What is the geography of trust?

The urban-rural trust gap in global perspective

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Abstract

What is the geography of political trust? Influential studies point to a growing urban-rural cleavage between low-trust authoritarian populists in rural areas and higher-trust liberal pluralists in densely populated urban areas. We use data from the World Values Survey and European Values Survey, covering nearly 100 countries, to test whether development has a moderating effect on the urban-rural divide in political trust. Our results reveal that at high levels of development, there are similar levels of trust in government between people living in urban and rural areas, while at low levels of development we find higher levels of trust for rural populations compared to those residing in urban areas. These findings add an important caveat to the standard account of the 'geography of discontent' in advanced industrial democracies, while suggesting the need for further investigation of the trust gap in the developing world and its implications. How trust is spatially distributed matters for how polities are governed, and is consequential for electoral behaviour, trends and outcomes.

1. INTRODUCTION

The urban-rural divide has been a subject of analysis since virtually the inception of modern political science (e.g. Lipset and Rokkan, 1967), and recent political events in the Global North have contributed to a resurgence of interest. Commentators have even suggested that 'urban-rural splits have become the great global divider' (Rachman, 2018). This has galvanised a growing literature on broader differences of political outlook based on location. One of the attitudes of fundamental interest is political trust: widely regarded as central to good governance and effective public policy (OECD, 2017). In 'normal' times, trust serves various functions, encouraging public compliance with laws and participation in political life (Marien and Hooghe, 2011; Hooghe and Marien, 2013). In periods of crisis, trust is vital to an effective societal response: during Covid-19, for example, trust underpinned behaviour change, vaccination uptake, and co-operation with stringent restrictions (van Bavel et al, 2020). Trust also enables societies to confront longer-term challenges such as climate change and the rising pension burden of aging populations (Cologna and Siegrist, 2020; Jacobs and Matthews, 2012). How trust is spatially distributed thus can influence how polities are governed, and can impact in significant ways upon electoral behaviour, trends and outcomes.

A large literature describes and debates the country-level factors, such as growth and corruption, and the individual-level factors, such as income and education, that affect political trust (for a review see Citrin and Stoker, 2018). However, we know far less about how geographic divides within countries, such as the urban-rural divide, affect political trust. Furthermore, the focus on developed countries of the Global North obscures the politics of the developing nations. Detecting these divides in trust is of more than academic interest: following the literature on consequences of trust, low trust concentrated in particular locations may make it more challenging to govern them, to confront societal challenges, and can give rise to geographical polarisation of

electoral outcomes. Using data from a large cross-national survey, and an innovative measure of urban-rural context, this paper fills a significant gap in our understanding.

As Lipset and Rokkan (1967) argued, processes of nation-building and industrialisation generated a series of cleavages, among them an urban-rural divide, and resulted in the emergence of agrarian parties across Europe with shared missions of 'the defence of the country against the city' (Urwin, 1980). However, over time, processes of urbanisation and the decline of agriculture made the country both less powerful and less economically distinctive (Harvey, 1978), causing the demise (or transformation) of the rural parties (Lijphart, 1999). Thus, this conflict was assumed to have been largely superseded first by class politics structured around the left-right divide and latterly by divides by age and education structured around the 'second-dimension' (Kriesi, 1998).

However, a revival of interest in the urban-rural divide has occurred, largely due to an emerging pattern of rural support for right-wing populists in Europe and the United States. A growing set of studies document this tendency, as in the Austrian (Gavenda and Umit, 2016) presidential elections, Swedish general elections in 2010/14 (Rickardsson, 2021), the 2017 German federal election (Schwander and Manow, 2017) and the 2017 French presidential election (Evans et al, 2019). Regression analyses suggest that less dense areas were also more likely to vote for Brexit and support Trump (Becker et al, 2017; Scala and Johnson, 2017) with compositional and contextual effects both playing a role (Obschonka et al, 2018; Matti and Zhou, 2017). Alongside these studies of electoral behaviour sits work on broader attitudinal differences between urban and rural-dwellers, including the gap between (urban) cosmopolitan worldviews and (rural) nationalism (e.g., Maxwell, 2019; Huijsmans et al, 2021). Although these studies do not necessarily agree as to the causes, they coalesce into a wider narrative of urban-rural polarisation.

This has fuelled a broader assumption that rural populations tend to be low-trust authoritarian populists while urban-dwellers tend to be higher-trust liberal pluralists. What is lacking in the existing literature is comparative evidence – crossing countries and global regions – as to the effect

of the urban-rural divide on political trust, as well as a unifying theoretical perspective to offer expectations of how that divide plays out in different contexts. One recent study suggests that urban-rural divides in progressive values are largely a phenomenon of affluent societies, with substantially smaller divides in the developing world, yet trust research has not considered this heterogeneity (Luca et al, 2022). Furthermore, the question has not been settled of how the urban-rural divide operates in developed regions, with some areas still understudied, and European studies reliant on a singular survey source, the European Social Survey.

In this paper, we use data from the World Values Survey (WVS) and European Values Survey (EVS) to test whether development has a moderating effect on the urban-rural divide in political trust, and to explore regional patterns. We employ a larger and more global sample than prior studies: 34 countries and over 45,000 respondents sampled in the 7th wave of the WVS between 2017 and 2020 (WVS-7), where urban-rural location is derived from geocodes, and nearly 100 countries and over 280,000 respondents sampled in WVS and EVS waves back to 1990, where urban-rural location is derived from interviewer coding. We also make methodological advances, using precise geocodes to link respondents to high-quality, fine-grained data on objective urban-rural context.

We find that the geography of trust takes some surprising paths, as the empirical distribution of political trust between urban and rural locations does not easily fit with the strong focus on feelings of resentment in rural communities. Indeed, the regional heterogeneity in urban-rural trust gaps leave us with further puzzles, as we begin to address in the closing discussion.

2. URBAN-RURAL LOCATION AND POLITICAL TRUST

Recent years have seen a number of studies on the geography of political support, including political trust. Some country-specific studies indicate the significance of urban-rural location. Stein et al (2019) show for Norway that rurality is associated with lesser trust in national politicians. For

the UK, McKay (2019) and McKay, Jennings and Stoker (2021) find that low population density was a significant predictor of beliefs that politicians/government do not care about or listen to one's area. This pattern has been replicated in broader Europe-wide studies by Kenny and Luca (2021), Mitsch et al (2021), and Lago (2022), who use European Social Survey data to demonstrate that, across the region, respondents living in a 'farm/home in the countryside' are less trusting and less satisfied with democracy than those in 'a big city', particularly in Southern Europe and post-GFC, and in countries with higher urbanisation on average.

However, should we hold the same expectations for the developing world? On the one hand, some have argued for the geography of discontent as a more-or-less global phenomenon. Rodríguez-Pose (2018) argues that rural discontent has become entrenched in many emerging markets, where ruralites are also relative 'losers of globalisation'. They cite a number of examples across regions, including Latin American countries in general, Nigeria, Indonesia, and especially Thailand, where the poorer rural areas support the populist democrat 'red shirts' and former Prime Minister Thaksin Shinawatra, while more affluent urban areas align with reactionary royalist 'yellow shirts'. On the other hand, indications to date from empirical research on the developing world are surprising. In China, Wang and You (2016) find that ruralites tend to be more trusting of government institutions, while in Africa and Latin America Brinkerhoff et al (2018) and Bland et al (2021) show that those living further from urban centres were more likely to trust.

This leaves a substantial puzzle, and raises questions about whether developed and developing areas of the world may have different geographies of trust. To clarify expectations, we return to established, core theories of political trust, which point to diverse influences on trust which are less often discussed in the literature on urban-rural divides. When judging the trustworthiness of a person or an institution, three factors about them regularly come into focus: 'competence', 'benevolence' and 'integrity' (Mayer et al, 1995). Research using factor analysis has shown that diverse judgments of an actor can be reduced to these three dimensions (Grimmelikhuijsen and

Knies, 2017), which each predict an *overall* trust judgment (Devine et al, 2020). In Table 1, we present our expectations of how differences in context between urban and rural settings might lead to different propensities to trust political leaders and governments, measured against the criteria of competence, benevolence and integrity.

Arguably citizens' most fundamental demand of their political institutions is to demonstrate *competence* – to be 'capable, effective, skilful, and professional' (Grimmelikhuijsen and Knies, 2017, p. 587). Competence is about whether the government has the ability to govern in any given policy domain, which is usually but not only signalled through policy outcomes (such as increasing wealth, reduced unemployment, etc). Given that there are almost limitless domains that a government could claim competence on, and no one can plausibly judge all of these, we suspect that citizens judge competence (i) over a domain that is particularly salient to them or society or (ii) by averaging over a range of considerations of domains of varying salience (Green and Jennings, 2017).

How would we expect competence perceptions to vary between urban and rural areas? We might anticipate that perceptions of competence in key areas, such as the economy and public services, are weaker in rural areas of developed countries compared to in their larger towns and cities. Economic evaluations, for example, are driven by local economic contexts (Bisgaard et al, 2016; Stiers and Hooghe, 2021): urban-dwellers, observing construction across the skyline, the opening of tech headquarters and other visible symbols of growth, may be more inclined to think their leaders are competent than ruralites seeing shop closures and an exodus of young people.[1] Indeed, Mitsch et al (2021) find that part of the urban-rural trust gap they observe in Europe is explained by more negative perceptions of economic conditions and service performance. Objectively, economic and service inequalities are more dramatic in many less-developed countries, extending even to failures to meet basic needs (Lagakos, 2020), which might lead us to the expectation of

[1] Competence research focuses on incumbent governments, yet the long-term nature of such changes (occurring over successive governments of different parties) may inculcate the view that parties/politicians generally are incompetent.

lower trust in rural areas. However, studies suggest that in the developing world, inadequate rural services are matched by lower *expectations* of state support, leading to null (Brinkerhoff et al, 2017) or even positive (Bratton, 2012) effects of location on evaluations of services. We might therefore *not* expect a clear divide in competence perceptions between urban and rural areas of the developing world.

Alongside competence, perceived integrity, 'the extent to which a citizen perceives a government organization to be sincere, to tell the truth, and to fulfil its promises' (Grimmelikhuijsen and Knies, 2017, p. 587), is key to trust judgments. A sense of integrity can be undermined by exposure to information about institutional scandals and corruption (Ares and Hernández, 2017). At a macro-level, factors such as higher corruption reduce trust (van der Meer, 2017), perhaps by undermining integrity perceptions. People may accumulate this information through direct experiences with the state or via mediated ones, especially on social media, where those critical of the government can often disseminate messages (Tufecki, 2017).

This implies a potential for differences in integrity perceptions between urban and rural areas in some contexts. In the developing world, urban citizens are likely to have more encounters (mediated or direct) with governance and politics. Greater state presence in cities, including that of public officials, creates opportunities for state interference in people's affairs such as bribe-taking: especially from the large urban populations lacking legal rights to live and work locally (Desai, 2010). The self-immolation of Mohamed Bouazizi, a street-vendor in Tunisia's capital, in protest against the repeated confiscation of his wares, draws attention to these dynamics and their capacity to sow discontent. Urban residents may also have more *indirect* exposure to forms of malfeasance, as activities such as blogging spread awareness of corruption, yet rural areas often lack internet access, mobile phone networks (ITU, 2019) and TV ownership is much lower (Dreesen et al, 2020). Guriev et al (2021) find that 3G network availability increases distrust via perceptions of government corruption, while events such as the Egyptian revolution testify to the

importance of these networks for fuelling discontent in government (Lim, 2012). We might then assume that perceptions of integrity will be weaker in urban areas of the developing world compared to their villages. No similar difference, however, would be expected in high-development contexts, where media covering national politics is accessible country-wide: Idaho as well as Illinois can be up-to-date on the latest scandal. Perceptions of integrity are unlikely to drive any urban-rural difference in trust in more developed countries.

The final dimension underlying political trust is perceived 'benevolence', the extent to which those in power care seem to care for our welfare and act in our interests. What counts as benevolent is more a matter of individual perspective than competence and integrity, as it depends on individuals' perceptions of their own interests – which they may connect closely with those of a wider in-group, such as an ethnic or indeed geographic group. Choices (real or perceived) around the targeting of campaigning or public goods are thus likely to invoke perceptions of benevolence in some people (and areas), but potentially undermine them for others.

Research suggests this may be key in understanding the rural-urban trust gap. Cramer (2016) conducted extensive fieldwork in rural areas of Wisconsin, finding a strong sense of 'rural resentment'. Participants consistently articulated a sense that government was run by and for urbanites with anti-rural prejudices, which was later confirmed by U.S.-wide surveys (Munis, 2020). The wider context is that few mainstream politicians in developed countries make pro-rural rhetoric and policy central to their political projects: for example, Stoll (2010) finds that political manifestos make less and less reference to agricultural concerns. It may be relevant that, as Lago (2022) finds, the rural deficit in trust grows as the rural voting population shrinks. Thus, we may expect that in highly developed countries, those in rural areas perceive less benevolence.

By contrast, ruralites form greater proportions or even majorities of the electorate/selectorate in many developing countries, and securing their support is important to winning elections. In Thailand, Thaksin's elevation to power came on the back of rural campaign literature, promising

agrarian debt relief and village funds, in a country that was then 70% rural (Phongpaichit and Baker, 2008). At the local level, winning elections in developing countries often means cultivating clientelistic relationships. The literature suggests that clientelism is more prevalent in rural areas: ruralites face regular risks such as poor harvests, have difficulty organising politically due to physical dispersion, and patrons can more easily observe whether they honour their obligations (Leonard et al, 2010). It is also different in character to urban clientelism (Kitschelt, 2000), with closer affective ties to patrons reinforced by activities such as ritual gift-giving and intrinsic motivations playing a greater role (Cinar, 2016). These interactions seemingly provide direct evidence of representatives' benevolence, and therefore have the potential to generate trust: indeed, studies showing higher trust in rural Africa/Latin America have largely attributed this to patronage networks (Brinkerhoff et al, 2018; Bland et al, 2021). Therefore, in less developed countries, ruralites may perceive equal or even higher benevolence to city-dwellers.

Table 1. Expectations for urban-rural gaps across dimensions of trust in less and more developed countries.

	Less developed countries		*More developed countries*	
Sense of…	*Urban-rural gap*	*Rationale*	*Urban-rural gap*	*Rationale*
Competence	None	Objective weaknesses in service and economic provision in rural areas offset by lower expectations	Likely higher in urban areas	Observing growth of cities suggests government competence; easier access to services
Integrity	Potentially higher in rural areas	Urbanites encounter more wrongdoing from authorities directly and indirectly (through communication networks which do not extend to rural areas)	None	Critical media environment exposing corruption / scandals extends across countries, accessed by urban/rural residents
Benevolence	Likely higher in rural areas	*Rural* voters powerful at the ballot box, receive electoral/policy appeals at national level and clientelistic benefits at local level	Potentially higher in urban areas	Fewer rural voters at the ballot box leads to infrequent elite appeals, sense rural interests not defended
Overall	Rural areas likely **higher** in trust		Rural areas likely **lower** in trust	

Drawing on the analysis presented in Table 1, it is most plausible to expect an urban-rural divide in trust when perceptions of competence, integrity or benevolence 'pull' in the same direction. For less developed countries, we expect that integrity and benevolence perceptions may be higher in rural areas, while competence perceptions may exhibit no urban-rural divide. For this reason, within less developed countries, we broadly expect rural areas to be higher in trust than urban areas. Conversely, in contexts of higher development, we expect that perceptions of benevolence and especially competence should be higher in *urban* areas, with integrity failing to manifest an urban-rural divide. As such, we expect that urbanites should be more trusting than their rural counterparts. We therefore propose the following pair of hypotheses:

H1: *In countries where development is low, living in a rural area is associated with higher levels of political trust.*

H2: *In countries where development is high, living in a rural area is associated with lower levels of political trust.*

3. METHOD

3.1 The Challenge of Urban-Rural Measurement

Measuring geographic context is a major issue in political geography, with imperfect choices often being 'driven by convenience and data availability' (Tam Cho and Baer, 2011, p. 418) that can potentially 'compromise conclusions that these studies might draw' (Moore and Reeves, 2020, p. 780). An important choice in analysing the urban-rural divide is whether to adopt an objective or a subjective measure. Attitudinal research has largely taken the latter approach, although this is not without risk. Nemerever and Rogers (2021) find in the US, even respondents geolocated in cities commonly describe their neighbourhoods as 'rural', making it difficult to interpret effects on trust or other dependent variables. We may even speculate that some urbanites may express rural identity in surveys to distance themselves from urban social and political elites whom they distrust. In this case, rural identity could be endogenous to low trust. These doubts lead us to prefer objective measures of urban-rural location where available.

However, this too brings challenges. In general, the researcher is constrained to the contextual containers provided in both official statistics and the survey data. Due to problems of zoning (how boundaries are drawn leads to arbitrary classifications) and problems of scale (large units of aggregation erase complex experiences within the zones), urban-rural classifications are imperfect (Nemerever and Rogers, 2021). Comparative analysis magnifies these issues, as zoning, aggregation, and urban-rural classification methods (such as population size cut-offs) vary greatly across countries (Dijkstra et al, 2020).

3.2 Our Approach

Our measurement of urban-rural context is a core strength of our research design. We exploit detailed geolocation information provided for respondents in the 7th wave of the WVS (Haerpfer et al, 2022a) and match this with a novel, high quality, and globally comparable source of data on urban-rural context, the Global Human Settlement Layer (GHSL) (Pesaresi et al, 2019). Because

we possess geocodes for survey respondents, we are not bound into specific census containers. Innovations in satellite imagery – at exceptional levels of detail – use the vegetation contents and volume of buildings within the images to produce a detailed global picture of built-up areas. Once we know the population of an administrative unit, we can use the presence of built-up areas within the unit to make reasonable assumptions about how the population is distributed within it. The GHSL uses this approach, dividing the world into 1 square kilometre grid cells, estimating the population and population density of each, and derives an urban-rural classification known as the Degree of Urbanisation (DEGURBA).[2] This is designed to solve the challenges of global comparability that blight comparative analysis of urban geography, and is endorsed by key international institutions such as the UN, OECD and World Bank (UN Statistical Commission, 2020).

DEGURBA classifies cells using both their own characteristics and those of the contiguous cells. The full DEGURBA classification of cells has seven categories, but for our purposes enables construction of a clear binary distinction between urban and rural.[3] As described in Florcyzk et al (2019), these categories are identified in three steps:

a. All cells beneath a population density of 300 inhabitants per square kilometre are automatically treated as rural.

b. The remaining cells are plotted, and contiguous groups identified.

[2] The Global Human Settlement Layer, including the DEGURBA urban-rural classification of grid cells (Pesaresi et al, 2019), is available for download from the website of the European Commission Joint Research Centre at doi:10.2905/42E8BE89-54FF-464E-BE7B-BF9E64DA5218.

[3] Using a binary measure has two key advantages for our analysis: (1) it minimises error around the coefficients and marginal effects (at different levels of development), and (2) its convergent validity against other binary indicators can be analysed. However, we are alert to the possibility that attitudes may be on a continuum rather than a binary, and therefore conduct robustness checks.

c. If a group of these cells has a total population above 5,000, all cells in this group are classed as urban; if not, it is classed as rural.

We finally match these grid cell classifications with respondents' geocodes. Across our estimation samples, around 1 in 3 respondents are rural. Due to the relative novelty of our measure, we validate it with a two-pronged approach (see Appendix C for full details). First, we show that it has convergent validity at the individual-level with other WVS indicators. WVS interviewers classify respondents as urban and rural and in around 75% of cases, their classification matches ours, and precisely where DEGURBA identifies an urban-rural boundary, the dominant WVS classification switches. Additionally, rural occupations (farm workers/owners) are more than three times as prevalent among respondents in our rural than our urban areas.

Second, we show that the measure has convergent validity with alternate, non-survey data. Night-time light levels (Elvidge et al, 2021), a commonplace urbanisation proxy (Stathakis et al, 2015; Hu et al, 2020), are nearly 40 times as high in the $1km^2$ area surrounding our urban respondents compared to rural ones. We also aggregate up to find the % rural for each country sample (our coding and WVS). We find a modest positive correlation (.38) with country-level urbanisation data (European Commission, 2022), which is stronger than for WVS coding (.14): this may suggest our coding has added some value through removing some of the qualitative subjectivity in the coding of locations. We thus conclude that we are effectively measuring urban-rural context. In Figure C-3 (Appendix), we map the urban-rural classification of grid cells for one country, England, in order for readers to make their own judgements of its face validity.

3.3 Measuring Country Characteristics

Our analyses include several country-level characteristics. The most important is our measure of development itself, used as a term in our key interaction with rurality. We adopt the conventional measure, the UN Human Development Index (HDI), a composite index combining three equally weighted dimensions of life expectancy, education attainment, and gross domestic product per

capita. HDI has been dubbed a 'comparative tool of excellence' (UNDP, 2018) which goes beyond a purely economic approach to measuring development. For our purposes, it is conceptually important to measure development in this multidimensional fashion. Life expectancy and educational attainment speak to differences in public service provision and quality between states, potentially shaping competence perceptions, and capturing deficiencies which clientelist politics may have to compensate for.

More narrowly, in terms of its measurement properties, HDI is also well justified, as it measures a single latent concept (Nguefack-Tsague et al, 2011), does not have missing data by country unlike some other more complex indices (Herrero, Martinez and Villar, 2010), and its longevity makes it available both for our analysis of WVS-7 data but also for our robustness analysis using WVS/EVS data back to 1990.

While we believe HDI is the most informative indicator of development for our purposes, we acknowledge arguments for a more parsimonious measure of development. For robustness purposes, we therefore replicate the approach of Luca *et al* (2022), who use GDP per capita to measure development: specifically, we use log PPP corrected GDP per capita in current USD (from Teorell *et al*, 2022).

We also include several country-level controls which are deemed important in the trust literature. The first is economic growth – specifically, percentage GDP per capita growth from the year prior to the survey year. Economic growth is considered 'critical to overall public support of government' (Miller and Listhaug 1999, p. 216) and is frequently included as a predictor of trust in cross-national analyses (van der Meer, 2018). The second is corruption, measured using the V-Dem corruption index (from Teorell *et al*, 2022), targeted at the 'use of public office for private gain' and established as having strong content validity (McMann et al, 2016). Corruption tends to be a strong predictor of lower trust levels (You, 2018). These controls have low multicollinearity in the estimation sample with VIFs between 1 and 1.2.

3.4 Places Or People? Measuring Demographics

Most studies in political geography, including those on the urban-rural divide, attempt to test whether observed differences relate to the characteristics of places as such (contextual effects) or of their inhabitants (compositional effects). In at least two ways, composition could explain an urban-rural trust gap that differs by HDI. First, urban-rural differences in demographic composition could vary over levels of development. Second, the effect of demographic factors could themselves vary at the country-level according to factors such as development. For example, Ugur-Cinar et al (2020) find that the effects of education on trust differ and even reverse depending on meritocracy and corruption. In the second stage of our analysis (for each sample), we therefore introduce the demographic variables into the fixed part of the model, adding random slopes by country for each demographic factor.[4] Notably, studies to date are unanimous that there is a residual urban-rural trust gap controlling for demographics.

(Binary) sex and (continuous) age are widely used control variables, and we replicate these approaches here. Income is measured as a respondent's self-placement on an income 'ladder', 'where 1 indicates the lowest income group and 10 the highest income group in your country', recoded such that 1-3 = 'low' income, '4-7' = 'middle' income, and 8-10 = 'high' income. Education is measured through WVS/EVS coding which rationalises ISCED 2011 levels into four categories: childhood/primary education, secondary, post-secondary and tertiary.[5]

3.5 Measuring Trust

How to measure trust remains hotly debated. Researchers dispute whether it is appropriate to measure trust as a latent attitude (Hooghe 2011) or through singular institutional evaluations (van

[4] As recommended by Heisig *et al* (2017), we confirm that random slopes for individual-level controls do not reduce model fit.

[5] These controls have low multicollinearity for the estimation sample with VIFs not exceeding 1.9.

Elsas, 2015), and whether trust judgments are differentiated, perhaps with a divide between trust in 'representing' and 'implementing' institutions (Marien, 2011). As we have no theoretical reason to expect effects to differ across institutions and measurement approaches, we use multiple dependent variables to provide the strongest test of our theories. The WVS/EVS features a battery of questions in which people state their degree of confidence in a list of institutions on a 0-3 scale, where 0 is 'none at all' and 3 is 'a great deal'. We use three of these institutions: 'Government', 'Parliament', and 'Parties'. Using these items, we also derive a scale of 'political trust' (alpha = .87).

Since we are concerned with the differential effect of rurality over HDI, we test for measurement equivalence (á la Marien, 2017) between groups of countries at four UN-defined levels of development (.35-.549 = low, .55-.699 = medium, .70-.799 = high and .80+ = very high). We find reliable evidence for metric equivalence for the 'political trust' scale, as fit remains acceptable (RMSEA = 0.04, CFI=1.00, TFI = 1.00) if loadings are constrained to be equal between groups, and can therefore be confident that a one-unit increase in the political trust scale has the same meaning at all levels of HDI.

3.6 Sample

Our initial sample includes over 45,000 respondents located in 34 countries (surveyed between 2017 and 2020). These countries span all global regions and, crucially, a wide range of development levels, from Ethiopia (HDI = .49) to the United States (HDI = .92), with a weighted mean of .71 (SD = .10), broadly reflecting the global distribution of HDI (Appendix, Figure F-1). Importantly, 30 countries is considered sufficient for cross-level interaction analysis in multilevel models (Bryan and Jenkins, 2016). However, we accept that this sample has some less-than-ideal characteristics, namely in excluding most European countries. For this reason, we later conduct robustness tests for nearly 100 countries by turning to the full set of WVS/EVS waves between 1990 and 2020 (and compromising by using an interviewer-coded measure of urban-rural); a full breakdown of the region/country-year coverage can be found in Appendix F.

4 RESULTS

4.1 Core Analysis: WVS-7/DEGURBA

Our principal aim is to establish whether there are differences in political trust between urban and rural areas, and whether these are modified by the level of development in a country. As outlined above, we interact an urban-rural dummy, derived from DEGURBA, with a continuous measure of country-level development, HDI (mean-centred to enable easier interpretation of the coefficient). We first include only country-level controls, before adding demographic predictors. We specify random intercepts at the country-year level and random slopes for urban-rural context at this level.[6] The within-country weights are used from the WVS, and countries are weighted equally. We evaluate model outputs through both regression coefficients and marginal effects plots.

Without demographic controls, for all outcomes we observe a positive and statistically significant ($p<0.05$) main effect of living in a rural area: i.e., the precise effect where HDI is at the sample mean. However, the interaction effect (for the scale, parliament, and parties) has a negative and significant coefficient. Figure 1 illustrates what this means for the marginal effect across different levels of development.

Where development is at its lowest within the sample, the positive estimated effect of rurality is at its strongest, and the 95% confidence intervals do not overlap zero (the red line). This positive estimated effect declines with an increase in HDI until, in the most-developed countries, it is no longer statistically significant. In the least-developed countries, although imprecisely estimated, this positive effect is reasonably large: around ¼ SD for this outcome variable (.21/.91 = 23%). This

[6] This enables us to distinguish country-level variation in the urban-rural effect caused by variation in HDI from other country-level variation.

pattern holds for individual items, although the interaction is not significant for government: marginal effects plots can be found in the Appendix (Figures B-3 to B-5).

Of course, at any level of development, the marginal effect of rurality could disguise a diverse set of results. We might be especially concerned that our non-effect in high-development contexts occurs due to opposite effects cancelling each other out. In Appendix A, we show results for individual regressions by country for the 3-item trust outcome. With the sole exception of Jordan, we do not find a single country where rurality has a statistically significant negative effect on trust – even those at the highest levels of development, including strong candidate countries for low rural trust such as the United States.

We further test whether the urban-rural trust gap may have a 'compositional' explanation by including demographic factors in the model (Table 2, columns 5-8). In all cases, the main effect of rurality (i.e., at the mean of HDI) is positive and significant, and the coefficient negative on the interaction with HDI - though this is still not significant for 'government' and no longer significant for 'parties'. Furthermore, across all outcomes, the central estimate of the interaction effect is smaller compared to without controls, offering some evidence of mediation (although the confidence intervals of effects pre- and post- controls overlap). Crucially, marginal effects plots still show a substantive difference in the effect of rurality between high and low development contexts (Appendix, Figure B-2): for the scale, rurality has no effect on trust at high HDI, but at the lowest values of HDI, it remains significant and substantively large. For instance, from central estimates, moving from an urban to a rural area increases trust more than moving from low to high income.

Overall, observed differences in political trust between urban and rural areas are somewhat attenuated by controlling for demographic factors, but do persist. This suggests that a part of the urban-rural trust gap may be explained by composition, but the door is open for context to explain a further part of the effect.

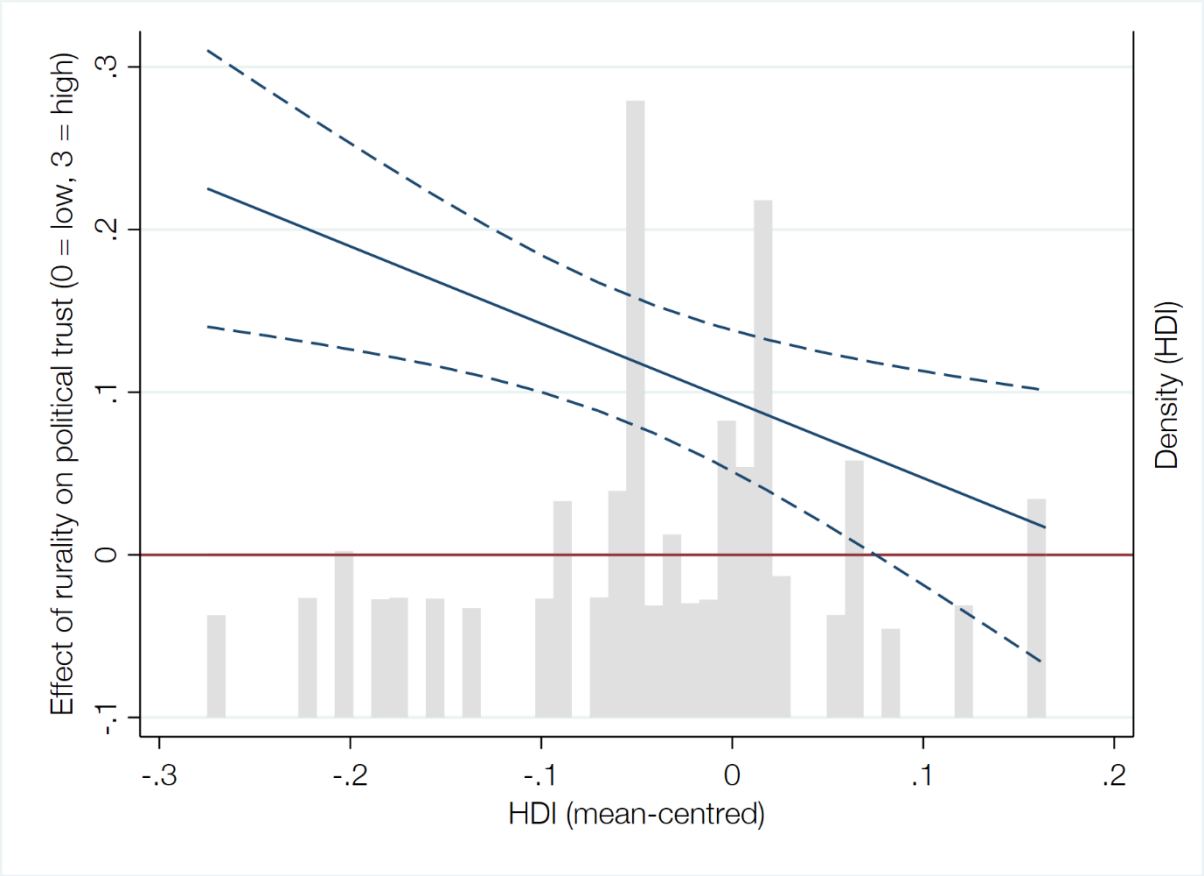
Table 2. Multilevel regression of trust outcomes (linear for scales; ordered logistic for single items), with and without demographic predictors. (WVS-7).

	(1) 3-item scale	(2) Govt.	(3) Parties	(4) Parl.	(5) 3-item scale	(6) Govt.	(7) Parties	(8) Parl.
Rural	0.10***	0.29***	0.20***	0.19**	0.09***	0.24***	0.14***	0.15***
	(0.02)	(0.05)	(0.05)	(0.06)	(0.02)	(0.04)	(0.03)	(0.04)
HDI	-1.30	-3.46	-0.92	-2.58	-1.99**	-4.19**	-1.92	-2.63
	(0.70)	(1.81)	(1.95)	(2.03)	(0.70)	(1.60)	(1.58)	(1.71)
Rural * HDI	-0.47**	-0.34	-1.33**	-1.18*	-0.34*	-0.09	-0.84**	-0.77
	(0.17)	(0.45)	(0.41)	(0.55)	(0.16)	(0.33)	(0.31)	(0.39)
GDP per capita % growth	0.03***	0.05*	0.06*	0.08**	0.03***	0.05*	0.06**	0.07**
	(0.01)	(0.02)	(0.03)	(0.03)	(0.01)	(0.02)	(0.02)	(0.02)
Corruption index	0.60	0.85	1.19	1.28	0.62	0.95	0.92	1.10
	(0.38)	(0.82)	(0.88)	(0.92)	(0.39)	(0.73)	(0.72)	(0.78)
Age					0.00	0.00***	-0.00	0.00
					(0.00)	(0.00)	(0.00)	(0.00)
Income: medium					-0.00	0.01	0.02	0.02
					(0.02)	(0.04)	(0.04)	(0.04)
Income: high					0.11***	0.22***	0.24***	0.21***
					(0.03)	(0.06)	(0.06)	(0.06)
Education: Secondary					-0.07**	-0.16***	-0.13***	-0.16***
					(0.03)	(0.04)	(0.03)	(0.04)
Education: Post-secondary					-0.16***	-0.35***	-0.32***	-0.29***
					(0.04)	(0.07)	(0.04)	(0.06)
Education: Tertiary					-0.16***	-0.36***	-0.27***	-0.28***
					(0.05)	(0.08)	(0.05)	(0.07)
Female					0.00	0.02	0.02	0.01
					(0.01)	(0.02)	(0.02)	(0.02)
Observations	45322	45322	45322	45322	45322	45322	45322	45322
AIC	67329.30	.	.	.	66752.93	.	.	.
BIC	67381.63	.	.	.	66953.52	.	.	.

Standard errors in brackets. Model fit not available for ordered logistic models estimated using PQL2 in MLwiN.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure 1. Marginal effect of living in a rural vs urban area on political trust by level of development, using predictions from Table 2, Column 1, and distribution of HDI. (WVS-7)



4.2. Further analysis: WVS-7/DEGURBA

As a robustness check, we test whether our findings are consistent using a commonplace, parsimonious measure of development: GDP per capita. We find that this is the case: both in models with and without demographic controls, tables again show a significant rural main effect and development interaction, and marginal effects plots show a large positive effect of rurality in countries with low GDP per capita dwindling to a null effect at the highest observed GDP levels (Appendix, Table D-1 and Figure D-1).

We posited three mechanisms that may drive urban-rural differences in political trust: perceptions of competence, benevolence, and integrity. While the WVS dataset does not allow us to test all

three mechanisms, as there are no reasonable proxies for perceived competence and benevolence, we can conduct a limited test of the integrity mechanism. The expectation here is that in less developed countries specifically, people in rural areas will have higher perceptions of political integrity than those in urban areas. We test this first by introducing respondent's corruption perceptions to a model of political trust: we find that corruption perceptions reduce trust, and that the interaction between HDI and rurality is reduced after controlling for corruption perceptions (Appendix, Table E-1). This suggests that the reason rural areas have higher trust in low development countries is partly because they perceive less corruption. Marginal effects plots support this (Appendix, Figure E-1), showing that rural areas perceive less corruption in low but not high-development contexts (where rurality has no effect on corruption perceptions). In turn, we have suggested that this divide in corruption perceptions emerges partly because of less exposure to critical media, especially online, and we indeed find that in low-development contexts only, rurality substantially reduces use of online media (Appendix, Figure E-2).

4.3. Sensitivity analysis: WVS/EVS 1990-2020

For the prior analysis, we used survey data from WVS-7 linked to geocodes enabling us to derive the respondent's urban-rural context. Despite its many strengths, this data has important limitations, which drive us to test the robustness of our results using another data source. The first is scale: 34 countries – while still sufficient for comparative analysis – represents only a small proportion of the globe. The second is time: our findings should hold across a range of time-points, but WVS-7 confines us to the 2017 to 2020 period. The third, and most important, is biases in the countries sampled. The sample of countries excludes Europe[7] (as the WVS-7 used a survey partner in Europe, the European Values Survey (EVS), which did not collect geocodes). This is less than ideal: much of the existing analysis showing some form of urban-rural divide concerns

[7] With the exceptions of Andorra, Greece and Romania, which were WVS not EVS surveys.

Europe or European countries, and excluding Europe makes the developed countries in the WVS-7 potentially unlike the average developed country. Hence, it might be questioned whether we have sufficient evidence to reject the null or alternative hypotheses. We therefore turn to the broader set of WVS and EVS surveys (Haerpfer et al, 2022b; EVS, 2021) to resolve these challenges, using 98 countries in which surveys were conducted between Wave 2 (1990-1994) and Wave 7 (2017-20) of the WVS and from Wave 4 (2008-2010) and Wave 5 (2017-18) of the EVS, consisting of over 280,000 respondents. The full country-year coverage (by region and subregion) is detailed in Appendix E.

While earlier surveys do not contain the geocodes and cannot be coded as urban-rural using DEGURBA, since WVS Wave 2 (1990-1994) they do contain a measure of 'settlement size', coded by recording the settlement name and looking up its official population. We therefore continue to avoid the problems of self-report and census-based urban-rural classifications. Following the same cut-off as DEGURBA, we code settlements under 5,000 as rural and the rest as urban, creating a dummy variable.

Development (HDI) is measured at the country-year level and centred at the mean for the sample. The demographic control variables are as before, and the national controls are identical (growth, corruption) but are allocated at the country-year level. We specify random intercepts at the country-year level and random slopes for demographics and urban-rural context at this level – again weighted at level 1 (demographic weights) and level 2 (country-year weights, to correct for sample size discrepancies).

We begin with the models without demographics (Appendix, Table B-1, columns 1-4). As in WVS-7, there is a positive main effect of rurality, but a negative interaction with HDI. As Figure 2 shows (based on the 'political trust' 3-item scale), they again show the pattern of trust being higher in rural areas at low levels of development, with urban-rural convergence at high levels of development. After introducing controls (Table B-1, columns 5-8), we find that the magnitude of

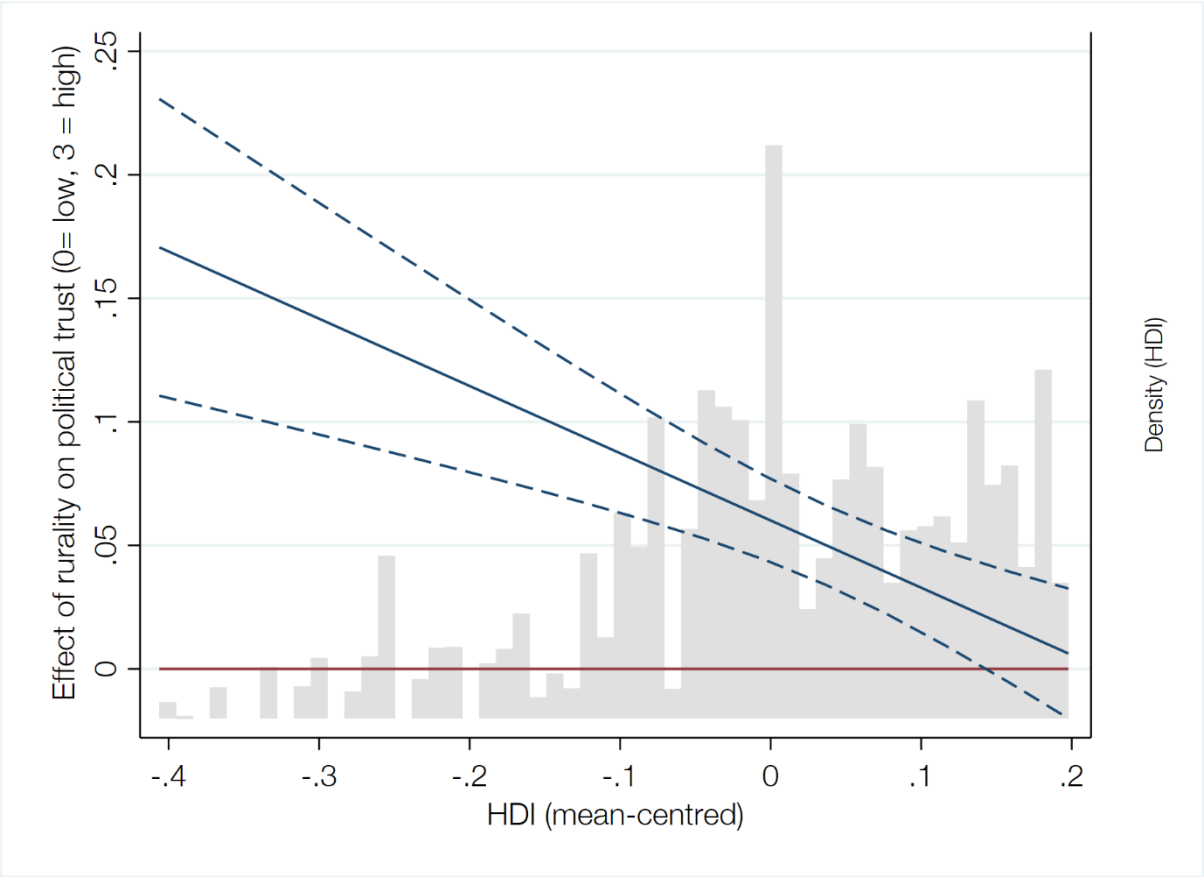
the interaction is similar for all outcomes, and remains significant (including for trust in government, where the interaction was non-significant in the WVS-7/DEGURBA models).

Using this expanded sample, we conduct a further series of robustness checks. First, we restrict the sample to electoral democracies, confirming that urban-rural differences persist and indeed, strengthen (Appendix, Table B-2). Second, we conduct an identical robustness check to that for the WVS-7 sample, using GDP per capita as an alternative measure of development, and again find the results do not change (Table D-2). Thirdly, up to this point our analysis has presumed a binary between urban and rural areas. However, in the literature some posit a divide more between (large) cities and the rest (Rodríguez-Pose, 2018), while other studies use ordinal urban-rural measures, finding a 'gradient' of discontent from large cities to remote rural areas (Luca and Kenny, 2021). We therefore conduct further analysis which preserves the original five categories of settlement size (0-5k, 5-20k, 20-100k, 100-500k, and 500k+). As Table B-3 and Figure B-1 (Appendix) show, the broad pattern of our findings is reproduced.[8]

We conclude that this offers some evidence that our results are robust across a broader set of countries (more representative of the average highly-developed country) and over a broader timespan than just 2017 to present, and that our findings can be replicated using alternative measures of both rurality and development.

[8] While it is possible to distinguish a statistically significant difference between cities and all other areas at the lowest levels of HDI, the confidence intervals of the other categories all overlap, making it difficult to comment on the 'gradient' of trust across settlement sizes.

Figure 2. Marginal effect of living in a rural vs urban area on political trust by level of development, using predictions from Table B-1, Column 1, and distribution of HDI (WVS/EVS, 1990-2020).



4.4. Regional and country variation: WVS/EVS, 1990-2020

In the existing literature, the geography of trust appears to operate differently in different regions of the globe. In Africa and Latin America, Brinkerhoff *et al* (2018) and Bland *et al* (2021) show that more rural contexts are conducive to higher levels of trust. On the other hand, the US literature emphasises 'rural resentment' and studies using data on Europe and European countries find that rural areas are lower in trust. We have explored whether a unifying principle behind these patterns might be the different levels of development found in these regions and show that the rural-urban trust gap changes with human development at a country-level. However, with the global coverage of the WVS/EVS, we have a unique opportunity to explore the divides across regions.

This has three key benefits. We can shed light on the urban-rural trust divide in less-studied regions, namely Asia. We can speak to the robustness of existing findings regarding certain regions to different data, outcome variables and modelling strategy. Finally, we can probe the surprising findings from our earlier analysis that there is no urban-rural trust gap in highly developed countries and that (for the 34 countries in the WVS-7 data) there are virtually no countries where rural areas exhibit lower trust.

We therefore model the effects of urban-rural location within regions and sub-regions (based on the United Nations Geoscheme), continuing with the same control variables and modelling strategy while removing development as a variable/moderator. Our results are shown in Table 3 (we also include models which add demographic controls – see Appendix, Table B-4). Additionally, we model the effects of urban-rural location country-by-country (without including demographic controls), and map these in Figure 3. The regional and national comparisons are not perfect – an element of the differences could be driven by which years countries are surveyed in, and which countries are surveyed within a region – but are still informative for our purposes.

Regarding Africa and Latin America, we replicate the findings of prior studies: rural location is associated with higher trust. This is also true of Asia, where rural location has an effect of similar magnitude, although there may be important sub-regional differences in both Asia and Africa. In Central and Western Asia, rurality is associated with higher trust, but this is not the case in Southern and South-Eastern Asia, while the pattern is reversed for Eastern Asia (driven by Japan). In Africa, the higher level of trust in rural areas is driven by Sub-Saharan Africa and not reproduced in the North (Appendix, Table B-7), although South Africa, where rural trust is significantly lower, is an exception.

However, the urban-rural divide literature largely focuses on the United States, Europe and to some extent Australasia: what do we observe for these regions? In the United States, we find no evidence that urban-rural location is predictive of political trust (Appendix, Table B-5). Across

Europe as a whole, we find – in direct contrast to Kenny and Luca (2020) and Mitsch *et al* (2021) – that rural location is associated with higher levels of trust, although the effect is only modest and driven by Southern and Eastern Europe specifically, in countries such as Romania, Poland and Serbia.[9] Notably, however, we do find specific areas where rurality predicts lower trust: Australasia, Canada and Western Europe. For Western Europe, this is a reflection of the number of countries where there is low rural trust: for example, in France, Spain and Portugal.

Combined with the analyses around HDI, this produces a rich picture of global variation in the urban-rural divide. There is a general tendency for countries of low development to exhibit higher trust in rural areas, whereas in highly developed countries, urban-rural location has less of an effect either way. At all levels of development, however, this effect can vary with notable diversity among the highly developed countries; in some places confirming the general impression of 'rural resentment', in other places running counter to it. We return to these nuances in the discussion below.

[9] We also note the Mitsch et al (2021) argument that rural distrust has 'worsened since the global financial crisis began in 2008', especially in Southern Europe. We test this through dividing our data into pre- and post-crisis samples: the urban-rural effect does not noticeably change between periods (Appendix, Table B-6).

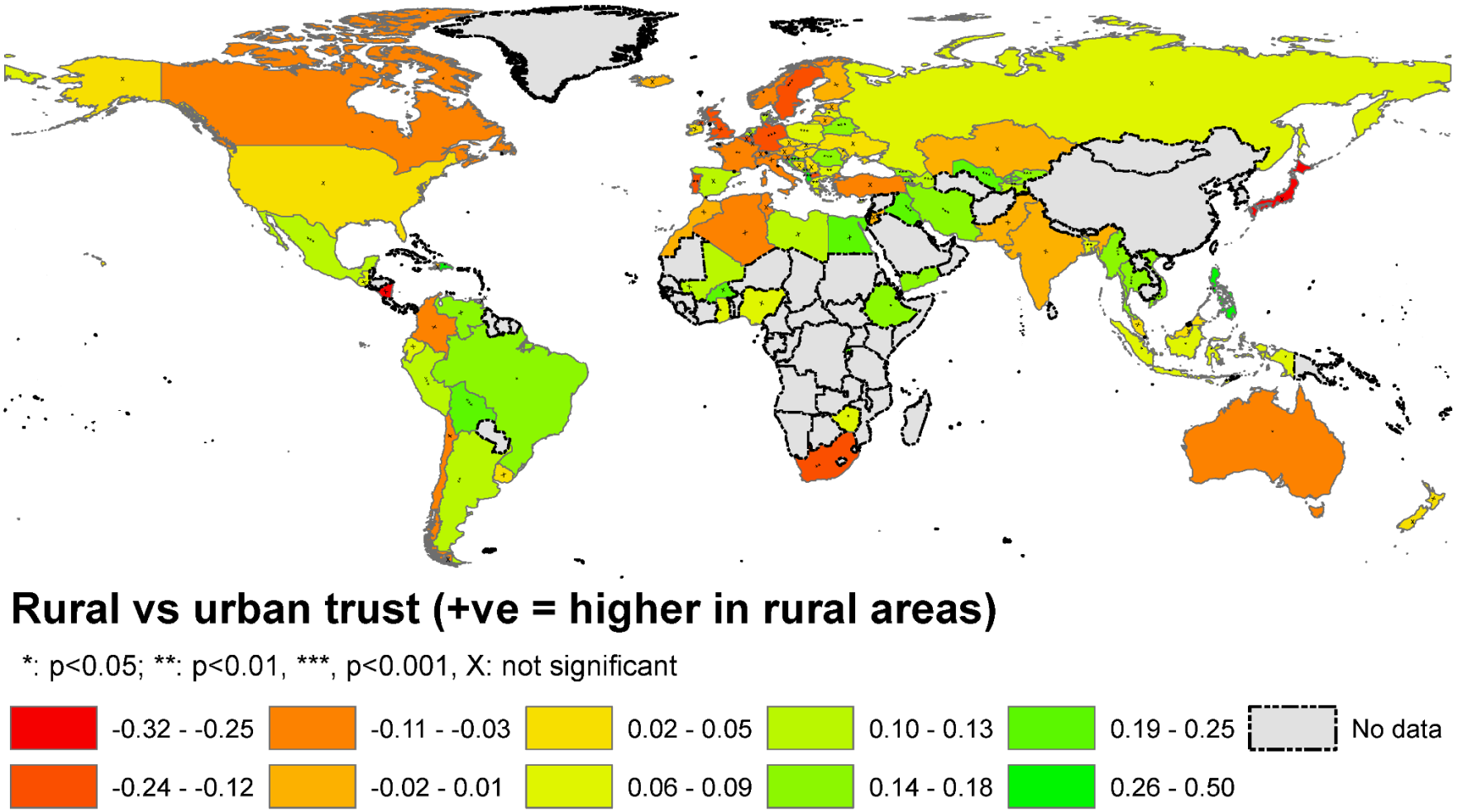
Table 3. Within-region effects, 3-item scale outcome ('political trust'), no demographic controls. (WVS/EVS 1990-2020).

	(1) Africa	(2) Asia	(3) Europe	(4) Latin America	(5) Australasia	(6) W Europe	(7) N Europe	(8) E Europe	(9) S Europe
Rural	0.09**	0.11***	0.04**	0.09***	-0.06*	-0.05***	0.00	0.08***	0.04*
	(0.03)	(0.02)	(0.01)	(0.02)	(0.03)	(0.01)	(0.02)	(0.02)	(0.02)
GDP per capita growth (annual %)	0.02***	0.04*	0.01	0.01		-0.04	0.01	0.00	0.05***
	(0.00)	(0.02)	(0.01)	(0.01)		(0.03)	(0.01)	(0.01)	(0.01)
Political corruption index	0.55	0.25	-0.38***	-0.38**		-1.46	-1.96***	0.06	-0.39*
	(0.34)	(0.19)	(0.08)	(0.12)		(1.65)	(0.43)	(0.12)	(0.18)
Observations	30255	79647	132393	38861	7000	25855	24593	47203	34742
AIC	41623.70	110137.59	177424.70	64186.93	8814.81	27343.36	33479.71	63199.97	52739.08
BIC	41656.97	110174.74	177463.87	64221.20	8828.52	27376.00	33512.15	63235.02	52772.90

Standard errors in brackets. We urge caution interpreting the GDP and corruption effects for sub-regions due to the generally low number of countries/country-year groups, and we remove these controls entirely for the Australasia sub-region (consisting of just two countries and five country-years).

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure 3. Urban-rural trust gap across the globe: results of regressions in ninety-five countries. 3-item scale outcome ('political trust'), no demographic controls. (WVS/EVS, 1990-2020).



5. DISCUSSION

The urban-rural divide is a widely discussed feature of modern politics, with evidence suggesting it may be reflected in trust judgments as well as in voting patterns. However, the literature has given less consideration to how this divide works in less developed contexts. Furthermore, due largely to deficiencies in the economy and services, the dominant expectation has been one of 'rural resentment'. However, we suggest that in less developed contexts, other factors might counteract this tendency, such as weight as a voting bloc, and lesser exposure to government corruption via critical news information. The possibility then exists for people in rural areas to be *higher* in trust than urbanites in these settings. H1 therefore anticipates that *in countries where development is low, living in a rural area is associated with higher levels of political trust*, while H2 posits that *in countries where development is high, living in a rural area is associated with lower levels of political trust.* Thus, in our models, we expect a statistically significant (negative) interaction between rurality and development, and marginal effects plots to reveal a 'crossover', with positive effects of rurality at low development and negative effects at high development.

Are these borne out in our analysis? On the one hand, our results consistently support H1 across different samples, specifications, development indicators, and measures of rurality. Furthermore, virtually all models find a statistically significant interaction showing that the effect of geography differs by level of development. On the other hand, we do not find support for H2 in any of our models. *Ceteris paribus*, there seems to be no *systematic* urban-rural divide in trust in the highest development contexts. However, we are alert to the possibility that individual countries and regions, or sub-regions, can buck these general trends (perhaps cancelling out to zero). We indeed find evidence of such variation. Notably, in Western Europe, Canada, and Australasia, we do observe the anticipated effect of lower trust in rural areas, although other European regions exhibit opposite effects. In the USA we (perhaps surprisingly) find no evidence of urban-rural divides in political trust.

One critical question is whether urban-rural divides in trust (where found) reflect 'compositional' or 'contextual' effects. Overall, we find more evidence for the latter, consistent with the literature on urban-rural divides in political trust. With rare exceptions, effects of urban-rural location remain significant after adding demographic variables to models, while in many models, the initial effect does not even diminish after including demographics - although we cannot be certain that we capture all possible compositional variation. This suggests, although does not prove, that in many contexts (including specific regions and low development countries in general) there is something about living in a rural or urban area that does affect levels of trust. This supports our broader theoretical focus on differences in context, although we do not claim to test or prove precisely which contextual factors matter. We return to these important questions below.

6. CONCLUSION

What is the geography of political trust? The conventional understanding is that rural areas experience greater dissatisfaction with politics, attributed to causes including economic decline, public service deficiencies and cultural divides from the urban political elite. However, literature on regions of lower development suggest that this pattern is not universal and may in fact even be reversed. We employ a larger dataset than previous studies (covering nearly 100 countries from multiple global regions) and use robust and comparable data on rural-urban location to test this urban-rural divide in global perspective. Our tentative answer is that the geography of trust has surprising characteristics, given conventional wisdom. Trust is generally higher in rural areas of the developing world, and that rural lack of trust may be overstated as a phenomenon in highly-developed countries – but with important exceptions, including Western Europe.

Our finding of differences *within* the group of developed regions poses a puzzle. In some, trust is indeed lower in rural areas (Western Europe, Canada, and Australasia), in others there is no difference (Northern Europe and the USA) while in Southern and Eastern Europe we observe just the opposite. When it comes to explaining a lack of difference, it may be less surprising than it appears that rural and urban areas in highly developed countries should not differ on trust. One explanation is that in such contexts, experiences of politics and political institutions, and their competence, integrity and benevolence, differ little. Politics is in general highly nationalised, with both urban and rural areas networked into a nationwide media environment that provide information largely about national economic performance, policy failures and successes, scandals and so on. Indeed, due to decline of local news (Hayes and Lawless, 2018) it may be progressively more difficult to for voters to acquire information about what is happening in their areas, and who is responsible: as such, rural voters may not necessarily be aware of ways they lose out, nor urban areas of their relative gains.

When it comes to explaining differences, features of the political system may offer insights. Rodden (2019) has drawn attention to 'why cities lose' in the United States, with an electoral system skewed in favour of rural areas. Meanwhile, several Eastern European countries have seen populist parties ascend to power, which tend to antagonise the liberal, educated populations concentrated in cities. Meanwhile, in West European countries such as France, they skirt the margins of power, cueing rural grievances with the centre while rarely acquiring the degree of influence that would increase trust among their rural voters. Western Europe also saw a historical process of nation-building which created a strong sense of centre and periphery in many countries, owing to a series of factors, such as having strong minor states before incorporation into larger empires or confederations, and the influence of Napoleonic ideals (Rokkan, 1999). People in these (generally more rural) peripheries may be less inclined to trust the centre (Stein et al, 2019). However, we do not claim to fully explain these findings and risk overfitting to our data, while we cannot entirely rule out some statistical noise driving these variations.

In terms of less developed countries, and in less developed regions such as Sub-Saharan Africa, we confirm our hypothesis that rurality is associated with higher trust. This finding fits with our theory that urban residents in these contexts are more likely to believe that their representing institutions lack integrity and benevolence, while being no more likely to imbue them with competence. Indeed, we find some evidence that perceptions of integrity are lower in urban compared to rural areas of the developing world, explaining some of the trust gap, and a plausible reason for this in terms of less media exposure, especially online media. However, we find some important exceptions to high rural trust, including South Asia – perhaps surprising given the strong client-patron networks in areas such as rural India.

We are aware that in this analysis we may somewhat flatten the complexities in the developing world. In some cases, particularly in small developing countries where rural areas are not so distant from cities (and the capital), rural areas may frequently encounter public officials and may be well networked into media environments. Furthermore, far from maximising rural appeals, some non-democratic leaders may in fact exhibit 'urban bias' to shore up their support among those areas where protests and riots could destabilise the regime (Ballard-Rosa, 2020). Rural peasant movements in many low/medium development countries – for example, in Peru, where rural favourite Pedro Castillo was recently ousted by Parliament – suggest continued distrust of the central state (Briceño and Cano, 2022). While our arguments may not hold for all developing countries/regions, there is a robust average effect of greater trust in rural parts of developing countries.

Our research has several important limitations. Most significantly, we can offer no direct test of our theoretical mechanisms of competence and benevolence, and only a limited test of integrity. To address this, future research might look to surveys containing more diverse assessments of their government/institutions, including perceptions of corruption, economic competence, and quality of public service delivery. Secondly, in this study, the moderating variable of human

development 'stands in' for a host of unobserved characteristics of countries, such as the size of the rural population: future research might seek to establish specific moderators, and test competing explanations for the broad patterns we have observed. Finally, the broad 'story' of the 'geography of discontent' literature entails not just trust, but divides in authoritarian and populist attitudes, which we do not explore here: datasets such as the WVS/EVS make this a realistic possibility for researchers.

Trust is considered crucial to public policy effectiveness and good governance. Our findings have important implications for policymakers invested in building trust and combating simplified populist solutions to shared challenges. Firstly, just as some populists have found a happy hunting ground in rural developed areas, it would seem there is potential for other types of anti-establishment politics to find a base in the urban developing world - with potentially destabilising effects. Secondly, the pattern of populist voting in some rural areas of the developed world (such as the USA) may have more of a supply-side than a demand-side explanation: rural areas are generally no higher in distrust, but that discontent is seemingly well-mobilised by authoritarian populists in a way that urban discontent is not. We may speculate that this is because populists can tie messaging on rural decline to a broader values-based narrative of suspicion of social change, which urbanites are less likely to subscribe to. While it is important to address material challenges facing rural communities, the concerns of urban-dwellers cannot be ignored in processes of trust-building.

Data availability

The two sets of geocoded survey data created for the analysis are available at https://osf.io/gyw3x/?view_only=607bb25faf284dc4ab5e4d2b7fc9dc41, hosted by the Open Science Network. Citation: Replication data for "What is the geography of trust? The urban-rural

trust gap in global perspective." Retrieved from https://osf.io/gyw3x/?view_only=607bb25faf284dc4ab5e4d2b7fc9dc41. (Name temporarily withheld to avoid author identification; OSF data will display as anonymised).

The original survey data is available from the World Values Survey and European Values Survey.

For the single wave analysis, we use the World Values Survey: Round Seven - Country-Pooled Datafile Version 3.0.0. Citation:

Haerpfer, C., Inglehart, R., Moreno, A., Welzel, C., Kizilova, K., Diez-Medrano J., M. Lagos, P. Norris, E. Ponarin & B. Puranen (eds.). 2022a. World Values Survey: Round Seven - Country-Pooled Datafile Version 5.0. Madrid, Spain & Vienna, Austria: JD Systems Institute & WVSA Secretariat. doi:10.14281/18241.20

For the multi-wave analysis, we use the Integrated Values Surveys (IVS) 1981-2022, which combines the World Values Survey Trend File (1981-2022) Cross-National Data-Set and the European Values Survey Trend File 1981-2017. Instructions to create the IVS dataset are available at https://www.worldvaluessurvey.org/WVSEVStrend.jsp. Citations for the WVS and EVS data are:

- EVS (2021): EVS Trend File 1981-2017. GESIS Data Archive, Cologne. ZA7503 Data file Version 3.0.0, doi:10.4232/1.14021.
- Haerpfer, C., Inglehart, R., Moreno, A., Welzel, C., Kizilova, K., Diez-Medrano J., M. Lagos, P. Norris, E. Ponarin & B. Puranen et al. (eds.). 2022b. World Values Survey Trend File (1981-2022) Cross-National Data-Set. Madrid, Spain & Vienna, Austria: JD Systems Institute & WVSA Secretariat. Data File Version 2.0.0, doi:10.14281/18241.23.

The data for measuring fine-grained urban-rural context is available for download from the website of the European Commission Joint Research Centre. Citation: Pesaresi, M; Florczyk, A;

Schiavina, M; Melchiorri, M; Maffenini, L. (2019): GHS settlement grid, updated and refined REGIO model 2014 in application to GHS-BUILT R2018A and GHS-POP R2019A, multitemporal (1975-1990-2000-2015), R2019A. European Commission, Joint Research Centre (JRC) [Dataset] doi:10.2905/42E8BE89-54FF-464E-BE7B-BF9E64DA5218 PID: http://data.europa.eu/89h/42e8be89-54ff-464e-be7b-bf9e64da5218

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