A Study on the Role of Human Rights in the Aid Allocations of China and the United States.

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Abstract

The study is motivated by a desire to investigate whether there is substance to claims that, relative to traditional donors, China disregards human rights considerations when allocating overseas aid. While the stated policy of the U.S. is that consideration of potential aid recipients' respect for human rights is mandatory, some quantitative studies have cast doubt on whether this is reflected in actual allocations. There is a lack of academic literature that formally assesses the extent to which the two countries' aid allocations differ; which is essential to test whether the criticisms of China's aid policy in comparison to that of the U.S. are justified. Using data on two standard human rights measures, 'Political Terror Scale' and 'Civil Liberties', the study analyse the two donors' aid allocations among 125 countries over the period 2000 to 2014. The bivariate analysis demonstrated that a significant share of China's aid flow to countries with poor human rights record. At the same time, U.S. seems little different in providing aid to these countries. The empirical results obtained from the Fractional Logit model also provided some support to the general pessimism regarding China's provision of aid to countries with poor human rights record, yet challenge the optimists expecting better targeted aid from U.S. These findings are consistent with the split between humanitarian and non-humanitarian aid and in the sample of countries whose human rights records are below some threshold level.

1. Introduction

Among scholars interested in the link between human rights considerations and aid allocation, a long-standing debate continues over the extent to which donors take into account recipient countries' respect for human rights in their aid allocation decisions (Alesina and Dollar, 2000; Neumayer, 2003; Nielsen, 2013). Some argue that donors prioritize economic considerations or political interest over human rights which makes it unlikely that they will systematically punish recipient countries for poor human rights record (Alesina and Dollar, 2000; Neumayer, 2003). Others find that donors use reduction/curtailment of aid as a sanction to punish countries Lebovic and Voeten, 2009; Nielsen, 2013). While much work has been done on the human rights-aid nexus in the context of traditional donors, as of yet only limited empirical investigation has been conducted for the aid allocations made by the largest new donor i.e., China.

The increase in China's aid in the last decade has been watched with much suspicion by the policy makers and academics in the field of international development. Lots of concerns have been raised regarding China's contemporary engagement with the recipient countries. For example, tying aid to natural resource extraction and disregarding governance in aid allocation (Tull, 2006; Woods, 2008). One dominant issue that continues to resurface in media reports and policy debate is that China is providing aid to countries with poor human-rights record (The Economist, 2008; Naim, 2007; Samy, 2010). Western officials and human rights organizations also express alarm at China's willingness to provide aid to countries with questionable human rights records (Hanson accessed 2010). China's non-interference policy that ignores human rights in Africa, particularly in countries like Sudan, Angola and Zimbabwe, has fuelled such criticisms (Tull, 2006; Taylor, 2009). Most of this criticism is drawn from informed assumptions and qualitative case-studies on an individual country basis

or examples from some specific aid agreements. The findings are therefore hard to generalize. Against such a background, the study aims to empirically investigate the legitimacy of mounting criticism on China's disregard of recipient countries' abuses of the human rights of their citizens when allocating aid. Our primary goal is to answer: Do recipient countries with a poor human rights record receive a higher share in China's aid? Most importantly, we will adopt a comparative approach to evaluate if the responsiveness of human rights in aid allocation decisions of China (accused of providing aid to countries with poor human rights record) differs from that of U.S. (where the role of human rights in aid allocation is mandated by law). We chose to focus on U.S. because 1) U.S. Foreign Assistance Act prohibits aid to any country which abuses the human rights of their citizens (Foreign Assistance Act of 1975, Section 116) and 2) the U.S. is the largest traditional donor, contributing more than 34% in the total aid spending by Development Assistance Committee (DAC) donors in 2017 to recipient countries worldwide (OECD, 2017).

This study moves beyond earlier research on China's aid allocation which has been limited to Africa. In what follows, we analyse 125 developing countries across world and offer a focused analysis on the relevance of human rights in China's aid allocation within Africa as well as rest of the World. Although we did show that Africa is clearly an outsider receiving highest share in both China's and U.S. aid. This work has been made feasible given the release of the most recent dataset on China's aid (Global China Data, version 1.1) by AidData in October 2017.

The few empirical studies on China's aid allocation have evaluated the role of human rights only in passing, since the focus was on other economic and political determinants of aid flows (see for example, Dreher, 2009). The measure of recipients' merit has been limited to corruption and democracy. In contrast, this study squarely places human rights considerations

in China's aid allocation as the focus of inquiry. For this purpose, we have selected two widely-cited standard indicators measuring the respect for human rights in a country, namely: Political Terror Scale, hereafter PTS; and Civil liberties, hereafter, CL. After carefully analysing the correlation between the two indicators in Section 3, we are reasonably confident that our indicators are actually capturing the human rights violations in a country. Additionally, I make in this study the novel contribution of comparing the human rights-foreign aid linkages between China and U.S—the largest new vs largest traditional donor.

The next section explains donors' motivation behind providing aid. This is followed by a discussion on the role of human rights in U.S. (Section 3) and China's aid (Section 4) allocation respectively. Section 5 presents an extensive overview of our human rights measures. Section 6 starts with presenting some stylized facts on China's and U.S. aid allocation across world. As a second step we present a bivariate analysis on the role of human rights in aid allocation. Section 7 explains the methodology. Empirical results are presented in Section 8 and Section 9 concludes.

2. Donors' Motivations Behind Aid Allocation

In line with the prior literature, the study will rely on rational choice theory to explain donor's motivations behind providing aid and the extent to which human rights considerations matter for aid allocation (Guillaumont, 2011; In'airat, M., 2014). Rational choice theory has long been a dominant paradigm in economics to understand and often formally model human behaviour. According to this theory, self-interested individuals make logical and prudent choices influenced by their preferences. These choices provide them with maximum expected utility, which is therefore known as the rational choice (Durlauf and Blume, 2008).

In the context of aid allocation, the literature suggests that a donor has certain rationale behind aid provision. The rationale relevant to aid allocation has been classified into: recipient's need, donor's self-interest and recipient's merit. Although the debate is often polarized into either of these rationales, research suggests that all of them are potentially valid. These rationales are discussed in detail as follows:

2.1. Recipient's Needs

The most obvious rationale for a foreign aid programme is, of course, the promotion of economic growth and development in the recipient countries. The rationale is grounded in the argument that donors are expected to be ethical in their decisions and that aid should be granted to the neediest countries (Radelet, 2006). This essentially originates from a feeling of individual responsibility for people living in poverty irrespective of the national boundaries. Therefore, according to the recipient need rationale, the amount of aid allocated to a recipient country should be in proportion to its need. Since recipient's economic need is a rather subjective concept, the literature indicates no obvious indicators or natural cut-off points. Primarily, authors have used income per capita as a proxy for recipient's economic needs (for example, Neumayer, 2003a). Income per capita is a convenient measure for regression analysis due to its relatively good coverage across a large number of recipient countries and over time. However, Nielsen (2010) (among others) have criticized this indicator by arguing that countries with similar levels of per capita income might have very different needs in health, education, infrastructure or humanitarian emergencies. Henceforth, studies have begun to incorporate more comprehensive indicators of poverty and human development i.e., the human development index, Physical Quality of Life Index (PQLI), literacy rate, mortality rate,

malnutrition, life expectancy, headcount index, and the people affected by disaster (see e.g. Collier and Dollar, 2002; Bigsten et al., 2011; Neumayer, 2003b; Tarp *et al*, 1999). Some of these studies (incorporating broader need indicators) found that in contrast to the recipient's need rationale, either recipient's needs are a secondary consideration of donors or at worst, recipient's needs may not matter at all.

2.2. Donor's Self-interest

The second rationale is donor's self-interest which focuses on the political and commercial motives of donors. It assumes that donors use aid as an instrument of foreign policy in pursuit of their own interest. Therefore, their aid allocation decisions might become self-strategic to receive some favour in return for providing aid. For example, support in international politics, to build foreign bases, to strengthen alliances, or to keep allied regimes in power (Dreher and Vreeland, 2009; Todaro and Smith, 2009; Hoeffler and Outram, 2011; Dreher et al., 2015). From this point of view, donors may use aid as a tool to further their commercial interests or to reward recipient countries pursuing favourable policies. Some of the commonly used indicators of political and commercial interests are UNGA voting pattern, military expenditures, size of armed forces, colonial ties and trade intensity between recipients and donors (Alesina and Dollar, 2000; Neumayer, 2003a; Younas, 2008). Many empirical studies have incorporated these variables representing donor self-interest and found that donor's interest is a significant determinant of aid allocation (for example, Alesina and Dollar, 2000; Berthe ́lmy & Tichit, 2002; 2009; Feeny & McGillivray, 2004; McGillvray, 2003; Fuchs and Vadlamannati, 2013).

2.3. Recipient's Merit

While the aid allocation literature shows that recipient's need as well as donor's self-interest influence the allocation of aid, in the 1990s the rationale of recipient's merit has had increased attention. Recipient merit is best understood as how the recipients perform with respect to improving their economic and political environment i.e., institutional quality, democratic governance, and the respect for human rights.

Recipients' merit rationale is grounded in the aid-effectiveness argument where donors prefer allocating aid to countries that can efficiently utilize it. According to this rationale, aid is only expected to reduce poverty, foster growth, and improve social conditions if it is given to countries with serious commitment to implementation and good policy environment (Boone, 1996; Burnside and Dollar, 1998, 2000, 2004). A number of studies have found evidence that the effectiveness of aid is dependent on the quality of governance, political regime and economic institutions of the recipient countries. For instance, Boone (1996) found that aid is more effective in liberal political regimes and democracies. Similarly, the publication of the World Bank report "Assessing Aid" in 1998 show that the effectiveness of foreign aid conditional on good policy environment and effective public institutions.[1] Later, Svensson (1999) also found show that aid effectiveness is conditional on the respect for political rights and civil liberties in recipient countries. Although some of these findings have been debated (Hansen and Tarp 2001; Easterly *et al.* 2004), the conclusion emerges that if donors want to maximize the aid effectiveness in terms of growth or poverty reduction, they should allocate aid as per the merit of the recipients.

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[1] International Bank for Reconstruction and Development, 1998. Assessing Aid: What works, what doesn't, and why. Oxford University Press.

2.3.1   Human Rights as a Criterion of Recipients' Merit

An important component of recipients' merit is considered to be the respect for human rights. The Universal Declaration of Human Rights suggest a corresponding duty of one government not to support another engaged in serious violations of internationally recognized human rights (United Nations General Assembly, 1948). Since aid flows are the main source of external finance in many developing countries, making aid allocation connected to human rights conditions has been perceived to be a powerful tool to improve the protection of human rights (Carey, 2007). President Jimmy Carter's Presidential Directive in 1978 established for the first time that "it shall be a major objective of U.S. foreign policy to promote the observance of human rights throughout the world." Nor was the United States alone; other developed countries also endorsed the promotion of human rights and democracy as important foreign policy goals in the 1980s (Forsythe 2000). Even countries like Japan— known for a narrowly self-interested approach to foreign affairs—began to talk about promoting human rights in the 1980s and then adopted an official government document in 1992 linking foreign aid to human rights and democracy in recipient countries (Yokota and Aoi 2000, 135). At least in their rhetoric, developed countries frequently tie foreign aid to the promotion of human rights.

3.   Role of Human Rights in U.S. Aid Allocation

In the 1970s, the U.S. was perhaps the leading donor which tied its aid allocation to respect for human rights. This commitment was backed up in Legislation passed in 1974 which has mandated that foreign aid should be directed to countries that respect their citizen's human rights stating that: "No assistance may be provided under this part to the government of any country which engages in a consistent pattern of gross violations of internationally recognized human rights . . . unless the aid is intended to help needy people" (Foreign Assistance Act, Section 116). It was further clarified that the violation of human rights comprises "torture, cruel

or inhuman treatment or punishment, prolonged detention without charges, causing the disappearance of persons by the abduction, or other flagrant denial of the right to life, liberty, and the security of person" (Foreign Assistance Act, Section 116).Thus, foreign aid ought to be directed to countries that respect human rights. As such the underlying intent of U.S. Congress was that U.S. foreign aid policy should reflect ethical and moral principles alongside making it clear to recipient countries that they are required to abide by international human rights standards. However, the "needy people" provision in the Foreign Assistance Act seems to allow decisionmakers a degree of leeway when allocating foreign aid. It allows for lawful digression from the human rights requirement in cases of extraordinary circumstances or when the aid will directly help needy people, for example, in the aftermath of humanitarian emergencies.

Since the implementation of the law, considerable empirical research has been conducted on the link between U.S. aid allocation and human rights considerations. Most of the early empirical studies demonstrated a simple correlation between aid flows and human rights and found that the efforts to link respect for human rights has been ineffective (Carleton and Stohl, 1985; Stohl, Carleton and Johnson, 1984). A few exceptions are Cingranelli and Pasquarello (1985) and Schoultz (1981) who found more positive effects.

Other studies raised extensive theoretical and methodological discussions. For example, Cingranelli and Pasquarello (1985) were the first researchers to investigate the role of human rights in the U.S. aid allocation with a fully specified multivariate model, employing a two-stage analytical framework. The popular study of Poe (1992) adopted this approach and argued that aid allocation is a two-stage process i.e., a) selection stage, which decides whether or not to provide aid to a country and b) allocation stage, which determines how much aid to provide

to the selected countries. They found that human rights practices were a significant determinant of selection stage for Latin American countries under Carter administration. Similarly, Apodaca & Stohl (1999) compared Carter, Reagan, and Bush administrations in their allocation decisions to 140 countries for the years 1976 to 1995. The authors found that allocations under Reagan, Bush, and Clinton were not much different than those under Carter (the categorical referent).

The most commonly used indicator of human rights used in U.S. aid allocation studies is PTS (see Section for details). Poe (1992) and Apodaca & Stohl (1999), among others, have used this indicator to measure human rights. Later, Poe and Sirirangsi (1994), incorporated Freedom House's scale of CL in addition to PTS. They found that countries with poor human rights record, because of their political and strategic attributes, are at times allocated substantially more economic aid than others. Abrams and Lewis (1993) used an uncommon human rights measure compiled by Charles Humana (1986). It consist of a country-level survey of forty questions regarding government adherence to protection of certain human rights (for details, see Bernt, 1991). Using this indicator, Abrams and Lewis (1993) found that respect for human rights played a positive and statistically significant role in determining aid allocations to 117 countries in 1989.

The findings of some of the above studies have been criticized for the use of aid per capita as the dependent variable. Uslaner (1976) had shown that the use of a per capita dependent variable is methodologically questionable, since the per capita transformation can lead to enormously high or low correlations and induce unwarranted statistical relationships between variables. Cingranelli and Pasquarello (1985) also emphasized that foreign aid decision makers conceptualize aid in in terms of gross dollar amounts allocated annually rather than per capita

terms. However, Abrams and Lewis (1993) and Apodaca & Stohl (1999) have used aid per as the dependent variable notwithstanding the methodological and theoretical limitations noted by Uslaner (1976) and Cingranelli and Pasquarello (1985).

In more recent years, a few studies have revisited the U.S. aid-human rights nexus. For example, Lai (2003) compared the influence of human rights considerations and security interests in the Cold War (1982-1990) and post-Cold War (1991-1996) eras using a Heckman (1979) selection model. His contribution was to create a variable measuring the evolving nature of security threats to the U.S. by identifying rogue states. Lai (2003) found that human rights— as measured by combining Freedom House political rights and CL index did not influence the initial yes/no selection decision to allocate aid in either the Cold War or post-Cold War era. However, the human rights measures achieve moderate-to-high statistical significance for various models of second-stage aid allocation decisions and suggested that countries with poor human rights record are likely to receive less aid than others. Later, Demirel-Pegg and Moskowitz in 2009 extended the analysis to more recent years from 1977 to 2004 and provided support to Lai's results.

Over all, majority of the empirical work focusing on the time period during Cold war until the early 2000s have yielded mixed results on the extent to which U.S. is truly committed to its foreign aid policy on human rights. However, more recent empirical studies suggested that U.S. decisionmakers take account of recipients' respect for human rights while making aid allocations. Our study adds to this debate by analysing how relevant U.S. human rights considerations remain in the last decade after the emergence of China' aid.

4. Role of Human Rights in China's Aid Allocation

The literature on China's aid allocation can be divided into two strands. The first is the early body of qualitative literature which is the origin of the prevailing beliefs and sentiments about China's aid today. This strand of literature criticizes China for disregarding merit as an aid allocation criterion. More specifically, it criticizes China's aid for being driven by selfish commercial and political motives and its support to undemocratic, corrupt and human rights abusing regimes (Tull, 2006; Mohan and Power, 2008; Woods, 2008; Vines et al., 2009). The below quotes by Osondu-Oti (2016) and Kampf (2007) sheds some light on the reputation of China's aid.

"...Of important note was China's support for the Sudanese government even in the face of human rights abuses; its unconditional aid to Angola, that has helped the government to shun accountability and transparency; its support for inhuman practices meted to the citizens of Zimbabwe by the government, among others."

(Osondu-Oti, 2016)

"For those states with poor human rights policies, China is easier to deal with than the United States and Europe"

Perhaps, the best-known criticism on China's aid was put forward in 2007 by Moisés Naím, former editor and chief of the journal Foreign Policy. He characterized China as a "rough donor". In his widely cited paper, Naím claimed that China provides aid to countries with records of significant human rights abuses in return for access to raw materials and that China's aid is unrelated to the needs in developing countries, but rather motivated by China's own national interest. He cited examples of African leaders engaging with China's aid while being condemned by the traditional donors.

China defends its approach stating it is based on a 'non-interference policy' i.e., willingness to provide aid "without Western lectures about governance and human rights" (Economist, 2010, para. 6). China's foreign aid policies stipulate that "there is no interference in the internal affairs

of the recipient countries. They fully respect the right to independently choose their own paths and models of development" (State Council, 2014). The non-interference approach has been criticized in the literature under the assumption that it has enabled China to maintain friendly relations with human rights abusing countries.

Angola is cited as a prominent example where China's aid provided it with an opportunity to escape the international pressure of strengthening its accountability. According to a report of Human Rights Watch, between 1997 and 2002, more than $4 billion worth of oil revenue has vanished from Angola's reserves.[2] In 2004 and 2005, IMF and other international donors pressurized Angolan government to strengthen transparency in its oil sector. However, the timely offer of a China's concessional loan of $2 billion allowed Angola to decline the good governance conditions tied with the loans from traditional donors (Human Rights Watch, 2004).

Another example cited by scholars is China's provision of aid to Sudan at the time when government-armed militias launched a genocide against non-Arab civilians in 2003 (Kampf, 2007, p.45). Despite the severity of the conflict, China negated the sanctions imposed by other traditional donors and provided aid to Sudan (Osondu-Oti, 2016, p. 63). Angola and Sudan are not the only countries where China's aid disregards human rights considerations. China has also provided aid to Robert Mugabe's autocratic government in Zimbabwe, which is to blame for the hyperinflation and his slum-demolition campaign in 2005 that left hundreds of

[2] Human Rights Watch, Some Transparency, No Accountability: The Use of Oil Revenue in Angola and Its Impact on Human Rights, January 2004, p. 1.

thousands of Zimbabwe's poor homeless. When the U.S. and E.U. imposed sanctions after Zimbabwe's 2002 elections, China stepped in, investing in over 100 aid projects.[3]

Most of these findings are typically evidences drawn from qualitative case-studies on an individual country basis or examples from some specific aid agreements. The findings are therefore hard to generalize. Dreher and Fuchs (2016), Amusa et al., (2016) and Dreher et al., (2018) made the initial empirical attempts to confront some of the claims about China's aid allocation practices. This marks the beginning of the second strand of literature which was mainly made possible due to the first public release of the most comprehensive data on China's aid in 2013 by AidData.

The second strand of literature provide quantitative evidence that most of the critique on China's aid seems unjustified. Dreher and Fuchs (2016) used the best data available at the time from a variety of data sources over the five chronological phases[4] of China's aid program between 1956 and 2006 on 132 recipient countries. Later, Amusa et al., (2016) and DFP (2018) used AidData to analyse China's aid to 30 African countries (over the period 1980-2012) and 50 African countries (over the period 2000-2013) respectively.

The central objective of the three empirical studies was to empirically examine the determinants of China's aid allocation. They commonly categorized the motivations for China's aid into recipient's merit and donor's self-interest. However, Dreher and Fuchs (2016) has mainly focused on donor's self-interest, while Dreher et al., (2018) analysed recipient's

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[3] Simon Roughneen, "Influence Anxiety: China's Role in Africa," International Relations and Security Network, May 15, 2006, http://www.isn. ethz.ch/news/sw/details_print.cfm?id=15837.

[4] First phase (1956–1969); second phase (1970–1978); third phase (1979–1989); fourth phase (1990–1995); fifth phase (1996–2006).

merit and donor's self-interest motivations separately for Official Development Assistance (ODA) and Other Official Flows (OOF)[5].

The three empirical studies incorporated different measures of recipients' merit as a determinant of China's aid allocation. For example, Dreher and Fuchs (2016) and DFP (2018) measured recipients' merit in terms of democracy. The authors expect this variable to be insignificant to China's aid flows based on its non-interference policy. Dreher et al., (2018) also included Control of Corruption (CC) index compiled by the World Bank in order to investigate whether or not China's aid has laxer attitudes towards corruption. In contrast, Amusa et al., (2016) used the political rights and CL index constructed by Freedom house to investigate the extent to which quality of governance matters in aid allocation.

As far as the empirical results are concerned, Amusa et al., (2016) finds that both donor motives and recipient needs are considerable factors determining China's (and U.S's) aid allocation to Africa. More importantly, recipient governance is found to be a significant determinant of China's aid allocation. This finding runs counter to the claims that China provides aid to poorly governed countries. On the other hand, Dreher et al., (2018) finds that China's ODA is mainly driven by recipient needs and by foreign policy considerations whereas the allocation of OOF is better explained by the commercial interests of China. Although the emphasis of the study was on investigating the surge of natural resources in China's aid, they also find that China acts in consistency with its principle of non-inference as they find no evidence that ODA is determined by recipient's merit measured in terms of control of corruption and democracy.

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[5] ODA comprise of grants or loans undertaken by the official sector with the aim of promoting welfare and development and has a concessional grant element of 25% or more. OOF comprise of export financing and other commercial activities that promote the donor countries economic interests; or developmental loans that are not concessional enough to be considered as ODA.

The above findings provided some clarity on the -rogue donor- image of China, however, the criticism related to China's support to countries with poor human rights record is still unclear. In order to investigate the validity of this criticism, this study squarely places human rights considerations in China's aid allocation as the focus of inquiry. Moreover, we will address the criticism on China's aid both within and outside Africa. The next section provides a detailed explanation of our human rights measures.

5. Operationalizing the Respect for Human Rights

Human rights refer to a rather broad spectrum of values, therefore, it is imperative that we fully explain our human rights measure at the outset. The notion of human rights extends to a variety of social, economic, and political rights, regardless of race, sex, nationality, religion, or any other status (United Nations, 2018). The aid allocation literature, however, focuses mainly on first-generation human rights which deal essentially with liberty and participation in political life and are fundamentally civil and political in nature. The literature deliberately excludes the second-generation human rights which are fundamentally economic, social and cultural in nature. The reason for this exclusion is that governments can be better held responsible for violations of first-generation rights, while the respect for the latter rights can be partly or wholly outside the reach of governmental action. Therefore, it is difficult to distinguish whether low achievement of second-generation rights is a consequence of neglect or vicious governmental activity or the consequence of underdevelopment and poverty. In the latter case, such countries should be allocated more rather than less aid (Findley, et al. 2010).

Consistent with this understanding, some measures have been developed in the past to compare the respect of human rights across countries. The study uses three commonly used proxy variables to measure respect for human rights in a country. These are 1) Political Terror Scale (PTS); 2) Physical Integrity Rights (PIR) and; 3) Civil Liberties (CL). All of these measures

are standards-based measures that construct a set of human right criteria for different levels and then use these criteria to rate governments' human rights practices (Callaway and Matthews 2008). Table 1 summarizes the three measures of human rights by listing their indicators, data sources and scale of measurement.

Table 1: Summary of Human Rights Measures

	Political Terror Scale (PTS)	Physical Integrity Rights Index (PIR)	Civil Liberties (CL)
Indicators			
Disappearance	✓	✓	
Torture	✓	✓	✓
Extrajudicial Killing	✓	✓	
Political Imprisonment	✓	✓	✓
Freedom of Expression			✓
Freedom of Assembly and Association			✓
Freedom of Education			✓
Freedom of Religion			✓
Freedom of movement and residence			✓
Free trade unions			✓
Equality of rights without discrimination			✓
Hearing before an independent and impartial judiciary			✓
Protection of privacy, family, and home			✓
Data Source	The PTS project	CIRI Human Rights Data Project	Freedom House
Scale	1 to 5 (low to high respect for human rights)	0 to 8 (low to high respect for human rights)	1 to 7 (low to high respect for human rights)

Description of the three human rights measures is as follows:

- **Political Terror Scale**

PTS is a commonly used indicator of human rights in the aid allocation literature. It is based upon the indicators of torture, extrajudicial killing, political imprisonment, and disappearance. These violations of physical integrity are among the most heinous violations of human rights and there is no justification whatsoever of such brutal governmental activity. PTS is not

synonymous with terrorism but, rather it is named because governments that employ or tolerate such activities are guilty of political terrorism (Scale, 2011). Specifically, PTS captures the extent to which individuals within the recipient country have their physical body violated by the state itself. It is measured on an ordinal scale ranging from 1 (worst or highest political terror best) to 5 (best or lowest political terror)[6]. PTS is based on a codification of country information from two sources i.e., Amnesty International and the U.S. State Department Country Reports on Human Rights Practices. Following Poe et al., (2001), we average these to comprise an index of political terror. An advantage of this approach is that it corrects the often biased reports of the State Department with the ideologically and politically neutral Amnesty International reports (Poe et al., 2001).

The annual publications on human rights conditions published by Amnesty International and the U.S. State Department contain a large number of separate reports on human rights practices across countries. PTS treats these constituent reports as the units of observation and code a separate score for each constituent report each year. The scores are assigned in accordance with "the prevalence of political imprisonment, disappearances, torture, political murder, and other forms of politically motivated violence within a country" (Scale, 2011). Neumayer (2003) has used PTS as an indicator of human rights for analysing aid allocation. He emphasized that PTS scales have "a clear focus on what constitutes the very core of human rights" (Neumayer, 2003). Table 2 provides an interpretation of the scoring criteria of PTS.

[6] We reverse this order for ease of comparison across measures so that our human rights measure runs from minimal respect at lower values to greater respect at higher values.

Table 2: Codification of PTS

	Political Terror Scale
1	Terror has expanded to the whole population. The leaders of these societies place no limits on the means or thoroughness with which they pursue personal or ideological goals.
2	Civil and political rights violations have expanded to large numbers of the population. Murders, dis-appearances, and torture are a common part of life. In spite of its generality, on this level terror affects those who in-terest themselves in politics or ideas.
3	There is extensive political imprisonment, or a recent history of such imprisonment. Execution or other political murders and brutality may be common. Un-limited detention, with or without a trial, for political views is accepted.
4	There is a limited amount of imprisonment for nonviolent political activity. However, few persons are affected, torture and beatings are exceptional. Political murder is rare.
5	Countries under a secure rule of law, people are not imprisoned for their views, and torture is rare or exceptional. Political murders are extremely rare.

- **Physical Integrity Rights Index**

Additionally, the study uses CIRI's Physical Integrity Rights, hereafter PIR, as an alternate measure of physical integrity rights. The measure ranges from 0 (worst level of human rights) to 8 (best human rights).[7] CIRI's PIR and PTS are based on the same source material and they largely measure the same violations i.e., execution, torture, forced disappearance, and political imprisonment. However, they mainly vary in terms of their coding rules and compilation. For example, Goderis and Versteeg (2012) highlighted that physical integrity index codes only violations against citizens and excludes all violations conducted beyond a nation's internationally recognized borders or directed against foreign nationals. By contrast, the political terror scale does not exclusively focus on citizens and also takes into account human rights incidents abroad, such as those at Guantanamo Bay detention camp and Abu Ghraib (Goderis and Versteeg, 2012, pp. 139). Note that both the PTS and physical integrity index capture only state violence and exclude all instances of human rights abuse by private actors. One limitation of using Physical Integrity Rights is that the data on this measure is available only until 2011.

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[7] Full details on its construction can be found in: David L. Cingranelli and David L. Richards. 1999. "Measuring the Level, Pattern, and Sequence of Government Respect for Physical Integrity Rights." International Studies Quarterly, Vol 43.2: 407-18.

- **Civil Liberties**

Lastly, the study uses Freedom House (2000) data for measuring the extent of a government's respect for civil liberties within a country. CL is based on surveys among experts assessing the extent to which a country effectively respects civil liberties i.e., freedom of assembly, the right to open and free discussion, independence of media, freedom of religious expression, protection from political terror, the prevalence of the rule of law, security of property rights and the freedom to undertake business, and freedom to choose marriage partners and the size of family. It is measured on a scale of 1 (countries with the lowest level of freedom) to 7 (countries with the highest level of freedom).[8] Neumayer (2005) highlighted that civil liberties index has some overlap with physical integrity rights under the rule-of-law subcomponent of the index: "Is there protection from police terror, unjustified imprisonment, exile, or torture, whether by groups that support or oppose the system?" However, all other criteria of this index are closely related to civil liberties, therefore, it is primarily a measure of civil rights, not of personal integrity rights. Table 3 provides codification criteria of CL.

Table 3: Codification of CL

	Civil Liberties
1	Countries having few or no civil liberties. They allow virtually no freedom of expression or association, do not protect the rights of detainees and prisoners, and control most economic activity.
2	Countries have very restricted civil liberties. They strongly limit the rights of expression and association and frequently hold political prisoners. They may allow a few civil liberties i.e., some religious and social freedoms, some highly restricted private business activity, and some open and free private discussion.
3-5	Countries with a rating of 3, 4, or 5 include those that moderately protect almost all civil liberties to those that more strongly protect some civil liberties while less strongly protecting others. The same factors that undermine freedom in countries with a rating of 2 may also weaken civil liberties in those with a rating of 3, 4, or 5, but to an increasingly greater extent at each successive rating.
6	Countries have slightly weaker civil liberties because of some factors i.e., limits on media independence, restrictions on trade union activities, and discrimination against minority groups and women.
7	Countries enjoy a wide range of civil liberties, including freedom of expression, assembly, association, education, and religion. They have an established and generally fair system of the rule of law, allow free economic activity, and tend to strive for equality of opportunity for everyone, including women and minority groups.

[8] We reverse this order for ease of comparison across measures so that our human rights measure runs from minimal respect at lower values to greater respect at higher values.

5.1. Overview of Human Rights Measures

Now that we have defined our human rights measures, this section presents an overview of some stylized facts on the three measures. We begin by looking at the data for 125 aid-recipient countries on their human rights ranking. Figure 1 plots the total number of countries on each score of the individual human rights measures on vertical axis. Note that the scales are different but the number of countries are the same. The human rights scores have been averaged over the 12-year period from 2000 to 2011 (due to the last datapoint on PIR). The red vertical line at the back of density plot represents median values i.e., 3.5 for PTS; 4.5 for PIR and 4.3 for CL. We will use these values later in our analysis to identify the set of countries with low/high respect for human rights. The shape of the density plots for PTS and PIR looks rather similar, but with a slight left shift and lower peak in the case of PTS. The similarity is obvious because they capture the same violations of physical integrity rights. Most of the countries score within the range of 3 to 4 on PTS scale; and between 3 to 6 on PIR scale. Whereas, the shape of density plot for CL is clearly different from the rest. This was expected as CL captures fundamental violations of civil liberties which overlaps only slightly with physical integrity rights.

Figure 1: Distribution of Countries on Human Rights Measures (World, 2000-2011)
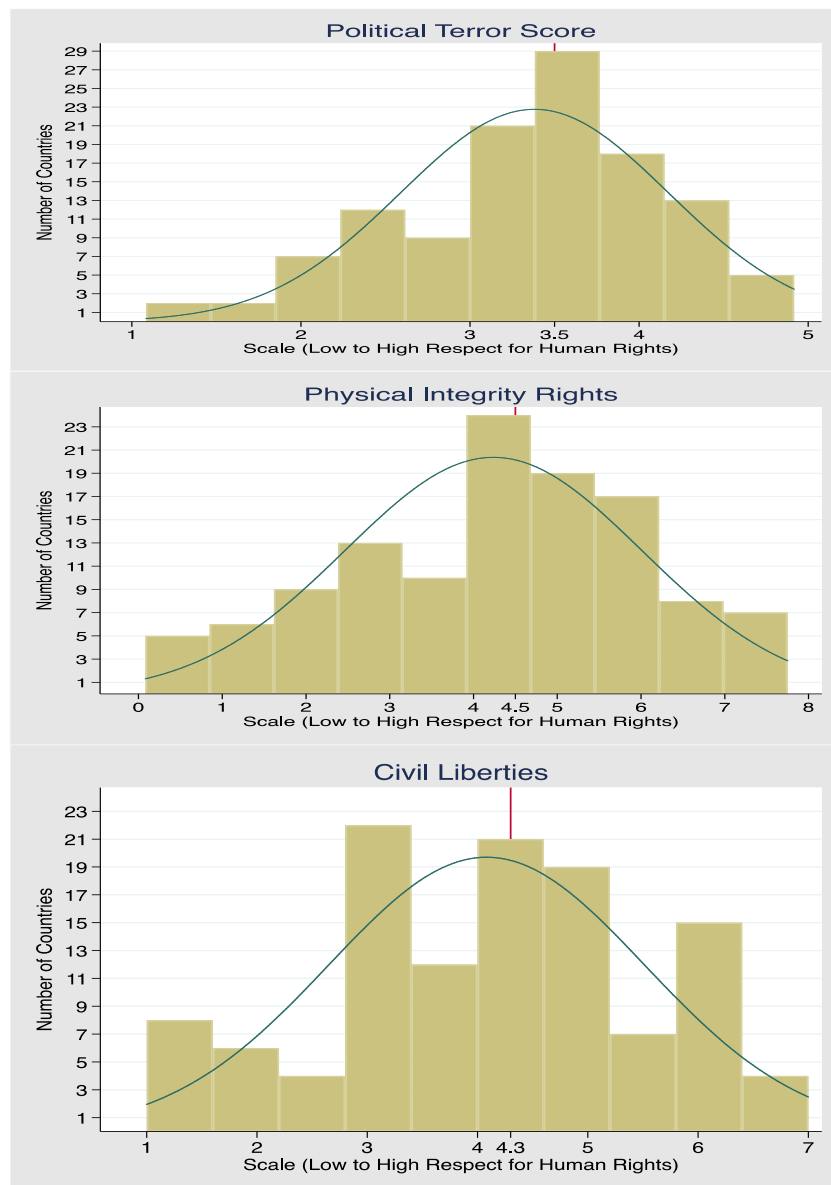
As a next step, we analysed the correlations between the three human rights measures. Specifically, we wanted to evaluate the degree of correlation between PTS and PIR which are the alternate measures of physical integrity rights. For this purpose, Figure 2 shows bivariate correlations between the two measures by plotting PTS on the vertical axis and PIR on the horizontal axis. The data comprise of 125 aid-recipient countries across world. Each hollow bubble represents a country's score on the two human rights measures. Horizontal and vertical lines represent the median scores of two indicators. The second (top right) quadrant includes

all the countries scoring above median across the two scales i.e., countries with high respect for human rights. In contrast, the third (bottom left) quadrant includes countries with low respect for human rights across the two measures. As expected, the two measures turned out to be highly correlated with each other, providing further evidence that they indeed measure the same human rights violations with minor differences in their coding rules. At this point, we decided to safely proceed with PTS as it has the most recently updated data.

Figure 2: Correlations between Political Terror Scale and Physical Integrity Rights, 125 Countries (2000-2011)
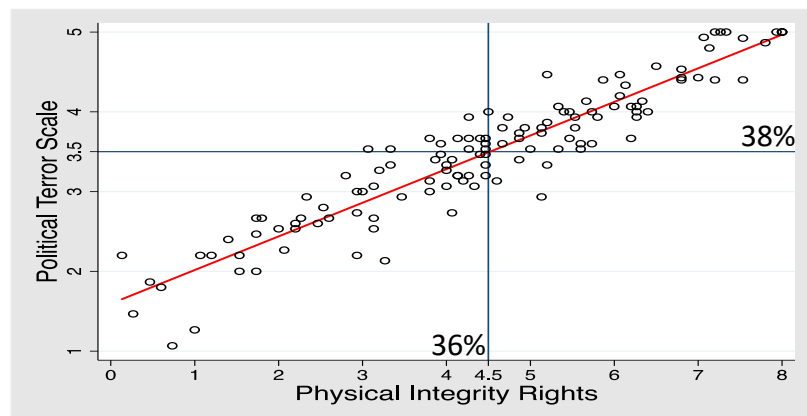
Data Source: The Political Terror Scale, CIRI Human Rights Data Project.

Figure 3 repeats the same exercise as Figure 2 but swapped the horizontal axis with CL. As discussed above, the two scales measure quite distinct aspects of a country's human rights record. This is indicated by the relatively modest correlation between them. There are some countries in the first and fourth quadrant which are above/below median on either scales. We are mainly interested in the bottom left quadrant in order to identify the set of countries with low respect for human rights on both scales. Within the 125 aid-recipient countries across world, we find an almost equal proportion of countries above and below median i.e., 38% and 34% respectively.

**Figure 3: Correlations between Political Terror Scale and Civil Liberties, 125 Countries (2000-2011)**
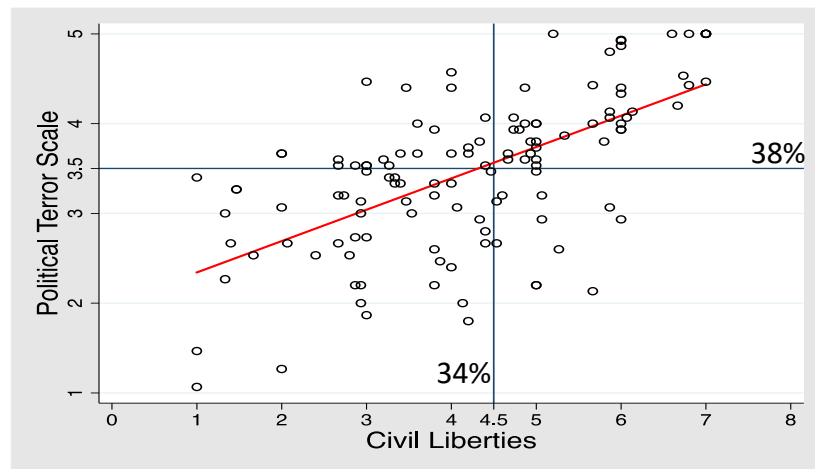
Data Source: The Political Terror Scale, Freedom House

As a robustness check, we also included countries with low respect for human rights on PIR in figure 4 by separating them with a purple colour. The idea was to identify the countries scoring below median on all three measures, ruling out the possibility of any coding bias. As we can see from the bottom left quadrant, if a country's score is below median on PTS and CL, it is also scoring below median on PIR. It verifies that our choice of PTS over PIR is safe and if a country is scoring below median on one of the indicator, it is scoring below median on the other two indicators as well. Figure 4 thus strengthens our confidence in the human right measures to be used in the empirical analysis. Since we will be employing the two measures together in our empirical model, we can be reasonably confident that our key explanatory variables are actually picking up the respect for human rights across countries.

Figure 4: Countries with Low Respect for Human Rights on PTS, CL and PIR, 125 Countries (2000-2011)
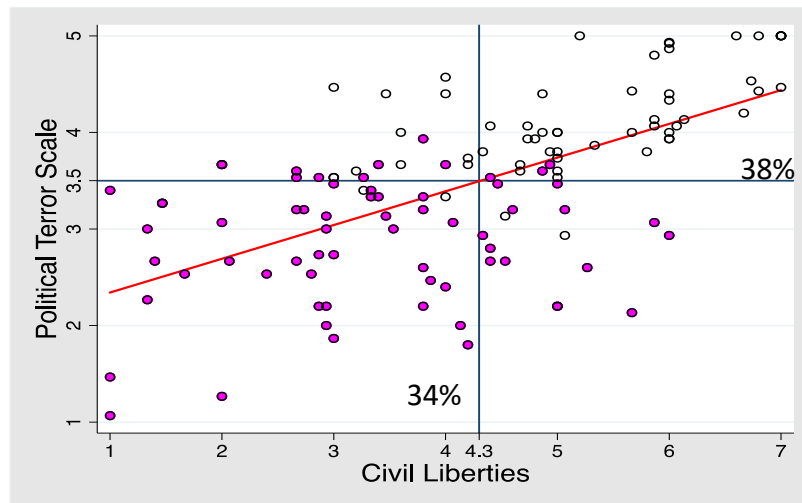
Data Source: The Political Terror Scale, CIRI Human Rights Data Project, Freedom House.

As most of the criticism on China's aid is focused towards Africa, we specifically wanted to look at the human rights record of African countries. Figure 5 thus drops all other countries except for Africa reducing the sample to 52 recipient countries in Africa. We can see that the human rights record of African countries is not reflective of the world as it has disproportionately large number of countries which are below median across the three measures i.e., 48% of the African countries are concentrated in the bottom left quadrant, signifying that half of the African countries have low respect for human rights. Whereas, only 28% of African countries lie in the top right quadrant representing countries with high respect for human rights. The regression analysis in Section 8 will therefore focus more on Africa.

Figure 5: Countries with Low Respect for Human Rights on PTS, CL and PIR, 50 African Countries (2000-2014)
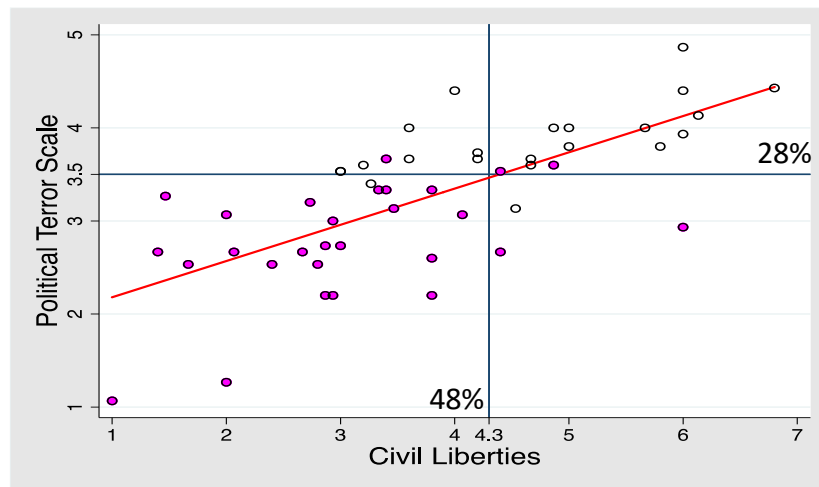
Data Source: The Political Terror Scale, CIRI Human Rights Data Project, Freedom House.

6. Bivariate Analysis of Human Rights and Aid Allocation

We now start investigating the validity of the assertion that China provides too much aid to human rights abusing countries than the U.S. We will first look at the context by comparing the overall trend and the regional distribution of China's and U.S. aid flows to 125 recipient countries across world from 2000 to 2014. It will be followed by analyzing the bivariate correlation between human rights measures and total aid allocations of China and U.S. over the 15-year period. Finally, we will split the bivariate analysis into humanitarian and non-humanitarian aid in order to take account of humanitarian emergencies influencing aid allocation decisions.

The data on China's aid has been taken from 'Global Coverage of Chinese Aid' published by AidData (a research lab at the College of William and Mary) and that of U.S. aid has been

taken from OECD database. Our definition of aid includes both ODA and OOF. Figures are reported in constant 2011 USD by using the DAC deflator.[9]

Figure 6 shows the time-series trend of China's and U.S. aid flows. In the initial years, China's total aid volume is always smaller than that of U.S. Specifically, China disbursed around 2 billion USD in the year 2000, whereas the aid budget of U.S. stood at 10 billion USD. During the first 5-year period, China gradually started to expand its aid spending. After a slow start, China's aid steadily increased and we can see that China quickly surpassed U.S. aid volumes after 2005. China's aid volume stayed over 10 billion USD in the middle period and reached its peak in the year 2009 at around 70 billion USD. This was the period when China Development Bank (CDB) offer long term loans to national energy companies and government entities in Russia, Turkmenistan, Ecuador and Venezuela (Downs, 2011). CDB has lent Russian oil companies alone 35 billion USD in return for future oil supplies at a time when no other traditional donor was willing to provide such long-term loans (Downs, 2011). China's aid spending thereby declined after 2009, however, it continued to give more aid than U.S. over the last 5-year period, ranging between 30 to 45 billion USD per year. Whereas, U.S aid was consistently below 20 billion USD throughout this period.

[9] DAC deflators removes the effect of both inflation and exchange rate changes on nominal figures.

Figure 6: Trend of China's and U.S. Total Aid (World, 2000-2014)
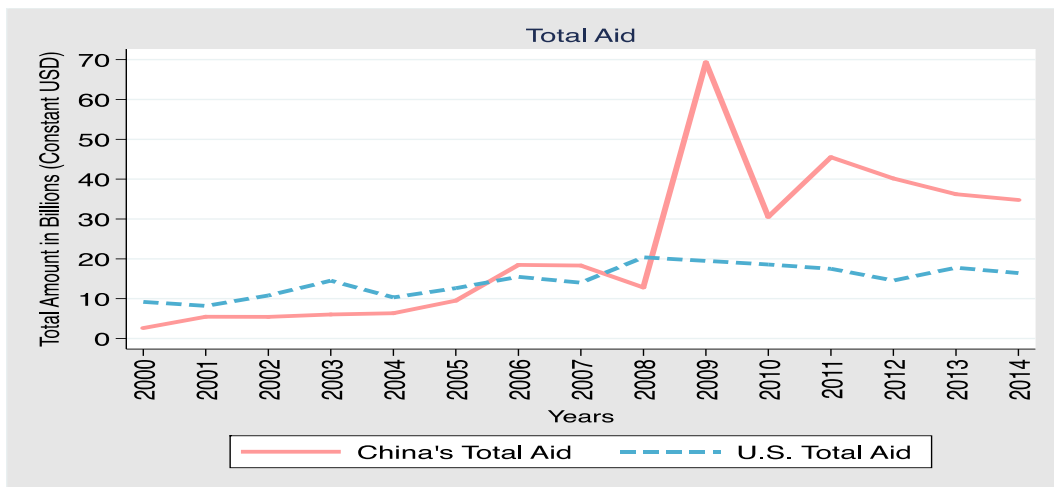
Data Source: AidData, OECD

Now if we look at the regional distribution of China's and U.S. aid in Figure 7 and 8 respectively, we can instantly see that Africa is the largest recipient of aid from both donors. Africa accounts for 42% of China's aid volume and 46% of U.S. aid volume. It reflects that both the donors have dedicated greater attention to the region. Middle East and South Asia and East Asia and Pacific are receiving an equal, second highest share in China's aid. Middle East and South Asia is also the second region most benefited by U.S. aid. Overall, the two figures show that both China's and U.S. aid has a special focus on Africa; nevertheless, they maintain a global outlook, providing aid to all regions.

Figure 7: Regional Distribution of China's Aid (World, 2000-2014)

Africa 42% · East Asia & Pacific 18% · Europe & Central Asia 12% · Latin America & Caribbean 10% · Middle East & South Asia 18%

Legend: Africa · East Asia & Pacific · Europe & Central Asia · Latin America & Caribbean · Middle East & South Asia
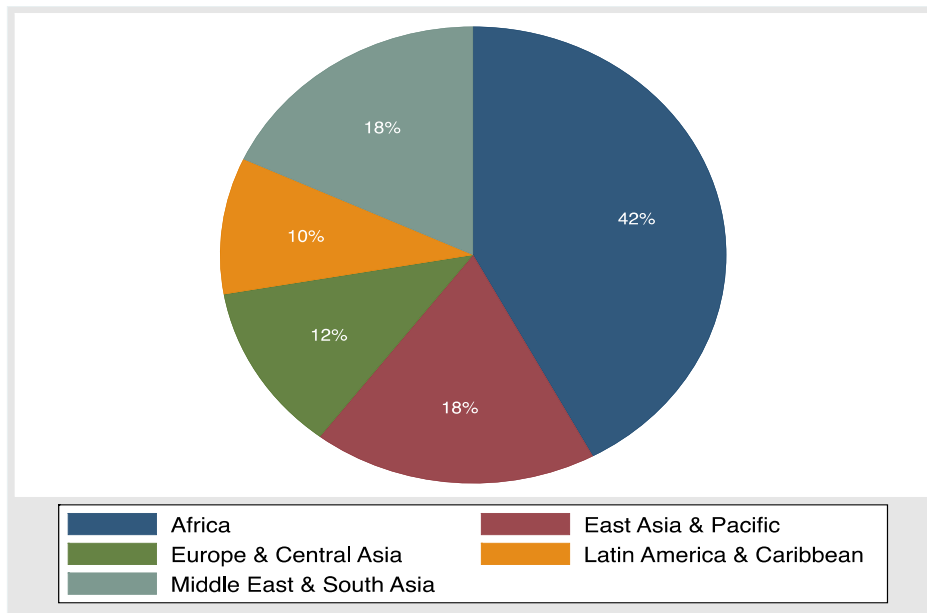
Data Source: AidData, OECD

Figure 8: Regional Distribution of U.S. Aid (World, 2000-2014)

Africa 46% · East Asia & Pacific 8% · Europe & Central Asia 10% · Latin America & Caribbean 17% · Middle East & South Asia 20%

Legend: Africa · East Asia & Pacific · Europe & Central Asia · Latin America & Caribbean · Middle East & South Asia
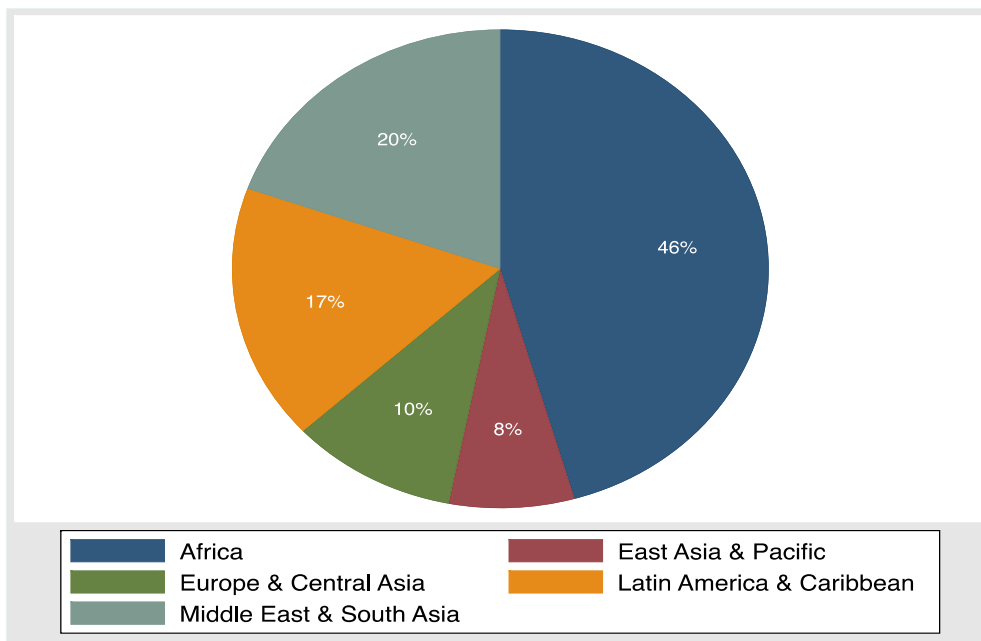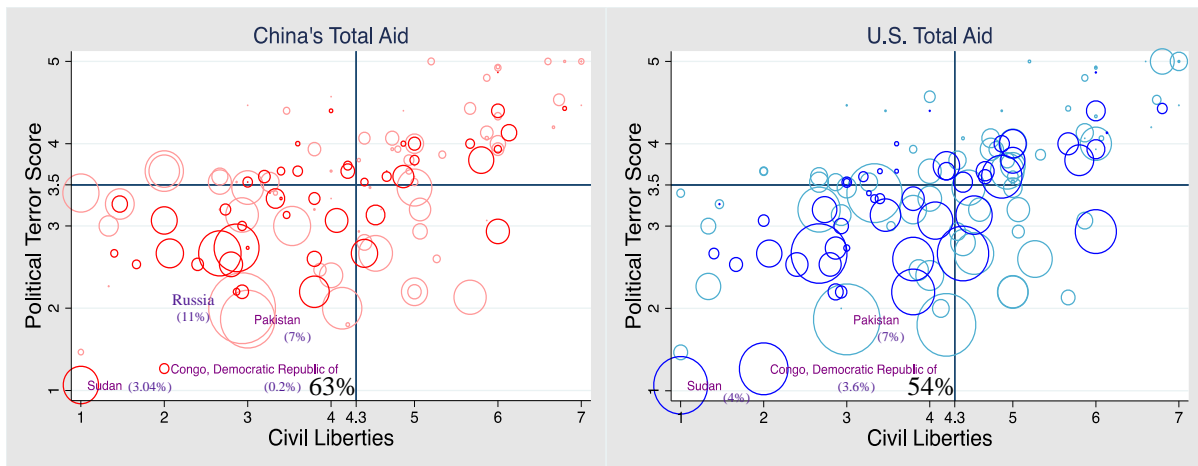
Data Source: AidData, OECD

Next, in Figure 9 we look at a bird's eye view of correlation between human rights and aid allocation decisions of China and U.S. over the 15-year period. The horizontal and vertical axis show PTS and CL respectively. Each bubble represents a recipient country and its position reflects a country's score on each of the two human rights measures. The horizontal and vertical lines indicate the median score of each measure.[10] The lower the score, the lower the respect of human rights in a country. The size of the bubble represents the total share in China's and U.S. aid received by a country over the 15-year period. The left panel with red bubbles represent share in China's aid and the right panel with blue bubbles represent share in U.S. aid. We use shares to compare the relative importance of human rights considerations in China's and U.S. aid allocation across recipient countries. The larger the size of the bubble, the higher the aid share. The darker shade bubbles are African countries and the lighter ones reflects rest of the world. We are interested in assessing China's and U.S. aid allocation to poorly ranked countries in the bottom left quadrant which are below median across both human rights measures.

Starting from the left panel for China, most of the big bubbles are found in the bottom left quadrant. On the face of it, this finding is not surprising and provides support for criticism on China's aid policy that countries with a low respect for human rights receive a large share in China's aid. In particular, Sudan, the country with the lowest respect for human rights across both scales, received a 3% share in China's aid. Russia and Pakistan are two non-African countries with low respect for human rights that received relatively high shares in China's aid i.e., 11% and 7% respectively. The total share of China's aid going to the countries in the bottom left quadrant equals 63%. What is more surprising is that when we turn to the U.S. data, depicted in the right panel, it looks no different than China with many big bubbles lying in the

[10] Note that human right scores have been averaged over the 15-year period.

bottom left quadrant. Notice that Sudan received an even greater share in U.S. aid (4%). Other big recipients with low respect for human rights are Pakistan (7%), Ethiopia (5%), and Democratic Republic of Congo (4%). The total of U.S. aid received by countries in the bottom left equal 54% which is only slightly below the 63% figure for China. To sum up, in contrast to popular rhetoric, we do not find big differences on the role of human rights in the aid allocation decisions of China and U.S. In fact, the shares of aid going to countries with poor human rights records are quite similar.

Figure 9: Share of Recipient Countries in China's and U.S. Total Aid (World, 2000-2014)

Notes: The size of the bubble represents the proportion of aid received by a country. The bubbles with darker color represents African countries. Data Source: U.S. Department of States, Freedom House, AidData, OECD.

However, it is worth looking at the data in more detail. These findings alone are not sufficient to criticize either donors of giving more aid to countries with low respect for human rights. A key point is that aid flows may be directed towards addressing humanitarian emergencies. So, it is important to see if countries in recipient of large aid flows are mainly receiving humanitarian aid.

In order to investigate the extent to which humanitarian emergencies influence aid allocation we disaggregate total aid into humanitarian and non-humanitarian aid. Humanitarian aid will

generally disregard human rights and be focused purely on recipients' needs. Denying some

kinds of aid on the basis of poor human rights record seems justified, but denying some of the

crucial aid given in the aftermath of natural disasters seems cruel. The OECD classifies

humanitarian aid as the funds or commodities which are geared towards satisfying the most

basically human and immediate needs. This form of aid is mainly used for emergency response,

food aid, reconstruction relief and rehabilitation, disaster prevention and preparedness (OECD,

2011). The rest of the total aid has been grouped together as non-humanitarian aid.

Figure 10 compares time series of China's humanitarian/non-humanitarian aid shares with that

U.S. for 15 years from 2000 to 2014. It's apparent that a very small proportion of China's total

aid is classified as humanitarian aid. Whereas, the U.S. humanitarian aid ranges from 20% to

30% of total, and the rest is classified as non-humanitarian aid.

Figure 10: China's and U.S. Humanitarian and Non-Humanitarian Aid Shares

(World, 2000-2014)
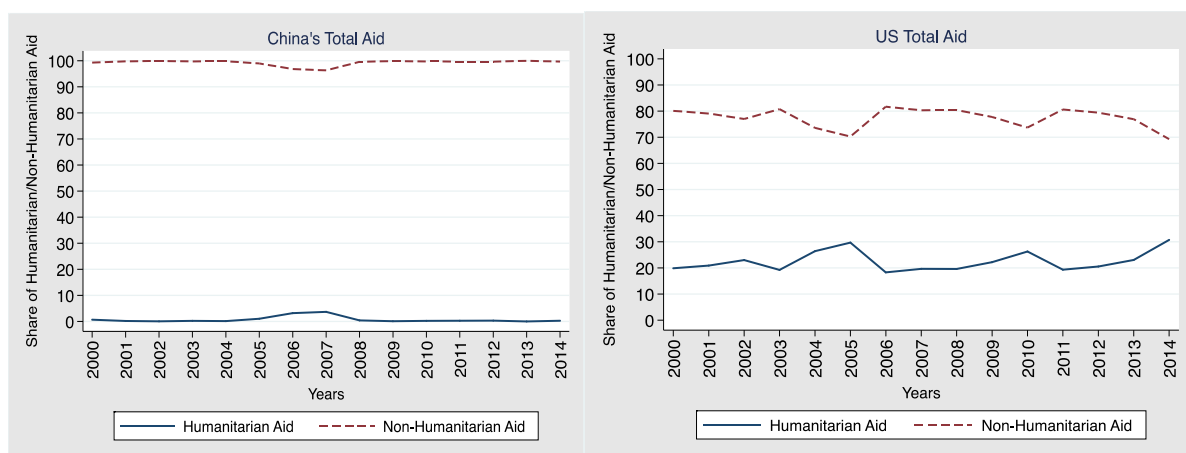
Data Source: AidData, OECD.

If we now redrew Figure 9 showing only the part of total aid that is classified as humanitarian,

a different picture emerges. For instance, very little humanitarian aid is given by China which

is reflected in the smaller circles. But if we add up the total share of U.S. aid that is classified

as humanitarian, we see that 16% of total U.S. aid is directed towards the humanitarian sector to countries with low respect for human rights. A first glance at the figure suggests that countries with low respect for human rights are mainly receiving humanitarian aid from the U.S. Specifically, Pakistan is receiving 1.38% of U.S. humanitarian aid, whereas, Sudan is receiving 3.3%. As we can now see that U.S. is mainly giving humanitarian aid to Sudan, the higher share of Sudan in U.S. total aid seems justifiable despite of its poor human rights record.

Figure 11: Share of Humanitarian Aid in China's and U.S. Total Aid
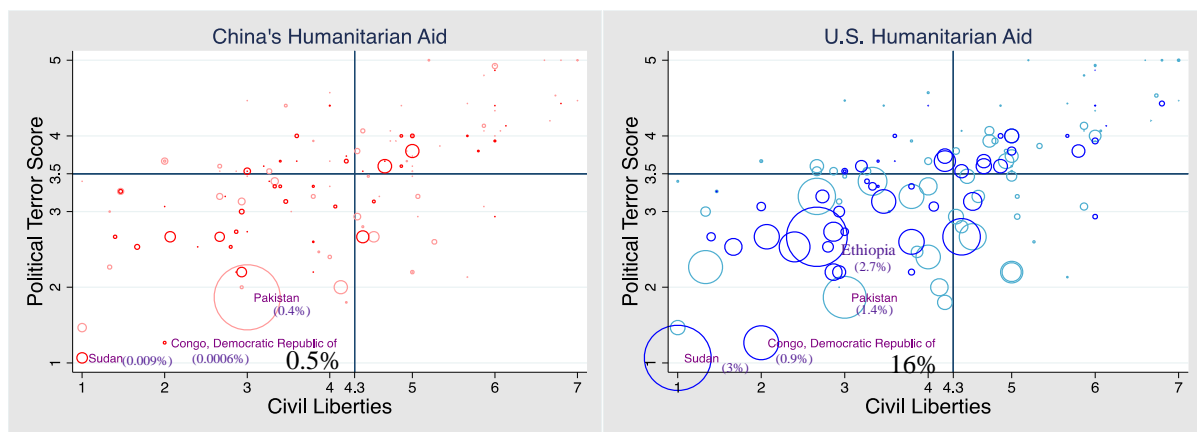
(World, 2000-2014)

Notes: The size of the bubble represents the proportion of aid received by a country. The bubbles with darker color represents African countries. Data Source: U.S. Department of States, Freedom House, AidData, OECD.

Note that in the initial comparison based on Figure 9, there was little difference between China's 61% and U.S. 54% of total aid given to countries in the bottom left quadrant. However, Figure 11 shows that 16% out of U.S. 54% is classified as humanitarian aid and for China, it is only 0.5%. A truer comparison of any bias in aid flows to countries with a poor human rights record should thus be based on non-humanitarian aid. This is shown in Figure 12 and while the U.S. still does send a substantial proportion of its non-humanitarian aid to countries in the bottom left quadrant, the comparison is now between China's 62.5% and the U.S. 38% (as opposed to 63% and 54%). This adds some weight to the critique of China's aid policy but still does not leave the U.S. blameless.

Figure 12: Share of Recipient Countries in China's and U.S. Non-Humanitarian Aid

(World, 2000-2014)
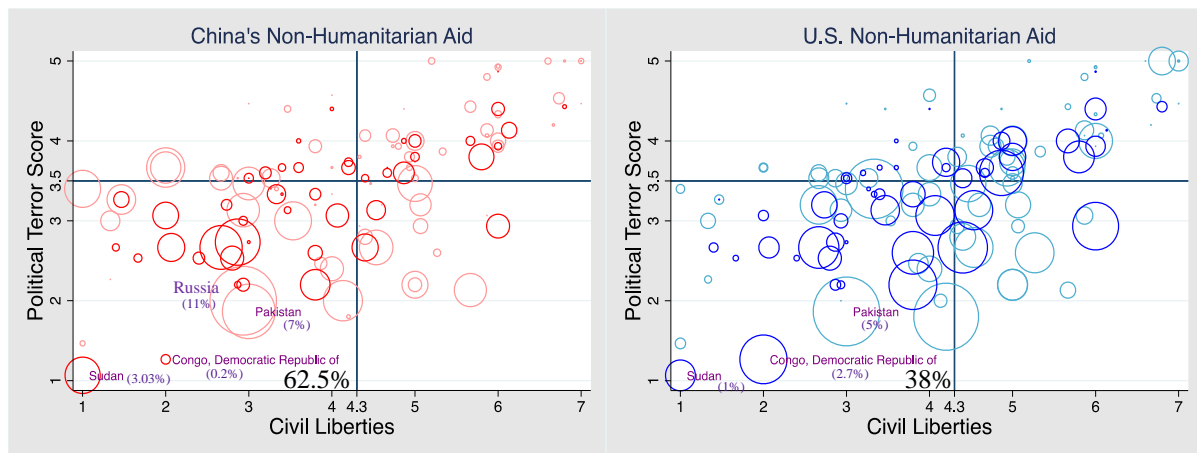
Notes: The size of the bubble represents the proportion of aid received by a country. The bubbles with darker color represents African countries. Data Source: U.S. Department of States, Freedom House, AidData, OECD.

To sum up, through bivariate analysis of aid flows and human rights measures, we have demonstrated that differences in the patterns of China's and U.S. aid allocations have been exaggerated. We have found some evidence in support of claims made against China's aid going to countries with a poor human rights record. However, U.S. seems little different in providing aid to these countries. Although we have also shown that this picture changes somewhat once we separate humanitarian and non-humanitarian aid. At least part of U.S. aid allocation seems justifiable from the finding that its aid to countries with a poor human rights record aims to help them deal with humanitarian crises. Whereas, China's aid to these countries is dominated by non-humanitarian aid. Nevertheless, all these stylized facts are based on simple correlations and we haven't yet controlled for other standard determinants of aid allocations. The next section takes the analysis further using regression analysis.

7. Methodology

Our regression analysis investigate the importance of countries' human rights records in aid allocation decisions of China and U.S. to 125 developing countries from 2000 to 2014. We are particularly interested in comparing how different is China's aid allocation from the U.S. with regards to its sensitivity towards recipient's human rights record. Following hypotheses will be tested in this regard:

Hypothesis 1. *China allocates more aid to a recipient country with poor human rights record than to a recipient country with good human rights record, ceteris paribus.*

Hypothesis 2. *U.S. allocates less aid to a recipient country with poor human rights record than to a recipient country with good human rights record, ceteris paribus.*

Initially, we began with jointly estimating China's and U.S. aid allocation in one equation in order to directly compare their aid allocation behaviour. In other words, we pooled the data on China's and U.S. aid, thereby constraining the variance of the residual to be the same in the two groups. For this purpose, a dummy variable is introduced which takes a value of 1 for U.S. and 0 for China. The dummy is then interacted with each explanatory variable in the model, allowing the coefficients of explanatory variables to be different across the two donors. This strategy has been used in some aid allocation studies to compare the determinants of aid allocation across donors (see Berthélemy 2006; Dreher et al., 2011; Dreher and Fuchs 2011; Fuchs and Krishna 2013). We expected similar results from the pooled and separate regressions if the variance of residuals across China and U.S. are equal. However, the magnitude and significance of coefficients varied widely, indicating that the results obtained from the pooled equation are not robust to the assumption on error variance (results are not shown for the sake

of brevity, but available from the authors on request). We therefore relax the assumption of equal variance and estimated separate equations for each donor:

$$China's\ Aid\ Share_{jt} = \alpha_0 + \alpha_1 PTS_{j(ma)} + \alpha_2 CL_{j(ma)} + \alpha_3 Recipients'\ Needs_{jt-1} + \alpha_4 Donors'\ Interests_{jit-1} + \alpha_5 Other\ Controls_{jt-1} + \lambda_j + \gamma_t + \varepsilon_{jt} \qquad (1)$$

$$U.S.\ Aid\ Share_{jt} = \alpha_0 + \alpha_1 PTS_{j(ma)} + \alpha_2 CL_{j(ma)} + \alpha_3 Recipients'\ Needs_{jt-1} + \alpha_4 Donors'\ Interests_{jit-1} + \alpha_5 Other\ Controls_{jt-1} + \lambda_j + \gamma_t + \varepsilon_{jt} \qquad (2)$$

In line with the bivariate analysis, the dependent variable is constructed as the share of aid received by a recipient country j from donor i (i.e., China and U.S.) in year t. Prior literature has addressed the inadequacies of using traditional Ordinary Least Squares (OLS) to predict bounded responses between zero and one. For instance, it may produce predicted values that lie outside the interval determined by the measurement scale (Clist, 2011). It may be a reasonable approximation for predictions close to the mean, but produce biased results for the extreme values zero and one (Brown and Dunn, 2011), which appear in high numbers in the current data observed. We therefore estimate the model employing the fractional logit method as proposed by Papke and Wooldridge (1996, 2008) for the case of proportions as dependent variables. Gallani and Krishnan (2017) explained a number of advantages of using fractional logit i.e., it accounts for the boundedness of the dependent variable from both above and below without having to manipulate the data. Moreover, it predicts response values within the interval limits of the dependent variable and captures the nonlinearity of the data, thereby yielding a higher fit compared to OLS. The use of fractional logit is increasingly becoming common in foreign aid literature. For example, Acht et al., (2014) and Fuchs et al., (2015) have used the fractional logit model to estimate the factors associated with traditional donors' aid allocation.

Continuing with the description of equation, respect for human rights in a recipient country is the key explanatory variable measured from *PTS* and *CL*. The two variables will be used to test the role of human rights in China's and U.S. aid allocation. Having controlled for other determinants, a country with a better human rights record will receive more aid than a country with a poor human rights record ceteris paribus. If China or U.S. disregards human rights when providing aid, but focuses instead on other determinants of aid allocation, we expect no significant effect. As institutional variables do not vary much over time, we have taken lagged 3-year moving averages of these variables i.e., $(PTS_{t-1} + PTS_{t-2} + PTS_{t-3})/3$.[11] In other words, the first data point on PTS in 2000 shows the 1997-1999 average and the final in 2014 shows the 2011-2013 average. Detailed description of these variables can be found in Section 2.

In keeping with the previous research we included standard control variables representing *Recipient's Needs* and *Donor's Interest* to control for the effects of factors other than human rights practices. Recipient needs are measured by 1) GDP per capita in constant U.S. dollars (logged) and 2) (log) number of people affected by disasters (per 1000 people). The higher the GDP per capita, the less aid is needed so we expect a significant negative coefficient. Moreover, donors respond to humanitarian emergencies by providing aid. The data on natural disaster is taken from the Emergency Events Database (EM-DAT). Our discussion has been limited to natural disasters such as volcanoes, earthquakes, floods, winds, and landslides.

Donor interests are a much trickier concept to operationalize and measure. Previous studies have used a variety of measures with varying degrees of success. One of the commonly used indicators is UNGA voting affiliation with the donor. Countries voting in line with the donor country in the UNGA are expected receive more aid from that country. Data on UNGA voting

[11] Results are robust to using 5-year moving averages.

affiliation has been taken from Strezhnev and Voeten (2013). It measures voting compliance mean with donor in the UNGA by a recipient country in a year on a scale of 0 (no compliance) to 1 (full compliance)[12]. Also if the donor votes in favor or against a proposition and the recipient country abstains, the vote is coded as 0.5.

Drawing upon previous studies, we also use (log) total trade between a donor and a recipient as an indicator of how a donor country's commercial interests might influence aid allocation. Trumbull and Wall (1994) find trade motives to be a positively significant factor in determining aid flows. We would expect that the level of recipient's trade with donor to be positively related to the amount of aid it receives.

Some serious allegations have been made in the past that aid is used aid to gain access to natural resources from recipient countries. To see if this is the case, we use a variable, (logged) energy depletion representing the ratio of the value of the stock of energy resources to the remaining reserve lifetime. It covers coal, crude oil, and natural gas. If a higher value of resources remaining attracts more aid to the country we expect to find a significant positive coefficient on this variable. Similarly, we use a variable measuring the mineral resources in a country covering tin, gold, lead, zinc, iron, copper, nickel, silver, bauxite, and phosphate. Again, a significant positive coefficient implies more aid is attracted to countries that have higher mineral stocks remaining.

Other Controls include 1) Control of Corruption Index compiled by the World Bank and 2) aid received from other non-U.S. bilateral DAC donors and multilateral donors i.e., IMF and World Bank. Corruption is an important measure of governance and there exists an apparent interdependence between human rights and corruption. Corruption and human rights violations

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thrive in the same environments and the tools to fight corruption can also serve as tools to fight human rights violations (Michael and Hajredini, 2010). Finally, traditional donors may coordinate their aid activities with each other by increasing aid flows to a country in receipt of aid from other bilateral or multilateral donors (see Frot and Santiso, 2011). China may also compete by providing more aid to a country where traditional donors are already present (see Hernandez, 2015).

λ_j represents recipient country fixed-effects; γ_t presents year fixed-effects; and ε_{jt} is the error term. Standard errors are clustered by donor-recipient pairs. All the time-varying explanatory variables are lagged by one year because aid allocations in the current year are based on observed information available at the time of making the decision from the previous year. The exception is the institutional variables which do not vary much over time i.e., Political Terror Scale, civil liberties and corruption. A description of all variables along with the data sources and summary statistics is presented in Table 4 and 5 respectively.

Table 4: Variable Description and Data Sources

Human Rights Measures	Expected Sign and Hypotheses
PTS measured on a scale of 1 to 5; CL measured on a scale of 1 to 7 (from low to high respect for human rights)	- China provides more aid to countries with low respect for human rights + U.S. does less aid to countries with low respect for human rights
Control Variables: 1) Recipient's Need	
GDP per capita (logged) in constant US$. Source: World Bank	- The lower the GDP per capita, the more aid is needed.
Total number of people affected by disaster per 1000 people (logged) Source: EM-DAT (2015) It measures total number of people requiring immediate assistance in the aftermath of a natural disaster. An event qualifies as a natural disaster in the database if a) 10 or more people are reported killed; b) 100 or more people are reported affected/injured/homeless or; c) the government declares a state of emergency. Our discussion has been limited to natural disasters such as volcanoes, earthquakes, floods, winds, and landslides	+ Donors respond to humanitarian emergencies by increasing the aid flows
2) Donor's Interest (Commercial and Political)	
UNGA voting affiliation with donor: Voting compliance mean with donor in the UNGA by a recipient country in a year from 0 to 1 (from no to full compliance). Source: Strezhnev and Voeten (2012)	+ Countries voting in line with the donor in the UNGA receive more aid
Energy Depletion (logged): Ratio of the value of the stock of energy resources to the remaining reserve lifetime. It covers coal, crude oil, and natural gas. Source: World Bank	+ Aid is employed to secure access to energy resources
Mineral Depletion (logged): Ratio of the value of the stock of mineral resources to the remaining reserve lifetime. It covers tin, gold, lead, zinc, iron, copper, nickel, silver, bauxite, and phosphate. Source: World Bank	+ Aid are employed to secure access to mineral resources
Total Trade with Donor (logged): Log of total bilateral trade (exports plus imports) with donor. Source: IMF Direction of Trade Statistics	+ Aid is used as a tool to promote trade
3) Other Controls	
Control of corruption index measured on a scale of -2.5 to +2.5 (most to least corrupt) Source: World Bank	- China provides more aid to corrupt countries + U.S. provides less aid to corrupt countries
Other Aid (logged): sum of all aid received from other non-US bilateral DAC donors and multilateral donors. Source: OECD	+ More aid is provided to countries receiving aid from other traditional donors.

Table 5: Summary Statistics

Variable	N	Mean	Std. Dev.	Min	Max
Recipients' Share in China's and U.S. Total Aid (%)	3,696	0.08	0.02	0	0.35
Recipients' Share in China's and U.S. Humanitarian Aid (%)	3,696	0.001	0.01	0	0.06
Recipients' Share in China's and U.S. Non-Humanitarian Aid (%)	3,696	0.08	0.02	0	0.34
Political Terror Scale (ma)	3,638	3.33	0.90	1.00	5.00
Civil Liberties (ma)	3,766	4.16	1.57	1.00	7.00
GDP per Capita (log, t-1)	3,692	8.39	0.90	6.30	10.60
People Affected by Disaster (per 1000 people, log,t-1)	3,784	2.47	2.76	0.00	12.74
Energy Depletion (log, t-1)	3,694	11.14	9.90	0.00	24.83
Mineral Depletion (log, t-1)	3,840	10.57	8.68	0.00	24.10
UNGA Voting Aff. with Donor (t-1)	3,706	0.49	0.35	0.00	1.00
Total Trade with Donor (logged, t-1)	3,715	18.05	3.10	5.99	26.88
Control of Corruption Index (ma)	3,874	-0.54	0.58	-1.79	1.21
Other Aid (log, t-1)	3,930	5.62	2.50	0.00	15.08

8. Results

Our empirical analysis proceeds in three steps. We begin by estimating our models on the sample of 52 African countries receiving China's and U.S. aid from 2000 to 2014. We focus on Africa because a) most of the critique of China's aid is limited to Africa; b) Both China and U.S. allocates substantially more aid to Africa than other regions (see Figure 7 and 8) and c) Africa has disproportionately large number of countries with poor human rights record (see Figure 5). As a second step, we extend the analysis to all other recipient countries in rest of the world to see if Africa is an outlier. It includes other 4 regions receiving aid namely: Europe and Central Asia, Latin America and Caribbean, East Asia and Pacific, Middle East and South

Asia.[13] Regional dummies are included in order to control for regional heterogeneity.[14] To avoid the problem of collinearity and to avoid falling into dummy variable trap, the dummy for Europe and Central Asia has been dropped. Finally, we open our analysis to all 125 aid-recipient countries across world to see if the results can be generalized to the entire pool of aid-recipient countries across world.

8.1. Africa

The results for testing the hypotheses *H1* and *H2* are provided in Table 6, where Model 1 and 2 report the coefficients for China's and U.S. aid respectively. The coefficients represent marginal effects at the mean of the explanatory variables. In contrast to our hypothesis, after controlling for other determinants, as human rights improves on PTS scale, the share of China's aid to these countries also increases. Quantitatively, for each one-point improvement in PTS, as measured by the five-point scale, the share in China's aid increases by 0.01%. On the other hand, consistent with our hypothesis, we find that China allocates 0.01% more aid to a recipient country with poor human rights record on CL scale than to a recipient country with good human rights record on CL scale, ceteris paribus. Although the magnitude of the coefficient is rather small, this finding supports the anecdotal evidences on the disregard of human rights in China's aid allocation. Both the coefficients are significant at 1% level. This pair of results presents two somewhat contradictory findings: China is providing more aid to countries where violations of civil liberties of the individual citizens are higher, whereas, countries with good human rights record on PTS scale, for example disappearances and extrajudicial killing, are rewarded with more aid.

[13] Middle East and North Africa were grouped together as one region due to the limited availability of data on the countries situated in these regions. This change in classification did not affect the results.

[14] Results are consistent with using recipient country dummies. Results are available upon request.

In order to better understand this contradictory finding, we split the sample into i) Countries below median on PTS; ii) Countries below median on CL and iii) Countries below median on both PTS and CL (see Model 3-8). The idea is to see if the sensitivity of aid allocation towards human rights measures change if a country's human rights record is already below some threshold level i.e., scoring below median on either or both the scales. We suspect that the contrasting relationship between China's aid and PTS/CL will either not hold or flip its sign in countries strictly below median on human rights measures. The key result on the negative relationship between recipients' share in China's aid and their CL scores remains significant only for countries below median on PTS. Whereas, the positive relationship hold only for countries below median on CL. Since there is no clarity from Chinese government on its aid allocation practices, it is difficult to explain why such an enigma might occur.

Regarding the control variables, China's aid share is related to the number of deaths from natural disasters, with the expected positive sign. Besides, within countries below median on PTS and PTS and CL, we find some evidence that China provides a higher share of aid to countries rich in energy resources. This finding is in line with the critique that China's aid is motivated by a desire to secure natural resources. Other factors such as political considerations and trade links do not appear to affect China's aid allocation.

Moving on to U.S., we find that recipient's respect for human rights is not a major determinant of U.S aid allocation to African countries, ceteris paribus. This result is confirmed by similar findings reported by Carleton and Stohl (1985) and Stohl, Carleton and Johnson (1984) who found that human rights does not matter in U.S. aid considerations. However, this finding runs counter to the congressionally-mandated positive relationship between human rights and U.S.

aid and the general expectations from U.S. aid policy in the guise of human rights promotion (see Section 2 and 3 for details).

Next, we investigate this relationship with countries below median on human rights measures (see Model 3, 5, 7). We suspect that the coefficients on human rights measures for U.S. might turn up significant assuming that U.S. aid allocation penalize the countries with awful human rights record. The splitting of the sample has, however, left the U.S. results undisturbed.

Looking across the U.S. aid models and taking into account the influence of control variables, one possible explanation for the lack of significance of human rights variables could be competing considerations. For instance, addressing recipients' need, commercial interests, and coordination with DAC aid activities seem to overshadow human rights concerns, which might lead U.S. decision makers to compromise on their stance on human rights. For example, the control variables on GDP per capita, total trade with recipient and aid from other donors turned out to be significant with the expected positive sign. Another important finding for U.S. is that we find a significant negative coefficient for corruption within the sample of countries below median on PTS and PTS and CL.[15] As corruption is a principal measure of governance and there exists an apparent interdependence between human rights and corruption, it is surprising to see higher corrupt countries receiving a higher share in U.S. aid.

8.2. Rest of the World

The results from the sample of rest of the world countries are reported in Table 7. It appears that our findings for the rest of the world sample are starkly different from Africa. For example,

[15] Control of corruption index is measured on a scale of -2.5 to +2.5 (most to least corrupt)

the significant relationship between PTS and CL for China's aid does not hold in countries outside Africa. More importantly, in contrast to our hypothesis, U.S. allocates more aid to a recipient country with poor human rights record on both PTS and CL scales than to a recipient country with good human rights record, ceteris paribus. The coefficient on PTS is strongly significant across all models in Table 7. Whereas, the result for CL is not robust to disaggregated sample of countries below median on human rights measures. The differences in key results from Table 6 and 7 underscore the importance of our study by finding that donors do treat Africa differently when it comes to the role that human rights play in aid allocations.

In contrast to recipients' needs, political and trade motives seems to influence both China's and U.S. aid outside Africa. Moreover, we did find some support of Amusa et al., (2016) finding that lesser corrupt countries are receiving a higher share in China's aid (see Model 10) and some evidence in favour of the critique on China's hunt for mineral resources (see Model 16). However, these results are not robust to the selection of recipient countries.

8.3. All Countries across World

Starting with the main variables of our interest, the key result for China's aid for CL from the world's sample is consistent with the African sample. Although this has a sizeable impact on its magnitude which has further reduced, it remains significant. Whereas, U.S. key result for PTS is in line with the results from the sample of rest of the world. For example, countries with poor human rights record on CL scale are receiving a higher in China's aid. In contrast, countries with poor human rights record on PTS scale are receiving a higher share in U.S. aid. It seems that, in the case of China, results for the African sample is deriving the results of the world sample. On the other hand, U.S. key results are driven by countries in rest of the world.

As concerns other control variables, commercial trade interests seem to be important for both China and U.S. across the world. For example, countries trading more with China and U.S. are receiving a higher share in their aid. Moreover, political interest are found to influence China's aid to the recipients worldwide. For example, i) countries voting in line with China in the UNGA are consistently receiving a higher share in China's aid. It might be the case that political and commercial interests of China are more relevant within countries outside Africa. Taken together, the two results are in line with the accusations that China provides aid to politically aligned and commercially important countries.

8.4. Split between Humanitarian and Non-Humanitarian Aid

To substantiate our findings we now investigate whether the key results are driven by aid flows directed towards addressing humanitarian emergencies. In other words, if countries with low respect for human rights are mainly receiving a higher share in humanitarian aid. As discussed in Section 5.1., denying some kinds of aid on the basis of poor human rights record seems justified, but denying some of the crucial aid given in the aftermath of natural disasters seems cruel.

For this purpose, we replace our dependent variable in Table 9 and 10 with humanitarian and non-humanitarian aid shares respectively.[16] This disaggregation will help us in further testing the conclusion obtained from our bivariate analysis i.e., U.S. aid share to countries with poor human rights record is dominated by humanitarian aid and China's aid share to such countries is dominated my non-humanitarian aid. Since the statistics on the disaggregated forms of U.S. aid are well-developed, in line with the U.S. Foreign Assistance Act, we suspect that the human rights considerations might not matter for U.S. total aid and humanitarian aid, but it should

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[16] See Section 5.1 for the details on Humanitarian and Non-Humanitarian aid.

matter for U.S. non-humanitarian aid. For China, we want to investigate whether the share of countries with poor human rights record is still higher in its non-humanitarian aid after controlling for other detrainments of aid flows. However, it is important to mention at the outset that the split between humanitarian and non-humanitarian aid might be miss-classified in China's aid data and the results might not be clear.

They key results for China are barely significant for humanitarian aid and the magnitude of coefficients are also very small. This might be because China gives only a tiny proportion of its aid for humanitarian purposes. On the other hand, the share of countries with poor human rights records are higher in U.S. humanitarian aid, ceteris paribus. This finding is in line with our bivariate analysis discussed in Section 6.

As concerns the non-humanitarian aid, the results are very similar in terms of its magnitude and significance to those of the base specification in Table 6, 7 and 8 i.e., the coefficient on CL is negatively significant for the sample of Africa and all countries across world for the case of China's aid. Whereas, the coefficient on PTS is negatively significant for the sample of rest of the world and all countries across world for the case of U.S. aid. Overall, our key conclusions hold for non-humanitarian aid, confirming that our results are not biased towards the aid provided in the aftermath of humanitarian emergencies.

8.5. Cross-sectional Estimates (2000-2004; 2010-2014)

So far, we have estimated our sample for the 15-year period. Over time, China's aid has drastically changed with a notable increase following the year 2009 (see Figure 6). Since 2009 looks like a particular other, in what follows we split our sample into two 5-year periods i.e., 2000 to 2004 and 2010 to 2014 (see Table 11-13).

Starting with the U.S., we find that the negative relationship between U.S. aid share and PTS is robust to the two-five year periods with a relatively stronger magnitude than our baseline specifications in Table 6-8. Recall the finding that, with the exception of Africa, U.S. allocates more aid to a recipient country with poor human rights record on PTS scale than to a recipient country with good human rights record, ceteris paribus. The splitting of the sample in 2 five-years period has extended the generalizability of our finding to all countries within Africa, rest of the world and worldwide.

On the other hand, the key result for China is consistent only for the last five year period within Africa only. It somehow indicates that the criticism levelled against China is mainly limited for the last 5-year period in Africa. However, the contradictory finding of China's higher aid share to African countries with good human rights score on PTS holds in the last 5-year period.

9. Conclusion

The study has examined the influence of human rights considerations in China's and U.S. aid allocation to recipient countries. First, we have operationalized our human rights measures and presented a series of stylised facts on Political Terror Scale (PTS) and Civil Liberties (CL). Next we show the regional distribution of China's and U.S. aid and identified how Africa stands out as the region that received a substantial share in aid from both donors. We then present a bivariate analysis to put into perspective the relevance of human rights considerations in China's and U.S. aid allocation. Finally, we controlled for other determinants of aid allocation and present our empirical analysis.

The bivariate analysis demonstrated that a significant share of China's flow to countries with poor human rights record, yet, U.S. seems little different in providing aid to these countries. The analysis further involved a split between humanitarian and non-humanitarian aid. We find that U.S. aid allocation seems justifiable after separating humanitarian and non-humanitarian aid because countries with poor human rights record are mainly receiving humanitarian aid from the U.S. Whereas, China's aid to such countries is dominated by non-humanitarian aid.

As far as empirical analysis is concerned, the results suggest that donors treat Africa differently when it comes to the role that human rights play in aid allocations. Our findings for Africa is starkly different from rest of the world i.e., the results focusing on the sample of African countries suggest that China is providing more aid to countries with a poor human rights record on CL scale, whereas, we did not find any evidence of human rights considerations in U.S. aid allocation to Africa. This is in contrast with the sample of countries situated in rest of the world, where China's human rights considerations did not matter and U.S. aid shares for countries poor on PTS are higher. Looking at the sample of all recipient countries across world, we find

that both China and U.S. are providing more aid to countries with low respect for human rights but measured on different scales.

The empirical results are consistent with the split between humanitarian and non-humanitarian aid and to some extent in countries whose human rights record is below some threshold level. The cross-sectional split between the periods of 2000-2004 and 2010-2014, however, provided stronger support for the U.S. results worldwide.

All in all, our results somehow supports the general pessimism regarding China's aid, yet challenge the optimists expecting better targeted aid from U.S. This is not to ignore the limitations of the present study. We lack detailed data for China's aid, especially on the channels through which its providing aid. For instance, it might be the case that China is providing aid to poorly-governed countries mainly through non-state actors in order to avoid human rights abusing government yet addressing the economic needs of the country. The same could apply for U.S. Unless China becomes more transparent in its aid allocation criteria and release official data on its aid allocation, it is hard to fully understand its motivations behind aid allocation. In other words, rash generalizations are clearly unwarranted as information gaps continue to be wide.

Table 6: China's and U.S. Total Aid Allocation to Africa
(Fractional Logit, 2000-2014)

Dependent Variable: Recipients' Share in China's and U.S. Total Aid (%)	All African Countries		Below Median on PTS		Below Median on CL		Below Median on PTS and CL	
	US	China	US	China	US	China	US	China
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Political Terror Scale (ma)	-0.0036	0.0146***	-0.0032	0.0145	-0.0016	0.0148**	-0.0023	0.0159
Civil Liberties (ma)	0.0004	-0.0129***	.00003	-0.0162**	-0.0018	-0.011	-0.002	-0.0136
GDP per Capita (log, t-1)	-0.0279	0.0058	-0.0472	0.0125	-0.0348	-0.0201	-0.0473*	-0.0424
People Affected by Disaster (per 1000 people, log,t-1)	0.0003	0.0018*	0.0006	0.0033	0.0007	0.0041**	0.0009	0.0056**
Energy Depletion (log, t-1)	0.0013	0.0076	0.0014	0.0168	0.0007	0.0193**	0.0008	0.0258*
Mineral Depletion (log, t-1)	0.0008	0.0012	-0.0002	0.0002	0.0021	0.0048	0.0019	0.0058
UNGA Voting Aff. with Donor (t-1)	0.0008*	0.0069	0.0018***	0.0187	0.0014***	0.0162	0.0018***	0.0321
Total Trade with Donor (% of Recipient's GDP, t-1)	0.0251**	-0.0148	0.0555***	-0.0185	0.0429***	-0.0109	0.0604***	-0.0042
Control of Corruption Index (ma)	-0.0018	-0.0011	-0.0018	-0.0045	-0.0036*	-0.01	-0.0048*	-0.018
Aid from other traditional Donors (log, t-1)	0.0041***	-0.0005	0.0065***	-0.0018	0.0047***	-0.0063	0.0060***	-0.0083
N	568	557	315	313	358	355	260	258

Notes: Dependent variable is the share of recipient country in the total China's and U.S. aid respectively in a year *t*. Country and year-fixed effects are included in all the models. Model 3 and 4 are estimated for countries scoring below median on PTS; Model 5 and 6 are estimated for countries scoring below median on CL; Model 7 and 8 are estimated for countries scoring below median on both PTS and CL scales. Standard errors clustered by recipient countries. *** p<0.01, ** p<0.05, * p<0.1.

Table 7: China's and U.S. Total Aid Allocation to Rest of the World
(Fractional Logit, 2000-2014)

Dependent Variable: Recipients' Share in China's and U.S. Total Aid (%)	All Countries in Rest of the World		Below Median on PTS		Below Median on CL		Below Median on PTS and CL	
	US	**China**	**US**	**China**	**US**	**China**	**US**	**China**
	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Political Terror Scale (ma)	-0.0065**	-0.0008	-0.0112**	0.0032	-0.0098***	0.0014	-0.0103***	0.0169
Civil Liberties (ma)	-0.0062**	-0.0013	-0.0082	-0.0053	-0.0024	-0.0067	-0.0065	-0.0067
GDP per Capita (log, t-1)	-0.0136	0.0019	-0.0367	0.0292	-0.0472*	0.0195	-0.0612*	0.0296
People Affected by Disaster (per 1000 people, log,t-1)	-0.0017*	0.0005	-0.0023	-0.0037	-0.0017	0.0009	-0.0040*	-0.0036
Energy Depletion (log, t-1)	0.0017	0.002	0.0016	-0.0021	0.001	-0.0011	0.0002	-0.005
Mineral Depletion (log, t-1)	0.001	0.0025	0.002	0.0052	0.0011	0.0051	0.0055	0.0099***
UNGA Voting Aff. with Donor (t-1)	0.0025***	0.0323**	0.0035*	0.0873**	0.0022	0.0657	0.0045*	0.1123**
Total Trade with Donor (% of Recipient's GDP, t-1)	0.0171**	0.0336**	0.0307*	0.0527*	0.0415*	0.0415	0.0608**	0.0631
Control of Corruption Index (ma)	-0.0005	0.0064**	-0.0017	0.0046	-0.0028	0.0110*	-0.0041	0.0085
Aid from other traditional Donors (log, t-1)	0.0064***	-0.0021	0.0096***	-0.0006	0.0097***	-0.0015	0.0109***	-0.0080*
N	944	896	462	439	438	426	288	282

Notes: Dependent variable is the share of recipient country in the total China's and U.S. aid respectively in a year *t*. Region and year-fixed effects are included in all the models. Model 11 and 12 are estimated for countries scoring below median on PTS; Model 13 and 14 are estimated for countries scoring below median on CL; Model 15 and 16 are estimated for countries scoring below median on both PTS and CL scales. Standard errors clustered by recipient countries. *** p<0.01, ** p<0.05, * p<0.1.

Table 8: China's and U.S. Total Aid Allocation across World
(Fractional Logit, 2000-2014)

Dependent Variable: Recipients' Share in China's and U.S. Total Aid (%)	All Countries in the World		Below Median on PTS		Below Median on CL		Below Median on PTS and CL	
	US	China	US	China	US	China	US	China
	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
Political Terror Scale (ma)	-0.0077***	-0.0027	-0.0100***	-0.0025	-0.0095***	-0.0039	-0.0095***	-0.0011
Civil Liberties (ma)	-0.002	-0.0072**	-0.004	-0.0136**	-0.002	-0.0115***	-0.004	-0.0158**
GDP per Capita (log, t-1)	-0.0157*	0.0169	-0.0144	0.0378**	-0.0250*	0.0284	-0.023	0.0454*
People Affected by Disaster (per 1000 people, log,t-1)	0.001	0.0025	0.001	0.0036	0.0013	0.0052*	0.0013	0.0048
Energy Depletion (log, t-1)	0.0001	0.0032	-0.0004	0.0026	-0.0005	0.0024	-0.0009	0.0032
Mineral Depletion (log, t-1)	0.0009	0.0001	0.0021	-0.0012	0.0016	0.0002	0.0048*	-0.0005
UNGA Voting Aff. with Donor (t-1)	0.0006	0.0197**	0.0003	0.0500***	0.001	0.0263*	0.0009	0.0571***
Total Trade with Donor (% of Recipient's GDP, t-1)	0.0218***	0.0275**	0.0295**	0.0444**	0.0381**	0.0402**	0.0468**	0.0599**
Control of Corruption Index (ma)	-0.001	0.0039*	-0.0019	0.003	-0.003	0.0065	-0.0044	0.0005
Aid from other traditional Donors (log, t-1)	0.0077***	-0.0006	0.0102***	-0.0006	0.0087***	-0.0017	0.0101***	-0.0047
N	1459	1403	777	752	796	781	548	540

Notes: Dependent variable is the share of recipient country in the total China's and U.S. aid respectively in a year *t*. Region and year-fixed effects are included in all the models. Model 19 and 20 are estimated for countries scoring below median on PTS; Model 21 and 22 are estimated for countries scoring below median on CL; Model 23 and 24 are estimated for countries scoring below median on both PTS and CL scales. Standard errors clustered by recipient countries. *** p<0.01, ** p<0.05, * p<0.1.

Table 9: China's and U.S. Humanitarian Aid Allocation
(Fractional Logit, 2000-2014)

Dependent Variable: Recipients' Share in China's and U.S. Humanitarian Aid (%)	All African Countries		All Countries in Rest of the World		All Countries across World	
	US	**China**	**US**	**China**	**US**	**China**
	(25)	(26)	(27)	(28)	(29)	(30)
Political Terror Scale (ma)	-0.0007	-6.60e-06	-0.0008**	-0.0001	-0.0015**	0.00002
Civil Liberties (ma)	-0.0017***	0.00003	-0.0006	-0.0001	-0.0022***	-0.0001*
GDP per Capita (log, t-1)	-0.0345***	-0.0003	-0.0054*	0.0014	-0.0041	0.0004
People Affected by Disaster (per 1000 people, log,t-1)	0.00003	3.58e-06	0.0001	0.00001	0.0007***	0.00001
Energy Depletion (log, t-1)	0.0012***	.00003	-0.0002	-0.0003**	-0.0004	-0.0002**
Mineral Depletion (log, t-1)	0.0016***	0.0000**	0.0001	0.0003***	0.0002	0.0002**
UNGA Voting Aff. with Donor (t-1)	0.0003	-0.0001	0.0005**	-0.0001	0.0001	0.00003
Total Trade with Donor (% of Recipient's GDP, t-1)	0.0071	-0.00003	0.0041**	0.0008	0.0047	0.0004
Control of Corruption Index (ma)	-0.0009	0.0001**	0.0004	0.0005***	0.00002	0.0002**
Aid from other traditional Donors (log, t-1)	0.0009**	7.43e-06	0.0012**	-0.0002	0.0012**	-0.00001
N	568	557	891	846	1459	1403

Notes: Dependent variable is the share of recipient country in China's and U.S. humanitarian aid respectively in a year *t*. Country and year-fixed effects included in Model 25 and 26. Region and year-fixed effects are included in Models 27-30. Standard errors clustered by recipient countries. *** p<0.01, ** p<0.05, * p<0.1.

Table 10: China's and U.S. Non-Humanitarian Aid Allocation
(Fractional Logit, 2000-2014)

Dependent Variable: Recipients' Share in China's and U.S. Non-Humanitarian Aid (%)	All African Countries		All Countries in Rest of the World		All Countries across World	
	US	China	US	China	US	China
	(31)	(32)	(33)	(34)	(35)	(36)
Political Terror Scale (ma)	-0.0018	0.0146***	-0.0074***	-0.0008	-0.0058**	-0.0029
Civil Liberties (ma)	0.002	-0.0130***	-0.0031	-0.0022	0.0005	-0.0070**
GDP per Capita (log, t-1)	0.0294	0.0061	-0.0267**	0.0116	-0.0121*	0.0166
People Affected by Disaster (per 1000 people, log,t-1)	0.0004	0.0018*	-0.0007	0.0001	0.0003	0.0025
Energy Depletion (log, t-1)	0.0001	0.0076	0.002	0.0011	0.0005	0.0032
Mineral Depletion (log, t-1)	-0.0004	0.0012	-0.0001	0.0025	0.0007	-0.0001
UNGA Voting Aff. with Donor (t-1)	0.0005	0.0072	0.0016**	0.0335**	0.0004	0.0197**
Total Trade with Donor (% of Recipient's GDP, t-1)	0.0193	-0.0147	0.0169**	0.0304**	0.0180***	0.0271**
Control of Corruption Index (ma)	-0.0002	-0.0012	-0.0011	0.0057*	-0.0008	0.0038*
Aid from other traditional Donors (log, t-1)	0.0034**	-0.0005	0.0060***	-0.0015	0.0067***	-0.0005
N	568	557	891	846	1459	1403

Notes: Dependent variable is the share of recipient country in China's and U.S. non-humanitarian aid respectively in a year *t*. Country and year-fixed effects included in Model 31 and 32. Region and year-fixed effects are included in Models 33-36. Standard errors clustered by recipient countries. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table 11: China's and U.S. Total Aid Allocation to Africa
(Fractional Logit, Cross-sectional Results)

Dependent Variable: Recipients' Share in China's and U.S. Total Aid (%)	2000-2004		2010-2014	
	US	China	US	China
	(37)	(38)	(39)	(40)
Political Terror Scale (avg)	-0.8429***	0.0104	-0.5182**	0.4814**
Civil Liberties (avg)	0.2328	-0.0093	-0.1214	-0.6712***
GDP per Capita (log, (avg)	-0.0984	0.7378**	-0.0953	0.4721***
People Affected by Disaster (per 1000 people, log, avg)	0.2906***	0.6719***	0.1296*	0.3635***
Energy Depletion (log, avg)	-0.0239**	-0.0017	-0.0072	0.0313**
Mineral Depletion (log, avg)	0.0358**	0.029	0.0067	0.0008
UNGA Voting Aff. with Donor (avg)	9.3068***	1.7708	-7.2994	-0.7116
Total Trade with Donor (% of Recipient's GDP, avg)	0.1623**	0.0548	0.2182***	0.4813***
Control of Corruption Index (avg)	-0.3529	-0.8773*	0.7245***	0.2515
Other Aid (log, avg)	0.1868***	-0.1196	0.2654***	0.2810***
N	40	34	41	40

Notes: Dependent variable is the share of recipient country in the total aid allocated by China and U.S. respectively, averaged over the two 5-year periods. Standard errors clustered by recipient countries. *** p<0.01, ** p<0.05, * p<0.1.

Table 12: China's and U.S. Total Aid Allocation to Rest of the World
(Fractional Logit, Cross-sectional Results)

	2000-2004		2010-2014	
Dependent Variable: Recipients' Share in China's and U.S. Total Aid (%)	US	China	US	China
	(41)	(42)	(43)	(44)
Political Terror Scale (avg)	-0.6009**	0.1599	-0.8401***	-0.0986
Civil Liberties (avg)	0.142	-0.0666	-0.5165**	-0.0722
GDP per Capita (log, (avg)	-0.2212	0.0594	-0.8384	0.4989
People Affected by Disaster (per 1000 people, log, avg)	-0.0967	-0.1266	-0.1284	0.2723**
Energy Depletion (log, avg)	0.0389*	0.0557**	-0.017	-0.0085
Mineral Depletion (log, avg)	-0.0247	-0.0316	0.0016	0.023
UNGA Voting Aff. with Donor (avg)	1.7866	-1.5927	4.2814	2.244
Total Trade with Donor (% of Recipient's GDP, avg)	0.0916	0.3494***	0.3727***	-0.0409
Control of Corruption Index (avg)	0.1576	-2.0114***	0.5864	-1.1601**
Other Aid (log, avg)	0.3588***	0.1833*	0.2544*	-0.1378
N	61	50	66	55

Notes: Dependent variable is the share of recipient country in the total aid allocated by China and U.S. respectively, averaged over the two 5-year periods. Standard errors clustered by recipient countries. *** p<0.01, ** p<0.05, * p<0.1.

Table 13: China's and U.S. Total Aid Allocation to Countries across World
(Fractional Logit, Cross-sectional Results)

Dependent Variable: Recipients' Share in China's and U.S. Total Aid (%)	2000-2004		2010-2014	
	US	China	US	China
	(45)	(46)	(47)	(48)
Political Terror Scale (avg)	-0.5684***	-0.1233	-0.4252**	0.0081
Civil Liberties (avg)	0.0194	-0.1792	-0.2453	-0.1112
GDP per Capita (log, (avg)	-0.1366	0.0185	-0.1641	0.4661**
People Affected by Disaster (per 1000 people, log, avg)	0.0369	0.1533	0.0175	0.1810*
Energy Depletion (log, avg)	0.0189	0.0377**	-0.0102	0.0025
Mineral Depletion (log, avg)	-0.0117	-0.013	-0.0022	0.0105
UNGA Voting Aff. with Donor (avg)	3.6982*	-0.1293	-0.5979	1.4388
Total Trade with Donor (% of Recipient's GDP, avg)	0.1237**	0.1264	0.1571**	0.0527
Control of Corruption Index (avg)	0.0817	-0.9236**	0.5148	-0.8363*
Other Aid (log, avg)	0.2420***	0.0013	0.3321***	0.0461
N	101	84	107	95

Notes: Dependent variable is the share of recipient country in the total aid allocated by China and U.S. respectively, averaged over the two 5-year periods.
Standard errors clustered by recipient countries. *** p<0.01, ** p<0.05, * p<0.1

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