The Grass is always Greener on the Other Side: (Unfair) Inequality and Support for Democracy*

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Abstract

Does inequality undermine support for democracy? While previous research has either focused on macro-level associations or alleged a uniform relationship between inequality and individual democratic support across countries, this paper documents the importance of the current regime type and of the source of inequality for such a linkage. Exploiting differential transition to democracy after the collapse of the Soviet Union allows to investigate the association of democratic support across regimes with differing levels of democracy. Inequality is found to erode democratic support in democracies and to foster democratic beliefs in non-democracies. In other words, inequality always subverts individual-level support for the current regime type. Further, evidence is provided for the relevance of disentangling the sources of economic inequality in line with fairness concerns: While unfair inequality (generated by factors beyond an individual's control) and total inequality both are significantly correlated to democratic support, unfair inequality appears to be the relevant inequality component driving this association.

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1. Introduction

The linkage between income inequality and citizens' support for democracy has drawn attention in economics and political science alike (e.g. Acemoglu et al., 2015; Andersen, 2012). While political economists focus on potential redistribution from wealthy elites to poor citizens as drivers of democratic support (Acemoglu and Robinson, 2001; Boix et al., 2003), political scientists put forward the importance of normative popular support for the stability of democracy (Lipset, 1959; Claassen, 2020). A direct causal link between inequality and democracy is ambiguous but the association between economic inequality on normative attitudes towards democracy is found to be negative (Andersen, 2012; Krieckhaus et al., 2014; Wu and Chang, 2019).

Previous research has mostly neglected the sources of inequality when investigating this linkage. Yet, fairness concerns are important for preferences for redistribution and societal inequality (Alesina and Giuliano, 2011; Starmans et al., 2017) and deeply rooted in the concept of democracy (Verba, 2006). Hence, citizens' regime evaluation does not only rely on economic outcomes but also on procedural fairness (Magalhães, 2016).

This paper provides further evidence on the linkage between inequality and normative attitudes about democracy by documenting (i) differential associations based on current regime type and (ii) the importance of the source of inequality. While high economic inequality can undermine support for democracy in fully democratic regimes, it may foster democratic beliefs and support for a democratic regime in autocracies, i.e., the grass is greener on the other side the more inequality there is on this side. Although economic inequality per se might undermine regime support, unfair inequality (generated by factors beyond an individual's control) appears to drive this association, i.e., the more prevailing inequality is due to unfair processes, the larger its negative impact on normative popular regime support.

Regime support motives can be distinguished along two dimensions (Krieckhaus et al., 2014): *egocentric* and *sociotropic*, i.e., individuals evaluate their personal benefit and the overall societal outcomes under the current regime. Combining the Meltzer and Richard framework of democracy as vehicle for redistribution and the documented importance of process fairness and social mobility for redistributive preferences (Alesina and Giuliano, 2011) is the starting point of the paper. An investigation of the impact of economic inequality on democratic support under the light of fairness considerations has been absent for the literature. Yet, the source of inequality shapes its impact, e.g., fair inequality is growth-enhancing while unfair inequality is growth-deterring (Marrero and Rodríguez, 2013, 2023; Bradbury and Triest, 2016; Aiyar and Ebeke, 2020). Hence, this paper applies such distinction to the linkage between inequality and popular support and extends the literature on normative attitudes and post-socialist transition (Mishler and Rose, 2002; Alesina and Fuchs-Schündeln, 2007; Brock et al., 2016).

Despite the absence of longitudinal data, leveraging countries' differing transition progress from authoritarian rule to democracy after the collapse of the Soviet Union allows to investigate the linkage between (unfair) inequality and normative popular regime support across regimes with varying degrees of democratic rule in a group of 23 countries sharing previously similar general conditions. Given the cross-sectional nature of the data available to us, we are not able to use either dynamic panel data techniques or an instrumental variables approach to causally identify the investigated linkage. Our analysis is essentially descriptive, although we do provide an extensive robustness analysis which we hope is suggestive.

Drawing on the concept of inequality of opportunity (Roemer, 1998), which deems inequality due to responsibility factors, such as effort, as fair, and inequality due to circumstances which are beyond individual control as unfair, unfair inequality (UI) is estimated by isolating the unfair portion of total inequality (I). These UI estimates are used jointly with I and other macroeconomic variables in a individual-level regression analysis of normative democratic support. Both sociotropic motives, I and UI, are found to affect support for democracy but (i) higher levels of total/unfair inequality are associated with lower democratic support in democracies but higher democratic support in non-democracies, and (ii) UI is found to be the dominant factor, i.e., considering both inequality measures jointly none of them remains significant but when considering UI and the inequality residual (i.e., $I - UI$) jointly, only the former is highly significant.

Further, in line with an egocentric evaluation premise, the importance of the individual's consumption decile as well as the individual's perceived intergenerational mobility are confirmed, i.e., support for democracy is increasing in both characteristics. However, the importance of these egocentric motives appears to be stronger for individuals living in democratic regimes.

The remainder of this paper is organized as follows. First, section 2 describes the conceptual framework of attitude formation with further discussion on transmission channels and related literature. Section 3 introduces data sources. The empirical framework is laid out in section 4 and sections 5 and 6 present results and sensitivity analyses. Lastly, section 7 discusses the limitations of the analysis and concludes with suggestions for further research.

2. Conceptual Framework

This paper is embedded in several strands of the literature in political science and economics. Tackling the question of the source of democratic support, it combines political-economy considerations with fairness concerns underlying individual's normative attitudes.

Political science has established that political legitimacy, i.e., the belief that existing political institutions are the most appropriate ones, as provided by normative popular democratic support, is one of the principal requisites of a stable democracy (Lipset, 1959; Claassen, 2020).[1]

The **democratic support motives** can be split along two dimensions following Krieckhaus et al. (2014): *sociotropic* reasons linked to societal outcomes and *egocentric* motives related to individual outcomes. The egocentric dimension can be further divided into *retrospective* and *prospective* motives (i.e., backward and forward looking).[2] These two egocentric dimensions are operationalized via realized intergenerational mobility (e.g., has the individual experienced/perceives an improvement in the standard of living compared to his/her parents) and rank in the consumption expenditure distribution as economic affluence is likely to be affected through changes in redistribution induced by democratic rule.

Given a redistributive characterization of democracy (Meltzer and Richard, 1981), preference for redistribution can motivate democratic support. Redis-

[1] Regime support can differentiated between specific and diffuse support (Easton, 1975), i.e., specific support focuses on regime outputs, while diffuse support focuses on the principles of the regime. Whereas the former exhibits an instrumental character and, hence, might be rather volatile across time and government performance, the later is normative and, therefore, more durable, helping to bolster regimes during political or economic crises (Easton, 1975). Normative democratic support is significantly linked to subsequent democratic change and even more strongly to its endurance (Claassen, 2020). Both, emergence and endurance of democracy are linked to resource inequality (Jung and Sunde, 2014).

[2] *Retrospective* means that an individual's support level depends on the past performance of the current level of democracy, e.g., how the past practice of (non-) democracy has shaped the individual outcome. Contrariwise, *prospective* corresponds to the individual' democratic support being driven by expected future individual gains of a democratic regime, e.g., how her own economic well-being is expected to evolve.

tributive preferences are linked to beliefs about distributive fairness (Alesina and Angeletos, 2005; Alesina and La Ferrara, 2005), i.e., individuals prefer more redistribution to the poor if they believe that poverty is caused by circumstances beyond an individual's control rather than individual effort, and beliefs about intergenerational mobility (Piketty, 1995; Alesina et al., 2018), i.e., individuals being optimistic about mobility tend to favor less generous redistributive policies (i.e., "prospect of upward mobility" hypothesis, Benabou and Ok, 2001).

De Tocqueville (1835) claimed that greater social mobility makes the transition to democracy and its consolidation more likely, i.e., if members of a social group expect to transition to some other social group in the near future, they should have less reason to exclude these other groups from the political process. Yet, based on a formal analysis, Acemoglu et al. (2018) reject a unique relationship but call for an empirical investigation of the linkage between social mobility and regime support.

Inequality of Opportunity (IOp) can be regarded as the missing link between the concepts of income inequality and social mobility (Brunori et al., 2013), i.e., if higher inequality decreases intergenerational mobility, this is likely due to opportunities for economic advancement being more unequally distributed among children and, conversely, lower mobility may contribute to the persistence of income inequality through making opportunity sets very different among the children of different income classes. The IOp framework (Roemer, 1998) decomposes inequality into two components: inequality that can be traced back to differences in *effort* is generally perceived as "*fair*", while inequality due to differences in *circumstances* (e.g., unequal starting conditions) is regarded as "*unfair*". Even though individual perception on social mobility and IOp is prone to errors (Attias-Donfut and Wolff, 2001; Brunori, 2017) and the perception's impact in the attitude formation process is correlated with political orientation (Alesina et al., 2018),[3] IOp as objective measure of unfair inequality and social mobility can still be important for preferences and normative attitudes.

The impacts of I and UI on attitudes towards democracy are closely linked as the latter is part of the former but UI is likely to be the more relevant factor. "Inequalities, like cholesterol, can be either good or bad"

[3] Brunori (2017) finds personal experiences of intergenerational social mobility and other country-level factors to be important determinants of perceived IOp.

(Ferreira, 2007), i.e., the impact of inequalities depends on their source. For example, fair (i.e., effort-related) inequalities can be growth-enhancing whereas UI is growth-deterring (e.g., Marrero and Rodríguez, 2013, 2023). Similarly, one can conjecture that fair inequalities are non-detrimental to or potentially legitimizing the current regime as they allow effort to be rewarded while unfair inequalities delegitimize the current regime given its unequal opportunity provision. The existence of fair outcome inequality adheres to the reward principle which requires societies to respect rewards to individual effort and, hence, is part of/prerequisite of a functioning regime, i.e., in its absence individuals would defect from supporting the current regime type. Contrary, UI is the embodiment of the current regime's inability to provide equal opportunities and, therefore, its presence erodes support for the current regime type.

Although preferences over (fair) outcome equality may differ within the population (Cappelen et al., 2007, 2013), equal opportunities can be regarded as lowest common denominator, i.e., while most individuals favor some ex-post redistribution and many make a distinction between inequalities resulting from choices and luck, ex-ante opportunities is minimum fairness criteria to be agreed upon. Hence, while the impact of fair inequalities on democratic support may vary across citizens, UI should reduce support for the current regime more widely. Therefore, the larger the share of inequality that is unfair, the more detrimental the impact of I on current regime support.

Extending prior research on normative popular democratic support by alleging an impact of (unfair) inequality that depends on the prevailing political regime, the hypotheses along two dimensions of democratic support (Krieckhaus et al., 2014) are derived as follows:

The **sociotropic dimension** is characterized by two partially opposing channels:

Following the survey-based political science literature (e.g., Karl, 2000), high levels of inequality will be attributed to a non-satisfactory performance of the current system of government, i.e., high levels of inequality are expected to lead to disillusion/frustration about democracy and lower levels of democratic support in democratic societies while nourishing the support for democracy in non-democratic societies. In other words, "*the grass is always greener on the other side*". Such prediction aligns for non-democracies with the political economy literature (e.g., Acemoglu and Robinson, 2006), i.e., higher levels of inequality entail larger potential societal gains from redistribution through democracy and, hence, higher democratic support. Yet, we expect this redistributive motive to be overruled by the former disillusion effect in democracies.

While the direction of the impact for I is expected to be the same, we hypothesize that UI is the driving force behind the association of inequality and democratic support, i.e., when jointly considering I and UI, the latter should be more strongly associated to support for democracy. Two potential transmission channels of UI on support for democracy are (i) the composition of population, i.e., less UI corresponds to a larger part of the population with access to high economic opportunities, given that the ideal of democracy is associated with equal opportunities and individuals who benefit from higher opportunities (e.g., experienced social upward mobility) are more supportive of democracy, a larger share of high opportunity individuals would translate into higher aggregated support for democracy; and (ii) a public good motive, i.e., given that individuals value equal opportunities as such and the ideal of democracy is associated to opportunity equalization, one may conjecture for individuals living in non-democracies to further embrace democracy to move towards equal opportunities (i.e., higher levels of democratic support) and for individuals living in full democracies to lose trust in democracy (i.e., lower levels of democratic support).

Further, growth may act as potential mediator of the alleged linkages, i.e., in societies where the standard of living is improving rapidly, I and, potentially to a lesser degree, UI may undermine support for the current regime to a smaller extent (given that the growth dividend is shared equally or at least not mostly captured by the most affluent citizens). Similarly, in line with its mediating role in the linkage of I or UI and growth (Marrero and Rodríguez, 2023), poverty could alter the suggested linkages, i.e., the relevance of economic inequality and unequal opportunities might be especially detrimental to regime support in the presence of high poverty levels.

The **egocentric dimension** yields different hypotheses along the distinction between *retrospective* and *prospective* support motives. Following the political economy literature with self-interested individuals (e.g., Meltzer and Richard, 1981; Boix et al., 2003), future gains from redistribution through democracy depend on the individual's current level of consumption and, hence, support for democracy should be lower for individuals with high income than for low-income individuals.

This "*Meltzer-Richard*" hypothesis constitutes the *prospective* view. Experienced social mobility on the other hand constitutes a backward looking assessment of individual welfare and, hence, a *retrospective* view. Following research in sociology (Daenekindt et al., 2018), upward-mobile individuals are expected to be supportive of the current regime type since it has performed well by enabling or preserving their privileged economic status, whereas the contrary is expected for downward mobile individuals. This translates into the hypothesis of higher democratic support for upward-mobile individuals in democracies and downward-mobile individuals in non-democracies opposed to less democratic support for upward-mobile individuals in non-democracies and downward-mobile individuals in democracies.

These *egocentric* motives could also interact with the *sociotropic* dimension. Given a *prospective* assessment, the negative relationship between an individual's current consumption rank and support for democracy should become stronger with the level of inequality as economically affluent individuals could expect larger loss from redistribution through democracy. This reinforcing linkage should be particularly present in non-democracies due to more likely redistribution efforts induced by democratic transformation. Also in the case of *retrospective* motives, the alleged linkage could be reinforced by higher prevailing inequality, i.e., the disillusion/frustration of downward mobile individuals with the current regime should increase the impact of inequality on lower democratic support levels in democracies and higher support for democracy in non-democracies (Dahl, 1971).

3. Data & Variable Definitions

The primary data source is the most recent wave (2016) of the Life in Transition Survey (LiTS), a cross-sectional household survey administered by the European Bank for Reconstruction and Development (EBRD) and the World Bank. The data are comparable across 28 former communist countries ("transition countries").[4,5] The number of households interviewed per country is ca. 1,500, generating a nationally representative sample of

[4]Following Gugushvili (2020), Bosnia and Herzegovina is excluded from the group of former communist countries because of complicated socio-political arrangements. The full dataset includes 3 Western democracies as comparator countries (Germany, Italy and Greece) as well as Turkey and Cyprus. While the later may not serve as comparator countries as they have featured their own democratic transitions, though each of a different kind, the former group is too small to constitute a valid group for comparison.

[5]The previous wave of the LiTS in 2010 exhibits a substantially smaller size by country (ca. 800 individuals). This limited sample size causes estimates of UI to be quite noisy, which impedes a direct comparison to the 2016 measures.

households (see appendix table A1). The LiTS provides extensive individual-level information on circumstances and attitudes, and covers countries with heterogeneous levels of democratization and economic development.

While the usage of a cross-sectional dataset impedes Dynamic Panel Data (DPD) techniques (Arellano and Bond, 1998), we face the same data limitation as the growth and UI literature, i.e., the absence of comparable UI estimates across time (e.g., Aiyar and Ebeke, 2020). Even in the presence of longitudinal UI estimates, their within-country variation is limited (Ferreira et al., 2018; Marrero and Rodríguez, 2023) which hinders identification.[6] This is partially due to cross-sectional changes consisting of changes in the population composition (i.e., older cohorts die, new cohorts are born) and changes in the opportunity structure across birth cohorts (i.e., changes in the educational system, the labour market structure, etc.). In turn, cross-sectional UI estimates evolve slowly/mask changes in different (birth cohort-specific) parts of the population (e.g., Bussolo et al., 2023, 2024). Given the common regime and societal structure prior to the collapse of the Soviet Union, our sample of former communist countries constitutes an interesting laboratory to investigate the relationship between I or UI and support for democracy across regimes with varying degrees of democratic rule.

3.1. Unfair Inequality

The relevant outcome is monthly household consumption expenditure per capita based on 7 different consumption categories (food, utilities, transportation, education, health, clothing, durable goods), i.e., a proportional intra-household distribution of consumption and zero economies of scales in consumption are assumed (Brunori et al., 2019a). As income is measured with greater error than consumption expenditure and consumption being closer to permanent income than current income (given access to consumption-smoothing mechanisms), Deaton (1997) argues for preferring consumption over income data in assessing the distribution of welfare in de-

[6] Aiyar and Ebeke (2020) revert to using an interaction term of I and UI where the latter component remains constant across the whole sample period (i.e., no variation in UI is used). Marrero and Rodríguez (2023) draw on an institutional proxy for UI in their main specification which exhibits substantially more variation than the estimates of Ferreira et al. (2018). The latter conclude that "despite having diligently combed the latest literature on GMM estimation techniques (...), examining our results does not suggest that these econometric techniques are reliable strategies for addressing the question at hand."

veloping countries. Additionally, consumption inequality in almost all countries is lower than income inequality (Deaton and Grosh, 2000), so consumption inequality can be interpreted as a lower bound for income inequality. Similar to Brunori et al. (2023), the country-specific consumption distribution is winsorized at the 0.5th and the 99.5th-percentile to curb the influence of outliers.[7] Following the literature (see Hufe et al., 2022, for an overview), the analysis focuses on the working age population, i.e., all individuals in the surveyed household aged between 25 and 64, and uses appropriate individual cross-sectional weights to ensure national representativeness.

Circumstance variables are recorded on the individual level and include mother's and father's education, parental membership in communist party, place of birth and ethnicity.[8] In line with Brunori et al. (2019a) and Hufe et al. (2022), a meaningful pre-aggregation of parental education into 4 categories (no primary, primary, secondary, tertiary education) is performed.[9]

Parental political affiliation (i.e., whether a parent was a communist party member) captures network effects as party membership was often required for admission into specific schools and professions during Communism (Heyns, 2005). In turn, following Brock (2020), a dummy variable for parental communist party membership is included in the set of circumstances. Respondent's place of birth affects the development opportunities during childhood as well as the residence later in life with the associated economic opportunities (Brunori et al., 2019a). In line with Álvarez and Menéndez (2018) and Brock (2020), the place of birth variable distinguishes between urban and rural areas. Belonging to an ethnic minority can severely limit development and employment opportunities through outright discrimination or language barriers (Ferreira and Gignoux, 2011). Based on self-reported ethnicity, respondents' minority status is included as a binary variable. Tables A1 and A2 present summary statistics of the circumstance variables.

The alignment of the LiTS sample with public data is key to the validity of the UI estimates. For its assessment, we draw on the Standardized World

[7]Consumption expenditure is an aggregation of 7 different consumption items within which values are winsorized 0.5th and the 99.5th-percentile.

[8]Following Ferreira and Gignoux (2011), gender is excluded from the set of circumstances as the outcome (i.e., consumption expenditure) is defined at the household level.

[9]The pre-aggregation is performed on the country-level. This procedure does not automatically impede comparability across countries as the relevant circumstance granularity and aggregations are likely to vary across countries (Brunori et al., 2019b).

Income Inequality Database (SWIID) which aims to maximize the comparability of income inequality data across time and countries, and provides confidence intervals to capture the underlying data quality (Solt, 2020). To assess the data quality of LiTS, confidence intervals of the country samples' Gini coefficients are derived based on 200 bootstrapped re-samples and compared to the SWIID (see figure A1 and table A3). As the SWIID reports Gini coefficients for disposable income, its estimates are viewed as upper bound for the generated consumption expenditure measures based on LiTS. Hence, UI estimates which are based on consumption distributions with inequality well above the upper end of the SWIID's confidence interval are excluded from the analysis which leaves a total of 25 countries.[10]

3.2. Democratic Support

As mentioned earlier, the focus of the paper is the normative (diffuse) support for democracy, i.e., do individuals believe that democracy is the best regime type. In line with previous studies (Gugushvili, 2020; Claassen, 2020), this attitude towards the political regime is measured dichotomously based on the question "With which one of the following statements do you agree most?", which exhibits 3 possible answers (1) "Democracy is preferable to any other form of political system", (2) "Under some circumstances, an authoritarian government may be preferable to a democratic one", and (3) "For people like me, it does not matter whether a government is democratic or authoritarian"; where only (1) is counted as support for democracy, while (2) and (3) are regarded as non-support.

3.3. Country-level Variables

The employed measures of the level of democratization are based on the Varieties of Democracy Project (V-Dem). Two alternative measures with varying degree of granularity are used: (i) a binary classification of democratic regime (i.e., based on the regime measure of V-Dem) and (ii) a more

[10]Such exclusion only applies to Kyrgyzstan and Moldova. Tajikistan exhibits the highest difference between estimation sample and SWIID Gini coefficient (0.341 vs 0.442) which calls in to question the data's ability to capture inequality such that derived UI measures are likely to substantially understate prevailing UI. For these reasons, Tajikistan is excluded from the analysis. Azerbaijan and Uzbekistan are not covered in SWIID and no reliable data source is available to verify the Gini coefficient.

redefined continuous measure (i.e., the liberal democracy measure of V-Dem, see Claassen (2020) for discussion on democracy measures).[11]

Given the absence of SWIID estimates for Azerbaijan and Uzbekistan and the preferable, unified measurement concept and data source for all considered countries, the Gini coefficients are based on the LiTS. To account for the quality of institutions as potential confounder (Brock, 2020; Wagner et al., 2009), the governance measure from the Worldwide Governance Indicator (WGI) project (Kaufmann and Kraay, 2019) is used. The database provides country-level assessments of formal institutions that are not directly attributed to the form of government/regime itself: government effectiveness, regulatory quality, rule of law and control of corruption. Scores [-2.5, 2.5] are relative, i.e individual index scores for each year are normalized to have a mean of zero across all countries of the database, and the scale has no inherent value. Following Easterly and Levine (2016) and Brock (2020), the employed governance indicator is the average of the scores across the 4 mentioned dimensions.

All other macroeconomic indicators, i.e., current log GDP per capita, 5 year annualized GDP per capita growth rate, average unemployment rate and average governmental expenditure as share of GDP across the last 5 years, are obtained from the IMF World Economic Outlook database (WEO) and the World Bank World Development Indicators (WDI).[12] Changing these variables into lags, decreasing their time span to 3 years or using contemporary values, i.e., accounting for different levels of inertia, does not qualitatively alter results.[13] Additionally, a dummy variable for new EU member states is included.

[11]The V-Dem regime measure consists of four categories (closed/electoral autocracy, electoral/liberal democracy) which are dichotomized (autocracy, democracy). Closed/electoral autocracy have to be pooled due the limited number of countries in our sample and regression coefficients for electoral and liberal democracy are reasonably close to favor the usage of a binary democracy indicator.

[12]GDP per capita is a proxy for a country's economic development/affluence. Average GDP per capita growth rate and average unemployment rate across the last 5 years are proxies for medium-run regime performance. Average governmental expenditure as share of GDP is a proxy for the size of the state in the economy.

[13]Unfortunately, we cannot check for a lagged impact of UI given the absence of longitudinal estimates.

3.4. Individual-level Variables

The standard controls are a gender dummy, age and age squared, educational attainment (no/primary, secondary, tertiary education) and a minority indicator. Further, a binary indicator for life-satisfaction is included as individuals in former communist countries have been found to link life satisfaction and perceived regime performance (Djankov et al., 2016).[14] Following Gugushvili (2020), the individual's perceived mobility experience is captured by the respondent's agreement with the statement "I have done better in life than my parents".[15] The individual's economic well-being is measured by her decile in the country-wide distribution of monthly household consumption expenditure per capita. Lastly, a dummy variable for the experience of communism, i.e., being aged 16 or older at the fall of the iron curtain in 1990, is included as having lived/been socialized under communism has lasting effects on preferences (Alesina and Fuchs-Schündeln, 2007), e.g., individuals have to re-learn political support in relation to the new regime (Mishler and Rose, 2002).

4. Empirical Framework

This section introduces the empirical framework underlying the analysis. Section 4.1 discusses the estimation of UI. Subsequently, section 4.2 lays out an empirical model of support for democracy which incorporates these UI estimates.

4.1. Unfair Inequality Estimation

The workhorse model, initially proposed by Van de Gaer (1993), regards individual outcome y_i as being determined by individual characteristics which are classified into circumstances C_i and effort E_i. Consider a finite population indexed by $i = 1, \ldots, N$ and each individual being characterized by the tuple $\{y_i, C_i, E_i\}$. Regarding outcome differences due to a correlation between

[14]The latter binary indicator is based on the question "All things considered, I am satisfied with my life now" with answer choice ranging from "strongly disagree" (1) to "strongly agree" (5) and (3) being "Neither disagree nor agree", where affirmative responses ("agree" (4), "strongly agree" (5)) are coded as satisfied with life and (1)-(3) being regarded as non-satisfaction. More granular coding (i.e., 3 and 5 categories) is been tested without qualitative nor quantitative changes of the results.

[15]Based on the response scale of footnote 14 and coded in 5 levels.

circumstances and effort as a violation of equality of opportunity, circumstances have a direct and an indirect effect on the outcome.[16] Based on this assumption (Bourguignon et al., 2007), the outcome generating process can be written as $y_i = g(C_i, E_i(C_i))$. The information on C_i is used to construct a partition of disjunct types $\Omega = \{T_1, \ldots, T_P\}$ such that all members of a type are homogeneous in their circumstances C_i. Equality of opportunity is achieved if all types have the same outcome distribution. However, since estimating the full outcome distribution of a given type is challenging due to limited sample size, the average outcome of type k, denoted by μ^k, is considered as the value of the corresponding opportunity set. Hence, in this less demanding form, equal opportunities correspond to type-means being equalized across types, i.e., if $\mu^k = \mu^l$ for all l, k such that $T_k, T_l \in \Omega$. Computing inequality in a counterfactual distribution $\mu = (\mu_1^1, \ldots, \mu_i^k, \ldots, \mu_N^P)$ in which each individual i of type k is assigned her corresponding type outcome μ^k yields a scalar measure of $UI = I(\mu)$. This UI measure quantifies the extent to which circumstance characteristics are predictive the individuals outcome. The more circumstances beyond individual control influence outcomes, the more unequal opportunities are distributed, i.e., the larger extend of unfair inequality.

Conceptually, one wants to decompose total outcome inequality into an unfair and a fair component (e.g., Marrero and Rodríguez, 2013, 2023). Estimates of the unfair component are likely to be lower bounds of UI due to the omission of unobserved circumstances (Ferreira and Gignoux, 2011), i.e., while the entire set of unfair factors impacting the individual's outcome is empirically only partially observed, extending the set of observed circumstances (which is strict subset of this entire set) increases the granularity of the type partition through further subdividing types and, hence, increases inequality in μ. Empirically, we decompose total outcome inequality $I(y)$ into an unfair component (UI) and an inequality residual ($IR = I(y) - I(\mu)$, Ferreira et al., 2018). Assuming additive decomposability, we can further decompose IR into fair inequality (FI) and non-clearly attributable residual inequality (RI, Marrero and Rodríguez, 2023).[17] Therefore, we refrain from

[16] For example, certain groups may be banned from offices/positions due to outright discrimination (direct effect), which may provoke adjustments in individual effort because the imposed circumstance constraints alters the individual's optimization problem (indirect effect).

[17] Given that the Gini is not perfectly decomposable (footnote 19), the Gini residual K

labeling IR as "fair" component as, despite encompassing FI, it is presumably highly contaminated by many unobservable factors that could be related to effort or circumstances not included in the model, i.e., RI.

To measure UI, one has to obtain an estimate for the counterfactual distribution μ, i.e., $\hat{\mu}$. Adhering to the most recent development of the literature, $\hat{\mu}$ is estimated via conditional inference forests (Brunori et al., 2023) in a two-step procedure. First, one partitions the sample into types based on statistically relevant combinations of circumstances and estimates the arithmetic mean of the outcome of type k, $\hat{\mu_k}$. While previously the researcher imposed the structure of circumstances interaction (i.e., $g(C_i, E_i(C_i))$), forests constitute a data-driven alternative to such ad-hoc model selection. Forests are a collection of regression trees where each tree is estimated using a subsample of the original observations and a subsample of the original circumstances. Trees partition the sample into types by recursive binary splitting via a sequence of hypothesis tests and the mean for each of the resulting final types constitutes the type outcome. Second, the counterfactual $\hat{\mu}_i$ for each individual i is equal to the average value of the means of the types to which i belongs in 200 trees, and the inequality in $\hat{\mu}$ is measured.

Robustness of the results to alternative UI estimate procedures are checked.[18] Following Brunori et al. (2019a) and Aaberge et al. (2011), the Gini coefficient is employed as the main inequality measure but also UI estimates based on the mean log deviation (MLD) are provided and used given its full decomposablity.[19]

4.2. An Empirical Model of Support for Democracy

The empirical strategy aims to assess the hypotheses on the attitude formation of democratic support derived in section 2. Hence, the individual-level democratic support regressions contain variables representing both so-

is also contained in IR if the Gini is used as inequality measure, i.e., $IR = FI + RI + K$. Hence, when using the fully decomposable MLD to construct IR, the latter is a better proxy for FI.

[18] See section AII for a review on UI estimation methodologies and figure A2 and table A3 for estimation results.

[19] The Gini coefficient is not perfectly decomposable in between- and within-types inequality, i.e., $Gini(y) = Gini(y_{within}) + Gini(\mu) + K$, where K is a residual greater than zero when there is overlapping between the types' distributions. K measures the part of inequality that is jointly determined by effort (i.e., within) and circumstances (i.e., between), but that cannot be disentangled into the effect of effort and the effect of circumstances.

ciotropic and egocentric support dimensions:

$$\begin{aligned} support_{ic} = \alpha + \beta_1^{Ineq} Ineq_c + \gamma_1 r(y_{ic}) + \delta_1 mob_{ic} \\ + \Phi X_{ic} + \Lambda Z_c + \epsilon_{ic}\,, \end{aligned} \tag{1}$$

where i and c index individuals and countries, and $support_{ic}$ being binary support for democracy. $Ineq_c$ is a country-wide inequality measure, either total inequality I_c or our estimate of unfair inequality $\hat{UI}_c$, $Ineq \in \{I, \hat{UI}\}$ (i.e., *sociotropic* dimension). $r(y_{ic})$ is the individual's rank (decile) in the country's consumption distribution and mob_{ic} is the individual's perceived mobility experience (i.e., proxies for *prospective* and *retrospective egocentric* assessment). X_{ic} and Z_c are individual-level and country-level controls as laid out in section 3.

However, we allege that the associations of the two dimensions with democratic support are potentially varying by current regime type which is tested by introducing interaction terms of the relevant variables with a democracy indicator *demo* for the current regime type:

$$\begin{aligned} support_{ic} = \alpha + \beta_1^{Ineq} Ineq_c + \beta_2^{Ineq} Ineq_c \times demo_c \\ + \gamma_1 r(y_{ic}) + \gamma_2 r(y_{ic}) \times demo_c + \delta_1 mob_{ic} + \delta_2 mob_{ic} \times demo_c \\ + \Phi X_{ic} + \Lambda Z_c + \epsilon_{ic}\,. \end{aligned} \tag{2}$$

While a significant β_1^{Ineq} coefficient confirms some kind of *sociotropic* support motive, the significance of γ_1 and/or δ_1 would indicate the relevance of the *egocentric* dimension. Significant interaction terms (β_2^{Ineq},γ_2 and δ_2) would signal support motives to vary across regime types.[20]

Further, we want to investigate the importance of the source of inequality by jointly including both I_c and $\hat{UI}_c$:

$$\begin{aligned} support_{ic} = \alpha + \beta_1^{I} I_c + \beta_2^{I} I_c \times demo_c + \beta_1^{\hat{UI}} \hat{UI}_c + \beta_2^{\hat{UI}} \hat{UI}_c \times demo_c \\ + \gamma_1 r(y_{ic}) + \gamma_2 r(y_{ic}) \times demo_c + \delta_1 mob_{ic} + \delta_2 mob_{ic} \times demo_c \\ + \Phi X_{ic} + \Lambda Z_c + \epsilon_{ic}\,. \end{aligned} \tag{3}$$

Following Marrero and Rodríguez (2023), we can derive conditions to test our hypotheses with respect to the association of fair and unfair inequality with support for democracy based on the different components of total

[20]See section 6 for a test of varying associations of I and UI by economic affluence and mobility experience via an interaction term.

inequality, $I = UI + IR = UI + FI + RI$ (see section 4.1). Relating a hypothetical regression of FI and UI on democratic support with the actual regressions of (i) I and UI and (ii) IR and UI on democratic support using the un-/observed parts of each inequality components renders the following necessary conditions (see section AIII for details):

For opposing associations of UI across regimes to hold, we need $\beta^{\hat{UI}}_{non-demo} = \beta^{\hat{UI}}_1 > 0$ and $\beta^{\hat{UI}}_{demo} = \beta^{\hat{UI}}_1 + \beta^{\hat{UI}}_2 < 0$, i.e., UI increases democratic support in non-democracies and undermines it in democracies. Further, $\beta^{I}_{non-demo}$ needs to be smaller in equation (3) than equation (2) and β^{I}_{demo} to be larger in the respective comparison as the additional part in I compared to IR is the observable UI which is expected to positively impact β^{I}_1 and negatively impact β^{I}_2.

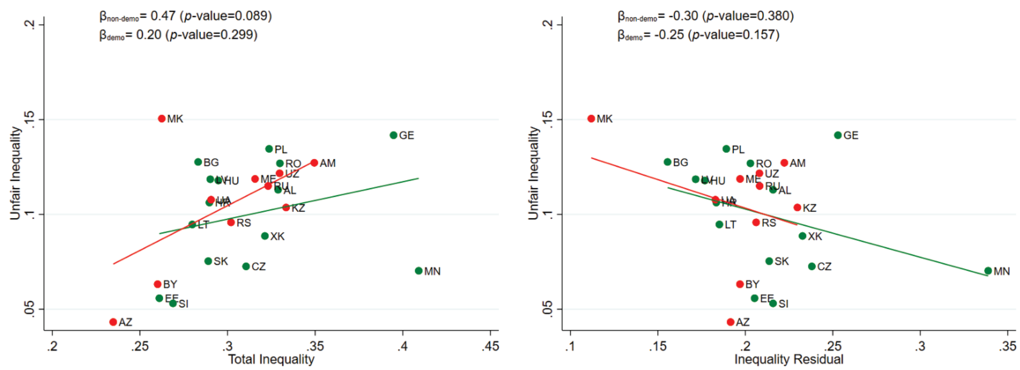
Altering the individual-level regression specifications by substituting the binary indicator with a continuous democracy measure, i.e., the liberal democracy index of V-Dem (see Claassen, 2020), translates the regime dependence of support motives to a more differentiated relationship. In other words, we test whether UI is worse for democratic support the more democratic the current regime is.

As the dependent variable of our individual-level analysis is binary (i.e., the individual either supports democracy as regime form or not), the regressions are probits estimated via maximum likelihood on the entire cross-section of countries. The main results follow the common practice of using robust standard errors (SE) clustered at the country-level to account for the potential correlation in the errors within countries (e.g., Brock, 2020; Andersen, 2012), i.e., errors are assumed to be independent between countries but are allowed to be correlated within country.[21] Note that the estimation does not provide strict identification and coefficients reflect correlations only.

[21] Cluster-robust SE exhibit a block-diagonal variance-covariance matrix structure due the assumed error independence across clusters. They remain consistent given any kind of between- and within-cluster heteroscedasticity under the key assumption that lower-level units belonging to different clusters are independent (Wooldridge, 2003). This assumption is arguably satisfied in our setting as individuals in country j are independent from individuals in country k, $\forall j, k \in C$. The main limitation of inference with cluster-robust SE is that the asymptotic justification assumes that the number of clusters goes to infinity which is apparently violated in our application and results in downward biased SEs (Bertrand et al., 2004).

Figure 1: Inequality Measures across Countries

(a) Total Inequality I & Unfair Inequality UI (b) Inequality Residual IR & Unfair Inequality UI



Notes: The figure plots country-level estimates of the different inequality measures using the Gini coefficent to provide information on their interrelation. The dot color represents the regime type (red: non-democracies, green: democracies). Total inequality I is decomposed into two parts, unfair inequality UI and an inequality residual IR, i.e., $I = UI + IR$ (Sources: LiTS; V-Dem).

5. Results

Figures 1 and 2 present country-level correlates which provide a general overview and foreshadow parts of the regression results with respect to sociotropic support motives. I and UI are positively correlated ($\rho = 0.492$, figure 1a), i.e., similar to the negative correlation between inequality and intergenerational mobility known as the "Great Gatsby Curve" (Corak, 2013; Brunori et al., 2013). IR and UI are weakly negatively correlated ($\rho = -0.238$, figure 1b).[22] A joint analysis of I and UI might be inconclusive due to correlation and nonlinearities such that we provide a complementary joint analysis of IR and UI.

The investigated group of former Soviet Union countries exhibits large differences with respect to the level of implemented democracy but also in terms of aggregated democratic support across both regime groups (figure 2a, non-democracies are red and democracies are green). When looking at the association between I or UI and support for democracy (figures 2b and 2c),

[22]See table A3 and figure A2 for estimates and 95% confidence intervals of I and UI. Reported correlations are based on the estimation sample, i.e., excluding Russia and North Macedonia.

we find a sizable positive association in non-democracies, which is stronger for UI than for I. For democracies, no clear pattern arises though the association between UI changes sign hinting at the alleged differential associations by current regime type. IR is not significantly associated with democratic support (figure 2d).

Figure 3 depicts correlates for egocentric support motives, i.e., averages across all countries by regime type for a given value of the individual-level variable. Again the two regime groups are identified by colors (non-democracies red, democracies green) and notable differences arise between the two groups. While the average mobility experience increases by consumption decile, this positive linkage is more pronounced for democracies (figure 3a). For both egocentric support motives the association with support for democracy is close to being muted in non-democracies whereas such linkage is much more pronounced in democracies (figures 3b and 3c).

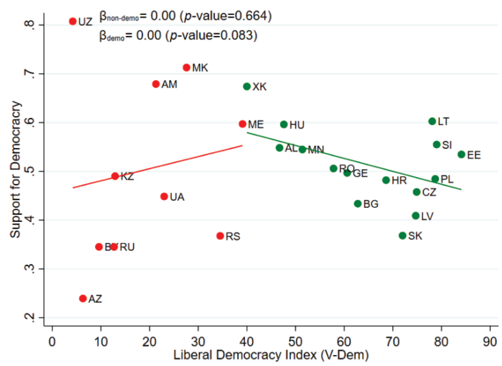
Table 1 presents the results from the main regressions of the paper based on the Gini coefficient as inequality measure. Columns 1 and 2 determine the linkage of I and support for democracy, whereas columns 3 and 4 investigate the linkage of UI with such supports. Jointly considering I and UI, columns 5 and 6 intend to investigate whether UI is the most strongly associated part of inequality to democratic support. Given the previously mentioned sizable correlation between I and UI, columns 7 and 8 represent a joint analysis of UI and IR. All regressions include controls for individual characteristics and macroeconomic factors as outlined in section 3. In line with previous cross-sectional research (Andersen, 2012), Russia is found to be an outlier (RU, low democratic support with elevated I given other development dimensions). But also North Macedonia qualifies as an outlier (MK, high democratic support and high level of UI) and, hence, both countries are excluded from the analysis as they significantly impact estimates.[23]

Assessing the impact of I or UI by solely including the respective measure into a regression of democratic support on individual-level and country-level factors (column 1 and 3) assumes similar association across regime types (equation (1)) and none of the respective coefficients is significant. Instead, including an interaction between the democracy indicator and the respective inequality measure (equation (2)) allows such associations to differ by current

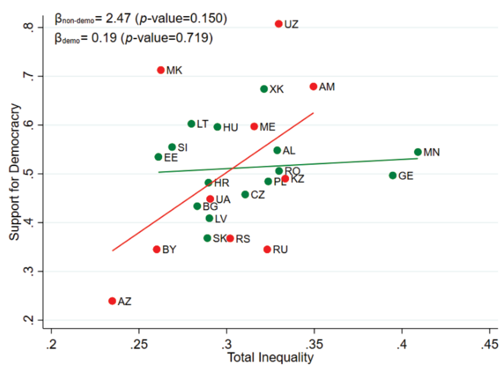
[23] See table A4 for estimates including Russia and North Macedonia, and figure A3 for stability of coefficients with respect to the exclusion of single countries.

Figure 2: Sociotropic Dimension of Democratic Support

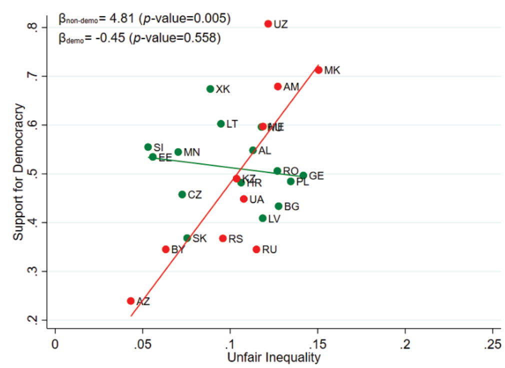
(a) Democracy Index & Support for Democracy



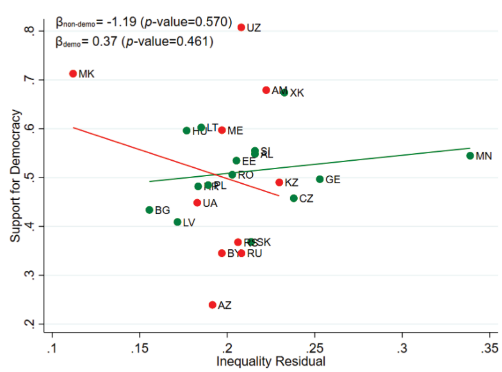
(b) Total Inequality I & Support for Democracy



(c) Unfair Inequality UI & Support for Democracy



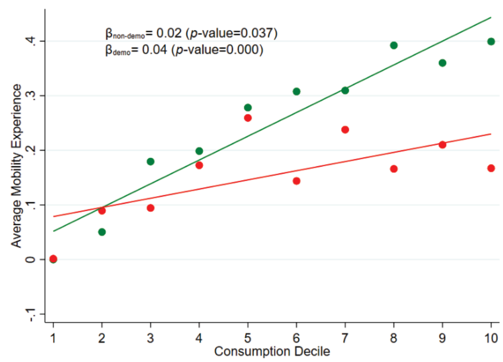
(d) Inequality Residual IR & Support for Democracy



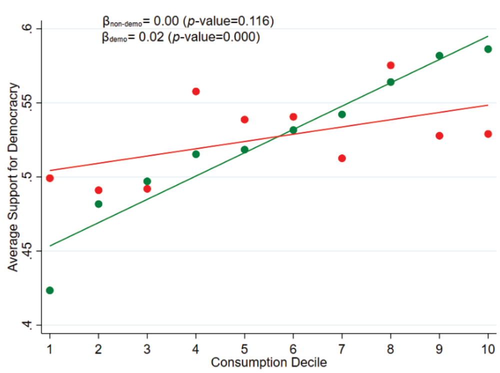
Notes: The figure depicts country-level correlates of average democratic support and (a) the level of democracy (V-Dem Index) and (b-d) the different inequality estimates (i.e., the sociotropic measures of interest) using the Gini coefficient. The dot color represents the regime type (red for non-democracies, green for democracies; Sources: LiTS; V-Dem).

Figure 3: Egocentric Dimension of Democratic Support

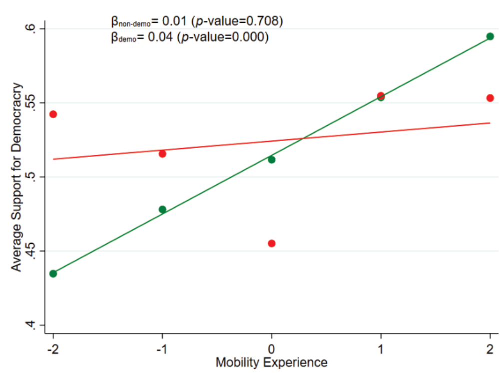
(a) Consumption Decile & Mobility Experience



(b) Consumption Decile & Support for Democracy



(c) Mobility Experience & Support for Democracy



Notes: The figure depicts, across the two regime types (red: non-democracy, green: democracy), (a) the average mobility experience by consumption decile (i.e., how the two dimensions are related) and the average democratic support-level along these two dimension (i.e., their linkage to democratic support; Sources: LiTS; V-Dem).

Table 1: Correlates of Democratic Support with Sociotropic and Egocentric Dimensions - Gini

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Total Inequality	2.473	9.249***			3.615	7.087		
	(2.069)	(1.710)			(2.502)	(9.601)		
Democracy × Total Inequality		-10.975***				-7.081		
		(2.323)				(10.608)		
Unfair Inequality			0.388	11.397***	-1.852	2.720	1.763	9.807***
			(2.140)	(2.235)	(2.384)	(12.368)	(2.258)	(3.382)
Democracy × Unfair Inequality				-14.368***		-5.487		-12.568***
				(2.321)		(13.542)		(3.806)
Inequality Residual							3.615	7.087
							(2.502)	(9.601)
Democracy × Inequality Residual								-7.081
								(10.608)
Consumption Decile	0.018***	0.004	0.018***	0.004	0.018***	0.004	0.018***	0.004
	(0.006)	(0.007)	(0.006)	(0.007)	(0.006)	(0.007)	(0.006)	(0.007)
Democracy × Consumption Decile		0.018*		0.018*		0.018*		0.018*
		(0.010)		(0.010)		(0.010)		(0.010)
Mobility Experience	0.069***	0.025	0.064***	0.026	0.070***	0.027	0.070***	0.027
	(0.019)	(0.028)	(0.020)	(0.029)	(0.019)	(0.028)	(0.019)	(0.028)
Democracy × Mobility Experience		0.063*		0.056		0.058*		0.058*
		(0.034)		(0.036)		(0.035)		(0.035)
Democracy	-0.119	3.373***	-0.055	1.380***	-0.164	2.665	-0.164	2.665
	(0.165)	(0.824)	(0.170)	(0.284)	(0.171)	(2.042)	(0.171)	(2.042)
Number of individuals	21691	21691	21691	21691	21691	21691	21691	21691
Number of countries	23	23	23	23	23	23	23	23
pseudo R^2	0.033	0.043	0.031	0.043	0.033	0.043	0.033	0.043

Notes: The dependent variable is binary indicating support for democracy, reported coefficients are based on probit estimations and the inequality measures are based on the Gini coefficient. Columns 1, 3, 5 and 7 report model specifications without an interaction between inequality measures and a binary democracy indicator (equation (1) for 1 and 3). Columns 2, 4, 6 and 8 include such an interaction which corresponds to preferred model specification (equation (2) for 2 and 4, equation (3) for 6 and 8). All regressions include individual-level and country-level controls (see section 3). See table A4 for coefficients of all regressors. Standard errors clustered at the country level are in parentheses. * $p < .1$, ** $p < .05$, *** $p < .01$ (Sources: LiTS; WEO; WGI; V-Dem) regime (i.e., autocracy or democracy). Evaluating the importance of such a distinction, one notes considerable change in size and significance of the coefficients compared with the non-interacted models (column 1, 3, 5 and 7 vs. 2, 4, 6 and 8), i.e., the current regime type matters for the linkage between inequalities and democratic support.

While individuals living under democratic rule are more likely to support democracy (i.e., positive and significant coefficient of democracy indicator in the interacted models), this support is diminished by UI across all specifications, i.e., confirming $\beta_{demo}^{\hat{UI}} = \beta_1^{\hat{UI}} + \beta_2^{\hat{UI}} < 0$. When only considering I, also the coefficient for I in democracies is negative (column 2, $\beta_{demo}^{I} = \beta_1^{I} + \beta_2^{I} = -1.726$) but once UI is added the coefficient increases and becomes close to zero (column 6, $\beta_{demo}^{I} = 0.007$). On the contrary, for non-democracies we find both types of inequality, I and UI, increase support for democracy and as conjectured, the coefficient of I decreases when UI is added to the model.

However, we have to notice that none of the inequality coefficients is significant in the joint analysis of I and UI but given potential nonlinearities and correlation between the two measures the coefficients are unstable with respect to sample composition (see figures A3c and A3d). Hence, following Ferreira et al. (2018), we estimate a regression jointly considering UI and the inequality residual ($IR = I - UI$, columns 7 and 8). While IR might be an imperfect proxy for fair inequality, it allows to remove UI from I which results in highly significant UI coefficients in the interacted model (column 8).[24] This results suggests that particularly the unfair part of inequality is the driving force of the association between I and democratic support. While the necessary conditions for opposing associations of FI and UI on democratic support are satisfied, we refrain from an explicit conclusion on the impact of FI on such support.

Table 2 presents the main results based on the MLD as inequality measure to alleviate the concerns regarding the limited decomposability of the Gini as an additional confounder in IR (see footnote 17).[25] Interestingly, UI already

[24]Ideally, we would expect similar $\beta_1^{\hat{UI}}$ and $\beta_2^{\hat{UI}}$ in the joint analysis of UI with I and with IR (column 6 vs 8) but given the coefficient instability in the regression of UI and I (see figure A3) the latter coefficients are not trustworthy.

[25]Figure A2 displays the UI estimates for both inequality measures (Gini and MLD) across methodologies and illustrates that the MLD UI estimates are less dispersed compared to the Gini ones due to the MLD's lower sensitivity with respect to low levels of

becomes significant in the joint analysis with I and all other results remain qualitatively unchanged.

Table 2: Correlates of Democratic Support with Sociotropic and Egocentric Dimensions - MLD

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Total Inequality (MLD)	2.064	9.088***			2.536	0.800		
	(1.464)	(1.696)			(1.662)	(6.510)		
Democracy × Total Inequality (MLD)		-8.979***				0.754		
		(2.132)				(6.940)		
Unfair Inequality (MLD)			1.337	42.597***	-3.707	40.956	-1.171	41.756*
			(5.964)	(7.619)	(6.327)	(29.324)	(5.720)	(23.085)
Democracy × Unfair Inequality (MLD)				-48.616***		-49.721		-48.967**
				(7.670)		(31.417)		(24.840)
Inequality Residual(MLD)							2.536	0.800
							(1.662)	(6.510)
Democracy × Inequality Residual(MLD)								0.754
								(6.940)
Consumption Decile	0.018***	0.004	0.018***	0.004	0.018***	0.004	0.018***	0.004
	(0.006)	(0.007)	(0.006)	(0.007)	(0.006)	(0.007)	(0.006)	(0.007)
Democracy × Consumption Decile		0.018*		0.018*		0.018*		0.018*
		(0.010)		(0.010)		(0.010)		(0.010)
Mobility Experience	0.068***	0.030	0.064***	0.037	0.066***	0.041	0.066***	0.041
	(0.019)	(0.031)	(0.020)	(0.030)	(0.020)	(0.031)	(0.020)	(0.031)
Democracy × Mobility Experience		0.061*		0.044		0.039		0.039
		(0.035)		(0.037)		(0.036)		(0.036)
Democracy	-0.176	1.378***	-0.056	0.819***	-0.212	0.618	-0.212	0.618
	(0.176)	(0.471)	(0.169)	(0.212)	(0.188)	(0.674)	(0.188)	(0.674)
Number of individuals	21691	21691	21691	21691	21691	21691	21691	21691
Number of countries	23	23	23	23	23	23	23	23
pseudo R^2	0.033	0.042	0.031	0.043	0.033	0.044	0.033	0.044

Notes: This tables mirrors the regressions of table 1 but with the **mean log deviation (MLD) as inequality measure**.* $p < .1$, ** $p < .05$, *** $p < .01$ (Sources: LiTS; WEO; WGI; V-Dem)

The opposing signs of the interaction terms' coefficients support the interpretation that individuals living in non-democracies may support democracy due to its potential to reduce prevailing I or UI (i.e., the more I or UI the more potential gains from regime change) whereas the support for democracy of individuals in democracies may also attribute parts of the existing UI to the democratic regime (i.e., individuals loose faith in democracy given the prevalent level of I or UI). In the Krieckhaus et al. (2014) dichotomy of prospective and retrospective regime assessment, one could argue that higher UI induces a more retrospective assessment of democratic rule in democracies whereas it fosters the prospective valuation of inequalities with respect to democratic support in non-democracies. As framed in section 2, "*the grass is always greener on the other side*". Hence, the non-significance of the inequality measure in the absence of the interaction can be explained by the opposing support motives offsetting each other, i.e., prospective motives

inequality (see Brunori et al., 2019a, for discussion on Gini vs. MLD).

prevailing in non-democracies tend to increase with the respective inequality measure whereas retrospective assessment in democracies triggers declining support with increasing inequality.

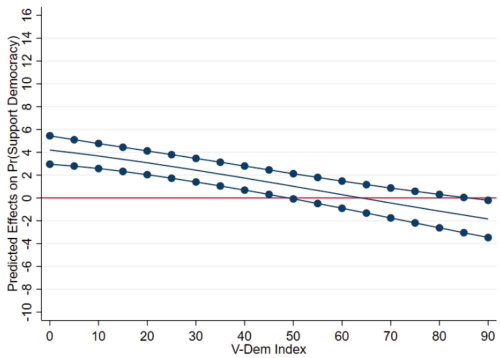
To further investigate the "*Grass is always greener*" hypothesis, the binary democracy indicator is substituted by the liberal democracy index of Varieties of Democracy (V-Dem) Institute (2018), i.e., a continuous measure of the implemented level of democracy. Figure 4 visualizes the results by depicting the marginal effect (i.e., marginal change in the association) of a change in the respective inequality measure for an average respondent for different levels of democracy (i.e., holding all other covariates constant at their sample means). The effect of I (figure 4a) on the probability of supporting democracy is on the vertical axis while the horizontal axis presents the level of democracy. Figure 4b displays the same calculations, but with respect to UI. The figures document a significant positive linkage of I and UI for non-democracies and a significant negative linkage for democracies, i.e., the linkage is no longer significantly positive around the full democracy cut-off (V-Dem index>40). While similar calculations for the joint analysis of I and UI (figures 4c and 4d) already reveal a significant linkage for UI and insignificant results for I, jointly considering IR and UI (figures 4e and 4f) further supports the previously alleged importance of the sources of inequality: UI exhibits a sizeable correlation with democratic support along the different levels of democracy other than IR, with the former being highly significant along the support for non-democracies and the latter being non-significant across the whole range of the democracy index.

The significant linkage between the considered societal outcomes and democratic support indicates the existence of the *sociotropic* dimension. Investigating the *egocentric* hypotheses, a significant positive relationship is obtained for the rank (i.e., decile) in the consumption expenditure distribution and experienced mobility on the probability to support democracy across all specifications.

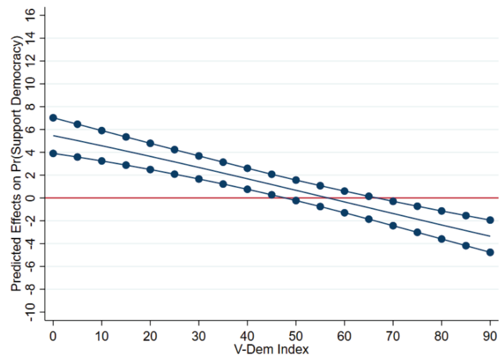
The positive coefficients rejects a median voter story in the spirit of the prospective "*Meltzer-Richard*" hypothesis, i.e., more affluent individuals exhibit larger normative support for democracy despite a higher potential loss from redistribution through democracy. In line with previous research (e.g., Andersen, 2012; Krieckhaus et al., 2014; Gugushvili, 2020), these results suggest that individuals consider their economic well-being and mobility experience when forming regime support attitude and, hence, their support exhibit an egocentric component, both *prospective* and *retrospective*. However, al-

Figure 4: Marginal Effects of Inequality Measures conditional on Democracy Index

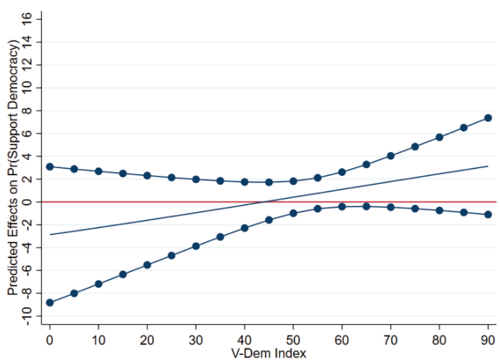
(a) Total Inequality I



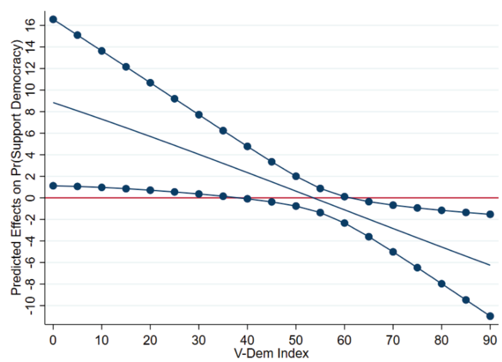
(b) Unfair Inequality UI



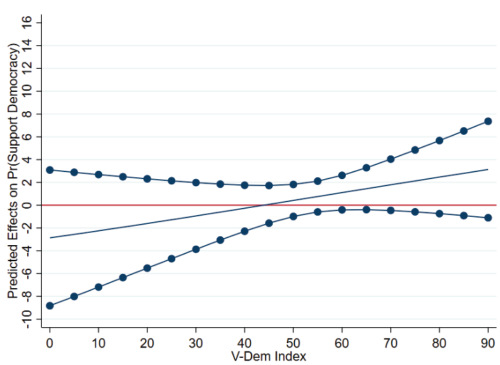
(c) Joint - Total Inequality I



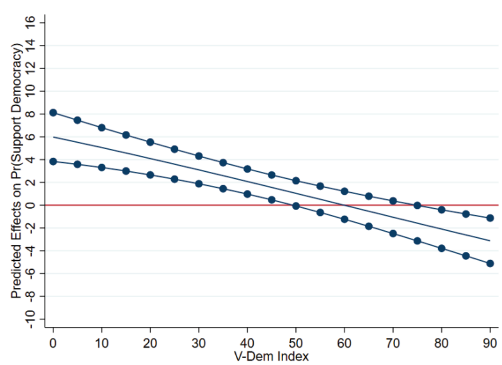
(d) Joint - Unfair Inequality UI



(e) Joint - Inequality Residual IR



(f) Joint - Unfair Inequality UI



Notes: The figures depict the marginal effects of I and UI (both measured by the Gini coefficient) in separate and joint estimation on the probability of supporting democracy conditional on the level of democracy (V-Dem Index) corresponding to the regression analysis in table A6 (column 2 for (a), 4 for (b), 6 for (c) and (d), and 8 for (e) and (f)). Table A7 presents the same regression analysis but with the MLD as inequality measure. Further displayed are the 95% confidence bands of such marginal effects (Sources: LiTS; WEO; WGI; V-Dem).

lowing for different effects by regime type via an interaction term with the democracy indicator, the coefficients for both egocentric motives are close to zero and non-significant in non-democracies whereas the interaction terms for democracies are larger and significant. Hence, the egocentric component appears to be primarily important in democracies.

In summary, evidence for both egocentric and sociotropic support motives are found. The reversing association between democratic support and inequalities along the current regime types suggests sociotropic valuations of inequalities to be retrospective in democracies and prospective in non-democracies. These results supplement the findings of Krieckhaus et al. (2014), a simple negative association between inequality and democratic support, in a way consistent with the political economy literature on democratization (e.g., Acemoglu et al., 2015), i.e., larger inequality poses higher gains from redistribution through democratization, and with the survey-based literature on adverse impact of inequality on democratic support (e.g., Andersen, 2012), i.e., larger inequality in democratic countries results in individuals losing faith in the democratic regime form.

However, we acknowledge that the presented results do not causally identify the linkage between democratic support and the different types of inequality but are associations only. Our OLS coefficients can be biased due to omitted variables correlated with inequality and/or the level of democracy - yet, the direction of the bias is not clear a priori. Given the cross-sectional nature of the available data, we cannot tackle these limitations by dynamic panel data techniques but provide an extensive robustness analysis below.

6. Robustness and Sensitivity Analysis

Several sensitivity checks are performed to assess the robustness of the findings to alternative specifications and measurement choices.

UI Estimation. We check the robustness of the results regarding the measure of UI that is incorporated into individual-level support estimation. Tables A8 and A9 present the results of a comparison across different estimation methodologies and confirm the main results. Further, we examine extending the population of interest to all individuals age 18 and above (e.g., Brunori et al., 2019a) and, hence, the estimation sample size (table A1). UI estimates and regression results remain largely unchanged (tables A3 and A10). To assess whether our results are driven by outliers, we rerun the regressions by leaving one country out a time. Figures A3 and A4 depict the results and confirm that coefficients are similar and their significance remains unchanged for both types of inequality measures, Gini and MLD.

Economic Affluence & Communist Experience. Further, we investigate whether the impact of I and UI also varies by individual economic affluence via the inclusion of an interaction term between the inequality measures and an individual's consumption decile and mobility experience. Table A11 presents the associated results. In line with previous research (e.g., Andersen, 2012), we find a marginally significant, negative interaction of I and IR with the consumption decile, i.e., higher levels of outcome inequality curtail the positive linkage between economic affluence and democratic support.

Additionally, following Alesina and Fuchs-Schündeln (2007), age specific support patterns driven by communist experience are investigated, i.e., if individuals have lived/been socialized under communism, they have to relearn political support in relation to the new regime (Mishler and Rose, 2002). Introducing cohort dummies, a significant negative coefficient can only be detected for cohorts born prior to 1955 (table A12).

Poverty & Growth. Following Marrero and Rodríguez (2023), we would like to check for poverty as potential mediator of the found associations with democratic support. However, the variation of absolute poverty as measured by the headcount ratio with 1.90 US$ (2011 PPP) poverty line in the World Bank's Poverty and Inequality Platform (PIP) is limited in our sample which impedes valid inference.[26]Alternatively, the usage of a common relative poverty measure, i.e., 60% of the median as poverty line, is tested (table A14). While interactions of poverty and I or UI are significant when only one of the inequality measures is used, the joint analysis remains insignificant.

Similarly, checking for economic growth as mediator on the inequality normative supports linkage is an interesting extension as discussed in section 2. Yet, again we have to acknowledge data limitations, i.e., given the limited sample of 23 countries employed for the main analysis, results are not robust to changes in the measurement of economic growth.[27] Therefore,

[26]Mean 0.92%, standard deviation 1.32% and max *povmax*%. Similar to the IES sample in Marrero and Rodríguez (2023), UI and (1-$Poverty$)$\times UI$ are almost perfectly correlated (0.998). See table A13 for results.

[27]Tables A15 to A17 presents the results for 3, 5 and lagged 5 year annualized growth.

we refrain from interpreting these results and call for further research in a less data-scarce environment.

Country-level Controls. In line with Panizza (2002) and Marrero and Rodríguez (2013), we check whether estimated coefficient of inequality are sensitive to considering GDP per capita contemporary or in lag and in levels or logs but results remain widely unchanged (table A18). Similarly, we check whether the usage of 5 year averages for the macro-economic controls may impact results compared to a fully contemporary model specification but find no effect on the inequality coefficients (table A19). Like Marrero and Rodríguez (2013), we acknowledge that a model specification without further country-level controls (table A20) suffers from omitted-variable bias problems but the full model could introduce significant collinearity problems in the regression. To address this issue, we perform a Lasso regression (Tibshirani, 2011) to select the statistically relevant control variables and reestimate the model with the selected controls (post-Lasso procedure). Table A21 presents the results and confirms the relevance of the controls used in the main specification.

Standard Error Clustering. Clustering standard errors (SE) at the country level might be too lenient given the small number of clusters present, i.e., 23 countries (see footnote 21). Table A22 reports more conservative SEs based on pairs cluster bootstrap, i.e., yielding larger SE compared to simple cluster-robust SE and help to better account for the small number of clusters.[28] Yet, acknowledging that such adjustment might be insufficient (see Cameron et al., 2008, for an extensive discussion), Wald-type hypothesis tests for the inequality concerning regressors based on the concept of wild cluster bootstrapping, as recommend by Cameron and Miller (2015) and adjusted in the score-based approach for Maximum-Likelihood estimations by Kline and Santos (2012), are also reported. Given the genuinely conservative adjust-

While in the separate analyses of I and UI no significant interaction between the respective inequality measure and growth can be found, the results of the joint analysis vary based on the growth definition.

[28]The resampling is performed over entire clusters (i.e., countries), rather than over individual observations as inequality measures (i.e., the main variables of interest) vary only on the country-level. Each bootstrap resample will have exactly J clusters, with some of the original clusters not appearing at all while others of the original clusters may be repeated in the resample two or more times. The term “pairs” is used as (y_j, X_j) are sampled as a pair.

ment, most inequality concerning coefficients become insignificant but the Wald-type test for the exclusion of the coefficients still suggests their inclusion to be valuable to the models if the interaction terms with the democracy indicator are considered.

Multi-level Model Specification. As an alternative to the used individual-level estimation, a multi-level model is specified (see appendix AVI for details). Multilevel modeling is a common practice in the political science literature in order to account for the nested data structure to avoid underestimating the standard errors of the contextual variables (e.g., Ritter and Solt, 2019; Brunori, 2017). Tables A23 and A24 present the corresponding estimations which support the main results.

7. Conclusion

When individuals form their attitudes towards democracy they do not only consider their economic well-being under the current regime but also take into account a variety of other individual and societal factors. This paper contributes to uncovering the determinants of democratic support by differentiating the linkage of normative democratic support and inequality according to regime type and challenging the literature's focus on total inequality when assessing this linkage.

An inverted association between democratic support and economic inequality depending on the current regime types is documented. All inequality related measures exhibit a positive correlation with democratic support in non-democracies and a reverse relationship for unfair inequality in democracies, i.e., economic inequality erodes support for the current regime type. This result is also confirmed when using a more granular measure of the current regime type. Refining the conception of Krieckhaus et al. (2014), this can be rationalized by a prospective evaluation of democracy as a means to redistribute/generate equal opportunities in non-democratic regime whereas such prospective assessment appears to revert to a retrospective assessment for individuals living in democracies such that prevailing high levels of (unfair) inequality in fully democratic countries may trigger regime dissatisfaction. Hence, regime performance appears to be closely linked to normative support for democracy, i.e., economic inequality contributes to dissatisfaction with the current regime type making other regime forms more appealing - *"the grass is always greener on the other side"*. Such interpretation reconciles the political economy literature on democratization emphasising potential gains from redistribution (e.g., Acemoglu et al., 2015) and with the survey-based literature on adverse effects of inequality on democratic support (e.g., Andersen, 2012).

The individual-level analysis suggests that the source of economic inequality matters for the linkage between support for democracy and economic inequality. While in the separate analysis both total and unfair inequality exhibit a sizable correlation with the individual's support for democracy, jointly considering both inequality measures is inconclusive due to data limitations. Decomposing inequality into an unfair and a residual part indicates that the unfair part of economic inequality is the more relevant factor for democratic support.

Besides the existence of sociotropic support motives (i.e., individual's democratic support is correlated with societal outcomes), the importance of egocentric motives for democratic support is confirmed (i.e., individual consumption expenditure and mobility experience matter for regime preferences). Interestingly, the individual's economic affluence and mobility experience are significantly and positively correlated to normative democratic support in democracies while such correlation is less explicit in non-democracies. The positive coefficients reject a median voter story in the spirit of the "Meltzer-Richard" hypothesis, i.e., more affluent individuals exhibit larger normative support for democracy despite a higher potential loss from redistribution through democracy. In line with previous research (e.g., Andersen, 2012; Krieckhaus et al., 2014; Gugushvili, 2020), these results suggest that individuals consider their economic well-being and mobility experience when forming regime attitudes. Our results call for further investigating these egocentric support motives in non-democracies.

Individual perception on the extent of UI is prone to error and highly correlated with individual mobility experience (Brunori, 2017), i.e., while individuals embrace the ideal of equal opportunities (Alesina et al., 2018) their perception of the extent of UI in their country can be strongly related to individual factors. Yet, introducing insights from the preferences for redistribution research (i.e., the importance of fairness concerns) into the analysis of the linkage between economic inequality and democratic support by employing UI measures is a major contribution of this paper. Documenting the reversal of the negative linkage of inequality with democratic support for non-democracies, the results provide new input for further research to better understand regime attitudes.

Future research should try to overcome the limitations of our cross-sectional analysis potentially via the usage of an instrumental variable approach and/or dynamic panel data techniques. Combing time series of country-level democratic support (e.g., Claassen, 2020) and proxies for UI (e.g., Marrero and Rodríguez, 2023; Aiyar and Ebeke, 2020) across countries of different levels of democracy would be a promising step towards a causal interpretation of the documented linkage.

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