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Chinese Aid and Local Ethnic Identification

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Abstract: Recent empirical evidence suggests that Chinese development finance may be particularly prone to elite capture and patronage spending. If aid ends up in the pockets of political elites and their ethno-regional networks, this may exacerbate ethnic grievances and contribute to ethnic mobilization. The present paper examines whether Chinese development projects make local ethnic identities more salient in African partner countries. A new geo-referenced dataset on the subnational allocation of Chinese development finance projects to Africa is geographically matched with survey data for 50,520 respondents from 11 African countries. The identification strategy consists in comparing sites where a Chinese project was under implementation at the time of the interview to sites where a Chinese project will appear subsequently. The empirical results indeed suggest that living near an ongoing Chinese project makes ethnic identities more salient. There is no indication of an equivalent pattern when considering development projects of other donors.

Keywords: China, aid, ethnic identities, Africa

JEL classification: F35, O19, O55

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1 Introduction

In 2010 China's foreign minister visited Yoni, a small village in Sierra Leone, with a grand school-building plan. While Sierra Leone could certainly use more schools, the project location in “the middle of the bush” caused some surprise (The Economist, 2017). As it turns out, Yoni is the home village of Ernest Bai Koroma, Sierra Leone's president at the time. By a similar coincidence, of the three primary schools constructed with Chinese funds in rural Tanzania, one was built in the then President Kikwete's hometown of Msoga (Hodzi, 2017).

While not necessarily reflecting intentional allocation decisions on part of the Chinese, these are not isolated incidents. In a recent study, Dreher and co-authors (2019) show that Chinese aid may be particularly easy to exploit for politicians who are engaged in patronage politics. Introducing a new georeferenced dataset on the subnational allocation of Chinese development projects across Africa, the authors find that Chinese development finance is disproportionately allocated to the birth regions of African leaders, and, less robustly so, to areas populated by individuals who share their ethnicity. Replicating their analysis for World Bank aid, they find no evidence of any corresponding favoritism.

In the African context, where patronage politics is commonly suggested to have an ethnic dimension (see e.g. Wantchekon, 2003; Lindberg and Morrison, 2008; Alesina et al., 2016), this raises questions regarding a potentially important externality of aid. In particular, if development finance ends up in the pockets of political elites and their ethno-regional networks, it seems reasonable to argue that this could exacerbate ethnic grievances and contribute to ethnic mobilization. In light of the findings of Dreher et al. (2019), the present study investigates whether Chinese development projects make ethnic identities more salient in African partner countries.

The idea that aid could make ethnic identities more salient rests on a constructivist account of ethnicity, according to which ethnic identities are mobilized in the pursuit of state resources as opposed to being primordial and hardwired (see e.g. Posner, 2003; Posner, 2004; Kasara, 2007; Eifert et al., 2010).² Two mechanisms through which Chinese development projects may make ethnic identities more salient are considered.

² There is also experimental evidence to this effect (e.g. Habyarimana et al., 2009).

First, competition for the inflow of resources that aid constitutes could mobilize ethnic identities across the board. The results of Eifert et al. (2010) speak in favour of such a mechanism. Drawing on survey data across 10 African countries their findings suggest that ethnic cleavages are more salient at election times and in cases where the winning party won by a small margin. They interpret this as supporting an instrumental understanding of ethnicity, where ethnic identities are mobilized in the struggle for political power and economic resources. By this reasoning, the inflow of resources could make ethnic identities more pronounced even in the absence of ethnic bias, simply by raising the stakes in the struggle for resources.

A second possible mechanism, however, is that perceived ethnic bias in the delivery of aid gives rise to ethnic grievances, and thereby more salient ethnic identities, in groups that perceive themselves as disadvantaged. The idea that unequal treatment of ethnic groups raise group members' ethnic awareness is in line with a 'reactive ethnicity' approach, according to which ethnic mobilization is prompted by an unequal division of resources along ethnic lines (Vermeersch, 2011; Çelik, 2015).

A number of commonly suggested features of Chinese development finance make it particularly relevant to study in this context. To begin with, the demand-driven nature of the Chinese aid allocation process (Brautigam, 2011; Dreher et al., 2019) and China's policy of non-interference in the domestic affairs of partner countries (State Council, 2014) arguably make it prone to elite capture and possible ethnic bias. As described in Dreher et al. (2019), China's aid allocation tends to be based on requests from recipient-country governments. Their aid packages are often negotiated in high-level meetings with political leaders rather than publicly outlined in country development assistance strategies. Interpreted favorably, this could be seen as a sign of ensuring partner country ownership of development policy. At the same time, however, a request-based system of aid project delivery may provide opportunities for recipient country governments to use funds strategically by promoting a subnational distribution of funds that favors their patronage network. Similarly, while recipient country governments tend to view the non-interference principle as a sign of China respecting their countries' sovereignty, critics suggest that it makes Chinese aid easy to exploit for politicians (see e.g. Tull, 2006; Kaplinsky et al., 2007; Naím, 2007; Pehnelt, 2007; Bräutigam, 2009; Marantidou and Glosserman, 2015).

Furthermore, rather than broad-based development projects, it is often suggested that China tends to finance highly visible prestige projects benefiting a select few (Tull, 2006;

Brautigam 2011a, Strange et al 2013). Citizens in the local area are thus likely to observe the concerned development project being implemented without necessarily getting a share of the rewards, which may lead to perceptions of unfair treatment.

Against this background, the study asks 1) whether the implementation of Chinese development projects makes ethnic identities more salient near project sites, 2) whether the potential effect varies depending on whether the respondents belong to an in-group – proxied by being a co-ethnic with the country president at the time of the survey – or an out-group, and 3) whether China stands out from other donors in this respect.

Questions 2 and 3 can help shed light on the theoretical mechanisms involved. If there is an effect, and it is uniform across groups, this would seem to imply that it is competition for the inflow of resources in and of itself, rather than perceptions of ethnic bias in the distribution of these resources, that mobilize ethnic identities. If the effect is significantly stronger in the out-group, on the other hand, this arguably signals that the effect is driven by ethnic grievances originating in perceived ethnic bias in disadvantaged groups.

Comparing results across donors (question 3) could also be revealing in this regard. Ethnically biased aid is unlikely to be a universal phenomenon. The fungibility of aid varies with the strategic priorities of donors (Blodgett Bermeo, 2015),³ and as noted, recent empirical evidence suggests that Chinese development finance may be particularly prone to elite capture (Dreher et al., 2019). If the hypothesized effect is nevertheless observed for all donors, this too would arguably add support to the idea that it is competition for the inflow of resources more generally, rather than perceived ethnic bias in the distribution of these resources, that mobilize ethnic identities.

To address these questions, the new geo-referenced dataset on the subnational allocation of Chinese development finance projects to Africa over the 2000-2014 period is geographically matched with 50,520 respondents from four Afrobarometer survey waves across 11 African countries. The estimation strategy to account for the endogenous placement of Chinese project sites consists in comparing the estimated effect of living near a site where a Chinese project was under implementation at the time of the interview, to that of living near a site where we know a Chinese project will appear subsequently.

³ For instance, experimental evidence from Uganda suggests that both elites and the public perceive that donors exert substantial influence over foreign assistance, with little room for elite capture (Findley et al., 2017).

The empirical results indeed suggest that living near an ongoing Chinese project makes ethnic identities more salient. This finding is robust over a wide range of specifications and sub-samples, and thus calls attention to a potentially important externality of aid. Furthermore, a comparison across donors reveals that Chinese development projects do in fact stand out from other influential donors in terms of their impact on ethnic identities. On the other hand, the results provide no robust evidence that the Chinese presence has different effects on the ethnic identities of in-groups and out-groups in the local area. While the latter provides no conclusive evidence in support for a grievance mechanism, the former seemingly speaks against a dominant role of the general ethnic competition mechanism.

Being the first effort to systemically investigate the effects of development projects on local ethnic identities in African partner countries, the study makes two principal contributions. First, it contributes directly to the literature on ethnic mobilization in Africa (e.g. Posner, 2003; Posner, 2004; Eifert et al., 2010). The results of Eifert et al. (2010) find that ethnic identities are more salient at election times, fuelled by the struggle for political power and economic resources. The present study brings this thinking to the aid literature, where a similar argument can be made for ethnic identities reacting to the infusion of donor funds.⁴

Second, it contributes to the emerging literature evaluating the sub-national allocation and impacts of aid (e.g Briggs, 2014; Jablonski, 2014; Öhler and Nunnenkamp, 2014; Briggs, 2017; Civellia et al., 2018; Kotsadam et al., 2018; Briggs, 2019; Dreher et al., 2019; Knutsen and Kotsadam, 2020). In particular, it adds to the recent strand of this literature focusing on the allocation and local externalities of Chinese aid. Despite the massive scale of Chinese development finance, there are relatively few quantitative studies assessing its effects and motivations. Unlike the OECD-DAC donors, the Chinese government does not routinely publish information on its foreign assistance. However, with the comprehensive dataset on Chinese Official Finance to Africa recently made available by the AidData research laboratory (Bluhm et al., 2018), systematic quantitative analysis of Chinese aid flows is now possible. In addition to the pioneering work of Dreher and co-authors, recent studies have for instance considered the impacts of Chinese

⁴ As such, it also adds to a broader literature on ethnic politics in Africa (e.g. Wantchekon, 2003; Miguel and Gugerty, 2005; Lindberg and Morrison, 2008; Franck and Rainer, 2012; Hodler and Rachky, 2014; Burgess et al., 2015; Ahlerup and Isaksson, 2015; Kramon and Posner, 2016; Isaksson and Bigsten, 2017).

development projects on local corruption (Brazys et al., 2017; Isaksson and Kotsadam, 2018a), trade union involvement (Isaksson and Kotsadam, 2018b) and spatial inequality (Bluhm et al., 2018). As of yet, however, there is no empirical evidence on whether the finding that Chinese development finance is particularly prone to end up in the pockets of political elites and their ethno-regional networks, also implies that it makes local ethnic identities stronger.

3 Data and empirical strategy

To explore the local effects of Chinese development projects on ethnic identities in Africa, I geographically match spatial data on China's official financial flows to the continent over the period 2000-2014 with 50,520 respondents from 11 African countries⁵ obtained from rounds 3-6 of the Afrobarometer survey.

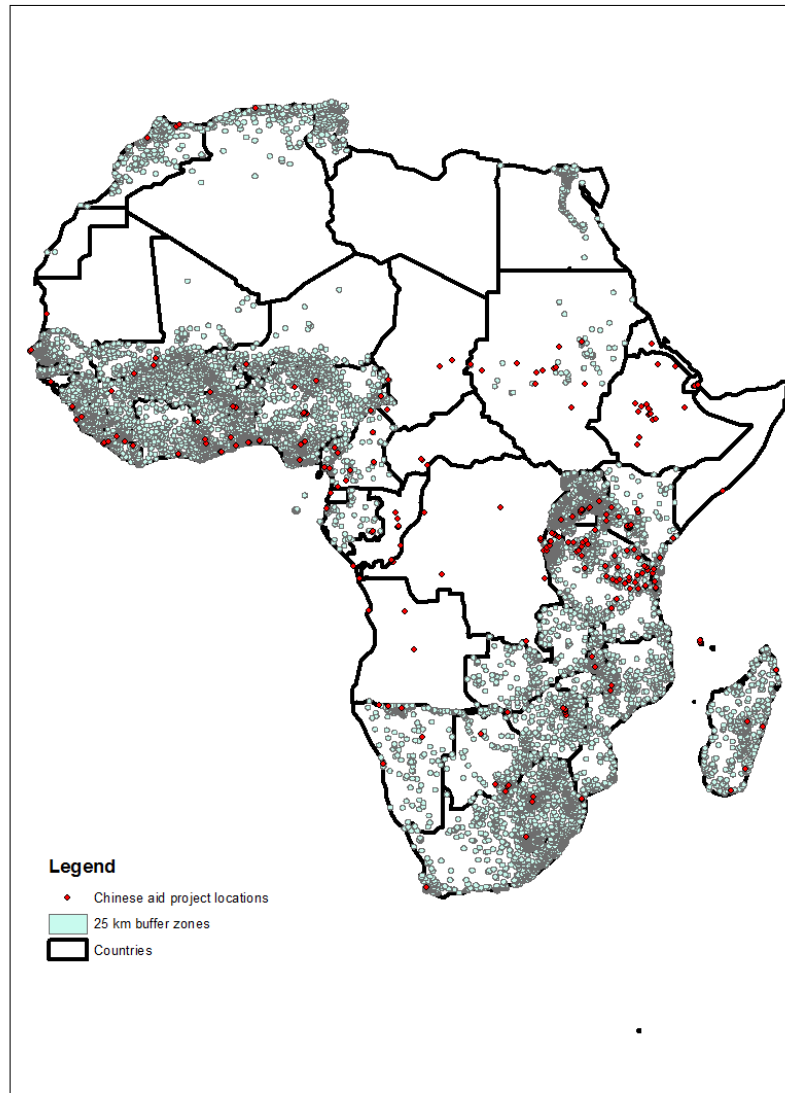
The data on Chinese aid projects is obtained from geo-referenced project-level data of AidData's Geocoded Global Chinese Official Finance Version 1.1.1 dataset (Bluhm et al., 2018). Since the Chinese government does not release official, project-level financial information about its foreign aid activities, this data is based on an open-source media based data collection technique, synthesizing and standardizing a large amount of information on Chinese development finance to African countries (described in detail in Strange et al., 2013 and 2015).

The aid data contains latitude and longitude project co-ordinates, and provide information about the precision of the location identified (see AidData Research and Evaluation Unit, 2017). Being interested in local effects of Chinese development projects,

⁵ The benchmark estimation sample is restricted to include the 11 Afrobarometer countries with observations connected to both ongoing and future Chinese development projects, i.e. the countries that have both a post- and a pre-treatment group of respondents (see Section 3.1). These are: Benin, Botswana, Cape Verde, Kenya, Liberia, Madagascar, Malawi, Mali, Namibia, Nigeria and Senegal.

I focus on projects with recorded locations coded as corresponding to an exact location or as ‘near’, in the ‘area’ of, or up to 25 km away from an exact location (precision categories 1 and 2 in Strandow et al. 2011).

Figure 1: Chinese aid project sites and 25 km buffer zones around Afrobarometer survey clusters



The point coordinates in the aid data are used to link aid projects to local survey respondents in the Afrobarometer. The coordinates of the surveyed Afrobarometer clusters, consisting of one or several geographically close villages or a neighborhood in an urban area, are used to match individuals to aid project sites with precise point coordinates. I measure the distance from the cluster centre points to the aid project sites and identify the clusters located within a cut-off distance – here 25 km – of at least one

project site. Figure 1 maps the Chinese projects with precise geocodes and start-dates across the African continent, along with the Afrobarometer survey clusters encircled by 25 km buffer zones. The 11 countries in the benchmark estimation sample contain 125 such project sites. The estimation strategy, described further below, will rely on identifying survey respondents within 25 km of project sites, i.e. in clusters where an ongoing or future Chinese project lies within the 25 km buffer zone.

The dependent variable focuses on ethnic identification. To capture the salience of ethnic identities, I use a question asking whether the respondent identifies primarily with his or her ethnic group or with his or her country, creating a dummy variable indicating if the respondent reports to identify more in ethnic than in national terms. In the overall estimation sample, 15 percent of the respondents report to identify in ethnic terms (Table A1), the corresponding country shares ranging from around 4 percent in Cape Verde, to around 24 percent in Mali (Appendix A, Figure A1).

The main explanatory variables, which will be described in greater detail below, focus on living near a Chinese project site – either a site where a project is being implemented at the time of the survey (*Ongoing*) or a site where a project will be opened but where implementation had not yet been initiated at the time of the survey (*Future*).

To explore whether the potential effect of living close to a Chinese project site varies depending on the status of one's ethnic group, another key explanatory variable combines information on self-reported ethnic group affiliation with external data on the ethnic affiliations of heads of government in office. More specifically, I construct a dummy variable indicating whether the respondent belongs to the same ethnic group as the country's president at the time of the survey (*In-group*), and then interact this indicator with the variables for living close to Chinese project sites. Variable descriptions and summary statistics are presented in Tables A1-A2 (Appendix A).

3.1 Estimation strategy

The distribution of aid within countries is by no means random, implying that some individuals and sub-national areas, with certain characteristics, will be more likely than others to be targeted by aid. Members of the same ethnic group often live geographically clustered and a common argument is that African policy-makers tend to favour their own homelands and ethnic groups in the allocation of funds. Hence, some areas and ethnic groups – and thus a non-random group of individuals with particular ethnic identities and living conditions – will presumably be more likely to be targeted by aid than others. For this reason, it is not plausible to assume that there is no relationship between project localization and the pre-existing characteristics of project sites and of the population residing in the surrounding areas.

In order to deal with these empirical challenges, I use a spatial-temporal estimation strategy resembling that in Knutsen et al. (2017).⁶ In particular, I compare the estimated effect of living near sites where a Chinese development project is currently under implementation with the estimated effect of living near sites where a project will be opened but where implementation had not yet been initiated at the time the Afrobarometer covered that particular area. While the fact that the Afrobarometer is not a panel hinders me from following specific localities over time, before and after a project was initiated, with this estimation strategy I can still make use of the time variation in the data

As such, I compare three groups of individuals, namely 1) those within 25 km of at least one ongoing project site (*Ongoing*, applying to 18 percent of respondents), 2) those within 25 km of a site where a project will start, but where implementation was yet to

⁶ See also Isaksson and Kotsadam (2018a and 2018b).

begin at the survey date and not close to any ongoing projects (*Future*, applying to 6 percent of respondents), and 3) those with more than 25 km from any project site (the omitted reference category in the regressions, applying to 76 percent of respondents).⁷

The baseline regression takes the form:

$$(1) \quad Y_{it} = \beta_1 \cdot Ongoing_{it} + \beta_2 \cdot Future_{it} + \alpha_s + \delta_t + \gamma \cdot \mathbf{X}_{it} + \varepsilon_{it}$$

where the ethnic identity Y for an individual i in cluster v at year t is regressed – in the benchmark setup using linear probability models – on a dummy variable *Ongoing* capturing whether the individual lives within the specified cut-off distance of an ongoing Chinese development project, and a dummy *Future* for living close to a site where a Chinese project is planned but not yet implemented at the time of the survey. To control for variation in average levels of ethnic identities across time and space, the regressions include country (and in alternative estimations region) fixed effects (α_s) and year fixed effects (δ_t). To control for individual variation in ethnic identities, a vector ($\mathbf{X}_i$) of individual-level controls from the Afrobarometer are included. The baseline set of individual controls are age, age squared, gender and urban/rural residence.⁸ To account for correlated errors, the standard errors are clustered at the geographical clusters (i.e., at the enumeration area level). In another set of regressions, I add interaction terms between *Ongoing* and *Future*, on the one hand, and the variable indicating whether the respondent belongs to the same ethnic group as the country's president at the time of the survey (*In-group*), on the other.

⁷ I exclude respondents who live within the cut-off distance of a site where the implementation of a project has been completed prior to the interview date (2 percent of respondents, see Table A1).

⁸ Appendix B (p. 9) explores sample balance for the pre-treatment and treatment groups along these dimensions.

The coefficient on *Ongoing* (β_1) captures any causal effect of aid plus potential selection effects. The coefficient on *Future* (β_2), on the other hand, captures only a selection effect. The idea is that by taking the difference between these two parameters we subtract the selection effect from the combined selection and causal effect, leaving behind the causal effect of aid on ethnic identities. The parameter difference between *Ongoing* and *Future* ($\beta_1 - \beta_2$) thus gives a difference-in-difference type of measure that controls for unobservable time-invariant characteristics that may influence selection into being a Chinese project site. The key assumption behind this approach is that the selection process relevant for ongoing and future projects sites is the same. A potential concern would be if ongoing/future project status picks up project timing and projects starting later differ systematically from projects starting earlier. Here it is important to note that there is no direct correspondence between when a project was implemented and whether it is coded as *Ongoing* or *Future*; ongoing/future status depends on project status at the time the Afrobarometer survey covered the particular area in question (see Figure A2). That said, however, there is an over-representation of respondents connected to ongoing projects in the later survey waves, why the possible effects of project timing will be carefully evaluated in the sensitivity analysis.

Using the above approach to study whether Chinese development projects affect local ethnic identities, one has to make an assumption about the geographical reach of the potential effect. This, in turn, should reasonably depend on how far from project sites citizens are aware of the project's existence and its distribution of rewards. I use a 25 km cut-off in the benchmark estimation, but results using alternative cut-offs (10, 50 and 75 km) are also presented.

4 Results

The benchmark results, presented in Table 1, indeed indicate that respondents living near an ongoing rather than a future project are more likely to identify in ethnic terms. The estimation demonstrates the importance of taking the non-random selection of Chinese project sites into account. Looking at the parameter of *Ongoing* in isolation, the results at first sight seem to indicate that, if anything, people living close to an ongoing Chinese project are less likely to identify in ethnic terms. However, interpreting the parameter of the *Ongoing* variable as capturing an effect of Chinese development projects on ethnic identities requires that the location of Chinese development projects is not correlated with pre-existing ethnic sentiments in these areas.

Table 1: Chinese aid and ethnic identity

Dependent variable is ethnic identity	
VARIABLES	25 km cutoff
<i>Ongoing</i>	-0.004 (0.008)
<i>Future</i>	-0.037*** (0.011)
Diff ongoing-future	0.0323
F test ongoing-future=0	8.985
p value of F test	0.00274
Observations	49,580
R-squared	0.036

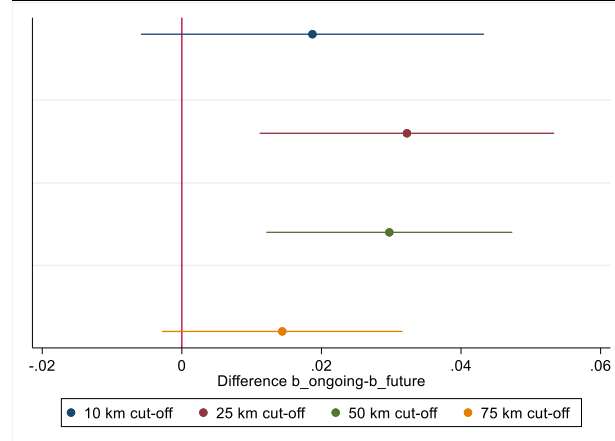
Robust standard errors (clustered by the survey clusters) in parentheses; *** p<0.01, ** p<0.05, * p<0.1; The regression includes baseline controls and year and country fixed effects.

As it turns out, the negative and statistically significant coefficient on *Future* suggests that Chinese projects tend to be located in areas with lower pre-existing ethnic identification. If not accounting for this tendency one would thus underestimate the effect of the Chinese presence. The comparison of respondents living in areas with ongoing and future projects ($\beta_{\text{ongoing}} - \beta_{\text{future}}$) and associated test results are presented in the bottom rows of Table 1. The results indicate that those with an ongoing rather than a future

project in their vicinity are 3.2 percentage points more likely to identify in ethnic terms, statistically significant at the 1 percent level. In relation to the overall sample mean of the dependent variable (Table A1), the difference is 22 percent and thus quite sizeable.

Figure 2 present the results of estimations using different geographical cut-offs (10, 25, 50 and 75 km). The appropriate cut-off distance from a project – within which respondents are classified as treated – is an empirical question, and a trade-off between noise and size of the treatment group (Knutsen et al., 2016). With a too small cut-off distance, we get a small sample of individuals linked to ongoing and future project sites.⁹ On the other hand, a too large cut-off distance would include too many untreated individuals into the treatment group, leading to attenuation bias. This is reflected in Figure 2. The estimated effect is positive for all four cut-off distances, but less precisely estimated when using the smallest cut-off (giving a small pre-treatment group) and smaller when using the largest cut-off (suggesting that the effect fades with distance).

Figure 2: Estimated effects when using different geographical cut-offs



Notes: Estimated effect with 95% confidence intervals; The corresponding estimation results can be found in Table A3.

⁹ The relatively small size of the pre-treatment group is a particular concern here. In the benchmark estimation, with a 25 km cut-off, 6 percent of respondents live within the cut-off distance of a site where a project will start, but where implementation was yet to begin at the survey date (and not close to any ongoing projects). With a 10 km cut-off this share is down to 4 percent. In Mali and Liberia, the number of respondents in the pre-treatment group is as low as 32 and 24, respectively.

4.1 Sensitivity analysis

As can be seen in Figure 3, the results are robust over a wide range of alternative specifications. They are similar when using Logit rather than LPM, when using an ordinal variable (ranging from 1-5, increasing in ethnic identification) rather than a dummy as dependent,¹⁰ and when including (but controlling for) respondents having a completed Chinese project within the cut-off distance. Furthermore, the results remain qualitatively the same when relaxing the restriction that each sample country must have both a post- and a pre-treatment group of respondents, implying a significantly larger sample (26 countries and 108,290 respondents as compared to 11 countries and 49,580 respondents). Restricting the sample to include only observations in Afrobarometer enumeration areas geocoded with precision code 1, which is arguably problematic in terms of representativeness, the estimated parameter difference is of a similar magnitude, but not quite statistically significant.

The benchmark estimation considers all Chinese development projects (remaining after relevant sample restrictions) listed by AidData. As noted, however, China tends to mix commercial interests with concessional flows. Restricting the sample of Chinese projects to include only those judged as ‘ODA-like’ by AidData coders (see Strange et al., 2015),¹¹ does not change the interpretation of results.

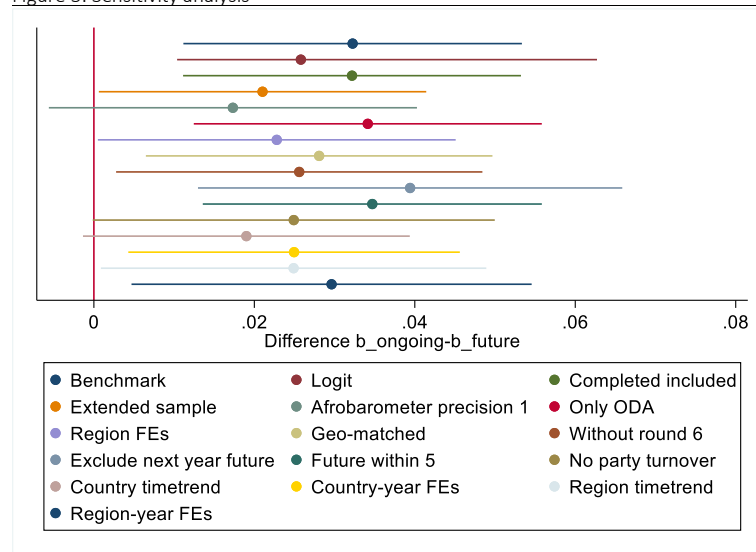
The benchmark estimation controls for variation in average levels of ethnic identification across countries. Reasonably, however, ethnic identification varies systematically within as well as across countries. While comparing with respondents living close to future project sites should help account for endogenous placement of

¹⁰ Not part of coefficient plot due to different scaling. See Table A4.

¹¹ In order to qualify as overseas development assistance (ODA), according to the OECD-DAC definition, an aid flow must be concessional, have a grant element of at least 25 percent, and its main objective should be the promotion of economic development of developing countries (OECD-DAC glossary, 2016).

projects, controlling for sub-national variation would further improve the comparability of treatment and control groups. Given the limited size of the pre-treatment group (people living close to future project sites) in some sample countries, specifications including a large number of fixed effects are quite demanding. Reassuringly, though, results using sub-national region fixed effects are in line with the benchmark setup.

Figure 3: Sensitivity analysis



Notes: Estimated effect with 95% confidence intervals; The corresponding estimation results can be found in Table A4; The logit results are based on the difference between the concerned marginal effects.

Furthermore, the results are robust to dropping all respondents in enumeration areas further than 100 km away from Chinese projects sites. As discussed in Briggs (2019), this form of geographical matching is useful since it controls for unobserved factors that are similar over space but may vary within countries or regions. As such, it should make the pre- and post-treatment groups more comparable with the no-treatment group.

As discussed in Section 3.1, a potential concern would be if ongoing/future project status picks up project timing and projects starting later differ systematically from projects starting earlier. As noted, there is no direct correspondence between time of project implementation and ongoing/future project status. A project implemented comparatively early may well be coded as a future project, all depending on at what point

in time the Afrobarometer surveyed that particular area. That said, however, there is an over-representation of respondents connected to ongoing project sites in the later survey waves. And at the time of wave 6, which interviewed respondents in 2014 and 2015, all Chinese projects included in the dataset had already been initiated, meaning that there are no respondents connected to future project sites in this round. Including wave 6 comes with the benefit of a significantly larger sample. Reassuringly, however, excluding observations from wave 6, the observed difference between *ongoing* and *future* remains.

In the benchmark setup, the variable *future* captures respondents living close to a site where we know that a Chinese project will be implemented at a later stage. It places no restriction on how far ahead of the survey date project implementation starts. A potential concern is that circumstances in the area may change between survey date and project start, affecting the comparability of the treatment and pre-treatment group. Looking at the data, time until project start ranges from 1-7 years. Reassuringly, restricting the pre-treatment group to respondents living close to sites where projects will start within a maximum of five years of the interview date (which applies for 91 percent of the concerned group) does not change the results.

Five years is still a relatively long time-span, however. And furthermore, one can argue for similar time restrictions on the *Ongoing* variable, which groups all respondents living within the cut-off distance of a Chinese project under implementation, irrespective of time since project start. While the exact nature of such parameter variation is ambiguous a priori, it is likely that the effect of Chinese aid on local ethnic identities depends on project duration. Going back to the proposed mechanisms involved, if the general inflow of resources mobilizes ethnic identities across the board, it seems reasonable that the effect should be larger early in the implementation period. If, on the other hand, ethnic bias in the delivery of aid encourages ethnic identities in groups that

perceive themselves as disadvantaged, the impact could presumably grow over the course of the project, once inequalities materialize.

Given the limited size of the pre-treatment group, however, focusing on a narrow time bandwidth comes with difficulties in terms of statistical power.¹² Furthermore, it is problematic considering the likelihood of pre-start effects. If the local population receives information about a Chinese project ahead of the project implementation period, this could presumably have an impact on ethnic identities prior to project start. If so, the difference between the *Ongoing* and *Future* parameters would underestimate the effect of the Chinese project on ethnic identities. An estimation excluding observations connected to future projects starting within the next year (see Figure 3) indeed suggests that this may be the case. The estimated difference between the *Ongoing* and *Future* parameters becomes larger, seemingly indicating that the effect on ethnic identities is to some extent triggered in the immediate period ahead of project implementation.

Nevertheless, for the sake of comparability of the pre- and post-treatment groups, and to account for possible parameter heterogeneity depending on project duration, Figure A3 presents results of estimations with 1) 5-2 year time restrictions on the future category, 2) 5-2 year time restrictions on the ongoing category, and 3) 5-2 year time restrictions on both the ongoing and future categories simultaneously. For the smallest cut-offs, the limited size of the treatment and pre-treatment groups as expected gives imprecise estimates. For the most part, however, the results remain unchanged.

¹² In the benchmark estimation, with no time restriction, 6 percent of respondents live within the cut-off distance of a future project site (and not close to any ongoing projects). With a five year cut-off this share goes down to around 5 percent, and with a three year cut-off it is below 3 percent. With a two year cut-off the number of respondents connected to future sites is as low as 7 in Benin, 16 in Mali, and 40 in Namibia and Liberia.

However, even if we focus on a relatively narrow time bandwidth, we can still end up comparing respondents in areas with projects that start several years apart. Of particular concern here are situations where the party in power changes within the period. In this case, the selection process relevant to ‘future’ sites may differ from the selection process pertaining to sites of ongoing projects. To make sure that this is not what drives the results, Figure 3 (and Table A4) also presents the results of an estimation where, for each country, the sample is restricting to include only survey rounds where the same party is in power (applying to 76 percent of the benchmark sample). The results do not change.

In the benchmark setup, country and year fixed effects account for variation in average levels of ethnic identities across time and space. However, time trends in ethnic identification may well vary across countries, e.g. due to where in their electoral cycles the respective countries are at the time of the different survey rounds, as well as across sub-national regions due to local policies and developments. Reassuringly, however, the benchmark result withstands controls for 1) country specific linear time trends, 2) country-year fixed effects, 3) sub-national region specific linear time trends, and 4) sub-national region-year fixed effects.

4.2 Heterogeneity across in-group and out-group

Above we considered the local effect of Chinese development projects on the ethnic identities of citizens in general, making no distinction between people from different ethnic groups. As noted, though, this effect may differ across groups. If the allocation and implementation of Chinese development projects involve ethnic bias, one may suspect ethnic grievances, that arguably add to ethnic identities, among groups that perceive themselves as disadvantaged.

In an earlier version of their paper, Dreher et al. (2019) found some (not very robust) evidence of ethnic bias in Chinese aid at the regional level, based on estimations focusing on the ethnographic regions defined by Weidmann et al, (2010). Table A5 considers project exposure at a more local level, presenting individual level regressions relating proximity to Chinese development project sites to self-reported ethnic group affiliations.

The results provide some indication that in-groups and out-groups differ in terms of geographic proximity to Chinese project sites. In terms of the probability of having an ongoing Chinese projects within 25 km, co-ethnics of the president do not stand out from members of other groups. However, they are 2.3 percentage points more likely to live near a site where a Chinese project will be implemented in the future, tend to have a greater number of Chinese projects within 25 km, and to live closer to Chinese projects on average. Based on the data at hand, we cannot judge whether this pattern is purposeful – it may well be driven by, say, better infrastructure or economic opportunities in areas where the in-group is over-represented. Moreover, measures of geographic proximity to Chinese projects do not capture ethnic bias in implementation at the local level.

Table A6 considers whether the Chinese presence has different effects on the ethnic identities of in-groups and out-groups in the local area. To begin with, we can note that compared to people from other groups, co-ethnics of the president are around 3 percentage points less likely to identify in ethnic terms, conditional on baseline controls (Column 1). If ethnic grievances make ethnic identities more salient, lower ethnic identification in a potentially privileged in-group is arguably not surprising. Another interpretation is that people are more likely to identify with the broader nation-state when a co-ethnic controls the state (Green, 2018).

On the other hand, the estimations provide no robust evidence that the Chinese presence has different effects on the ethnic identities of in-groups and out-groups in the

local area. Introducing interaction terms between the dummy for belonging to the same group as the country president and the dummies for living close to ongoing and future Chinese development projects, living near an ongoing as compared to a future Chinese project site comes with a greater tendency to identify in ethnic terms for both the in-group and the out-group (Column 2). However, neither sub-group effect survives the inclusion of sub-national regional controls (for the out-group the effect remains statistically significant at the 10 percent level).

4.3 Donor comparison

Chinese development projects seemingly stand out from other influential donors in terms of making ethnic identities more salient. Replicating the key regressions for World Bank projects (Table A7), for which there is also geo-referenced data available for a large multi-country African sample, the results do not suggest an equivalent pattern. In fact, they indicate the reverse, i.e. that living near an ongoing as opposed to a future project comes with weaker ethnic identification. The results indicate that those with an ongoing rather than a future project in their vicinity are approximately 5 percentage points less likely to identify in ethnic terms, statistically significant at the 1 percent level. Just as the results for Chinese projects, this finding is seemingly robust over a wide range of specifications and sub-samples (see Figures A4 and A5). Furthermore, there is some indication that the effect is driven primarily by the out-group (Table A7, Columns 3 and 4).

A generous interpretation of the weaker ethnic identification observed near ongoing World Bank project sites is that ethnically neutral project implementation may act to attenuate ethnic identities in these areas, in particular in groups that may otherwise

perceive themselves as disadvantaged. However, a more thorough analysis of World Bank projects would clearly be necessary in order to uncover the potential mechanisms involved. For the purpose of this study, it suffices to note that Chinese development projects stand out from World Bank projects in terms of making ethnic identities more salient close to project sites.¹³

5 Conclusions

In a recent study, Dreher and co-authors (2019) show that Chinese aid may be particularly easy to exploit for politicians who are engaged in patronage politics. This raises important questions regarding potential externalities of aid. In particular, if development finance ends up in the pockets of political elites and their ethno-regional networks, does this exacerbate ethnic grievances and contribute to ethnic mobilization? The present paper examined whether Chinese development projects make local ethnic identities more salient in African partner countries.

Two mechanisms through which this may occur were proposed. First, competition for the inflow of resources that aid constitutes could mobilize ethnic identities across the board. Second, perceptions of ethnically biased aid could make ethnic identities more salient in disadvantaged groups. Against this background, the study asked whether the implementation of Chinese development projects makes ethnic identities more salient near project sites, whether the potential effect is uniform across groups, and whether it varies across donors.

¹³ The results for other bilateral aid (for which geocoded aid project data is available on a large scale for a small selection of African countries only, see Appendix C, p. 9) point to the same effect.

The empirical analysis drew on a new geo-referenced dataset on the subnational allocation of Chinese development finance projects to Africa over the 2000-2014 period, geographically matched with 50,520 survey respondents across 11 African countries. To account for the endogenous placement of Chinese project sites, focus was on comparing the estimated effect of living near a site where a Chinese project was under implementation at the time of the interview, to that of living near a site where a Chinese project will appear after the interview date.

The empirical results indeed suggest that, on average, living near an ongoing Chinese project makes ethnic identities more salient. This finding is robust over a wide range of specifications and sub-samples, and thus calls attention to a potentially important externality of aid.

The results provide some indication that co-ethnics of the president more often have Chinese project sites in their vicinity. However, there is no robust evidence to suggest that the Chinese presence has different effects on the ethnic identities of in-groups and out-groups in the local area. Hence, with respect to mechanisms, we cannot draw the conclusion that the stronger ethnic identities observed near Chinese project sites are driven by ethnic grievances originating in perceived ethnic bias.

On the other hand, donor heterogeneity in results seemingly speaks against a dominant role of the general ethnic competition mechanism. If ethnic identities were mobilized merely by competition for the inflow of resources, one would arguably expect to observe a similar effect across all donors. As it turns out, though, Chinese development projects stand out from other influential donors in terms of their impact on ethnic identities.

Replicating the key analysis for World Bank projects, the results in fact indicate the reverse, i.e. that living near an ongoing as opposed to a future project comes with weaker

ethnic identification. Furthermore, there is some indication that this effect is driven primarily by the out-group. A favorable interpretation of this finding is that ethnically neutral project implementation may act to attenuate ethnic identities near World Bank project sites, in particular for groups that may otherwise perceive themselves as disadvantaged. However, a more thorough analysis would clearly be necessary in order to uncover the potential mechanisms involved and to verify these encouraging results across a wide range of donors. Nonetheless, the suggestive evidence presented here opens for interesting future research: can aid projects, if implemented in an ethnically neutral fashion, in effect act to bring people together, across ethnic group lines?

The results call attention to the importance of considering the distributional consequences of aid. On a more general level, the paper highlights the need to consider not only to what extent aid achieves its explicit objectives, but also its potential unintended effects, or externalities. These could be positive or negative and are likely to influence the long-term sustainability of a project.

References

- Ahlerup, P. and A. Isaksson (2015) “Ethno-regional favouritism in Sub-Saharan Africa”, *Kyklos*, 68(2), pp. 143-152.
- Alesina, A., Michalopoulos, S. and E. Papaioannou (2016) “Ethnic inequality”, *Journal of Political Economy*, 124(2), pp. 428-488.
- AidData Research and Evaluation Unit (2017) “Geocoding Methodology”, Version 2.0. Williamsburg, VA: AidData at William & Mary.
- <https://www.aiddata.org/publications/geocoding-methodology-version-2-0>.
- Blodgett Bermeo, S. (2016) “Aid Is Not Oil: Donor Utility, Heterogeneous Aid, and the Aid-Democratization Relationship”, *International Organization*, 70(1), pp. 1-32.

- Bluhm, R., Dreher, A., Fuchs, A., Parks, B., Strange, A. and M. Tierney (2018) "Connective Financing: Chinese Infrastructure Projects and the Diffusion of Economic Activity in Developing Countries". AidData Working Paper #64. Williamsburg, VA: AidData at William & Mary.
- Brautigam, D. (2009) *The Dragon's Gift: The Real Story of China in Africa*, Oxford, UK: Oxford University Press.
- Bräutigam, D. (2011a) "Aid 'with Chinese characteristics': Chinese foreign aid and development finance meet the oecd-dac aid regime", *Journal of International Development*, vol. 23, pp. 752-764.
- Brautigam, D. (2011b) "China in Africa: What Can the Western Donors Learn?", Norwegian Investment Fund for Developing Countries (Norfund), August 2011.
- Brazys, S., Elkind, J. A. and G. Kelly (2017) "Bad neighbors? How co-located Chinese and World Bank development projects impact local corruption in Tanzania", *The Review of International Organizations*, 12(2), pp 227–253.
- Briggs, R. C. (2014) "Aiding and Abetting: Project Aid and Ethnic Politics in Kenya" *World Development*, vol. 64, pp. 194-205.
- Briggs, R. C (2017) "Does Foreign Aid Target the Poorest?", *International Organization*, vol. 71, Winter 2017, pp. 187–206.
- Briggs, R. C (2019) "Receiving Foreign Aid Can Reduce Support for Incumbent Presidents", *Political Research Quarterly*, 72(3), pp. 610–622.
- Burgess, R., Jedwab, R., Miguel, E., Morjaria, A. and G. Padró i Miquel (2015). "The Value of Democracy: Evidence from Road Building in Kenya", *American Economic Review*, vol. 105(6), pp. 1817-51.

- Çetin Çelik (2015) ‘Having a German passport will not make me German’: reactive ethnicity and oppositional identity among disadvantaged male Turkish second-generation youth in Germany, *Ethnic and Racial Studies*, 38:9, 1646-1662
- Civellia, A., Horowitz, A., and A. Teixeira (2018) “Foreign aid and growth: A Sp P-VAR analysis using satellite sub-national data for Uganda”, *Journal of Development Economics*, vol. 134, pp. 50-67.
- Clemens, M. A., Radelet, S., Bhavnani, R. R. and S. Bazzi (2012) ”Counting Chickens when they Hatch: Timing and the Effects of Aid on Growth”, *The Economic Journal*, 122(561), pp. 590-617.
- Dreher, A., Nunnenkamp, P., & Thiele, R. (2011). Are ‘new’ donors different? Comparing the allocation of bilateral aid between nonDAC and DAC donor countries. *World Development*, 39(11), 1950-1968.
- Dreher, A., Fuchs, A., Parks, B., Strange, A. M. and M. J. Tierney (2015) “Apples and Dragon Fruits: The Determinants of Aid and Other Forms of State Financing from China to Africa”, Working Paper 15, October 2015, Aid Data, available at: http://docs.aiddata.org/ad4/files/wps15_apples_and_dragon_fruits.pdf
- Dreher, A., Fuchs, A., Hodler, R., Parks, B. C., Raschky, P. A., and M. J. Tierney (2019) “African leaders and the geography of China’s foreign assistance”, *Journal of Development Economics*, 140, pp. 44–71.
- Eifert, B., Miguel, E. and D. N. Posner (2010) “Political competition and ethnic identification in Africa”, *American Journal of Political Science*, 54(2), pp. 494-510.
- Findley, M. G., Harris, A. S., Milner, H. V., and D. L. Nielson (2017) “Who Controls Foreign Aid? Elite versus Public Perceptions of Donor Influence in Aid-Dependent Uganda”, *International Organization*, 71(04), pp. 633-663.

- Franck, R. and I. Rainer (2012) “Does the Leader's Ethnicity Matter? Ethnic Favoritism, Education, and Health in Sub-Saharan Africa”, *American Political Science Review*, 106(2), pp 294-325.
- Green, E. (2018) “Ethnicity, National Identity and the State: Evidence from Sub-Saharan Africa”, *British Journal of Political Science*, pp. 1-23, doi:10.1017/S0007123417000783.
- Habyarimana, J., Humphreys, M., Posner, D. and J. M. Weinstein (2007) “Why Does Ethnic Diversity Undermine Public Goods Provision?”, *American Political Science Review*, 101(4), pp. 709-725.
- Hodler, Roland and Paul A. Raschky (2014). Regional Favoritism, *Quarterly Journal of Economics*. 129(2): 995-1033.
- Hodzi, O. (2017) “China and Africa: economic growth and a non-transformative political elite”, *Journal of Contemporary African Studies*, vol 9, pp. 1-16.
- Isaksson, A. and A. Bigsten (2017) “Clientelism and ethnic divisions”, *African Affairs*, 116(465), pp. 621-647.
- Isaksson, A. and A. Kotsadam (2018a) “Chinese aid and local corruption”, *Journal of Public Economics*, vol. 159, pp. 146-159.
- Isaksson, A. and A. Kotsadam (2018b) “Racing to the bottom? Chinese development projects and trade union involvement in Africa”, *World Development*, vol. 106, pp. 284-298.
- Jablonski, R. S. (2014) “How Aid Targets Votes: The Impact of Electoral Incentives on Foreign Aid Distribution”, *World Politics*, 66(2), pp. 293-330.
- Kaplinsky, R., McCormick, D. and M. Morris (2007) “The Impact of China on Sub-Saharan Africa”, IDS Working Paper no. 291, Institute of Development Studies at the University of Sussex Brighton, available at:

<http://asiandrivers.open.ac.uk/documents/China%20and%20SSA,%20DFID%20Agenda%20paper,v3%20Feb%2007.pdf>

- Kasara, K. (2007) "Tax me if you can: Ethnic geography, democracy and the taxation of agriculture in Africa", *American political science review*. 101(1), pp. 159-172.
- Knutsen, C. H., Kotsadam, A., Hammersmark Olsen, and T. Wig (2017) "Mining and local corruption in Africa", forthcoming in *American Journal of Political Science*, 61(2), pp. 320-334.
- Knutsen, T., & Kotsadam, A. (2020). The political economy of aid allocation: Aid and incumbency at the local level in Sub Saharan Africa. *World Development*, 127, 104729.
- Kotsadam, A., Østby, G. Rustad, S. A., Tollefsen, A. and H. Urdal (2018) "Development aid and infant mortality. Micro-level evidence from Nigeria", *World Development*, vol. 105, pp. 59-69.
- Kramon, E. and D. N. Posner (2016) "Ethnic Favoritism in Education in Kenya", *Quarterly Journal of Political Science*, 11(1), pp. 1-58.
- Lindberg, S. I. and M. K. C. Morrison (2008) "Are African voters really ethnic or clientelistic? Survey evidence from Ghana", *Political Science Quarterly*, 123(1), pp. 95-122.
- Marantidou, V. and B. Glosserman (2015) "China's double standard? Fighting corruption at home, turning a blind eye abroad", PacNet no. 13, Pacific Forum, Center for Strategic and International Studies (CSIS), Honolulu, February 2015.
- Miguel, E. and M. K. Gugerty (2005) "Ethnic diversity, social sanctions, and public goods in Kenya", *Journal of Public Economics*, vol. 89, pp. 2325-2368.
- Naím, M (2007) "Rogue Aid", *Foreign Policy*, No. 159, March/April 2007.

- Pehnelt, G. (2007) "The Political Economy of China's Aid Policy in Africa", Jena Economic Research Papers no. 051. University of Jena, Germany, available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1022868
- Posner, D. (2003) "The Colonial Origins of Ethnic Cleavages: The Case of Linguistic Divisions in Zambia", *Comparative Politics*, 35(2) pp. 127-146.
- Posner, D. N. (2004) "The political salience of cultural difference: Why Chewas and Tumbukas are allies in Zambia and adversaries in Malawi", *American Political Science Review*, 98(4), pp. 529-545.
- Strandow, D., Findley, M., Nielson, D. and J. Powell (2011) "The UCDP Aid Data codebook on Geo-referencing Foreign Aid. Version 1.1", Uppsala Conflict Data Program, Paper no. 4, Uppsala University, available at: <https://www.aiddata.org/publications/the-ucdp-and-aiddata-codebook-on-georeferencing-aid-version-1-1>
- Strange, A. M., Parks, B. C., Tierney, M. J., Fuchs, A., Dreher, A. and V. Ramachandran (2013) "China's Development Finance to Africa: A Media-Based Approach to Data Collection" CGD Working Paper 323. Washington, DC: Center for Global Development, available at: <https://www.cgdev.org/publication/chinas-development-finance-africa-media-based-approach-data-collection>
- Strange, A. M., Parks, B., Tierney, M. J., Fuchs, A. and A. Dreher, (2015), "Tracking under-reported financial flows: China's development finance and the aid-conflict nexus revisited", *Journal of Conflict Resolution*, pp. 1-29.
- The Economist (2017) "Chinese aid in Africa: No place like home", *The Economist*, No 57, October 7, 2017.
- Tull, D. M. (2006) "China's Engagement in Africa: Scope, Significance and Consequences", *Journal of Modern African Studies*, 44(3), pp. 459-479.

- Wantchekon, L. (2003) "Clientelism and voting behaviour: Evidence from a field experiment in Benin", *World Politics*, 55(3), pp. 399-422.
- Weidmann, N. B., Rød, J. K. and L-E Cederman (2010) "Representing Ethnic Groups in Space: A New Dataset", *Journal of Peace Research*, 47(4), pp. 491-499.
- Vermeersch, P. (2011) "Theories of ethnic mobilization: Overview and recent trends", CRPD Working Paper No. 3 September 2011, Centre for Research on Peace and Development (CRPD) University of Leuven, available at: <https://soc.kuleuven.be/crpd/files/working-papers/wp03.pdf>
- Öhler, H. and P. Nunnenkamp (2014) "Needs-Based Targeting or Favoritism? The Regional Allocation of Multilateral Aid within Recipient Countries", *Kyklos*, 67(3), pp. 420-446

Appendix

Section A: Appendix Figures and Tables discussed in the text

Figure A1: Country share identifying in ethnic rather than national terms

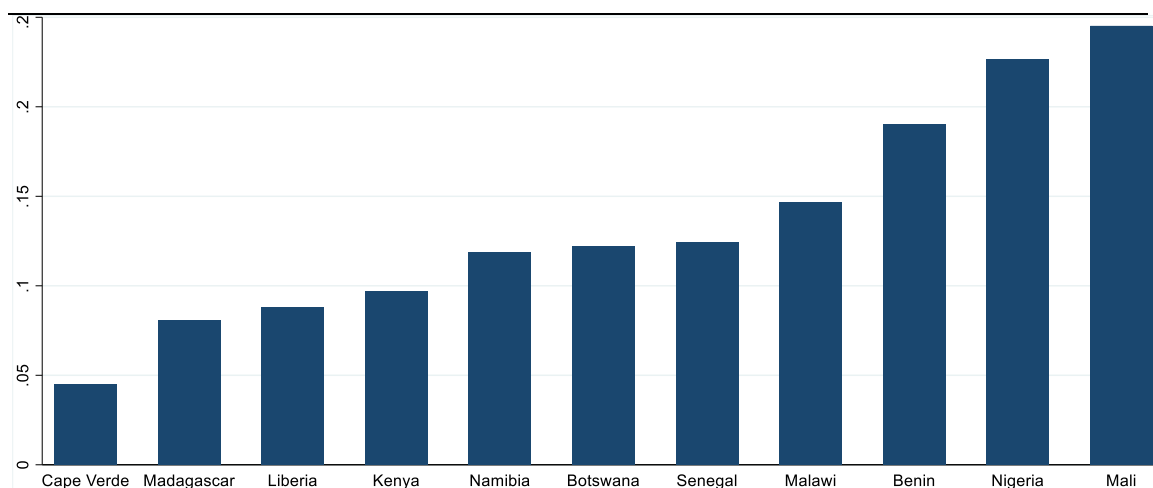
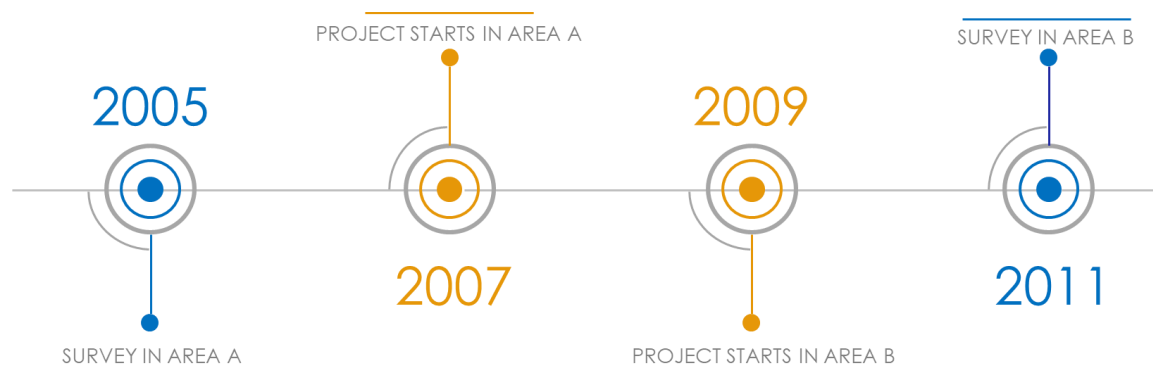


Figure A2: Timeline to illustrate estimation strategy



Notes: In this example, people living in area A, surveyed in 2005, are connected to a future project starting in 2007, and people living in area B, surveyed in 2011, are connected to an ongoing project that started in 2009. Hence, although the project in area B started two years later than the project in area A, it is still the project in area A that is classified as a future project, all depending on when the survey covered the areas in question.

Figure A3: Estimated effects when using different time restrictions on ongoing and future

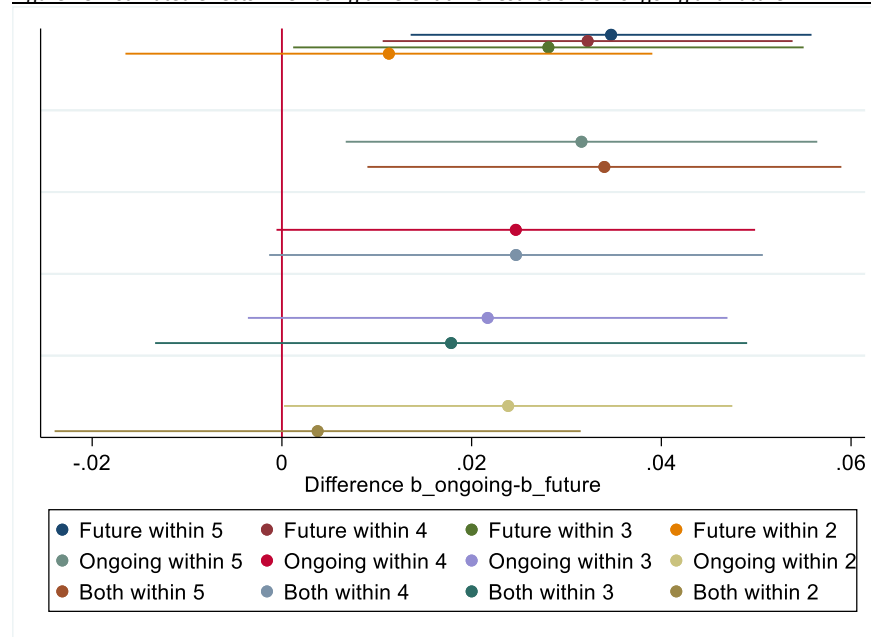
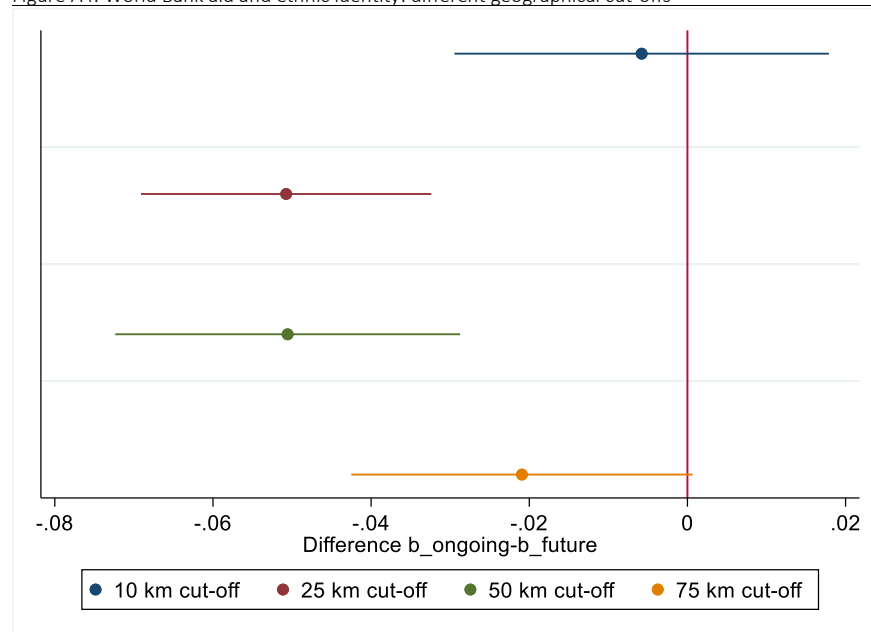
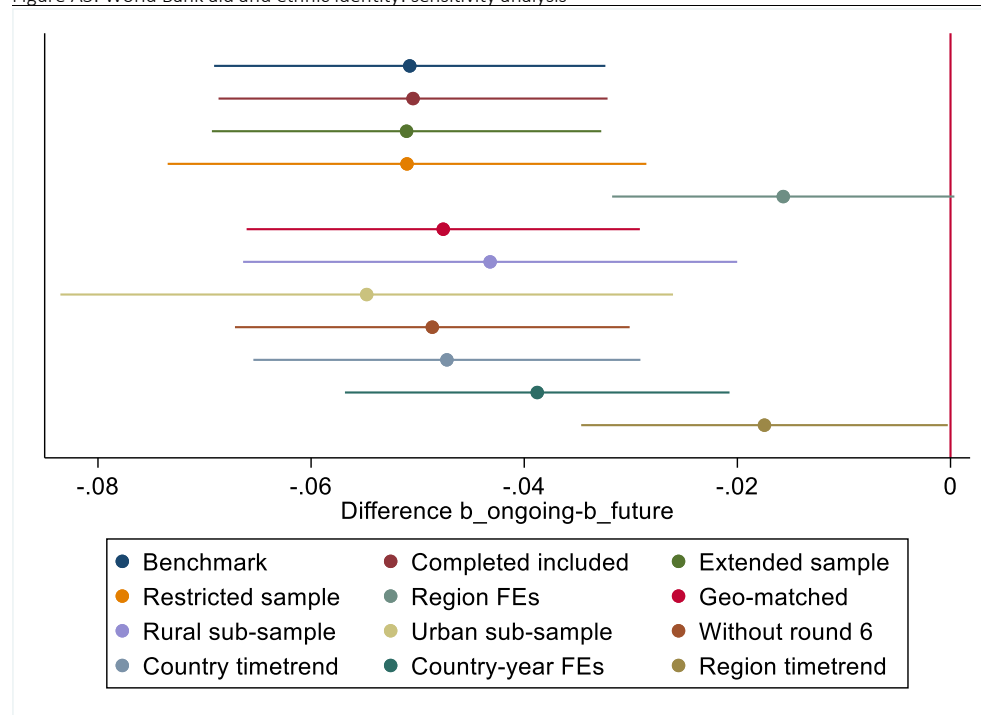


Figure A4: World Bank aid and ethnic identity: different geographical cut-offs



Notes: Estimated effect with 95% confidence intervals

Figure A5: World Bank aid and ethnic identity: sensitivity analysis



Notes: Estimated effect with 95% confidence intervals; The benchmark estimation corresponds to that in Column 1 och Table A7; Rather than excluding respondents with completed projects within the cut-off distance, as in the benchmark setup, the 'completed included' estimation includes (but controls for) respondents having a completed World Bank project within the cut-off distance; The extended sample relaxes the restriction that each sample country must have both a post- and a pre-treatment group of respondents and consists of 17 countries (on top of the 13 benchmark countries, also including Cape Verde, Tanzania, Togo and Zimbabwe); The restricted sample excludes countries not part of the Chinese estimation sample (Ghana, Mozambique, South Africa, Uganda); The geo-matched sample drops all respondents in enumeration areas further than 100 km away from World Bank projects sites.

Table A1: Summary statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
<i>Ethnic identity</i>	50,520	0.147	0.354	0	1
<i>Ethnic ordinal</i>	48,433	2.469	1.196	1	5
<i>Ongoing25</i>	50,520	0.180	0.384	0	1
<i>Future25</i>	50,520	0.060	0.238	0	1
<i>Completed25</i>	50,520	0.019	0.136	0	1
<i>Ongoing10</i>	50,520	0.117	0.321	0	1
<i>Future10</i>	50,520	0.043	0.203	0	1
<i>Completed10</i>	50,520	0.009	0.094	0	1
<i>Ongoing50</i>	50,520	0.277	0.447	0	1
<i>Future50</i>	50,520	0.108	0.311	0	1
<i>Completed50</i>	50,520	0.048	0.214	0	1
<i>Ongoing75</i>	50,520	0.363	0.481	0	1
<i>Future75</i>	50,520	0.141	0.348	0	1
<i>Completed75</i>	50,520	0.060	0.237	0	1
<i>In-group</i>	50,520	0.180	0.384	0	1
<i>In-group x Future25</i>	50,520	0.016	0.126	0	1
<i>In-group x Ongoing25</i>	50,520	0.031	0.174	0	1
<i>Age</i>	50,520	35.980	14.279	18	100
<i>Female</i>	50,520	0.498	0.500	0	1
<i>Urban</i>	50,520	0.406	0.491	0	1

Table A2: Variable descriptions

Dependent variables, ethnic identification

Ethnic identification: Dummy equal to one if the respondent reports to identify more in ethnic than in national terms, i.e. providing a response falling in response category 1 or 2 to the following question (zero otherwise): "Let us suppose that you had to choose between being a [national ID] and being a [respondent's ethnic group]. Which of the following best expresses your feelings?" 1=I feel only [Respondent's ethnic group], 2=I feel more [Respondent's ethnic group] than [national ID], 3=I feel equally [national ID] and [Respondent's ethnic group], 4=I feel more [national ID] than [Respondent's ethnic group] 5=I feel only [national ID], 7=Not applicable.

Ethnic ordinal: Ordinal variable based on the question described above, ranging from 1-5 and rescaled to be increasing in ethnic identification

Proximity to Chinese project sites

Ongoing25: Dummy variable equal to one if the respondent lives within 25 km of a site where a Chinese aid project is being implemented at the time of the interview, zero otherwise.

Ongoing10: Same as Ongoing25 but using a 10 km cut-off.

Ongoing50: Same as Ongoing25 but using a 50 km cut-off.

Ongoing75: Same as Ongoing25 but using a 75 km cut-off.

Future25: Dummy variable equal to one if the respondent lives within 25 km of a Chinese projects site where the implementation of the project had not yet started at the time of the interview and do not have any ongoing or completed project within this same distance, zero otherwise.

Future10: Same as Future25 but using a 10 km cut-off.

Future50: Same as Future25 but using a 50 km cut-off.

Future75: Same as Future25 but using a 75 km cut-off.

Completed25: Dummy variable equal to one if the respondent lives within 25 km of a completed Chinese project and do not have any ongoing project within this same distance, zero otherwise.

Completed10: Same as Completed25 but using a 10 km cut-off.

Completed50: Same as Completed25 but using a 50 km cut-off.

Completed75: Same as Completed 25 but using a 75 km cut-off.

In-group

In-group: Dummy variable equal to 1 if the respondent belongs to the same ethnic group as the country president at the time of the survey. Based on self-reported group affiliation using the question: "What is your ethnic community, cultural group or tribe?". coupled with externally compiled data on the ethnic background of the president at the time of the survey. For the ethnic groups of president, I consult at least two sources for each country, drawing most heavily on the compilation in Dreher et al (2015), when necessary updated with more recent data from other sources (e.g. encyclopedia britannica, wikipedia, aljazeera, washington post, africareview.com etc.).

In-group*Ongoing: A multiplicative term between the in-group dummy and the Ongoing25 dummy.

In-group*Future: A multiplicative term between the in-group dummy and the Future25 dummy.

Individual control variables

Female: Dummy variable equal to one if the respondent is female; zero otherwise.

Urban: Dummy variable equal to one if the respondent lives in an urban area; zero otherwise.

Age variables: Age in years and age squared.

Year dummies: Dummies for interview year, 2005-2015

Country dummies: Dummies for the 18 countries in the sample

Country-year dummies: interacting the full set of year dummies with the full set of country dummies

Table A3: Chinese aid and ethnic identity: Different geographical cut-offs

VARIABLES	(1) 10 km cutoff	(2) 25 km cutoff	(3) 50 km cutoff	(4) 75 km cutoff
<i>Ongoing</i>	-0.012* (0.006)	-0.004 (0.008)	-0.008 (0.006)	-0.009 (0.006)
<i>Future</i>	-0.031** (0.012)	-0.037*** (0.011)	-0.038*** (0.009)	-0.023*** (0.009)
Diff ongoing-future	0.0187	0.0323	0.0298	0.0144
F test ongoing-future=0	2.229	8.986	10.96	2.680
p value of F test	0.136	0.00274	0.000940	0.102
Observations	50,072	49,573	48,089	47,497
R-squared	0.036	0.036	0.036	0.036

Robust standard errors (clustered by the survey clusters) in parentheses; *** p<0.01, ** p<0.05, * p<0.1; All regressions include baseline controls and year and country fixed effects.

Table A4: Chinese aid and ethnic identity: Sensitivity analysis

VARIABLES	(1) Logit	(2) Ordinal dependent	(3) Including completed	(4) Extended sample	(5) Precision code 1	(6) Only ODA	(7) Region FEs	(8) Geo-matched	(9) Without wave 6	(10) Exclude next year future	(11) Within 5 years	(12) No turnover	(13) Country timetrend	(14) Country-year FEs	(15) Region timetrend	(16) Region-year FEs
<i>ongoing</i>	-0.009 (0.009)	-0.016 (0.039)	-0.005 (0.008)	-0.009** (0.004)	-0.012* (0.007)	-0.004 (0.008)	0.007 (0.009)	-0.005 (0.009)	-0.009 (0.006)	-0.003 (0.008)	-0.004 (0.008)	-0.021*** (0.006)	-0.010 (0.008)	-0.009 (0.007)	0.010 (0.009)	0.013 (0.009)
<i>future</i>	-0.035*** (0.012)	-0.204*** (0.059)	-0.037*** (0.011)	-0.030*** (0.011)	-0.029*** (0.011)	-0.038*** (0.012)	-0.016* (0.010)	-0.033*** (0.012)	-0.034*** (0.011)	-0.043*** (0.015)	-0.039*** (0.012)	-0.046*** (0.013)	-0.029** (0.011)	-0.034*** (0.011)	-0.015 (0.010)	-0.016 (0.010)
Diff ongoing-future	0.0258	0.188	0.0322	0.0210	0.0173	0.0341	0.0228	0.0280	0.0256	0.0395	0.0347	0.0249	0.0190	0.0249	0.0249	0.0296
F test ongoing-future	4.72	8.939	8.976	4.078	2.193	9.525	4.014	6.483	4.827	8.560	10.36	3.806	3.345	5.602	4.127	5.43
p value of F test	0.0299	0.00281	0.00275	0.0435	0.139	0.00204	0.0452	0.0110	0.0281	0.00346	0.00130	0.0512	0.0675	0.0180	0.0423	0.0198
Observations	49,565	47,498	50,520	108,290	33,119	49,775	49,573	28,656	38,026	48,777	49,573	38,081	49,573	49,573	49,573	49,573
R-squared	0.0435	0.061	0.036	0.029	0.036	0.036	0.085	0.037	0.042	0.036	0.036	0.035	0.036	0.042	0.093	0.104

Robust standard errors (clustered by the survey clusters) in parentheses; *** p<0.01, ** p<0.05, * p<0.1; All regressions include baseline controls and year and country (or region, when specified) fixed effects; Column 1 presents marginal effects from a logit estimation, the presented difference ongoing-future refers to the difference between the concerned marginal effects, and the test-statistic and associated p-value to a chi2 distribution. The reported r-squared refers to the 'pseudo r-squared'; Column 2 uses an ordinal dependent ranging from 1-5 (increasing in ethnic identification); Column 3 includes, but controls for, respondents having a completed project within the cut-off distance (rather than drop them, as in the benchmark setup); Column 4 relaxes the restriction that each sample country must have both a post- and a pre-treatment group of respondents. The resulting extended sample consists of 26 countries; Column 5 restricts the sample to include only observations in Afrobarometer enumeration areas geocoded with precision code 1; Column 6 restricts the sample of Chinese projects to include only those judged as 'ODA-like' by AidData coders; Column 7 includes sub-national region FEs rather than Country FEs; Column 8 excludes all respondents in enumeration areas further than 100 km away from Chinese projects sites; Column 9 excludes Afrobarometer survey wave 6 (which contains no observations connected to future Chinese project sites); Column 10 excludes observations connected to future projects starting within the next year (to evaluate pre-start effects); Column 11 restricts the pre-treatment group to respondents living close to sites where projects will start within a maximum of five years of the interview date; Column 12 restricts the sample for each country to include only survey rounds where the same party is in power; Column 13 controls for country specific linear time trends; Column 14 controls for country-year fixed effects; Column 15 controls for sub-national region specific linear time trends; Column 16 controls for sub-national region-year fixed effects.

Table A5: Chinese project localization: in- and out-group variation in proximity to project sites?

VARIABLES	(1) Ongoing project	(2) Future project	(3) Number of projects	(4) Distance to nearest projects
In-group	0.026 (0.016)	0.023** (0.010)	0.562*** (0.182)	-24.336*** (4.938)
Baseline controls	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Country FE	YES	YES	YES	YES
Observations	50,520	50,520	50,520	50,520
R-squared	0.214	0.139	0.228	0.212

Robust standard errors (clustered by the survey clusters) in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Table A6: Chinese aid and ethnic identity: variation across in- and out-group

VARIABLES	(1) Ethnic identity	(2) Ethnic identity	(3) Ethnic identity
<i>Ongoing</i>	-0.004 (0.008)	-0.003 (0.008)	0.011 (0.009)
<i>Future</i>	-0.035*** (0.011)	-0.029** (0.014)	-0.011 (0.011)
<i>In-group</i>	-0.027*** (0.006)	-0.024*** (0.007)	-0.015* (0.008)
<i>In-group*Ongoing</i>		-0.003 (0.011)	-0.019* (0.011)
<i>In-group*Future</i>		-0.022 (0.017)	-0.016 (0.015)
Baseline controls	YES	YES	YES
Year FE	YES	YES	YES
Country FE	YES	YES	NO
Region FE	NO	NO	YES
Diff ongoing-future	0.0312	0.0259	0.0225
F test: ongoing-future=0	8.390	3.923	2.998
p value of F test ongoing-future=0	0.00380	0.0477	0.0834
Diff (ongoing+in-group*ongoing)-(future+ in-group*future)		0.0446	0.0191
F test (ongoing+ in-group*ongoing)-(future+ in-group*future)=0		11.20	2.20
p-value of F test (ongoing+ in-group*ongoing)-(future+ in-group*future)=0		0.0008	0.1380
Observations	49,573	49,573	49,573
R-squared	0.037	0.037	0.085

Robust standard errors (clustered by the survey clusters) in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table A7: World Bank aid and ethnic identity

VARIABLES	(1) Ethnic identity	(2) Ethnic identity	(3) Ethnic identity	(4) Ethnic identity
<i>Ongoing</i>	-0.013** (0.005)	-0.013** (0.005)	-0.009* (0.005)	0.000 (0.006)
<i>Future</i>	0.038*** (0.010)	0.038*** (0.010)	0.046*** (0.010)	0.019** (0.009)
<i>In-group</i>		-0.007 (0.005)	0.010 (0.010)	0.013 (0.009)
<i>In-group*Ongoing</i>			-0.023** (0.012)	-0.011 (0.011)
<i>In-group*Future</i>			-0.079*** (0.023)	-0.042* (0.022)
Baseline controls	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Country FE	YES	YES	YES	NO
Region FE	NO	NO	NO	YES
Diff ongoing-future	-0.0507	-0.0502	-0.0553	-0.0187
F test: ongoing-future=0	29.37	28.83	30.34	4.607
p value of F test ongoing-future=0	6.22e-08	8.21e-08	3.78e-08	0.0319
Diff (ongoing+in-group*ongoing)-(future+ in-group*future)			0.00132	0.0118
F test			0.00	0.35
p value of F test			0.9462	0.557
Observations	69,255	69,255	69,255	69,255
R-squared	0.029	0.029	0.029	0.067

Robust standard errors (clustered by the survey clusters) in parentheses; *** p<0.01, ** p<0.05, * p<0.1; The estimations are based on data from AidData (World Bank IBRD-IDA, Level 1, Version 1.4.1), covering all World Bank projects approved between 1995 and 2014. Again, the sample is limited to include only projects with precise geocodes and information about start year, resulting in 688 World Bank projects spread across 6,663 project locations. Restricting the estimation sample to include only countries with observations connected to both ongoing and future World Bank development projects results in a sample consisting of 13 countries (Benin, Botswana, Ghana, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Nigeria, Senegal, South Africa and Uganda).

Section B: Sample balance

Exploring sample balance in terms of covariates between the treatment and pre-treatment groups (Table B1), it is difficult to ascertain that one captures differences that are truly exogenous to Chinese aid and do not themselves depend on the inflow of development finance. With this caveat in mind, we can note that whereas people living close to Chinese projects – both ongoing and future – tend to be slightly younger than those with no Chinese project near, there is no statistically significant age difference between the ongoing and future groups. Neither is there any gender imbalance between the groups. Next, people with ongoing or future Chinese project sites near are both more likely to live in urban areas. While this tendency is more pronounced for areas close to ongoing sites, we cannot rule out that this difference is to some extent endogenous (e.g. if Chinese projects attract firms to the area).

Table B1: Sample balance

Dependent variable is:	(1) Age	(2) Female	(3) Urban
<i>Ongoing</i>	-1.704*** (0.265)	0.002* (0.001)	0.469*** (0.030)
<i>Future</i>	-2.201*** (0.533)	0.001 (0.003)	0.319*** (0.049)
Difference ongoing-future	0.497	0.00133	0.150
F test: ongoing-future=0	0.995	0.218	11.10
p value of F test	0.319	0.641	0.000873
Observations	49,580	49,580	49,580
R-squared	0.034	0.000	0.198

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1; All estimations include country and year FEs

Section C: Chinese and other bilateral aid compared

Do the different results obtained for Chinese and World Bank projects simply reflect differences in the impact of bilateral and multilateral aid? Indeed, a common argument is that bilateral aid is often tied to the political agenda of the donor country and that it is less focused on promoting good governance in the recipient country (see the discussion in Charron, 2011)¹. It is thus a good idea to compare the effects of Chinese aid projects to those of other bilateral donors.

¹ Charron, N. (2011) “Exploring the impact of foreign aid on corruption: Has the ‘anti-corruption movement’ been effective?”, *The Developing Economies*, 49(1), pp. 66–88.

For other bilateral donors, geocoded aid project data is available on a large scale only for a small selection of African countries. In particular, for Malawi, Nigeria, Uganda and Senegal there is geocoded aid data for both China and other donor countries, thus allowing for comparison.² Table C1 presents the results of the equivalent regressions for other bilateral donor projects in these countries.

Table C1: Other bilateral aid and ethnic identities in Malawi, Nigeria, Senegal, and Uganda

VARIABLES	(1) Ethnic identity	(2) Ethnic identity	(3) Ethnic identity
Ongoing	-0.028*** (0.010)	-0.026*** (0.010)	-0.0234** (0.010)
Future	-0.004 (0.013)	-0.003 (0.013)	-0.003 (0.014)
In-group		-0.038*** (0.008)	-0.0267* (0.015)
In-group*ongoing			-0.0116 (0.018)
In-group*future			-0.0305 (0.0233)
Diff ongoing-future	-0.0239	-0.0232	-0.0267
F test: ongoing-future=0	3.768	3.660	4.41
p value of F test ongoing-future=0	0.0524	0.0559	0.0358
Diff (ongoing+in-group*ongoing)-(future+ in-group*future)			-.00780
F test			0.16
p value of F test			0.689
Observations	28,806	28,806	28,806
R-squared	0.023	0.024	0.024

Robust standard errors (clustered by the survey clusters) in parentheses; *** p<0.01, ** p<0.05, * p<0.1; All regressions include baseline controls and year and country fixed effects.

Again, the findings suggest a pattern different from that observed for Chinese projects. Just as for World Bank projects, the results for other bilateral aid, if anything, indicate that living near an ongoing as opposed to a future project comes with weaker ethnic identification. Furthermore, just as for World Bank projects, there is some indication that the effect is driven primarily by the out-group.

² The benchmark result for Chinese projects remains when using this restricted sample.