



# AIDDATA

A Research Lab at William & Mary

## WORKING PAPER 86

August 2019

---

### Foreign Aid and Soft Power: Great Power Competition in Africa in the Early 21st Century

**Robert A. Blair**

Department of Political Science, Watson Institute for International and Public Affairs  
Brown University

**Robert Marty**

The World Bank

**Philip Roessler**

Department of Government  
William & Mary

## Abstract

Is foreign aid an effective instrument of soft power? Does it generate affinity for donor countries and the values they espouse? We address these questions in the context of Chinese aid to Africa and the (ostensibly) competing aid regime of the US. Using data on 38 African countries from Afrobarometer, AidData, and the Aid Information Management Systems (AIMS) of African finance and planning ministries, we find that, if anything, Chinese aid to Africa reduces beneficiaries' support for China while increasing support for the US and other Western powers. In contrast, US aid increases support for the US and other Western powers. We also find that US aid increases support for liberal democratic values, such as a belief in the importance of elections. Chinese aid does not appear to weaken support for these values, and may actually strengthen support for them. Our results belie concerns that China's expanding presence in Africa is diminishing American soft power or eroding Africans' commitment to liberal democracy. If anything, the opposite is true.

## Author Information

### Robert A. Blair

Assistant Professor  
Department of Political Science and Watson Institute for International and Public Affairs  
Brown University  
robert.blair@brown.edu

### Robert Marty

Research Analyst  
The World Bank  
ramarty@email.wm.edu

### Philip Roessler

Associate Professor  
Department of Government  
William & Mary  
proessler@wm.edu

The views expressed in AidData Working Papers are those of the authors and should not be attributed to AidData or funders of AidData's work, nor do they necessarily reflect the views of any of the many institutions or individuals that may acknowledge in this work.

## Acknowledgements

This research is funded by the Institute of International Education (IIE), under the Democracy Fellows and Grants Program (AID-OAA-A-12-00039), funded by USAID's Center of Excellence in Democracy, Human Rights, and Governance (DRG Center). The content of this research does not necessarily reflect the views, analysis, or policies of IIE or USAID, nor does any mention of trade names, commercial products, or organizations imply endorsement by IIE or USAID. For helpful comments we thank Jeff Colgan, Lucy Martin, Brad Parks, Matt Winters, and the AidData team. For their excellent research assistance we thank Omar Afzaal, Omar Alkhoja, Paul Cumberland, Lucas Fried, and Toly Osgood.

Is foreign aid an effective instrument of soft power? Does it generate affinity for donor countries and the values they espouse? What effect, if any, does it have on support for donors' geopolitical rivals? Despite the voluminous literature on aid, and despite the fact that aid is one of the most frequently used tools in the battle for international influence, these questions remain surprisingly understudied. Donors spend billions of dollars annually in aid to the world's poorest countries. Beyond its commercial and development objectives, aid is branded and promoted with the aim of generating support for the donor country among recipient populations, and transmitting political principles in line with the donor's worldview. Over time, aid may induce recipient populations (and their governments) to become increasingly receptive to the donor's foreign policy goals, to the point that they "want what it wants," as Nye Jr. (2004) famously conceived of soft power.

In this paper we propose a model linking aid to soft power through a process of exposure, attribution, affect, and ideological alignment. We focus in particular on the impact of aid on recipient populations. Citizens of recipient countries must first be "exposed" to donor-funded projects—either directly (as beneficiaries) or indirectly (through media or word of mouth)—which they must accurately attribute to the donor that funded them. The effects of exposure on beneficiaries' attitudes will be positive or negative depending on their assessment of the quality of the aid provided and the fairness of the process through which the aid was delivered and distributed. Beyond this "diffuse positive [or negative] affect" toward donors (Dietrich, Mahmud and Winters 2017, 135-6), aid may also induce a more profound shift in recipients' perceptions of the models of governance and development that donors promote—liberal democracy, for example, or free market capitalism. Indeed, inducing a shift of this sort is a key goal underlying the US Agency for International Development's (USAID) many programs for democracy and civil society promotion abroad (Scott 2019).

We test our theory in the context of China's rapidly expanding presence in Africa, which offers a unique opportunity to study the aid-soft power nexus. China's economic engagement with Africa has skyrocketed over the last decade. China is now the region's

largest trading partner, and is coming to rival the US in the amount of aid it provides (Parks 2015). China has also actively sought to strengthen its soft power in Africa, especially over the past fifteen years (Kurlantzick 2007; Lai 2012; Li 2009). The Chinese government supports a wide range of cultural and educational programs abroad, and invests heavily in branding and diplomacy to publicize the aid it provides (Brazys and Dukalskis 2019). Over the past decade, Chinese leaders (the president, premier, or foreign minister) have made 80 trips to African countries (Lijadu 2018). These visits often entail the signing of numerous bilateral agreements and commitments to refurbish hospitals, pave roads, build airports, and undertake other infrastructure projects, accompanied by proclamations of solidarity and “win-win cooperation” between China and Africa.<sup>1</sup>

China’s expanding aid regime<sup>2</sup> competes directly and indirectly with more “traditional” donors in Africa, especially the US. While both China and the US prioritize economic development, the US puts much greater emphasis on good governance, democracy, and liberal values (e.g. respect for a free and independent civil society). The US also prioritizes fighting corruption, and has adopted a variety of anti-corruption safeguards for administering aid. In contrast, China explicitly rejects the West’s “politicization” of aid. China instead advances what President Xi Jinping has described as a “five-no” approach to aid, which imposes no good governance conditionalities and only lax anti-corruption safeguards, and thus aims to minimize interference in the politics of recipient states. The US in turn perceives Chinese aid as a tool to strengthen Beijing’s “dominance,” increase African indebtedness, and undermine American influence on the continent.<sup>3</sup>

---

<sup>1</sup>See, for example, Xi Jinping’s speech to open the 2018 Beijing Summit of the Forum on China-Africa Cooperation (FOCAC), in which he invoked cooperation 55 times and declared that “China and Africa have extended sympathy to and helped each other throughout all the years. Together, we have embarked on a distinctive path of win-win cooperation.” See “Full Text of Chinese President Xi Jinping’s Speech at Opening Ceremony of 2018 FOCAC Beijing Summit,” available at [http://english.mofcom.gov.cn/article/zt\\_chinaafrica2018/news/201809/20180902791260.shtml](http://english.mofcom.gov.cn/article/zt_chinaafrica2018/news/201809/20180902791260.shtml).

<sup>2</sup>We define aid regimes as the written and unwritten norms and practices that shape the types of projects donors fund, the conditions (or lack thereof) attached to the money donors provide, and the way donor-funded projects are implemented on the ground.

<sup>3</sup>See, for example, US National Security Advisor John Bolton’s comments at the Heritage Foundation in December 2018, where he accused China of engaging in “predatory practices” that “stunt economic growth in Africa; threaten the financial independence of African nations; inhibit opportunities for US in-

We hypothesize that the distinct and potentially competing Chinese and American aid regimes may produce a substitution effect, whereby aid from one donor increases support for that donor and the values it espouses among recipient populations, while diminishing support for the donor’s geopolitical rivals. By this logic, we should expect African beneficiaries of Chinese aid to express greater affinity for China and its political and economic model, and less affinity for the American alternative. Africans exposed to Chinese aid should also express greater support for political principles typically associated with China and other one-party states, such as the virtues of state-led development, single-party rule, and a more tightly regulated civil society. Exposure to US aid should have the opposite effect.

We test these hypotheses by combining data from the Afrobarometer survey (BenYishay et al. 2017) with information on the locations of US- and Chinese-funded aid projects gleaned from AidData (AidData Research and Evaluation Unit 2017; Bluhm et al. 2018) and the Aid Information Management Systems (AIMS) of African finance and planning ministries (AidData 2016*b*; *a*; 2017*a*; *b*; *c*; Peratsakis et al. 2017). The Afrobarometer and AIMS datasets were geocoded by AidData. Round 6 of the Afrobarometer survey includes a host of questions about Africans’ perceptions of the extent and nature of Chinese and American influence in their countries, both in absolute terms and relative to one another. Rounds 2 through 6 also include a range of questions gauging support for liberal democratic values. To correct for possible selection effects arising from the non-random distribution of Chinese and US aid, we compare the attitudes of citizens living near completed projects to the attitudes of those living near planned (future or pledged) projects. Our identifying assumption is that planned and completed projects are subject to similar selection processes, such that citizens who live near planned projects serve as valid counterfactuals for those living near completed ones. We address potential violations of this assumption below.

We find that aid from geopolitical rivals produces substitution effects, but in nuanced

---

vestment; interfere with US military operations; and pose a significant threat to US national security interests.” See “Remarks by National Security Advisor Ambassador John R. Bolton on the The Trump Administration’s New Africa Strategy,” available at <https://www.whitehouse.gov/briefings-statements/remarks-national-security-advisor-ambassador-john-r-bolton-trump-administrations-new-africa-strategy/>.

and sometimes surprising ways. We show that while China tends to site projects in locations where citizens already express greater affinity for China and its model of development, this relationship weakens after project completion, resulting in a net null or even negative effect on perceptions of Chinese influence and impact. Conversely, while Chinese-funded projects are negatively correlated with perceptions of the US in the planning phase, this relationship weakens after project completion, resulting in a net null or even *positive* effect on perceptions of the US. US aid similarly decreases support for China while increasing support for the US—a more straightforward substitution effect. These results suggest that Chinese aid is actually diminishing Chinese soft power in Africa, while US aid is bolstering American soft power, both in absolute terms and relative to China. American aid also increases support for the liberal democratic values that are more often associated with the US than with China and other authoritarian regimes, including a belief in the importance of multi-party elections.

We then test whether these results extend to other Western powers. We show that after correcting for potential selection effects, Chinese aid improves perceptions not just of the US, but of France, the UK, and other former colonial powers as well. This suggests that China's increasing presence in Africa may increase affinity for Western powers more broadly. US aid has similarly positive effects on support for Western powers. Finally, we test whether the positive effect of US aid on liberal democratic values is conditional on the presence of a geopolitical rival like China, or whether it extends to situations in which the US delivers aid alongside a geopolitical ally, such as the UK. Comparing the effects of British and American aid, we find that aid from either donor boosts support for liberal democratic values, but that the impact of American aid is more pronounced, especially after adjusting for potential selection effects. Taken together, our results belie the concern often expressed by US government officials and foreign policy commentators that Chinese aid is diminishing American soft power or eroding Africans' commitment to liberal democracy (Brookes and Shin 2006, 1-2; Sun 2013, 6-7). If anything, the opposite appears to be true.

Our study contributes to at least five bodies of research. First and most directly, it

contributes to research on aid as a foreign policy instrument. With few exceptions (Dietrich, Mahmud and Winters 2017; Goldsmith, Horiuchi and Wood 2014), this literature has focused on aid as an instrument of hard power, for example by testing whether aid induces recipient governments to vote in line with the donor country in the UN general assembly (Kuziemko and Werker 2006; Rai 1980; Wang 1999). Influencing the actions of recipient governments is important, but so too is influencing the attitudes of recipient populations. As Nye Jr. (2004, 18) famously argues, public support as expressed through polls and other mechanisms is a crucial indicator of soft power, revealing “both how attractive a country appears and the costs that are incurred by unpopular policies.” That (un)attractiveness, in turn, “can have an effect on our ability to obtain the outcomes we want in the world.” Aid is arguably especially likely to bolster soft power at the micro level, among citizens who may welcome donor-funded programs as “an expression of [the donor country’s] values,” which in turn “helps enhance [the donor’s] ‘soft power’” (Lancaster 2000, 81). We extend existing research by exploring the soft power implications of aid as reflected in the attitudes of its most direct beneficiaries, whose support donors seek to cultivate through the assistance they provide (Dietrich, Mahmud and Winters 2017; Katzenstein and Keohane 2007).

Second, our study contributes to research on the effects of aid on democracy in recipient countries. This literature has typically focused on assessing whether aid promotes democratization cross-nationally (Bermeo 2016; Brautigam 1992; Carnegie and Marinov 2017; Djankov, Montalvo and Reynal-Querol 2008; Finkel, Pérez-Liñán and Seligson 2007; Goldsmith 2001; Knack 2004; Yuichi Kono and Montinola 2009), but generally has not explored whether aid inculcates liberal democratic values sub-nationally as well, through its effects on recipient populations. Third, our study contributes to research on the effects of aid at the micro level more generally. Much of this literature has focused on assessing whether aid diminishes citizens’ support for their own governments (Baldwin and Winters 2018; Blair and Roessler 2018; Brass 2016; Dietrich and Winters 2015; Dietrich, Mahmud and Winters 2017; Guiteras and Mobarak 2015; Sacks 2012). Aid’s impact on citizens’ support for donor

countries is arguably equally important, but remains understudied. Our findings help fill this gap.

Fourth, our study contributes to research on China’s expanding role as a donor and investor in Africa (Bluhm et al. 2018; Brautigam 2009; Brazys, Elkink and Kelly 2017; Dreher et al. 2018; Isaksson and Kotsadam 2018*a*). Surveys suggest that China’s approach to aid has attracted considerable support among African citizens (Lekorwe et al. 2016), but these trends cannot be used to understand the impact of Chinese aid on those who are most directly affected by it. Our study helps illuminate these effects. Finally, our study contributes to a more general literature on rivalries between established and emerging powers, especially between China and the US in the early 21<sup>st</sup> century (Edelstein 2017; Friedberg 2005; MacDonald and Parent 2018). Competition over soft power is an important (though by no means the only) arena in which this rivalry manifests. Our study explores the dynamics and implications of this contest as it plays out on the ground.

## 1 Theoretical framework

### 1.1 EFFECTS OF FOREIGN AID ON PERCEPTIONS OF DONORS

Does foreign aid improve perceptions of donors among citizens of recipient states? Does it increase support for the values that donors espouse? Most research on aid tests whether it is effective at promoting democracy, improving governance, or alleviating poverty and stimulating economic growth (see Glennie and Sumner 2014 for a review). A smaller but important literature tests the effects of aid on citizens’ perceptions of recipient states (Baldwin and Winters 2018; Blair and Roessler 2018; Brass 2016; Dietrich and Winters 2015; Dietrich, Mahmud and Winters 2017; Guiteras and Mobarak 2015; Sacks 2012). Far fewer studies have addressed the impact of aid on perceptions of donors themselves.<sup>4</sup>

---

<sup>4</sup>For recent exceptions, see Dietrich, Mahmud and Winters (2017) and Goldsmith, Horiuchi and Wood (2014).



This is surprising. Aid has long been one of the primary instruments that states use to improve diplomatic relations with recipient governments, increase support for specific policy positions, and more generally “shift public opinion in a way likely to leave [donors] safer from transnational threats and more able to obtain cooperation from the countries to which they send foreign aid” (Dietrich, Mahmud and Winters 2017, 133; see also Katzenstein and Keohane 2007). Maintaining a positive public image abroad is believed to be essential for achieving a wide range of foreign policy objectives (Goldsmith, Horiuchi and Wood 2014), and changes in domestic perceptions of other countries have been shown to predict changes in foreign policy towards those countries as well (Goldsmith and Horiuchi 2012). Ideological alignment is also widely believed to be a key lever of foreign policy influence, especially in the US. As Radelet (2003, 109) categorically states, “the [US] needs poor countries to support the values it champions.”

Following Nye Jr. (2004, 5), we define soft power as “the ability to shape the preferences of others” through a broad sense of attraction rather than specific incentives or sanctions. Aid can serve as a source of either soft power or hard power (or both). Aid operates as an instrument of hard power when it induces recipient governments to adopt policy positions they may not otherwise accept. It operates as an instrument of soft power when it increases affinity for the donor country and the values it espouses. We focus on this latter dynamic, which we call the aid-soft power nexus (though we recognize the importance of the former dynamic as well).<sup>5</sup> Existing studies generally have not addressed whether aid is an effective mechanism for shaping the attitudes of recipient populations and increasing the donor’s soft

---

<sup>5</sup>Nye himself is somewhat ambiguous on whether aid is a mechanism for promoting soft power, though ultimately he seems to conclude that it is. On the one hand, he defines aid as a source of economic rather than soft power (Nye Jr. 2004, 31). But on the other, he describes aid-funded initiatives to reduce the prevalence of HIV/AIDS and stimulate economic development as crucial to the maintenance of American soft power (Nye Jr. 2004, 61-2, 111). Nye praises the George W. Bush administration for its efforts to “align the United States with the long-term aspirations of poor people in Africa and elsewhere through its Millennium Challenge initiative, which promises to increase aid to countries willing to make reforms, as well as its efforts to increase resources to combat AIDS and other infectious diseases. Success in implementing those programs will represent a significant investment in American soft power” (Nye Jr. 2004, 114). Nye similarly identifies “the allocation of significant funds to foreign aid” as a potential explanation for the strength of Norway’s soft power (Nye Jr. 2004, 112).

power abroad.

To the extent that scholars have addressed this relationship at all, the evidence is mixed. Cross-nationally, Goldsmith, Horiuchi and Wood (2014) find that increases in funding for the US President’s Emergency Plan for AIDS Relief (PEPFAR) are correlated with improvements in attitudes towards the US. In Bangladesh, Dietrich, Mahmud and Winters (2017) find that while most citizens do not accurately attribute USAID-sponsored projects to the US, once they are informed about the source of funding for these projects, their perceptions of the US improve, albeit only modestly. Conversely, Böhnke and Zürcher (2013) find that aid to Afghanistan has not improved Afghans’ perceptions of donors, though it does appear to have improved perceptions of the Afghan government itself. And in India, Dietrich and Winters (2015) find that information about the provenance of a US-funded HIV/AIDS program does not alter perceptions of the US one way or the other.

## 1.2 THE DEBATE ABOUT CHINA

Debates about the impact of aid on the attitudes of recipient populations have become especially salient with China’s rise as a prominent purveyor of assistance to the world’s poorest countries, especially in Africa. China has considered aid to be a “useful policy instrument” since the early days of the People’s Republic (Sun 2014). But the scope of the assistance it provides has ballooned in recent years. At a Forum on China-Africa Cooperation (FOCAC) in 2000, the Chinese inaugurated a “strategic partnership” with 44 African governments. Forums have been held every three years since; in the most recent meeting in 2018, Beijing pledged \$60 billion in economic assistance, matching the previous pledge in 2015 (Sun 2018). Between 2000 and 2012, China committed some \$52 billion in aid to Africa alone (Bluhm et al. 2018). China is also Africa’s largest creditor, having extended more than \$86 billion in commercial loans to African governments between 2000 and 2014 (Brautigam and Hwang 2016).

In line with a broader push to strengthen its soft power around the world (Kurlantzick

2007; Lai 2012; Li 2009), one of China’s primary goals as a donor and lender is to generate public support abroad and bolster its international influence (Hanauer and Morris 2014a). Shortly after becoming president, Xi Jinping emphasized the importance of greater investment in soft power to strengthen China’s influence in the world, stating at the fourth Central Conference on Work Relating to Foreign Affairs that “we should increase China’s soft power, give a good Chinese narrative, and better communicate China’s message to the world” (Brazys and Dukalskis 2019, 1). In Africa especially, China has launched a “robust continent-wide public diplomacy campaign to improve its image” (Hanauer and Morris 2014b, 71).

By some accounts, these efforts have paid off. China has been praised for the speed and relative low cost of its aid projects, and for its focus on large-scale, highly-visible infrastructure initiatives, especially in transportation and electricity—sectors that other donors often neglect.<sup>6</sup> Moreover, opinion polls suggest that African citizens generally approve of Beijing’s economic assistance (Lekorwe et al. 2016). Round 6 of the Afrobarometer survey, fielded in 2014 and 2015, found that 63% of Africans across 36 countries believe that China has a “very” or “somewhat” positive influence on their country (Lekorwe et al. 2016). China has edged out the US as the country or multinational organization that Africans believe has the most influence on their country,<sup>7</sup> and support for the Chinese model of economic development lags just behind that of the US.<sup>8</sup>

These numbers suggest that, on the whole, Africans seem to be embracing China’s growing influence on the continent. However, it is impossible to infer the effects of Chinese aid on soft power from cross-sectional survey data alone. For one, these data do not address the crucial counterfactual question of how perceptions of China might have changed in the absence of Chinese aid. Moreover, while Africans may favor China overall, the individuals

---

<sup>6</sup>According to one estimate, by 2016 China had already contributed \$33 billion and \$41 billion to these two sectors, respectively (Bräutigam 2018).

<sup>7</sup>Across the 36 countries, 25.6% of Afrobarometer respondents say China has most influence compared to 23.4% who list the US.

<sup>8</sup>31% of Afrobarometer respondents selected the US as the best model for the future development of their country, compared to 24.3% who listed China.

who are most directly affected by Chinese aid—those who work for Chinese contractors, for example, or who use the services that China provides—may not share these views. As Hanauer and Morris (2014*b*, 60-1) note, perceptions of China in Africa tend to be driven not by the macro-political or macro-economic implications of Chinese engagement, but rather by Africans’ “experiences or exposure to Chinese economic and commercial activities” at the micro level.

These experiences are not always positive. While China is often praised for investing in the sorts of large-scale, high-risk infrastructure projects that other donors typically avoid, it is also frequently criticized for shoddy workmanship, exclusionary hiring policies, and abusive management practices.<sup>9</sup> Anecdotally at least, there is ample evidence of resistance to China’s presence among African citizens—resistance that has, on occasion, escalated into civil unrest and even violence (Alden 2007). But these are only anecdotes, and their representativeness is hotly contested.<sup>10</sup> More systematic studies are rare, but provide some evidence that Chinese-funded projects undermine organized labor and exacerbate corruption (Isaksson and Kotsadam 2018*a;b*). Whether these projects have also eroded perceptions of China and its particular model of governance and development remains an open question.

### 1.3 EFFECTS OF FOREIGN AID IN THE PRESENCE OF MULTIPLE DONORS WITH COMPETING IDEOLOGIES

The efficacy of aid as a source of soft power becomes especially relevant when multiple donors with conflicting foreign policy agendas seek to use aid to win hearts and minds in the same countries at the same time. Aid does not occur in a geopolitical vacuum, and the effects of assistance given by one donor may be offset by the countervailing effects of assistance delivered by another (Bueno de Mesquita and Smith 2016). During the Cold

---

<sup>9</sup>On the quality of Chinese-funded projects, see, for example, Sieh (2014); Ndlovu (2014). On the hiring and management practices of Chinese contractors, see, for example, Human Rights Watch (2012); The New Dawn (2013); Smith (2012).

<sup>10</sup>For a (generally) more optimistic perspective, see the blog of the China Africa Research Initiative, available at <http://www.chinaafricarealstory.com/>.

War, for example, John F. Kennedy’s “Alliance for Progress” program in Latin America was designed not just to promote economic development and political reform, but also to prevent the spread of Communism in the wake of the Cuban Revolution—a constant source of anxiety that drove much US foreign policy towards the region (Taffet 2007). Other aspects of the US government’s Cold War-era aid regime were similarly motivated by competition with the Soviet Union (Rai 1980). The Soviets responded in kind, providing enough assistance to roughly equal the US’s expenditures as a share of GNP (Asmus, Fuchs and Müller 2018), and using aid as a tool to project power, attract allies, and persuade citizens of recipient countries of the virtues of the Soviet model relative to its US counterpart (Rai 1980; Roeder 1985).

Again, the notion that aid from competing donors might have offsetting effects has become especially salient as China’s influence in Africa has expanded. During the Cold War, Chinese Premier Zhou Enlai visited 10 African countries to announce his “Eight Principles of Foreign Economic and Technological Assistance,” developed to help China compete with the US and Soviet Union for Africans’ “approval and support” (Sun 2014). These efforts further expanded during the Cultural Revolution, and China’s approach to aid and investment now constitutes an alternative model that appeals to many Africans and African heads of state, especially in its rejection of the good governance conditionalities favored by many OECD-DAC donors,<sup>11</sup> especially the US.<sup>12</sup>

China also tends to favor models of state-led development that mimic its own; these have proven especially attractive in Africa’s authoritarian and electoral authoritarian regimes, such as Ethiopia, Rwanda, and Uganda. China explicitly contrasts its approach to aid and

---

<sup>11</sup>The OECD Development Assistance Committee (DAC) comprises 29 countries and the EU, and publishes a variety of guidelines around corruption and waste to which both donors and recipients are expected to adhere. See, for example, the OECD-DAC’s “Principles for Donor Action on Anti-Corruption,” available at <https://www.oecd.org/dac/accountable-effective-institutions/principlesfordonoractiononanti-corruption.htm>.

<sup>12</sup>For example, in the face of growing pressure in favor of liberal democracy from OECD-DAC donors, Tanzanian President John Magufuli revealingly declared that “the thing that makes you happy about [Chinese] aid is that it is not tied to any conditions. When they decide to give you, they just give you” (BBC 2018).

economic development to the approach taken by OECD-DAC donors, especially the US (Hanauer and Morris 2014b, 10). More generally, “competition between major powers such as [the US] and China for favorable perceptions in global public opinion is increasingly evident today and likely to be a pivotal feature of the emerging international order” (Goldsmith, Horiuchi and Wood 2014, 88).

Some analysts view these developments as a threat to American influence in Africa. One Brookings Institution report describes China’s growing presence as a “fundamental challenge to US interests in promoting democracy, good governance and sustainable development in Africa”—one with “profound geopolitical implications for the US global strategy” (Sun 2013, 6-7). A Heritage Foundation report warns that “Chinese support for political and economic repression in Africa counters the liberalizing influences of Africa’s traditional European and American partners,” and argues that “US national interests lie in effectively countering these developments” (Brookes and Shin 2006, 1-2). In a *Wall Street Journal* op-ed, Nye (2005) himself warns that “the rise of China’s soft power—at America’s expense—is an issue that needs to be urgently addressed.” This perspective has begun to shape American policymaking as well. In a speech to the Heritage Foundation laying out the US government’s Africa strategy, President Donald Trump’s National Security Advisor John Bolton declared that China is using aid and other tools “to hold states in Africa captive to Beijing’s wishes and demands...with the ultimate goal of advancing Chinese global dominance.”<sup>13</sup>

Others are more sanguine. A recent RAND Corporation report, for example, concludes that “Chinese engagement does *not* fundamentally undermine US economic and political goals on the continent” (Hanauer and Morris 2014a, 4, emphasis ours). Meanwhile, the “Chinese model” continues to attract adherents in Africa (Lekorwe et al. 2016). Whether China’s evolving role in Africa is really alienating African citizens from the US and the political principles it ostensibly seeks to promote remains an open question. These effects

---

<sup>13</sup>See “Remarks by National Security Advisor Ambassador John R. Bolton on the The Trump Administration’s New Africa Strategy,” available at <https://www.whitehouse.gov/briefings-statements/remarks-national-security-advisor-ambassador-john-r-bolton-trump-administrations-new-africa-strategy/>.

are likely to depend on citizens’ “experience or exposure” to Chinese (and US) aid at the micro level (Hanauer and Morris 2014b, 60). Evidence on the effects of those experiences remains scarce on both sides of the debate.

## 1.4 HYPOTHESES

We test the effects of foreign aid on citizens’ perceptions of competing donors and the values they espouse, focusing in particular on the rivalry between China and the US in Africa. If aid not only boosts the soft power of donors but also diminishes the soft power of its rivals, then we should expect Chinese aid to (1) increase support for China and the role it plays in African countries, while (2) decreasing support for the US and the role it plays. If aid also induces alignment with political principles associated with the donor, then we should further expect Chinese aid to (3) attenuate commitment to liberal democratic values among citizens of recipient states. The inverse should hold for US aid.

These hypotheses hold that Chinese (and US) aid can have substantial measurable effects on the attitudes and values of recipient populations. While this idea is regularly advanced by prominent members of the US government and foreign policy establishment, there are reasons for skepticism. For aid to improve perceptions of donors, citizens must accurately attribute donor-funded projects to the donor that funded them, and must experience some feeling of gratitude, indebtedness, or “diffuse positive affect” towards the donor as a result (Dietrich, Mahmud and Winters 2017, 135-6). For aid to diminish support for the donor’s rivals, citizens must accurately perceive donors as rivals in the first place, and the gratitude or indebtedness they feel towards one donor must be matched by disaffection towards the other. Finally, for aid to induce alignment with the donor’s political principles, citizens must accurately associate the donor with those principles, and must conclude on the basis of their interactions with donor-funded projects that those principles are sound. Any breaks in any of these links will likely break the rest of the causal chain.

There are also reasons to believe that Chinese aid may actually diminish citizens’

perceptions of China, or at best have no effect on them. While residents of recipient countries may appreciate China’s focus on infrastructure (Hanauer and Morris 2014b, xii), the (alleged) low quality of Chinese-funded projects combined with the (also alleged) inequitable hiring and management practices of Chinese contractors may produce anger and resentment rather than gratitude and indebtedness. This may decrease citizens’ support for China and its role in their country while potentially increasing support for the US as an alternative. Whether there is merit to the allegations about quality and fair play remains a matter of debate, but for purposes of bolstering (or eroding) soft power, the perception is arguably more important than the reality.

Moreover, China typically frames its aid as neutral and thus avoids attaching particular values to the projects it funds. Indeed, this is the core of China’s “five-no” doctrine. And despite intense interest in the concept of soft power among Chinese intellectuals and government officials, until recently China’s efforts to enhance its soft power were “largely ad hoc,” and still do not include well developed mechanisms to “promote Chinese socialist values as an alternative to Western values” or “assertively promote the Chinese development model” (Glaser and Murphy 2009, 10). Consequently, citizens of recipient countries may be less likely to associate Chinese-funded projects with particular political principles. The US is much more aggressive and intentional in the use of aid as a vehicle for exporting liberal democracy,<sup>14</sup> and an increasing fraction of the projects that the US funds have been devoted specifically to this purpose in recent years (Scott and Carter 2017; Tierney et al. 2011). Yet while there is some evidence that US democracy promotion efforts have increased recipient governments’ “political affinity” with the US (Scott 2019), to our knowledge no previous study has tested the effects of US (or other) aid on the values of its most direct beneficiaries. We treat these as empirical propositions in need of empirical testing.

---

<sup>14</sup>Examples are myriad, and include the “Bonne Gouvernance” program in Burundi, the “Enhancing Women’s Participation in Local Council Elections” project in Sierra Leone, and the “Programme Democratie, Gouvernance et Processus de Paix” initiative in Senegal, all of which involve trainings to strengthen civil society, promote political participation, and encourage civic engagement.



## 2 Research design

Our analysis combines data from AidData (AidData Research and Evaluation Unit 2017; Bluhm et al. 2018) and the Aid Information Management Systems (AIMS) of African finance and planning ministries (AidData 2016*b;a*; 2017*a;b;c*; Peratsakis et al. 2017) with Afrobarometer data capturing perceptions of China and the US across 38 African countries (BenYishay et al. 2017).<sup>15</sup> The Afrobarometer and AIMS datasets were geocoded by AidData. To operationalize exposure to Chinese aid, we code whether each Afrobarometer respondent lives within 30km of a Chinese-funded project. This is the narrowest bandwidth possible given the competing constraints of statistical power and imprecision in the location and timing of Chinese projects in AidData. We include only projects for which there is precise geographic information within 25km of a known location (AidData precision code 1 or 2). We also exclude country-wide projects and projects distributed through the central government and targeting the capital city alone.

To operationalize exposure to US aid, we use AIMS data from the six African countries for which such data are available, and which were also surveyed by Afrobarometer: Burundi, Malawi, Nigeria, Senegal, Sierra Leone, and Uganda. As with our analysis of Chinese aid, we exclude projects that lack precise geolocation data. We provide a map with the locations of Afrobarometer survey sites and Chinese and US-funded projects in Appendix A.1, and descriptive statistics in Appendix A.2. We describe our coding rules in further detail in Appendix A.3, and describe our procedure for coping with missing data in Appendix A.4. In Appendix A.4 we also show that the projects in our sample do not appear to differ systematically from those in the rest of the AidData or AIMS datasets.

Since AidData covers many more countries than AIMS, wherever possible we run our analysis in two different ways: first for Chinese and US aid together in the six African

---

<sup>15</sup>Afrobarometer covers Algeria, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Cote d'Ivoire, Egypt, Ethiopia, Gabon, Ghana, Guinea, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Sao Tome and Principe, Senegal, Sierra Leone, South Africa, South Sudan, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia, and Zimbabwe.

countries for which AIMS, AidData, and Afrobarometer data are all available, then for Chinese aid alone in the 38 African countries for which AidData and Afrobarometer data are both available, but AIMS data are not. As an extension, we also code whether citizens live within 30km of a UK-funded aid project, again using AIMS data from the same six African countries.

Aid is not distributed randomly either within or across African countries, and it is possible that Afrobarometer respondents who live near completed projects differ from those who live further away in ways that correlate with perceptions of China or the US. To mitigate the risk of confounding, we compare respondents living near completed projects to those living near planned ones. The latter include future projects and projects that had already been pledged but not yet implemented by the time the Afrobarometer survey was conducted. Our identifying assumption is that the location of planned projects is a function of the same selection process that determines the location of completed ones. If this assumption holds, then respondents living near planned projects are valid counterfactuals for those living near completed ones, and we can estimate the marginal effect of project completion net of any selection bias by taking the difference between the two regression coefficients.

One potential threat to our identifying assumption is that recipient governments prioritize projects located in politically important areas. If projects sited in these areas are more likely to be completed than those sited elsewhere, our results may be biased. We view this risk as relatively minor, as we see no reason to expect recipient governments to prioritize in this way during the implementation phase but not the planning phase. (In other words, if recipient governments channel aid to politically important regions, evidence of that selection process should manifest well before implementation begins.) Nonetheless, we control for whether or not each project is located in the region of the president's birth, which has been shown to be an important source of favoritism in the distribution of Chinese aid to Africa (Dreher et al. 2019).

A second potential threat is that donors or recipient governments complete the highest

priority projects first. If planned projects tend to be lower priority than completed ones at any given time, then our results may be biased. We address this possibility in Appendix A.5 by exploring whether projects in particular sectors (e.g. energy, communications, etc.) are more likely to be completed than projects in other sectors (e.g. education, sanitation, etc.) at a given time. We show that this does not appear to be the case.

A third potential threat is that citizens protest projects during the planning phase, causing either the donor or the recipient government to cancel them altogether. Protests, in this sense, are not only an outcome of project planning, but also a potentially confounding determinant of project completion. Again, we view this risk as relatively minor, since there are few (if any) examples of Chinese projects being cancelled due to protests in Africa before 2014 (when AidData ends),<sup>16</sup> and no examples of US projects being cancelled for this reason that we are aware of. Nonetheless, as an imperfect proxy, we use the Armed Conflict Location and Event Dataset (ACLED) to control for the number of protests that occurred within 30km of each respondent before the first project was planned within that same radius. We interpret past protests as a proxy for potential protests in the future.<sup>17</sup>

## 2.1 LIMITATIONS

Our analysis is not without limitations. One is that we only have data on US aid to six African countries. We attempt to address this limitation by running our analyses both with and without US aid whenever possible; the latter analyses allow us to use AidData data from all 38 Afrobarometer countries. Another limitation is that AidData ends in 2014, one to two years before round 6 of the Afrobarometer survey was conducted. To address this limitation, we simply exclude round 6 from our analysis whenever possible. For questions that are only available in round 6—e.g. questions about the extent and quality of Chinese

---

<sup>16</sup>There have been cases of cancellation due to protests in Asia—notably in Myanmar, Pakistan, and Nepal. The closest African analogue was the cancellation of a 2007 inauguration ceremony at Zambia’s Chambishi copper mine (Alden 2007), but that project was still completed, protests notwithstanding.

<sup>17</sup>Ideally we could control for protests that occurred after the first project was planned but before it was completed. This, however, would induce post-treatment bias. Ours is a second-best approach.

and US influence on recipient countries—we infer the status of projects that were still in the planning phase as of the last year in the AidData dataset, following the coding rules described in Appendix A.3. We demonstrate the robustness of our results to alternate coding rules in Appendix A.6.

Another limitation is our inability to distinguish Chinese Overseas Development Assistance (ODA) from other forms of Chinese economic engagement (Other Official Flows, or OOF). The former is intended to promote economic or social development; the latter includes loans and credits, and is not necessarily intended to improve economic or social welfare. Unfortunately, information on the structure and intent of Chinese financial flows is unavailable for most projects, such that distinctions can only be drawn suggestively (Dreher et al. 2018). Some of this ambiguity is unavoidable, even intentional: as Sun (2014) notes, “China’s own policy actively contributes to the confusion between development finance and aid. The Chinese government encourages its agencies and commercial entities to ‘closely mix and combine foreign aid, direct investment, service contracts, labor cooperation, foreign trade and export.’” Moreover, because the line between state-owned and private enterprises in China is often blurred, “Chinese aid and investment are often indistinguishable” (Zheng 2009, 3).

Different types of assistance may reflect different policy priorities, and ideally we could capture these distinctions in our analysis. But while our inability to distinguish ODA from OOF is a limitation, it is not as restrictive as it may seem. Since we are interested in China’s impact on perceptions of donor countries, the relevant question for our purposes is how different categories of assistance are interpreted by citizens of recipient states. It seems unlikely that citizens distinguish ODA from OOF, especially in the context of specific projects sited in the area near their homes. While disaggregating ODA from OOF is worthwhile, our inability to do so should not affect the internal validity of our research design, and we interpret our results as capturing the impact of “aid,” broadly defined. As a robustness check, in Appendix A.8 we compare the impact of Chinese-funded infrastructure projects to

the impact of projects in other sectors, and find that their effects are similar to one another.

A final limitation is ambiguity in the interpretation of the coefficient on planned projects in the analyses that follow. The announcement of foreign-funded projects may affect citizens' attitudes towards the donor that funds them, even before implementation begins. For example, it is possible that planned projects have something akin to a placebo effect, raising expectations of future benefits that may or may not materialize. While this would not affect the internal validity of our research design, it would affect our interpretation of the difference between the coefficients on planned and completed projects. If planned projects affect citizens' attitudes, then subtracting the coefficient on planned projects from the coefficient on completed ones yields the impact of project completion net of both selection *and* placebo effects. If planned projects do not affect citizens' attitudes, then subtracting the coefficient on planned projects yields the impact of project completion net of selection effects alone. These quantities are equally theoretically interesting, and equally relevant for the soft power implications of aid. But they are not the same.

To explore this ambiguity further, we randomly selected 20 planned Chinese projects from AidData and searched the Stanford Africa news database and the websites and Facebook pages of newspapers included in the database for additional information on how planned projects might have been perceived in recipient countries. While not definitive, this exercise suggests that African newspapers typically do not cover planned projects prior to implementation, and when they do, they rarely mention project locations (though this information might travel by word of mouth). In most cases, projects are announced in the context of signing ceremonies, press conferences, and press releases, with multiple projects announced at once, and with scant detail. This suggests that planned projects are likely to have weak or null effects on citizens' attitudes, and that the coefficient on planned projects is best interpreted as a selection effect alone. For compactness we describe the coefficient on planned projects as a selection effect in the analyses that follow, but some ambiguity remains, and our results should be interpreted with this caveat in mind.

## 3 Results

### 3.1 EFFECTS OF CHINESE AND US AID ON PERCEPTIONS OF CHINA AND THE US

Does aid affect perceptions of donors among citizens of recipient states? Table 1 reports the effect of proximity to Chinese and US projects on perceptions of China and the US as measured in round 6 of the Afrobarometer survey. The table reports OLS coefficients on both planned and completed projects, as well as the  $p$ -value from an  $F$ -test comparing the two. We operationalize perceptions of China using two indices: one that captures the extent of China’s (perceived) influence in the recipient country,<sup>18</sup> and a second that captures the extent to which that influence is viewed as positive.<sup>19</sup> (Unfortunately the Afrobarometer survey does not include analogous questions about the US.) We also test the effects of Chinese and US aid on dummies indicating whether respondents believe the Chinese or American model of economic development is best or most influential for their country.

All specifications include country fixed effects, as well as controls for gender, age, religion, distance to the capital city, number of protests that occurred within 30km before the first project was planned, a dummy for cities, and a dummy indicating whether the respondent lives in the president’s home region. The top panel in Table 1 reports results including both Chinese and US aid for the six countries in which both AidData and AIMS data are available; the bottom panel reports results including Chinese aid alone for the 38

---

<sup>18</sup>This index consists of responses to two questions, the first asking respondents which of five countries or organizations has the “most influence” in their country (coded as a 1 for respondents who selected China), the second asking respondents how much influence they believe China’s “economic activities” have on their country’s economy (coded as a 1 for respondents who answered “a lot” or “some.”)

<sup>19</sup>This index comprises responses to three questions, the first asking respondents to evaluate China’s “economic and political influence” in their country (coded as a 1 for respondents who rated China’s influence as “very positive” or “somewhat positive”), the second asking respondents whether they believe China’s “economic development assistance” meets their country’s needs (coded as a 1 for respondents who described China as a doing a “very good job” or “somewhat good job”), and the third asking which country respondents believe represents the “best model for the future development” of their own (coded as a 1 for respondents who selected China).

countries in which AidData data are available but AIMS data are not. Standard errors are clustered by community throughout.

From the top panel of Table 1, we find that both Chinese and (especially) US projects tend to be sited in locations where perceptions of China are relatively favorable. This selection effect is likely inadvertent, though it is possible that China directs projects to locations where they are more likely to be favorably received. Whatever the explanation for the selection process underlying planned projects, the relationship weakens or reverses after project completion. Net of the selection effect, US aid diminishes perceptions of both the extent and quality of Chinese influence (columns 1 and 2), and improves perceptions of the US model of economic development (column 6). Chinese aid similarly diminishes perceptions of China (columns 1, 2, and 5), though the difference between coefficients is not statistically significant in this sample of six countries.

When we expand to 38 countries in the bottom panel of Table 1, the adverse net effects of Chinese projects are much more pronounced. Again, Chinese projects tend to be sited in locations where perceptions of China are relatively favorable, and perceptions of the US are relatively unfavorable. But the difference between the coefficients on completed and planned Chinese projects is negative and statistically significant in four specifications (columns 2, 4, 5, and 6), and negative and nearly statistically significant at conventional levels in a fifth (column 1). Net of selection effects, completed Chinese projects appear to diminish support for China and its model of development, and increase support for the American alternative. In other words, to the extent that Chinese projects affect Africans' perceptions of donors, the benefits seem not to accrue to China, and may in fact accrue to the US instead.

Our analysis in Table 1 relies on round 6 of the Afrobarometer survey, which was conducted in 2014 and 2015. As we discuss in Appendix A.3, this analysis requires inferring the future status of projects that were still in the planning phase as of 2014, the last year AidData is available. We test the robustness of our results to alternate coding rules in Appendix A.6. As a more direct alternative, Appendix A.7 tests the effects of Chinese and

Table 1: Effects of Chinese and US aid on perceptions of China and the US

	Believes China is influential (index)	Believes Chinese presence is positive (index)	Believes Chinese model is most influential	Believes US model is most influential	Believes Chinese model is best	Believes US model is best
Near completed Chinese project	-0.04 (0.03)*	-0.08 (0.05)	0.01 (0.02)	0.01 (0.02)	-0.004 (0.02)	-0.02 (0.03)
Near planned Chinese project	0.02 (0.08)	0.11 (0.12)	0.003 (0.04)	-0.01 (0.04)	0.06 (0.04)	0.03 (0.05)
Near completed US project	0.02 (0.03)	0.11 (0.05)**	0.01 (0.02)	-0.07 (0.02)***	0.03 (0.02)	-0.05 (0.03)*
Near planned US project	0.33 (0.10)***	0.65 (0.07)***	-0.002 (0.02)	-0.09 (0.06)	0.05 (0.05)	-0.19 (0.06)***
China: Completed vs. planned $p$ -value	0.443	0.155	0.814	0.700	0.220	0.386
US: Completed vs. planned $p$ -value	0.003	0.000	0.537	0.796	0.701	0.029
Observations	5,083	4,773	6,530	6,530	6,528	6,528
Near completed Chinese project	0.002 (0.01)	-0.06 (0.02)**	0.02 (0.01)**	0.004 (0.01)	0.004 (0.01)	0.01 (0.01)
Near planned Chinese project	0.05 (0.03)*	0.19 (0.04)***	0.04 (0.02)*	-0.04 (0.02)***	0.09 (0.02)***	-0.04 (0.02)**
China: Completed vs. planned $p$ -value	0.147	0.000	0.389	0.021	0.000	0.031
Observations	31,473	29,103	38,496	38,496	38,492	38,492
Buffer	30km	30km	30km	30km	30km	30km
Cut-off year	2010	2010	2010	2010	2010	2010
Country FE	Y	Y	Y	Y	Y	Y
Round FE	N	N	N	N	N	N
Controls	Y	Y	Y	Y	Y	Y

*Notes:* Each panel reports coefficients from a separate OLS regression using data from round 6 of the Afrobarometer survey. Standard errors, clustered by community, are in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .



US aid on perceptions of China and the US using questions from Afrobarometer round 4, which was conducted in 2008. Round 4 respondents were asked how much they believe different countries do to help their own country. While these questions are more generic than the ones asked in round 6, and while this analysis is underpowered when we include US aid as well, it allows us to estimate the effect of Chinese aid without inferring the future status of planned projects. The results are substantively similar to those in Table 1, albeit weaker. Again, to the extent that Chinese projects affect Africans’ attitudes towards donors, the benefits seem to accrue to the US rather than China. We explore potential explanations for this result in Section 5 below.

### 3.2 EFFECTS OF CHINESE AND US AID ON LIBERAL DEMOCRATIC VALUES

Does aid increase affinity for the values that donors espouse? Table 2 tests the effects of Chinese- and US-funded projects on an index of liberal democratic values that are more typically associated with the US and other liberal democracies than with China and other authoritarian regimes. Our additive index captures respondents’ dichotomized answers to questions about the desirability of competition between multiple political parties, a free and open civil society, democracy in general, and “regular, open, and honest” elections. We interpret more positive values on this index as indicative of greater alignment with political principles more strongly associated with the US; more negative values indicate greater alignment with political principles more strongly associated with China.

Questions about liberal democratic values are available beginning in round 2 of the Afrobarometer survey, allowing us to avoid the ambiguity involved in using round 6 data.<sup>20</sup> The top panel of Table 2 reports the effects of Chinese and US projects on our liberal

---

<sup>20</sup>To avoid inferring the status of Chinese projects that were still planned as of 2014 in the AidData dataset, we simply drop round 6 from this analysis. Ideally we could test whether the impact of US aid on liberal democratic principles is driven by projects that are explicitly designed to promote those principles. Unfortunately information on goal and sector is missing for many US projects in the AIMS dataset, and we do not have sufficient statistical power to conduct such a test.

democratic values index and its component parts, focusing on the six African countries for which AidData, AIMS, and Afrobarometer data are all available. The bottom panel of Table 2 reports the effects of Chinese projects alone, expanding to the 38 African countries for which AidData and Afrobarometer data are available, but AIMS data are not. Since these analyses use multiple rounds of Afrobarometer data, we also include round fixed effects to eliminate confounding due to shared temporal shocks.

Given the positive correlation between planned Chinese projects and perceptions of China in Table 1, it is perhaps unsurprising that we find a negative correlation between planned Chinese projects and liberal democratic values in both the top and bottom panels of Table 2 (column 1). From the top panel, planned US projects are negatively correlated with liberal democratic values as well (column 1), though this correlation is not statistically significant at conventional levels. However, the latter correlation becomes null or positive after project completion, resulting in a net statistically significant positive effect of US aid on liberal democratic values. This result is driven in particular by a belief in the desirability of having a choice between multiple political parties (column 3), a belief in the desirability of elections (column 6), and a belief in the desirability of democracy more generally (column 5).

Our results for Chinese aid are somewhat more mixed. From the top panel of Table 2, among the six African countries for which AIMS data are available, Chinese aid has a net negative effect on the belief that elections are good (column 6), but the difference between the coefficients on planned and completed projects is only marginally statistically significant. Chinese aid has a net negative effect on the belief that citizens should be able to join any civil society organization they choose (column 4), but a net positive effect on the belief that democracy is the best system (column 5), though in both cases the difference between the coefficients on planned and completed projects is not quite statistically significant at conventional levels. These countervailing effects on the component parts of our index of liberal democratic values result in a net null effect on the index as a whole (column 1).

Table 2: Effects of Chinese and US aid on liberal democratic values

	Liberal democratic values (index)	Believes multiple parties are good	Believes multiple parties create choice	Believes citizens should join any CSO	Believes democracy is best system	Believes elections are good
Near completed Chinese project	-0.15 (0.06)***	-0.06 (0.02)***	0.01 (0.02)	-0.06 (0.02)***	0.01 (0.02)	-0.05 (0.02)**
Near planned Chinese project	-0.16 (0.06)***	-0.04 (0.02)*	-0.03 (0.02)**	-0.01 (0.02)	-0.03 (0.02)**	-0.002 (0.01)
Near completed US project	0.10 (0.05)**	0.01 (0.01)	0.01 (0.02)	-0.02 (0.02)	0.04 (0.01)***	0.03 (0.01)*
Near planned US project	-0.07 (0.05)	-0.001 (0.02)	-0.04 (0.02)***	-0.03 (0.02)	-0.01 (0.01)	-0.02 (0.01)
China: Completed vs. planned <i>p</i> -value	0.916	0.330	0.179	0.100	0.107	0.076
US: Completed vs. planned <i>p</i> -value	0.015	0.480	0.034	0.656	0.011	0.018
Observations	16,354	18,138	23,787	18,587	23,128	24,150
Near completed Chinese project	-0.02 (0.03)	0.004 (0.01)	-0.01 (0.01)	-0.02 (0.01)**	0.01 (0.01)	-0.01 (0.01)
Near planned Chinese project	-0.10 (0.02)***	-0.03 (0.01)***	-0.04 (0.01)***	-0.01 (0.01)	-0.01 (0.01)	0.004 (0.005)
Completed vs. planned <i>p</i> -value	0.023	0.009	0.016	0.373	0.067	0.267
China: Completed vs. planned <i>p</i> -value	0.916	0.330	0.179	0.100	0.107	0.076
Observations	90,446	106,560	130,744	108,407	126,506	132,590
Buffer	30km	30km	30km	30km	30km	30km
Cut-off year	2010	2010	2010	2010	2010	2010
Country FE	Y	Y	Y	Y	Y	Y
Round FE	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y

*Notes:* Each panel reports coefficients from a separate OLS regression using data from rounds 2 through 5 of the Afrobarometer survey. Standard errors, clustered by community, are in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

However, when we expand our sample to encompass the 38 African countries for which AidData data are available but AIMS data are not, we find that if anything, Chinese aid appears to increase support for liberal democratic values. While planned Chinese projects are negatively correlated with liberal democratic values in the expanded sample, this relationship reverts to a null after project completion, resulting in a net statistically significant positive effect. This result is driven in particular by a belief in the value of having multiple political parties (columns 2 and 3). This is consistent with our finding in the bottom panel of Table 1 that Chinese aid increases affinity for the US, and suggests that Chinese aid either increases or has no effect on affinity for the values that the US espouses as well.

### 3.3 EFFECTS OF CHINESE AND US AID ON PERCEPTIONS OF OTHER WESTERN POWERS

Are these results specific to perceptions of China and the US? How does exposure to Chinese and US aid affect perceptions of Western powers more generally? If the soft power benefits of China’s presence in Africa accrue at least in part to the US, it is possible that they accrue to other Western powers as well. Afrobarometer allows us to explore this possibility, albeit somewhat indirectly. Round 6 of the Afrobarometer survey asks respondents which country has the most influence on their own, and which offers the best model of economic development. The menu of options always includes the former colonial power, which in almost all cases is either France or the UK. While former colonial powers are not representative of Western powers more generally, if we find that Chinese (or US) aid has similar effects on perceptions of France and the UK as it does on perceptions of the US, this would suggest that our results may generalize to other liberal democracies—countries whose aid regimes tend to be similar to one another’s, but different from China’s.

Table 3 reports the effects of Chinese and US aid on Africans’ perceptions of former colonial powers using the same specification as in Table 1 above. Again, the top panel reports results for both Chinese and US aid across six African countries, while the bottom panel

reports results for Chinese aid alone across 38 African countries. As in Table 1, we find that Chinese projects tend to be sited in locations where perceptions of the former colonial power are relatively unfavorable. But this correlation becomes positive and statistically significant after project completion, implying a statistically significant net positive effect on perceptions of the former colonial power. US aid also has a statistically significant net positive effect on the belief that the former colonial power is most influential (column 1). When we expand our sample in the bottom panel, the net effect of Chinese aid on perceptions of the extent of the former colonial power’s influence reverts to a null (column 1), but the net effect on perceptions of the quality of the former colonial power’s model remains positive and statistically significant (column 2). Taken together, these results suggest that if anything, Chinese aid improves perceptions of the more liberal model of development associated with France, the UK, and potentially other Western powers as well.

## 4 Effects of US and UK aid on liberal democratic values

In Table 2 we find that US aid induces greater alignment with the liberal democratic values typically associated with the US, and typically not associated with China. Is this effect specific to situations in which the US competes with a geopolitical rival? Or does US aid have similar effects on support for liberal democratic values when it is delivered alongside aid by a geopolitical ally? In Table 4 we address this question using a specification identical to the one in Table 2, but substituting AidData data on the locations of Chinese projects for AIMS data on the locations of British projects instead. By necessity these analyses focus exclusively on the six countries for which Afrobarometer and AIMS data are both available, and so we report all results in a single panel.

We again find that US projects tend to be sited in locations where support for liberal democratic values is relatively weak: the coefficient on planned US projects is negative in

Table 3: Effects of Chinese and US aid on perceptions of former colonial powers

	Believes former colonial power is most influential	Believes former colonial power is best model
Near completed Chinese project	0.06 (0.01)***	0.02 (0.01)*
Near planned Chinese project	-0.04 (0.03)	-0.05 (0.02)**
Near completed US project	-0.01 (0.01)	-0.02 (0.01)**
Near planned US project	-0.05 (0.01)***	-0.03 (0.05)
China: Completed vs. planned $p$ -value	0.001	0.011
US: Completed vs. planned $p$ -value	0.002	0.857
Observations	6,530	6,528
Near completed Chinese project	0.01 (0.01)	0.01 (0.01)
Near planned Chinese project	0.02 (0.01)	-0.04 (0.01)***
China: Completed vs. planned $p$ -value	0.553	0.009
Observations	38,496	38,492
Buffer	30km	30km
Cut-off year	2010	2010
Country FE	Y	Y
Round FE	N	N
Controls	Y	Y

*Notes:* Each panel reports coefficients from a separate OLS regression using data from round 6 of the Afrobarometer survey. Standard errors, clustered by community, are in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

all but one specification, and is statistically significantly negative in three specifications (columns 3, 4, and 5). But with one exception (column 2), this correlation becomes either null (columns 3 and 4) or statistically significantly positive (columns 1, 5, and 6) after project completion, resulting in a statistically significant net positive effect on the liberal democratic values index (column 1) and two of its component parts (columns 5 and 6). The net effect of US aid on the belief that multiple parties create choice is positive and nearly statistically significant at conventional levels as well (column 3). UK aid appears to have a similarly positive net effect on liberal democratic values, though the differences between coefficients are imprecisely estimated, perhaps due to the smaller number of UK-funded projects in the AIMS dataset.

## 5 Discussion and conclusion

Contrary to the concerns raised by critics of Chinese aid to Africa, including some prominent members of the US government and foreign policy establishment, overall we find little to no support for the proposition that Chinese aid is enhancing Chinese soft power on the continent, undermining American soft power, increasing ideological alignment with China, or decreasing ideological alignment with the US. If anything, the opposite appears to be true. While Chinese projects tend to be sited in areas where perceptions of China are relatively positive, these correlations reverse or revert to nulls after project completion. Net of potential selection effects, completed Chinese projects appear to diminish affinity for China and boost affinity for the US and other Western powers. Completed US projects similarly appear to boost affinity for the US and Western powers more generally.

Nor do we find evidence that Chinese aid is undermining support for democracy or building tolerance for restrictions on civil society. After correcting for potential selection effects, US aid appears to have a positive effect on liberal democratic values, while Chinese aid has either no effect or a positive effect as well. Nor are the positive effects of US aid on

Table 4: Effects of US and UK aid on liberal democratic values

	Liberal democratic values (index)	Believes multiple parties are good	Believes multiple parties create choice	Believes citizens should join any CSO	Believes democracy is best system	Believes elections are good
Near completed US project	0.09 (0.05)*	-0.02 (0.01)*	-0.01 (0.02)	-0.02 (0.02)	0.05 (0.02)***	0.04 (0.02)***
Near planned US project	-0.03 (0.04)	-0.01 (0.01)	-0.05 (0.01)***	-0.04 (0.02)**	-0.02 (0.01)*	0.004 (0.01)
Near completed UK project	0.15 (0.07)**	0.06 (0.02)**	0.02 (0.02)	0.12 (0.03)***	0.02 (0.02)	-0.003 (0.02)
Near planned UK project	0.03 (0.15)	0.02 (0.04)	-0.02 (0.03)	0.09 (0.07)	-0.05 (0.03)*	0.03 (0.02)
US: Completed vs. planned $p$ -value	0.067	0.712	0.122	0.612	0.000	0.047
UK: Completed vs. planned $p$ -value	0.433	0.415	0.137	0.688	0.018	0.153
Observations	15,583	17,364	23,324	17,793	22,795	23,800
Buffer	30km	30km	30km	30km	30km	30km
Cut-off year	N/A	N/A	N/A	N/A	N/A	N/A
Country FE	Y	Y	Y	Y	Y	Y
Round FE	Y	Y	Y	Y	Y	Y
Individual-level controls	Y	Y	Y	Y	Y	Y
Community-level controls	Y	Y	Y	Y	Y	Y

Notes: Coefficients from an OLS regression using rounds 2 through 5 of the Afrobarometer survey. Standard errors, clustered by community, are in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .



liberal democratic values specific to situations in which the US competes with a geopolitical rival. The effects of US aid are similarly positive conditional on the presence of aid from the UK, a geopolitical ally.

Taken together, our results suggest that aid can serve as an effective instrument of soft power, but that its effectiveness varies across donors and aid regimes. What explains this variation? Why does Chinese aid to Africa have such weak or even adverse effects on China’s soft power? Why does US but not Chinese aid seem to generate support and ideological alignment among citizens of recipient countries? The null or negative impact of Chinese aid on soft power is surprising given the praise that China has received in at least some African countries, and given the growing number of studies suggesting that Chinese aid is effective in improving public services and infrastructure (Dreher et al. 2019; Wegenast et al. 2017). China seems to be delivering on its promise to bring development to Africa. Yet our results suggest that this is not translating into greater affinity for China or its political or economic model, at least not among the most direct beneficiaries of Chinese aid. Why not?

One possibility, alluded to in Section 1.4, is that the adverse effects of Chinese aid are a result of particular characteristics of the Chinese aid regime. China is often accused of prioritizing speed and low cost at the expense of quality and fair play (Hanauer and Morris 2014b). This may alienate citizens of recipient countries. Stories about the low quality of Chinese-financed infrastructure projects are increasingly common, especially in the media (see, e.g., BBC 2010). Whether or not these stories are representative, they appear to have penetrated public opinion in Africa: according to Afrobarometer data, the perceived low quality of Chinese products is the single most important reason that Africans cite for holding negative images of China (Lekorwe et al. 2016). Whether Chinese projects are *actually* low quality, or lower quality than US alternatives, is a matter of debate; existing empirical evidence suggests they may not be (Farrell 2016). But as Hanauer and Morris (2014b, 63) note, “a plethora of visible and widely publicized examples of poor-quality Chinese work

(exaggerated or not) have created the perception that Chinese construction is sub-standard.” For soft power purposes, this perception arguably matters more than the reality.

Chinese aid also tends to be accompanied by an influx of Chinese firms and workers into recipient countries. This may provoke resentment that China is crowding out opportunities for local enterprise and employment. [Wegenast et al. \(2017\)](#), for example, find that in areas around Chinese-owned mines, Africans tend to be particularly concerned about job losses induced by China’s presence. A similar dynamic may arise around Chinese aid projects. Chinese aid may also exacerbate both the perception and reality of local corruption. The absence of good governance conditionalities distinguishes the Chinese aid regime from its OECD-DAC counterparts ([Brautigam 2009](#); [Hernandez 2017](#)). But several recent studies suggest that this absence of conditionalities may create opportunities for malfeasance at the local level ([Brazys, Elkind and Kelly 2017](#); [Isaksson and Kotsadam 2018a](#)). It is not obvious that citizens necessarily observe this corruption, or that they attribute it to Chinese projects. But if they do, this could explain declining support for China among the populations most affected by its presence.

A lack of conditionalities may also explain why Chinese aid does not appear to induce ideological alignment with the Chinese government. As part of the “five-no” doctrine formalized by Xi Jinping at the 2018 FOCAC, China staunchly rejects the push for democratization, liberalization, and good governance that characterizes much OECD-DAC aid to the continent. Ironically, this insistence on non-conditionality may be playing into the hands of China’s OECD-DAC rivals. Whereas the US, UK, and other donors are explicit in their attempts to export liberal democracy, China has not offered an equally explicit alternative other than non-interference, which may not be enough to sway citizens. More direct messaging may be necessary to induce ideological alignment. But this is precisely the sort of messaging that the five-no doctrine is designed to curtail.

Finally, while Chinese aid in general does not appear to increase Chinese soft power in Africa, it is nonetheless possible that specific types of Chinese aid might have soft power

enhancing effects. For example, China’s focus on infrastructure tends to be one of the more popular features of its aid regime (Hanauer and Morris 2014b, xii; Lekorwe et al. 2016). Is it possible that Chinese-funded infrastructure projects improve Africans’ perceptions of China in ways that other projects do not? We explore this possibility in Appendix A.8 by distinguishing infrastructure from all other types of Chinese projects in AidData. While this analysis requires stretching AidData rather thin, and should therefore be interpreted with some caution, it suggests that Chinese infrastructure projects are no more likely to generate soft power benefits than projects of other types. Both infrastructure and non-infrastructure projects appear to diminish affinity for China among recipient populations. Still, it is possible that more disaggregated data will reveal nuances that our analyses cannot detect. While we do not have sufficient statistical power to disaggregate Chinese aid further, we view this as a potentially promising avenue for future research to explore.

## References

- AidData. 2016*a*. “NigeriaAIMS\_GeocodedResearchRelease\_Level1\_v1.3.2 geocoded dataset.”  
Williamsburg, VA: AidData at William & Mary.  
**URL:** <https://www.aiddata.org/data/nigeria-aims-geocoded-research-release-level-1-v1-3-1>
- AidData. 2016*b*. “UgandaAIMS\_GeocodedResearchRelease\_Level1\_v1.4.1 geocoded dataset.”  
Williamsburg, VA: AidData at William & Mary.  
**URL:** <https://www.aiddata.org/data/uganda-aims-geocoded-research-release-level-1-v1-4-1>
- AidData. 2017*a*. “BurundiAIMS\_GeocodedResearchRelease\_Level1\_v1.0 geocoded dataset.”  
Williamsburg, VA: AidData at William & Mary.  
**URL:** <https://www.aiddata.org/data/burundi-aims-geocoded-research-release-level-1-v1-0>
- AidData. 2017*b*. “SenegalAIMS\_GeocodedResearchRelease\_Level1\_v1.5.1 geocoded dataset.”  
Williamsburg, VA: AidData at William & Mary.  
**URL:** <https://www.aiddata.org/data/senegal-aims-geocoded-research-release-level-1-v1-5-1>
- AidData. 2017*c*. “SierraLeoneAIMS\_GeocodedResearchRelease\_Level1\_v1.0 geocoded dataset.” Williamsburg, VA: AidData at William & Mary.  
**URL:** <https://www.aiddata.org/data/sierra-leone-aims-geocoded-research-release-level-1-v1-0>
- AidData Research and Evaluation Unit. 2017. “Geocoding Methodology, Version 2.0.”  
Williamsburg, VA: AidData at William & Mary.  
**URL:** <https://www.aiddata.org/publications/geocoding-methodology-version-2-0>

- Alden, Chris. 2007. *China in Africa: Partner, Competitor or Hegemon?* London: Zed Books.
- Asmus, Gerda, Andreas Fuchs and Angelika Müller. 2018. "Russia's foreign aid re-emerges." *AidData* April 9.  
**URL:** <https://www.aiddata.org/blog/russias-foreign-aid-re-emerges>
- Baldwin, Kate and Matthew S. Winters. 2018. "Bypass Aid and Perceptions of Local Government Performance and Legitimacy." *AidData Working Paper 56*.  
**URL:** <https://www.aiddata.org/publications/bypass-aid-and-perceptions-of-local-government-performance-and-legitimacy>
- BBC. 2010. "Safety fears for a Chinese built hospital in Angola." *BBC* July 7.  
**URL:** [http://www.bbc.co.uk/worldservice/africa/2010/07/100707\\_angolahospital.shtml](http://www.bbc.co.uk/worldservice/africa/2010/07/100707_angolahospital.shtml)
- BBC. 2018. "John Magufuli: Tanzania prefers 'condition-free' Chinese aid." *BBC* November 27.  
**URL:** <https://www.bbc.com/news/world-europe-46364342>
- BenYishay, Ariel, Renee Rotberg, Jessica Wells, Zhonghui Lv, Seth Goodman, Lidia Kovacevic and Dan Runfola. 2017. "Geocoding Afrobarometer Rounds 1-6: Methodology & Data Quality." Williamsburg, VA: AidData at William & Mary.  
**URL:** <https://www.aiddata.org/publications/geocoding-afrobarometer-rounds-1-6-methodology-data-quality>
- Bermeo, Sarah Blodgett. 2016. "Aid Is Not Oil: Donor Utility, Heterogeneous Aid, and the Aid-Democratization Relationship." *International Organization* 70(1):1–32.
- Blair, Robert A. and Philip Roessler. 2018. "The Effects of Chinese Aid on State Legitimacy in Africa: Cross-National and Sub-National Evidence from Surveys, Survey Experiments, and Behavioral Games." *AidData Working Paper 59*.

**URL:** <https://www.aiddata.org/publications/the-effects-of-chinese-aid-on-state-legitimacy-in-africa-cross-national-and-sub-national-evidence-from-surveys-survey-experiments-and-behavioral-games>

Bluhm, Richard, Axel Dreher, Andreas Fuchs, Bradley Parks, Austin Strange and Michael 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.

**URL:** <https://www.aiddata.org/publications/connective-finance-chinese-infrastructure-projects>

Böhnke, Jan Rasmus and Christoph Zürcher. 2013. “Aid, Minds and Hearts: The Impact of Aid in Conflict Zones.” *Conflict Management and Peace Science* 30(5):411–432.

Brass, Jennifer N. 2016. *Allies or Adversaries: NGOs and the State in Africa*. New York: Cambridge University Press.

Brautigam, Deborah. 1992. “Governance, Economy, and Foreign Aid.” *Studies in Comparative International Development* 27(3):3–25.

Brautigam, Deborah. 2009. *The Dragon’s Gift: The Real Story of China in Africa*. Oxford: Oxford University Press.

Bräutigam, Deborah. 2018. “Xi Jinping Is Visiting Africa This Week. Here’s Why China Is Such a Popular Development Partner.” *Monkey Cage* July 24.

**URL:** <https://www.washingtonpost.com/news/monkey-cage/wp/2018/07/24/xi-jinping-is-visiting-africa-this-week-heres-why-china-is-such-a-popular-development-partner/>

Brautigam, Deborah and Jyhjong Hwang. 2016. “Eastern Promises: New Data on Chinese Loans in Africa, 2000-2014.” SAIS China Africa Research Initiative Working Paper 4.

**URL:** <https://static1.squarespace.com/static/5652847de4b033f56d2bdc29/t/58ac91ede6f2e1f64a20d11a/>

- Brazys, Samuel and Alexander Dukalskis. 2019. “Grassroots Image Management: Confucius Institutes and Media Perceptions of China.” AidData Working Paper 69.  
**URL:** <https://www.aiddata.org/publications/grassroots-image-management-strategies-of-rising-powers>
- Brazys, Samuel, Johan A. Elkind and Gina 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):227–253.
- Brookes, Peter and Ji Hye Shin. 2006. *China’s Influence in Africa: Implications for the United States*. Washington, DC: The Heritage Foundation. Backgrounder No. 1916.
- Bueno de Mesquita, Bruce and Alastair Smith. 2016. “Competition and Collaboration in Aid-for-Policy Deals.” *International Studies Quarterly* 60(3):413–426.
- Carnegie, Allison and Nikolay Marinov. 2017. “Foreign Aid, Human Rights, and Democracy Promotion: Evidence from a Natural Experiment.” *American Journal of Political Science* 61(3):671–683.
- Dietrich, Simone and Matthew S. Winters. 2015. “Foreign Aid and Government Legitimacy.” *Journal of Experimental Political Science* 2(02):164–171.
- Dietrich, Simone, Minhaj Mahmud and Matthew S. Winters. 2017. “Foreign Aid, Foreign Policy, and Domestic Government Legitimacy: Experimental Evidence from Bangladesh.” *The Journal of Politics* 80(1):133–148.
- Djankov, Simeon, Jose G. Montalvo and Marta Reynal-Querol. 2008. “The Curse of Aid.” *Journal of Economic Growth* 13(3):169–194.
- Dreher, Axel, Andreas Fuchs, Brad Parks, Austin M. Strange and Michael J. Tierney. 2018. “Apples and Dragon Fruits: The Determinants of Aid and Other Forms of State Financing from China to Africa.” *International Studies Quarterly* 62(1):182–194.

Dreher, Axel, Andreas Fuchs, Roland Hodler, Bradley C. Parks, Paul A. Raschky and Michael J. Tierney. 2019. “African Leaders and the Geography of China’s Foreign Assistance.” *Journal of Development Economics* 140:44–71.

Edelstein, David M. 2017. *Over the Horizon: Time, Uncertainty, and the Rise of Great Powers*. Ithaca, NY: Cornell University Press.

Farrell, Jamie. 2016. “How Do Chinese Contractors Perform in Africa? Evidence from World Bank Projects.” China Africa Research Initiative Working Paper No. 3.

**URL:** <https://static1.squarespace.com/static/5652847de4b033f56d2bdc29/t/573c970bf8baf3591b05253f/>

Finkel, Steven E., Aníbal Pérez-Liñán and Mitchell A. Seligson. 2007. “The Effects of U.S. Foreign Assistance on Democracy Building, 1990-2003.” *World Politics* 59(3):404–438.

Friedberg, Aaron L. 2005. “The Future of U.S.-China Relations: Is Conflict Inevitable?” *International Security* 30(2):7–45.

Glaser, Bonnie S. and Melissa E. Murphy. 2009. Soft Power with Chinese Characteristics: The Ongoing Debate. In *Chinese Soft Power and Its Implications for the United States: Competition and Cooperation in the Developing World*, ed. Carola McGiffert. CSIS Smart Power Initiative Washington, DC: Center for Strategic & International Studies pp. 10–26.

Glennie, Jonathan and Andy Sumner. 2014. *The \$138.5 Billion Question: When Does Foreign Aid Work (and When Doesn’t It)?* Washington, DC: Center for Global Development.

Goldsmith, Arthur A. 2001. “Foreign Aid and Statehood in Africa.” *International Organization* 55:123–148.

Goldsmith, Benjamin E. and Yusaku Horiuchi. 2012. “In Search of Soft Power: Does Foreign Public Opinion Matter for US Foreign Policy?” *World Politics* 64(3):555–585.

Goldsmith, Benjamin E., Yusaku Horiuchi and Terrence Wood. 2014. “Doing Well by Doing



- Good: The Impact of Foreign Aid on Foreign Public Opinion.” *Quarterly Journal of Political Science* 9(1):87–114.
- Guiteras, Raymond and Ahmed Mushfiq Mobarak. 2015. “Does Development Aid Undermine Political Accountability? Leader and Constituent Responses to a Large-Scale Intervention.” NBER Working Paper No. 21434.  
**URL:** <https://www.nber.org/papers/w21434>
- Hanauer, Larry and Lyle J. Morris. 2014a. *China in Africa: Implications of a Deepening Relationship*. Santa Monica, CA: RAND Corporation.
- Hanauer, Larry and Lyle J. Morris. 2014b. *Chinese Engagement in Africa: Drivers, Reactions, and Implications for U.S. Policy*. Santa Monica, CA: RAND Corporation.
- Hernandez, Diego. 2017. “Are “New” Donors Challenging World Bank Conditionality?” *World Development* 96:529–549.
- Human Rights Watch. 2012. “Zambia: Workers Detail Abuse in Chinese-Owned Mines.” *Human Rights Watch* November 3.  
**URL:** <https://www.hrw.org/news/2011/11/03/zambia-workers-detail-abuse-chinese-owned-mines>
- Isaksson, Ann-Sofie and Andreas Kotsadam. 2018a. “Chinese Aid and Local Corruption.” *Journal of Public Economics* 159:146–159.
- Isaksson, Ann-Sofie and Andreas Kotsadam. 2018b. “Racing to the Bottom? Chinese Development Projects and Trade Union Involvement in Africa.” *World Development* 106:284–298.
- Katzenstein, Peter J. and Robert O. Keohane, eds. 2007. *Anti-Americanism in World Politics*. Ithaca, NY: Cornell University Press.

- Knack, Stephen. 2004. "Does Foreign Aid Promote Democracy?" *International Studies Quarterly* 48(1):251–266.
- Kurlantzick, Joshua. 2007. *Charm Offensive: How China's Soft Power Is Transforming the World*. New Haven, CT: Yale University Press.
- Kuziemko, Ilyana and Eric Werker. 2006. "How Much Is a Seat on the Security Council Worth? Foreign Aid and Bribery at the United Nations." *Journal of Political Economy* 114(5):905–930.
- Lai, Hongyi. 2012. Introduction: The Soft Power Concept and a Rising China. In *China's Soft Power and International Relations*, ed. Hongyi Lai and Yiyi Lu. Vol. 23 Routledge.
- Lancaster, Carol. 2000. "Redesigning Foreign Aid." *Foreign Affairs* 79(5):74–88.
- Lekorwe, Mogopodi, Anyway Chingwete, Mina Okuru and Romaric Samson. 2016. "China's growing presence in Africa wins largely positive popular reviews." *Afrobarometer Dispatch* 122.  
**URL:** <http://afrobarometer.org/publications/ad122-chinas-growing-presence-africa-wins-largely-positive-popular-reviews>
- Li, Mingjiang, ed. 2009. *Soft Power: China's Emerging Strategy in International Politics*. Lanham, MD: Lexington Books.
- Lijadu, Kemi. 2018. "Chinese leaders visit Africa more often than you think and not always the places you expect." *Quartz* July 26.  
**URL:** <https://qz.com/africa/1335418/chinese-leaders-visit-africa-more-often-than-you-think-and-not-always-the-places-you-expect/>
- MacDonald, Paul K. and Joseph M. Parent. 2018. *Twilight of the Titans: Great Power Decline and Retrenchment*. Ithaca, NY: Cornell University Press.

- Ndlovu, Thapelo. 2014. "China's African ambitions stumble in Botswana." *Al Jazeera* September 18.
- URL:** <https://www.aljazeera.com/news/africa/2014/08/chinas-african-ambitions-stumble-botswana-201482312611222505.html>
- Nye, Joseph S. 2005. "The Rise of China's Soft Power." *The Wall Street Journal* December 29. Commentary.
- Nye Jr., Joseph S. 2004. *Soft Power: The Means to Success in World Politics*. New York: Public Affairs.
- Parks, Bradley. 2015. "10 Essential Facts About Chinese Aid in Africa." *National Interest* November 30.
- URL:** <https://nationalinterest.org/feature/10-essential-facts-about-chinese-aid-africa-14456>
- Peratsakis, Christian, Joshua Powell, Michael Findley, Justin Baker and Catherine Weaver. 2017. "Geocoded Activity-Level Data from the Government of Malawi's Aid Management Platform." Washington, DC: AidData and the Robert S. Strauss Center for International Security and Law.
- URL:** <https://www.aiddata.org/data/malawi-release-17-april-2012>
- Radelet, Steven. 2003. "Bush and Foreign Aid." *Foreign Affairs* 82(5):104–117.
- Rai, Kul B. 1980. "Foreign Aid and Voting in the UN General Assembly, 1967–1976." *Journal of Peace Research* 17(3):269–277.
- Roeder, Philip G. 1985. "The Ties That Bind: Aid, Trade, and Political Compliance in Soviet-Third World Relations." *International Studies Quarterly* 29(2):191–216.
- Sacks, Audrey. 2012. "Can Donors and Nonstate Actors Undermine Citizens' Legitimizing Beliefs?" Afrobarometer Working Paper 140.

**URL:** <https://afrobarometer.org/publications/can-donors-and-non-state-actors-undermine-citizens%E2%80%99-legitimizing-beliefs>

Scott, James M. 2019. "Cultivating Friends? The Payoffs of U.S. Democracy Aid, 1975-2010." Presented at the International Studies Association Annual Conference, March 26-30, Toronto, Canada.

Scott, James M. and Ralph G. Carter. 2017. "Distributing Dollars for Democracy: Changing Foreign Policy Contexts and the Shifting Determinants of US Democracy Aid, 1975-2010." *Journal of International Relations and Development* Forthcoming.

Sieh, Rodney D. 2014. "Liberia: Low Quality, High Volume—Dark Side of Chinese Contractors." *Front Page Africa* June 17.

**URL:** <http://allafrica.com/stories/201406170710.html>

Smith, David. 2012. "Workers Claim Abuse as China Adds Zimbabwe to Its Scramble for Africa." *The Guardian* January 2.

**URL:** <https://www.theguardian.com/world/2012/jan/02/china-zimbabwe-workers-abuse>

Sun, Yun. 2013. *China in Africa: Implications for U.S. Competition and Diplomacy*. Washington, DC: Brookings Institution.

Sun, Yun. 2014. "China's Aid to Africa: Monster or Messiah?" *The Brookings Institution* February 7. Op-Ed.

**URL:** <https://www.brookings.edu/opinions/chinas-aid-to-africa-monster-or-messiah/>

Sun, Yun. 2018. "China's 2018 financial commitments to Africa: Adjustment and recalibration." *The Brookings Institution* September 5.

**URL:** <https://www.brookings.edu/blog/africa-in-focus/2018/09/05/chinas-2018-financial-commitments-to-africa-adjustment-and-recalibration/>

- Taffet, Jeffrey F. 2007. *Foreign Aid as Foreign Policy: The Alliance for Progress in Latin America*. New York: Routledge.
- The New Dawn. 2013. “China Union Employees Claim Modern Slavery.” *The New Dawn* October 8.  
**URL:** <http://allafrica.com/stories/201310080605.html>
- Tierney, Michael J., Daniel L. Nielson, Darren G. Hawkins, J. Timmons Roberts, Michael G. Findley, Ryan M. Powers, Bradley Parks, Sven E. Wilson and Robert L. Hicks. 2011. “More Dollars than Sense: Refining Our Knowledge of Development Finance Using AidData.” *World Development* 39(11):1891–1906.
- Wang, T. Y. 1999. “U.S. Foreign Aid and UN Voting: An Analysis of Important Issues.” *International Studies Quarterly* 43(1):199–210.
- Wegenast, Tim, Georg Strüver, Juliane Giesen and Mario Krauser. 2017. “At Africa’s Expense? Disaggregating the Social Impact of Chinese Mining Operations.” GIGA Working paper No. 308.  
**URL:** <https://www.giga-hamburg.de/en/publication/at-africas-expense-disaggregating-the-social-impact-of-chinese-mining-operations>
- Yuichi Kono, Daniel and Gabriella R. Montinola. 2009. “Does Foreign Aid Support Autocrats, Democrats, or Both?” *The Journal of Politics* 71(2):704–718.
- Zheng, Denise E. 2009. China’s Use of Soft Power in the Developing World: Strategic Intentions and Implications for the United States. In *Chinese Soft Power and Its Implications for the United States: Competition and Cooperation in the Developing World*, ed. Carola McGiffert. CSIS Smart Power Initiative Washington, DC: Center for Strategic & International Studies pp. 1–9.

# Appendix

## A.1 Map of aid and Afrobarometer respondents

Figure A.1 plots the locations of Afrobarometer respondents and Chinese, US, and UK aid projects across all African countries for which data are available.

## A.2 Descriptive statistics

Table A.1 reports descriptive statistics for the dependent variables in our analysis. We operationalize perceptions of China using two additive indices. The first captures the extent of China’s (perceived) influence in the recipient country. This index represents the sum of dichotomized responses to two questions: one that asks respondents to select which of five countries or organizations has the “most influence” on their country (coded as a 1 for respondents who selected China), and another that asks how much influence respondents believe China’s “economic activities” have on their country’s economy (coded as a 1 for respondents who answered “a lot” or “some”).

The second index captures the extent to which China’s influence is viewed as positive. This index represents the sum of dichotomized responses to three questions, the first asking respondents to evaluate the quality of China’s “economic and political influence” on their country (coded as a 1 for respondents who rated China’s influence as “very positive” or “somewhat positive”), the second asking whether respondents believe China’s “economic development assistance” is doing a “good job” meeting the their country’s needs (coded as a 1 for respondents who described China as doing a “very good job” or “somewhat good job”), and the third asking which country respondents believe represents the “best model for the future development” of their country (coded as a 1 for respondents who selected China).

We operationalize liberal democratic values using a third additive index. This index is

composed of dichotomized responses to questions asking respondents whether they believe that the existence of multiple parties (1) is good and (2) creates choice for voters; (3) that citizens should be free to join any civil society organization they choose, without restriction; (4) that democracy is the best system for selecting leaders; and (5) that elections are good. Again, answers to these questions are dichotomized to indicate whether respondents agree or strongly disagree with each of these beliefs, and the resulting dummies are added together to create the index. The questions in the latter index are available for rounds 2 through 6 of the Afrobarometer survey. The questions in the first two indices are available for round 6 only.

### A.3 Coding rules

Our analysis relies on AidData to operationalize exposure to Chinese aid ([AidData Research and Evaluation Unit 2017](#); [Bluhm et al. 2018](#)). Unfortunately, the AidData dataset is missing precise temporal and/or geographic information for many Chinese projects. Our goal in addressing missingness is to maximize statistical power while minimizing ambiguities that might confound our results. With this goal in mind, we exclude projects for which there is no precise geographic information within 25km of a known location (AidData precision code 1 or 2). Because we are interested in the effects of Chinese projects on citizens who live near them, we also exclude projects that provide only general administrative or budgetary support to the recipient government.

We then code whether each Afrobarometer respondent lives within 30km of a planned (future or pledged) or completed Chinese project. AidData includes a scheduled and actual start and end year for each project, as well as the year that an agreement was signed. AidData also includes the status of each project: planned, active, or completed. For projects with both scheduled and actual start years, the actual start year occurs 0.76 years on average after the scheduled start year. For projects with both scheduled and actual end years, the

actual end year occurs one year on average after the scheduled end year. We rely on actual start and end years whenever possible. When either the actual start year or actual end year is unavailable, we rely on the scheduled start or end year instead, but add one year to reflect the fact that most projects both start and end roughly one year behind schedule.

We code respondents as living near a planned project if they were surveyed anytime before the start year of any project within a 30km radius. We code respondents as living near a completed project if they were surveyed anytime after or during the end year. Some projects are missing both a scheduled and actual start year; in these cases we code respondents as living near a planned project if the survey was conducted before the agreement year. (If the survey was conducted after the agreement year, we cannot tell whether the project was planned or completed by the time of the survey.) Some projects are also missing both a scheduled and actual end year. In these cases we code respondents as living near a completed project if the status is completed and the survey was conducted in 2014 or after, the last year AidData is available. (If the status is completed but the survey was conducted before 2014, we cannot tell by which round the project was completed.)

For our analyses that rely on Afrobarometer round 6, we cannot depend on start and end dates or status alone: Afrobarometer round 6 was conducted in 2014 and 2015, but AidData only includes projects up to 2014. It is possible that some projects that were in the planning phase in 2014 were begun or even completed by the time Afrobarometer round 6 was implemented. In these cases, we infer that projects were still in the planning phase at the time of the survey if AidData classified them as “pipeline” in 2014 (i.e. pledged but not yet implemented) *and* if the pledge year was 2010 or after. We assume that if the pledge year was before 2010, then it is likely that project implementation had already begun by the time of the survey.

Our results using Afrobarometer round 6 are robust to alternate cut-off years, as we show in Appendix A.6 below. We also show in Appendix A.7 that our conclusions about the effects of Chinese aid on perceptions of China and the US are unchanged if we use data



from Afrobarometer round 4 instead. Round 4 includes fewer questions on perceptions of China and the US, but was conducted in 2008, before the end of the AidData dataset. This allows us to avoid inferring the future status of planned projects. Importantly, we also avoid inferring the future status of planned projects in our analysis of the effects of Chinese aid on liberal democratic values. Since questions on liberal democratic values are available for rounds 2 through 5 of the Afrobarometer survey, we avoid any ambiguity by simply excluding round 6 from our analysis.

To operationalize exposure to US aid, we use data from the Aid Information Management Systems (AIMS) of African finance and planning ministries, which were geocoded by AidData (AidData 2016*b*; *a*; 2017*a*; *b*; *c*; Peratsakis et al. 2017). The AIMS data cover six countries that were also surveyed by Afrobarometer: Burundi, Malawi, Nigeria, Senegal, Sierra Leone, and Uganda. As with our analysis of Chinese aid, we exclude projects that lack precise geographic information, as well as those that are classified as completed but that do not have corresponding start or end dates. We discuss the potential implications of these coding rules for our analysis in Appendix A.4 below.

## A.4 Consequences of missing data

Our coding rules introduce additional missingness into the AidData and AIMS datasets. In Tables A.2 and A.3 we explore the potential consequences of this missingness by comparing the subset of projects in our sample to all projects in the AidData and AIMS datasets by sector. If the distribution of projects by sector changes after we apply our coding rules, that would suggest that we are disproportionately excluding certain types of projects, which may, in turn, cause us to over- or underestimate the impact of Chinese and/or US aid.

From Table A.2, the proportions of Chinese projects in each sector are very similar in the two versions of the dataset. From Table A.3, the proportions of US projects in each sector are very similar as well. The only potentially noteworthy exception is the proportionally

larger number of US-funded education projects in the full sample relative to ours. But these constitute a very small fraction of all projects in both versions of the dataset, and the difference is very unlikely to bias our results. While not definitive,<sup>21</sup> we interpret these similarities as evidence that our coding rules do not dramatically change the distribution of projects in the AidData or AIMS datasets.

## A.5 Planned projects as counterfactuals for completed ones

Our identification strategy involves comparing respondents who live within 30km of a completed Chinese or US project to those who live within 30km of a planned project. This identification strategy assumes that planned projects are valid counterfactuals for completed ones, and that respondents who live near planned projects are therefore valid counterfactuals for respondents who live near completed ones. This assumption may be violated if donors or recipient governments complete the highest priority projects first. To explore this possibility, Tables A.4 and A.5 compare the distribution of planned Chinese and US projects across sectors to the distribution of completed Chinese and US projects. If the distributions are different, this would suggest that certain types of projects are being completed before others.

In general, however, the distributions appear to be similar. From Table A.4, among the sectors that comprise more than 1% of the total, there are slightly more completed Chinese projects in the education, government and civil society, and health sectors, and slightly more planned Chinese projects in the communications and transport and storage sectors. But the differences are small. The differences are somewhat more marked for US projects in Table A.5, though, with the exception of agriculture, forestry, and fishing, they remain small.

---

<sup>21</sup>There are some projects that lack geographic, temporal, *and* sectoral data. For obvious reasons we cannot include these projects in our comparisons. We suspect that these projects are likely to be relatively small scale (which would explain the absence of information about them), though we cannot be sure.

Moreover, the most common sectors represented among completed projects—agriculture, government, and health—are also the most common among planned projects. Again, while not definitive, we interpret these similarities as evidence in favor of our identifying assumption.

## **A.6 Effects of Chinese aid on perceptions of China and the US, using alternate cut-off years**

Our analysis of the effects of Chinese and US aid on perceptions of China and the US in the paper relies on round 6 of the Afrobarometer survey, which was conducted in 2014 and 2015. This analysis requires inferring the future status of projects that were still in the planning phase as of 2014, the last year AidData is available. As discussed in Appendix A.3 above, we infer that projects were still in the planning phase at the time of the survey if AidData designated them as “pipeline” in 2014 and the pledge year was 2010 or later. As a robustness check, in Tables A.6 and A.7 we replicate our analysis in Table 1 in the paper using cut-off years of 2009 and 2008, respectively. (Ideally we could assess the robustness of our results to later cut-off years, but unfortunately this would leave us with too few planned projects to estimate off of.) Our results in Tables A.6 and A.7 are similar or identical<sup>22</sup> to those in Table 1, suggesting that they are unlikely to be artifacts of this particular coding rule.

---

<sup>22</sup>All of the Chinese-funded projects in the six countries for which AIMS data are available had pledge years either before 2008 or after 2010. When we restrict our sample to these countries, our results are identical regardless of the cut-off year we choose.

## A.7 Effects of Chinese and US aid on perceptions of China and the US, using round 4 Afrobarometer data

In our analysis of the effects of Chinese and US aid on perceptions of China and the US in the paper, we infer the status of Chinese projects that were still in the planning phase as of 2014, using a pledge year of 2010 as a cut-off. In Tables A.6 and A.7 we test the robustness of our results to alternate cut-off years. As a more direct alternative, in Table A.8 we test the effects of Chinese and US aid on perceptions of China and the US using questions from round 4 of the Afrobarometer survey, which was conducted in 2008. Round 4 respondents were asked how much they believe different countries do to help their own country. To operationalize support for China, we code a 1 for respondents who said they believe China helps “somewhat” or “a lot.” We operationalize support for the US in the same way. The top panel of Table A.8 reports results for both Chinese and US aid; the bottom panel reports results for Chinese aid alone.

The AIMS dataset begins in 2008, the same year round 4 of the Afrobarometer survey was conducted. As a result, there are relatively few US projects to estimate off of in Table A.8, and the analyses in the top panel are underpowered, and both the coefficients and the differences between them are imprecisely estimated. When we expand the sample to the 38 countries for which AidData and Afrobarometer data are both available, however, we again find that Chinese aid has a net positive and statistically significant effect on support for the US (column 2). Chinese aid also has a net negative effect on support for China, though the difference between these coefficients is not statistically significant (column 1). Consistent with our results in the paper, to the extent that Chinese projects affect Africans’ attitudes towards donors, the benefits seem to accrue to the US rather than China.

## A.8 Effects of Chinese aid on perceptions of China and the US, disaggregating by sector

Our analysis in the paper aggregates all forms of Chinese aid into a single category. It is possible, however, that the effects of Chinese aid vary by type of project. While AidData provides information on a variety of different characteristics of Chinese-funded projects, disaggregating along most of these dimensions requires stretching the data too thin for analytical tractability. To test whether different types of Chinese projects have different effects, in Table A.9 we distinguish infrastructure projects<sup>23</sup> from projects in all other sectors.<sup>24</sup> While this is still a rather coarse form of disaggregation, it nonetheless allows us to assess the implications of one of the most popular and salient features of China’s aid regime—its focus on highly-visible, large-scale infrastructure projects—for the projection of Chinese soft power. Because we do not have enough AIMS data to disaggregate US aid in this way, we focus on Chinese aid alone.

Our specification in Table A.9 is identical to the bottom panel of Table 1 in the paper, except that we distinguish projects involving construction of infrastructure from all others in the AidData dataset. These two categories may not be mutually exclusive: it is possible, for example, that some projects classified as targeting the “health” sector involved building new infrastructure, while some projects classified as “water supply and sanitation” did not. Without more detail on the nature of each project, we are limited to these rather broad categorizations, and our results should be interpreted with this caveat in mind. This limitation notwithstanding, we find little evidence to suggest that the effects of Chinese aid on Chinese soft power are specific to a particular sector. If anything it appears that

---

<sup>23</sup>These include projects classified as belonging to any one of the following sectors: communications; energy generation and supply; industry, mining, and construction; transport and storage; or water supply and sanitation.

<sup>24</sup>These include projects classified as health; population policies/programmes and reproductive health; education; agriculture, forestry, and fishing; emergency response; government and civil society; other multi-sector; and other social infrastructure and services.

infrastructure projects have more pronounced adverse effects on affinity for China and its political and economic model. Both infrastructure and non-infrastructure projects tend to be sited in locations where respondents are more likely to describe Chinese influence as positive (column 2), but in both cases this correlation reverses or reverts to a null after project completion, resulting in a net negative effect on perceptions of China.

Infrastructure projects also tend to be sited in locations where respondents are more likely to believe the Chinese model is best (column 5), and less likely to believe the US model is most influential (column 4). However, both of these correlations revert to nulls after project completion, again resulting in a net negative effect. After correcting for potential selection effects, we find some suggestive evidence that non-infrastructure projects increase perceptions of Chinese influence (column 3), though the difference between the coefficients on planned and completed projects is only marginally statistically significant at conventional levels. Further disaggregation may reveal nuances that our analyses in Table A.9 cannot detect. But China's focus on infrastructure is among the most attractive feature of its aid regime from the perspective of recipients (Hanauer and Morris 2014a). If even infrastructure projects have adverse effects on Chinese soft power, it is not obvious what other types of projects might be more likely to have beneficial effects.

Figure A.1: Map of Afrobarometer respondents and Chinese, US, and UK aid projects

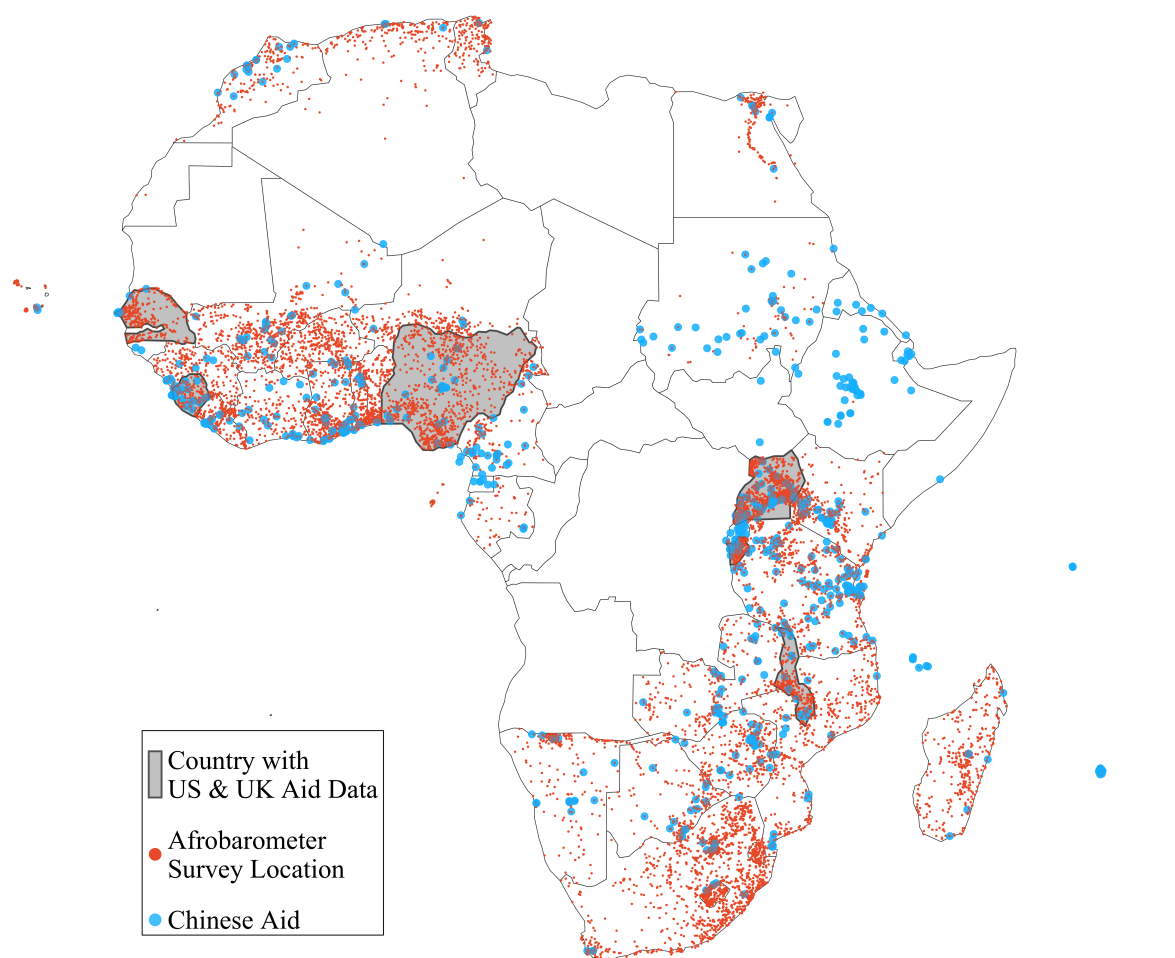


Table A.1: Dependent variables

	N	Mean	S.D.	Min	Max	First round available	Last round available
<b>Perceptions of China and US</b>							
Believes China is influential (index)	29,670	1.09	0.65	0	2	6	6
Believes Chinese presence is positive (index)	27,444	1.68	0.95	0	3	6	6
Believes Chinese model is most influential	36,382	0.26	0.44	0	1	6	6
Believes US model is most influential	36,382	0.22	0.41	0	1	6	6
Believes Chinese model is best	36,378	0.25	0.43	0	1	6	6
Believes US model is best	36,378	0.29	0.45	0	1	6	6
<b>Liberal democratic values</b>							
Liberal values (index)	113,072	3.74	1.14	0	5	3	6
Believes multiple parties are good	134,103	0.8	0.4	0	1	3	6
Believes multiple parties create choice	158,364	0.65	0.48	0	1	2	6
Believes citizens should join any CSO	136,414	0.65	0.48	0	1	3	6
Believes democracy is best system	151,482	0.74	0.44	0	1	2	6
Believes elections are good	160,260	0.84	0.37	0	1	2	6



Table A.2: Comparison of Chinese projects in full sample and our sample by sector

	N		Proportion	
	All	Sample	All	Sample
Action Relating to Debt	6	5	0.003	0.005
Agriculture, Forestry and Fishing	72	49	0.040	0.047
Banking and Financial Services	4	4	0.002	0.004
Business and Other Services	4	2	0.002	0.002
Communications	264	140	0.148	0.134
Education	161	117	0.091	0.112
Emergency Response	22	10	0.012	0.010
Energy Generation and Supply	139	51	0.078	0.049
Food Security Assistance	5	4	0.003	0.004
Government and Civil Society	174	131	0.098	0.125
Health	180	124	0.101	0.119
Industry, Mining, Construction	40	20	0.022	0.019
Other	105	53	0.059	0.051
Reproductive Health	13	12	0.007	0.011
Social Services	124	86	0.070	0.082
Support to NGOs	1	1	0.001	0.001
Trade and Tourism	24	20	0.013	0.019
Transport and Storage	358	158	0.201	0.151
Water Supply and Sanitation	79	55	0.044	0.053
Women in Development	7	4	0.002	0.004
Total	1,782	1,046	1	1

Table A.3: Comparison of US projects in full sample and our sample by sector

	N		Proportion	
	All	Sample	All	Sample
Agriculture, Forestry and Fishing	243	111	0.229	0.253
Bio-Diversity	11	2	0.010	0.005
Education	32	4	0.030	0.009
Emergency Response	19	1	0.018	0.002
Government and Civil Society	197	80	0.186	0.183
Health	488	205	0.460	0.468
Reproductive Health	57	31	0.054	0.071
Social Services	10	3	0.009	0.007
Women in Development	3	1	0.003	0.002
Total	1,060	438	1	1

Table A.4: Comparison of completed and planned Chinese projects by sector

	N		Proportion	
	Completed	Planned	Completed	Planned
Action Relating to Debt	5	2	0.008	0.002
Agriculture, Forestry and Fishing	33	32	0.053	0.038
Banking and Financial Services	2	3	0.003	0.004
Business and Other Services	2	2	0.003	0.002
Communications	63	126	0.102	0.151
Education	90	94	0.145	0.113
Emergency Response	5	7	0.008	0.008
Energy Generation and Supply	33	30	0.053	0.036
Food Security Assistance	4	2	0.006	0.002
Government and Civil Society	90	91	0.145	0.109
Health	90	97	0.145	0.116
Industry, Mining, Construction	7	19	0.011	0.023
Other	6	50	0.010	0.060
Reproductive Health	10	6	0.016	0.007
Social Services	54	69	0.087	0.083
Support to NGOs	0	1	0.000	0.001
Trade and Tourism	17	18	0.027	0.022
Transport and Storage	75	138	0.121	0.165
Water Supply and Sanitation	29	46	0.047	0.055
Women in Development	4	2	0.006	0.002
Total	619	835	1	1

Table A.5: Comparison of completed and planned US projects by sector

	N		Proportion	
	Completed	Planned	Completed	Planned
Agriculture, Forestry and Fishing	30	82	0.107	0.224
Bio-Diversity	2	2	0.007	0.005
Education	4	2	0.014	0.005
Emergency Response	1	0	0.004	0.000
Government and Civil Society	77	72	0.274	0.197
Health	133	200	0.473	0.546
Reproductive Health	31	5	0.110	0.014
Social Services	2	3	0.007	0.008
Women in Development	1	0	0.004	0.000
Total	281	366	1	1

Table A.6: Effects of Chinese and US aid on perceptions of China and the US, using 2009 as cut-off year

	Believes China is influential (index)	Believes Chinese presence is positive (index)	Believes Chinese model is most influential	Believes US model is most influential	Believes Chinese model is best	Believes US model is best
Near completed Chinese project	-0.04 (0.03)*	-0.08 (0.05)	0.01 (0.02)	0.01 (0.02)	-0.004 (0.02)	-0.02 (0.03)
Near planned Chinese project	0.02 (0.08)	0.11 (0.12)	0.003 (0.04)	-0.01 (0.04)	0.06 (0.04)	0.03 (0.05)
Near completed US project	0.02 (0.03)	0.11 (0.05)**	0.01 (0.02)	-0.07 (0.02)***	0.03 (0.02)	-0.05 (0.03)*
Near planned US project	0.33 (0.10)***	0.65 (0.07)***	-0.002 (0.02)	-0.09 (0.06)	0.05 (0.05)	-0.19 (0.06)***
China: Completed vs. planned $p$ -value	0.443	0.155	0.814	0.700	0.220	0.386
US: Completed vs. planned $p$ -value	0.003	0.000	0.537	0.796	0.701	0.029
Observations	5,083	4,773	6,530	6,530	6,528	6,528
Near completed Chinese project	0.002 (0.01)	-0.06 (0.02)**	0.02 (0.01)**	0.004 (0.01)	0.004 (0.01)	0.01 (0.01)
Near planned Chinese project	0.05 (0.03)*	0.19 (0.04)***	0.04 (0.02)*	-0.04 (0.02)***	0.09 (0.02)***	-0.04 (0.02)**
China: Completed vs. planned $p$ -value	0.147	0.000	0.389	0.021	0.000	0.031
Observations	31,473	29,103	38,496	38,496	38,492	38,492
Buffer	30km	30km	30km	30km	30km	30km
Cut-off year	2009	2009	2009	2009	2009	2009
Country FE	Y	Y	Y	Y	Y	Y
Round FE	N	N	N	N	N	N
Controls	Y	Y	Y	Y	Y	Y

Notes: Each panel reports coefficients from a separate OLS regression using data from round 6 of the Afrobarometer survey. Standard errors, clustered by community, are in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table A.7: Effects of Chinese and US aid on perceptions of China and the US, using 2008 as cut-off year

	Believes China is influential (index)	Believes Chinese presence is positive (index)	Believes Chinese model is most influential	Believes US model is most influential	Believes Chinese model is best	Believes US model is best
Near completed Chinese project	-0.04 (0.03)*	-0.08 (0.05)	0.01 (0.02)	0.01 (0.02)	-0.004 (0.02)	-0.02 (0.03)
Near planned Chinese project	0.02 (0.08)	0.11 (0.12)	0.003 (0.04)	-0.01 (0.04)	0.06 (0.04)	0.03 (0.05)
Near completed US project	0.02 (0.03)	0.11 (0.05)**	0.01 (0.02)	-0.07 (0.02)***	0.03 (0.02)	-0.05 (0.03)*
Near planned US project	0.33 (0.10)***	0.65 (0.07)***	-0.002 (0.02)	-0.09 (0.06)	0.05 (0.05)	-0.19 (0.06)***
China: Completed vs. planned $p$ -value	0.443	0.155	0.814	0.700	0.220	0.386
US: Completed vs. planned $p$ -value	0.003	0.000	0.537	0.796	0.701	0.029
Observations	5,083	4,773	6,530	6,530	6,528	6,528
Near completed Chinese project	0.002 (0.01)	-0.06 (0.02)**	0.02 (0.01)**	0.004 (0.01)	0.004 (0.01)	0.01 (0.01)
Near planned Chinese project	0.05 (0.03)*	0.18 (0.04)***	0.04 (0.02)*	-0.04 (0.02)***	0.09 (0.02)***	-0.04 (0.02)**
China: Completed vs. planned $p$ -value	0.157	0.000	0.392	0.020	0.000	0.030
Observations	31,481	29,111	38,504	38,504	38,500	38,500
Buffer	30km	30km	30km	30km	30km	30km
Cut-off year	2008	2008	2008	2008	2008	2008
Country FE	Y	Y	Y	Y	Y	Y
Round FE	N	N	N	N	N	N
Controls	Y	Y	Y	Y	Y	Y

Notes: Each panel reports coefficients from a separate OLS regression using data from round 6 of the Afrobarometer survey. Standard errors, clustered by community, are in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table A.8: Effects of Chinese and US aid on perceptions of China and the US, using round 4 only

	Believes China helps	Believes US helps
Near completed Chinese project	-0.10 (0.20)	-0.01 (0.25)
Near planned Chinese project	0.01 (0.08)	-0.06 (0.07)
Near completed US project	-0.08 (0.05)*	-0.08 (0.06)
Near planned US project	-0.05 (0.06)	-0.04 (0.06)
China: Completed vs. planned $p$ -value	0.548	0.849
US: Completed vs. planned $p$ -value	0.669	0.620
Observations	2,220	2,367
Near completed Chinese project	-0.02 (0.02)	0.05 (0.02)**
Near planned Chinese project	0.02 (0.02)	-0.04 (0.02)***
China: Completed vs. planned $p$ -value	0.216	0.005
Observations	13,901	14,159
Buffer	30km	30km
Cut-off year	N/A	N/A
Country FE	Y	Y
Round FE	N	N
Controls	Y	Y

*Notes:* Each panel reports coefficients from a separate OLS regression using data from round 4 of the Afrobarometer survey. Standard errors, clustered by community, are in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table A.9: Effects of Chinese aid on perceptions of China and the US, disaggregating by sector

	Believes China is influential (index)	Believes Chinese presence is positive (index)	Believes Chinese model is most influential	Believes US model is most influential	Believes Chinese model is best	Believes US model is best
Near completed Chinese infrastructure project	-0.02 (0.02)	-0.06 (0.03)**	0.02 (0.01)	0.02 (0.01)	0.01 (0.01)	0.01 (0.01)
Near planned Chinese infrastructure project	0.05 (0.03)	0.12 (0.06)**	0.03 (0.02)	-0.05 (0.02)**	0.08 (0.02)***	-0.04 (0.02)
Near completed Chinese other project	0.04 (0.02)**	-0.06 (0.04)	0.03 (0.01)**	-0.01 (0.01)	-0.01 (0.01)	0.01 (0.01)
Near planned Chinese other project	-0.03 (0.05)	0.17 (0.07)**	-0.03 (0.03)	-0.01 (0.02)	0.02 (0.03)	-0.02 (0.03)
Completed vs. planned infrastructure $p$ -value	0.089	0.004	0.544	0.005	0.006	0.093
Completed vs. planned other $p$ -value	0.220	0.007	0.077	0.823	0.300	0.291
Buffer	30km	30km	30km	30km	30km	30km
Cut-off year for planned projects	2010	2010	2010	2010	2010	2010
Observations	31,473	29,103	38,496	38,496	38,492	38,492
Country FE	Y	Y	Y	Y	Y	Y
Round FE	N	N	N	N	N	N
Individual-level controls	Y	Y	Y	Y	Y	Y
Community-level controls	Y	Y	Y	Y	Y	Y

*Notes:* Coefficients from OLS regressions. These analyses use data from round 6 of the Afrobarometer survey. Standard errors, clustered by community, are in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .