economics of development clusters*. Princeton University Press.

— (2010). "State capacity, conflict, and development." *Econometrica* 78.1, pp. 1–34.

CEU eTD Collection

Besley, Timothy and Torsten Persson (2008). *The incidence of civil war: Theory and evidence*. Tech. rep. No. w14585, National Bureau of Economic Research. Cambridge, MA.
— (2011b). "The logic of political violence." *The Quarterly Journal of Economics* 126.3, pp. 1411–1445.
Bluhm, Richard, Martin Gassebner, Sarah Langlotz, and Paul Schaudt (2019). "Fueling conflict? De-escalation and bilateral aid." *CESifo Working Paper No. 6125*.
Bodea, Cristina, Masaaki Higashijima, and Raju Jan Singh (2016). "Oil and civil conflict: Can public spending have a mitigation effect?" *World Development* 78, pp. 1–12.
Bradbury, Mark and Michael Kleinman (2010). "Winning Hearts and Minds? Examining the relationship between aid and security in Kenya." *Feinstein International Center*.
Brech, Viktor and Niklas Potrafke (2014). "Donor ideology and types of foreign aid." *Journal of Comparative Economics* 42.1, pp. 61–75.
Brückner, Markus and Antonio Ciccone (2010). "International commodity prices, growth and the outbreak of civil war in Sub-Saharan Africa." *The Economic Journal* 120.544, pp. 519–534.
Burke, Marshall, Solomon M Hsiang, and Edward Miguel (2015). "Climate and conflict." *Annual Review of Economics* 7.1, pp. 577–617.
Collier, Paul and Anke Hoeffler (2004). "Greed and grievance in civil war." *Oxford Economic Papers* 56.4, pp. 563–595.
— (2007). "Unintended consequences: Does aid promote arms races?" *Oxford Bulletin of Economics and Statistics* 69.1, pp. 1–27.
Cotet, Anca M and Kevin K Tsui (2013). "Oil and conflict: What does the cross country evidence really show?" *American Economic Journal: Macroeconomics* 5.1, pp. 49–80.
Crost, Benjamin, Joseph Felter, and Patrick Johnston (2014). "Aid under fire: Development projects and civil conflict." *American Economic Review* 104.6, pp. 1833–56.
Dabla-Norris, Era, Camelia Minoiu, and Luis-Felipe Zanna (2015). "Business cycle fluctuations, large macroeconomic shocks, and development aid." *World Development* 69, pp. 44–61.
Dal Bó, Ernesto and Robert Powell (2009). "A model of spoils politics." *American Journal of Political Science* 53.1, pp. 207–222.
Dang, Hai-Anh, Stephen Knack, and F Halsey Rogers (2013). "International aid and financial crises in donor countries." *European Journal of Political Economy* 32, pp. 232–250.
Dell, Melissa, Benjamin F Jones, and Benjamin A Olken (2014). "What do we learn from the weather? The new climate-economy literature." *Journal of Economic Literature* 52.3, pp. 740–98.
Dube, Oeindrila and Juan F Vargas (2013). "Commodity price shocks and civil conflict: Evidence from Colombia." *The Review of Economic Studies* 80.4, pp. 1384–1421.
Easterly, William (2002). "The cartel of good intentions: The problem of bureaucracy in foreign aid." *The Journal of Policy Reform* 5.4, pp. 223–250.
Eichstaedt, Peter (2011). *Consuming the Congo: War and conflict minerals in the world's deadliest place*. Chicago, US: Chicago Review Press.

CEU eTD Collection

Esteban, Joan, Laura Mayoral, and Debraj Ray (2012). "Ethnicity and conflict: An empirical study." *American Economic Review* 102.4, pp. 1310–42.
Esteban, Joan and Debraj Ray (1999). "Conflict and distribution." *Journal of Economic Theory* 87.2, pp. 379–415.
Filson, Darren and Suzanne Werner (2002). "A bargaining model of war and peace: Anticipating the onset, duration, and outcome of war." *American Journal of Political Science*, pp. 819–837.
Fjelde, Hanne (2015). "Farming or fighting? Agricultural price shocks and civil war in Africa." *World Development* 67, pp. 525–534.
Fjelde, Hanne and Indra De Soysa (2009). "Coercion, co-optation, or cooperation? State capacity and the risk of civil war, 1961—2004." *Conflict Management and Peace Science* 26.1, pp. 5–25.
Frot, Emmanuel (2009). "Aid and the financial crisis: Shall we expect development aid to fall?" *Available at SSRN 1402788*.
Gehring, Kai, Sarah Langlotz, and Stefan Kienberger (2020). *Stimulant or depressant? Resource-related income shocks and conflict*. Households in Conflict Network (HiCN) Working Paper No. 286. Retrieved from SSRN: https://ssrn.com/abstract=3224444.
Goldstein, Judith L and Margaret E Peters (2014). "Nativism or economic threat: Attitudes toward immigrants during the great recession." *International Interactions* 40.3, pp. 376–401.
Harari, Mariaflavia and Eliana La Ferrara (2018). "Conflict, climate, and cells: A disaggregated analysis." *Review of Economics and Statistics* 100.4, pp. 594–608.
Hoff, K and JE Stiglitz (2005). "The Creation of the Rule of Law and the Legitimacy of Property Rights: The Political and Economic Consequences of a Corrupt Privatization." *NBER working paper 11772, Cambridge, MA*.
Koko, Sadiki (2014). "The Mouvement du 23 Mars and the dynamics of a failed insurgency in the Democratic Republic of Congo." *South African Journal of International Affairs* 21.2, pp. 261–278.
Krosnick, Jon A (2002). "The causes of no-opinion responses to attitude measures in surveys: They are rarely what they appear to be." *In.: R. M. Groves, D. A. Dillman, J. L. Eltinge, R. J. A. Little (Eds.), Survey nonresponse*, pp. 87–100.
Kustov, Alexander, Dillon Laaker, and Cassidy Reller (2021). "The stability of immigration attitudes: Evidence and implications." *Journal of Politics* 83 (4), pp. 1478–1494.
Lei, Yu-Hsiang and Guy Michaels (2014). "Do giant oilfield discoveries fuel internal armed conflicts?" *Journal of Development Economics* 110, pp. 139–157.
Levi, Margaret (1988). *Of rule and revenue*. Berkeley: University of California Press.
— (2006). "Presidential address: Why we need a new theory of government." *Perspectives on Politics* 4.1, pp. 5–19.
Marshall, Monty, Keith Jaggers, and Ted Gurr (2012). "Political regime characteristics and transitions, 1800-2008, Polity IV Project." *Center for Systemic Peace*.
Matti, Stephanie (2010). "Resources and rent seeking in the Democratic Republic of the Congo." *Third World Quarterly* 31.3, pp. 401–413.

CEU eTD Collection

McBride, Michael, Gary Milante, and Stergios Skaperdas (2011). "Peace and war with endogenous state capacity." *Journal of Conflict Resolution* 55.3, pp. 446–468.
McGuirk, Eoin and Marshall Burke (2020). "The economic origins of conflict in Africa." *Journal of Political Economy* 128.10, pp. 3940–3997.
Mendoza, Ronald U, Ryan Jones, and Gabriel Vergara (2009). "Will the global financial crisis lead to lower foreign aid? A first look at United States ODA." *Fordham University, Department of Economics, Fordham Economics Discussion Paper Series, New York*.
Mesquita, Ethan Bueno de (2013). "Rebel tactics." *Journal of Political Economy* 121.2, pp. 323–357.
Michalopoulos, Stelios and Elias Papaioannou (2016). "The long-run effects of the scramble for Africa." *American Economic Review* 106.7, pp. 1802–48.
Miguel, Edward, Shanker Satyanath, and Ernest Sergenti (2004). "Economic shocks and civil conflict: An instrumental variables approach." *Journal of Political Economy* 112.4, pp. 725–753.
Morelli, Massimo and Dominic Rohner (2015). "Resource concentration and civil wars." *Journal of Development Economics* 117, pp. 32–47.
Morrison, Kevin M (2012). "What can we learn about the "resource curse" from foreign aid?" *The World Bank Research Observer* 27.1, pp. 52–73.
Moss, Todd J, Gunilla Pettersson Gelander, and Nicolas van de Walle (2006). "An aid-institutions paradox? A review essay on aid dependency and state building in Sub-Saharan Africa." *Center for Global Development Working Paper* 74.
Nielsen, Richard A, Michael G Findley, Zachary S Davis, Tara Candland, and Daniel L Nielson (2011). "Foreign aid shocks as a cause of violent armed conflict." *American Journal of Political Science* 55.2, pp. 219–232.
North, Douglass C, John Joseph Wallis, Barry R Weingast, et al. (2009). *Violence and social orders: A conceptual framework for interpreting recorded human history*. Cambridge University Press.
Nunn, Nathan (2019). "Rethinking economic development." *Canadian Journal of Economics* 52.4, pp. 1349–1373.
Polman, Linda (2010). *The crisis caravan: What's wrong with humanitarian aid?* Metropolitan Books.
Powell, Robert (2002). "Bargaining theory and international conflict." *Annual Review of Political Science* 5.1, pp. 1–30.
— (2006). "War as a commitment problem." *International Organization* 60.1, pp. 169–203.
Roodman, David (2008). "History says financial crisis will suppress aid." *Global Development: Views from the Center*.
Roubini, Nouriel and Jeffrey D Sachs (1989). "Political and economic determinants of budget deficits in the industrial democracies." *European Economic Review* 33.5, pp. 903–933.
Sarsons, Heather (2015). "Rainfall and conflict: A cautionary tale." *Journal of Development Economics* 115, pp. 62–72.

CEU eTD Collection

Savun, Burcu and Daniel C Tirone (2012). "Exogenous shocks, foreign aid, and civil war." *International Organization* 66.3, pp. 363–393.

Taydas, Zeynep and Dursun Peksen (2012). "Can states buy peace? Social welfare spending and civil conflicts." *Journal of Peace Research* 49.2, pp. 273–287.

Thyne, Clayton L (2006). "ABC's, 123's, and the golden rule: The pacifying effect of education on civil war, 1980–1999." *International Studies Quarterly* 50.4, pp. 733–754.

Uvin, Peter (1998). *Aiding violence: The development enterprise in Rwanda*. Kumarian Press.

Walle, Nicolas van de (2007). "Meet the new boss, same as the old boss? The evolution of political clientelism in Africa." *In: H. Kitschelt and S. Wilkinson (Ed.), Patrons, Clients, and Policies: Patterns of Democratic Accountability and Political Competition. Cambridge: Cambridge University Press*.

Winters, Matthew S and Gina Martinez (2015). "The role of governance in determining foreign aid flow composition." *World Development* 66, pp. 516–531.

Wooldridge, Jefrey M. (2010). *Econometric Analysis of Cross Section and Panel Data*. MIT Press.

CEU eTD Collection