The effect of international development assistance (IDA) on conflict. A fuzzy regression discontinuity approach

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Abstract

In this paper we try to explore the relationship between the World Bank's international development assistance (IDA) and domestic conflict. As IDA is distributed only to countries that fall below an (ad hoc) income threshold, we employ a (fuzzy) regression discontinuity approach to estimate the causal effect of IDA on conflict. Our results suggest that IDA leads to a decrease in minor conflict events, such as anti-government demonstrations and riots and in an increase in major conflict events like assassinations of political leaders and revolutions. Moreover, IDA is associated with an increase in coup attempts and autocratic regime transitions. These results suggest that foreign aid may "win the hearts and minds of the population", by increasing popular support for the government, and at the same time increase conflict over lootable aid rents.

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1. Introduction

A voluminous literature analyzes the effect of foreign aid on the recipient economy (e.g., Easterly 2003; Djankov et al. 2008; Doucouliagos and Paldam 2008; Dreher and Lohmann 2015; Galiani et al. 2017, for example, examine the effect of aid on growth, whereas, Burnside and Dollar 2000; Bjørnskov 2010; Askarov and Doucouliagos 2015, examine the effect of aid on the institutional quality). In the present paper, we examine the effect of aid, and more specifically of the World Bank's international development assistance (IDA), on domestic conflict in the recipient country. This issue has been examined in several other contributions (Collier and Hoeffler 2000, 2002; Crost et al. 2016; Bluhm et al. 2016 etc.) with contradicting findings. To our knowledge, however, this is the first paper that uses the (ad hoc) GNI thresholds that the World Bank employs to distribute aid among recipient countries as an identification strategy to estimate the effect of foreign development assistance on conflict.

Our focus on IDA has several methodological advantages. First, by only examining the effect of IDA receipts, we eliminate a potential bias stemming from a possible correlation of the type of donor on the probability of conflict (see for example de Mesquita and Smith 2007). In other words, when examining the effect of aid in general, including all donors, conflict might be affected by identity of donor. Second, IDA is distributed according to a simple, exogenous to the recipient country, rule. This implies that the allocation of this type of aid is based on specific criteria and not on other issues (such as political alliances). Specifically, countries that are eligible for IDA must fall below a GNI threshold level which is defined by the World Bank, which is revised every year. Then, countries that have a GNI lower than the threshold two years before IDA allocations are made are eligible for aid. However, this is not the only condition for IDA allocation. According to the World Bank, in

addition, to receive IDA, a country must be considered not to be creditworthy for IBRD borrowing (Galiani et al. 2017). However, the latter condition is based on confidential reports by the World Bank. Hence, we use a fuzzy regression discontinuity design (*Fuzzy RDD*) so as to exploit both the GNI cutoff rule of the IDA program and deal with the problem facing some countries, in which, though they are below the threshold, they do not receive IDA as they are considered creditworthy.

By estimating a local *Fuzzy RDD*, we identify the effect of aid on conflict for countries which are just above and just below the cutoff. This allows us to examine the causal effect for countries that are similar, in general, but with the only difference being their eligibility for IDA.[1] *Fuzzy RDD* addresses the issue of endogeneity which plagues the standard fixed effects OLS regressions (Lee and Lemieux 2010). Moreover, in contrast to matching techniques (Austin 2011) it does not depend on the assumption of conditional independence and overlap, which are only satisfied within the limit of an *RDD* framework (Heckman et al. 1999).

The present paper contributes to the literature in another dimension as well. In contrast to the existing literature (e.g., Berthélemy 2006; Findley et al. 2010; Strange et al. 2017; Wood and Sullivan 2015) that examines the effect of aid on major conflict events, such as civil wars and revolutions, we examine the effect of aid on both major and minor conflict events.[2] This strategy allows us to shed light on the underlying forces behind our main relationship. To further test our argument, we also exploit the *Fuzzy RDD* framework to examine the effect of IDA on coups and on autocratic regime change.

Overall, our findings show that IDA receipt leads to an increased level of conflict. Moreover, we provide evidence that the effect of aid on conflict depends on the type of conflict. We find that IDA leads to a decline in minor conflict events (*anti-government demonstrations*, *terrorism*, *riots*, *strikes*) while it has a positive effect on major conflict events

(*revolutions*, *assassinations* of political leaders). These results are consistent with several theoretical contributions in the aid-conflict nexus. Since aid creates a "winning the hearts and minds" effect, i.e., improved economic performance makes people more inclined to be friendly toward the government and thus conflict is reduced (Collier and Hoeffler 2002), we find a negative effect of aid on low intensity events. Moreover, as aid creates rents for those that hold political power (Angeles and Neanidis 2009), we find a positive effect on high-level conflict events. This latter type of conflict can be considered as events that aim at changing the underlying power structure in a polity. Agents and groups that stand to gain from a change in the political regime, try to increase their political power, to expropriate the aid revenues. These findings are also accompanied by results that indicate, using the same *Fuzzy RDD,* that there is an increase in coups and autocratic regime transitions.

In the following section we present the existing literature and then provide our main testable hypotheses. In section 4 we discuss our data and our empirical specification. In section 5 we present our results while section 6 holds the robustness checks. Finally, section 7 concludes.

2. Literature Review

A number of contributions have examined the effect of foreign aid on conflict, with contradicting findings. These findings vary depending on the sample used, the type of aid considered, and the empirical methodology employed. To explain these contradictory findings several theoretical arguments have been employed.

Starting from Grossman (1992) and Azam (1995), aid revenues are modeled as lootable resources, and the fungibility of aid flows make them attractive to opposing groups for extraction (i.e., governments and rebels). What they show is that although governments may seek to deter rebellion by giving a share of the revenues to rebels, deterrence does not

always occur, as rebels might not like what the government is offering them, leading to an initiation of conflict. In a similar vein, Blattman and Miguel (2010), argue that there are some types of foreign aid flows that can be analogous to natural resources, thus governments and rebels want to capture them in order to finance their activities. This leads to an increased risk of civil war. Bó and Powell (2009), model the government and the opposition as competing over rents under uncertainty regarding the size of the spoils. They suggest that in bad times where a negative aid shock occurs, although that government may offer a part of the rents to the opposition, the opposition may feel "low-balled" and may prefer to engage in conflict. Narang (2015), provides evidence in favor of this view, by examining the effect of humanitarian aid using a world data set for the period 1969–2008, as he finds that increased levels of aid extend the duration of civil wars.[3]

Against the "aid rents as lootable resources" argument comes the view that aid has an indirect effect on conflict by "winning the hearts and minds" of the population.[4] In a field experiment on the effects of the National Solidarity Program on insurgency in Afghanistan, Beath et al. (2012) show that aid leads to lower insurgency violence because people treat as a positive all government attempts to improve their well-being and are thus less likely to join the insurgency. Crost et al. (2016), in a study that examines the effect of a conditional cash transfer (CCT)[5] program on violent incidents in Philippines, show that the program increased popular support for the government. This, in turn, led to increased information sharing as well as cooperation between the government and the population regarding rebels' activities. Similar findings are presented in Dasgupta et al. (2007), which show that when the level of state capacity is high, anti-poverty programs lead to a reduction in violence. This happens because with high levels of state capacity, there is a lack of corruption and the program funds

can more easily pass through to the local populations, which then makes people less willing to support an insurgency.[6]

The "winning the heart and minds" view, however, may create second order effects, which increase conflict. Higher aid flows may increase economic growth, thus increasing popular support for the government. Rebels are not comfortable with this support and, fearing they will lose their clout, they thus sabotage foreign aid programs. Weintraub (2016) examines the effect of a CCT program in Colombia, using a difference-in-differences approach, with 57 municipalities as treatments and 65 municipalities as controls. He finds that the program led to more killings and violent incidents. He suggests that this occurred as program beneficiaries cooperated with the government, and insurgents wanted to sabotage this cooperation. Similarly, Wood and Sullivan (2015), argue that aid will lead to an increased level of violence because it creates incentives for looting and also because it can be perceived by rebels as a challenge to their authority, which again leads to sabotage.

Sexton (2016), using a similar logic, finds that the type of aid as well as the recipient area, play a key role on its effect on conflict in Afghanistan. He finds that aid programs which aimed at reducing conflict (by boosting military power, for example) lead to an increased level of conflict in contested areas, i.e., areas that are not controlled by the government. On the other hand, aid does not appear to have an effect on areas under the control of the military. The explanation given is that rebels have an incentive to sabotage the foreign aid programs so as not to lose their power.[7,8]

Sollenberg (2012), in her empirical analysis for the period 1960–2004, finds that foreign aid increases the risk of conflict, conditional on the institutional environment of the recipient country. In a country with low levels of checks and balances, foreign aid inflows will lead to increased conflict due to rent-seeking activities. In contrast, she finds no effect

when there is a high level of checks and balances. She also finds that there is a threshold effect of aid on conflict, implying that the positive effect of aid on conflict arises after a point of aid revenues is reached.

Finally, examining a particular type of aid, democracy assistance programs for countries that were eligible during the period 1990–2003, Savun and Tirone (2011), find that, via democracy assistance programs, countries improve their governance by providing an external validation of commitments and promises made during the transition. They identify a causal effect by estimating an instrumental variables model, using two instrumental variables which are: a) the donor's GDP, and b) the level of the recipient country's affinity with the United States.

3. Theoretical considerations and testable hypotheses

Following the literature highlighted in the previous section, we may conclude that aid can have a positive and negative effect on conflict. Since it is associated with an improvement in economic conditions and growth, it might increase the popular support for the government- i.e., winning the hearts and minds argument. On the other hand, having a large inflow of aid revenues creates incentives for those with political power to try to expropriate them. And this expropriation can only be achieved by a further increase in their relative political power. This, then, is the "aid rents as lootable" resources argument.

Even though these two arguments predict a different effect of aid on conflict, they can coexist as they rest on different forces. Aid, by spurring economic growth, may increase popular support for the government. At the same time, the political elite may seek to expropriate the rents created by increased aid flows. Looking then at the overall level of the conflict, we may find conflicting results, with most studies finding a nonsignificant effect, and

studies that examine high-level conflict finding a positive effect (see, Doucouliagos 2019 for a survey).

Even though the effect of aid on the overall level of conflict is ambiguous, all types of political instability do not respond in the same manner. For example, Regan and Norton (2016) highlight the distinction between conditions for low and high levels of conflict. For minor intensity conflict events, such as protests and riots, grievances are enough to mobilize the masses. Instead, for a higher level of conflict, i.e., revolutions, coups, civil war, etc., mass mobilization, with an associated private gain, is a necessary pre-condition. Participation in a violent event against the government or another group in the economy is subject to collective action problems (Olson 1965; Tullock 1971): it requires a high level of mobilization, involves a high private participation cost, and only produces group benefits. The higher the private cost of participating, the higher the required level of mobilization, and the lower the existence of private benefits, the less likely it is that individuals will participate in violent activities.

Then, the distinction between minor and major conflict events becomes relevant. Minor conflict events, i.e., demonstrations, riots, or even some mild terrorist events, have a low cost of participation. Thus, these events can be initiated by "grievances" only (Regan and Norton 2005). According to the "winning the hearts and minds argument", aid improves economic conditions, reducing the grievances. And, as long as the effects of this improvement are not dissipated only to a small subset of the ruling elite, we may formulate the following testable hypothesis

H1: Foreign aid is expected to reduce minor intensity conflict events, such as strikes, peaceful demonstrations, and small-scale riots.

According to *H1*, winning the hearts and minds argument can be associated with changes in minor conflict events. If the economy performs well, typically it is attributed to the policies of the incumbent government. Hence, as distrust of the government falls, the general population will have no incentive to oppose the government and express their opposition with violent acts.

The exact opposite holds for major conflict events. As aid is a lootable resource, it increases the total benefit for the ruling group, i.e., increases group expected benefits from conflict and inter-group conflict. And these opposing groups can be either rebels or the ruling elite, which will try to increase their power, vis-a-vis their opponents, and expropriate the aid-rents. This higher intensity of between-group competition, then, gives additional incentives to elite and rebel group leaders to recruit individuals for their cause. At the same time, group leaders, by having greater expected resources, can more easily provide personalized benefits to the insurgents. Similarly, as group competition for resources increases, individuals may join a group to shield themselves from the repressive actions of the state or of competing groups.

And even if greed is not the only source of conflict in the economy, there might be other channels that might create high-level conflict. The exclusion of certain groups from the rents created by foreign aid might be perceived by these groups as an exclusion from the state's decision-making process (Walter 2009). Wealth discrimination then might spur political mobilization and struggle over better access to aid-created rents.[9]

According to the arguments above, a second testable hypothesis is derived as:

H2: Foreign aid is expected to increase high-intensity conflict events, such as revolutions, purges, and insurrections.

In the section that follows, we examine the effect of IDA on various types of conflict events so as to examine the validity of the above two hypotheses.

4. Data and Identification

The World Bank's international development assistance (IDA) was launched in September 1960 as an agency with the goal to provide "soft loans" to the poorest developing countries. According to the World Bank (2010), IDA has grown to include 173 shareholder member countries and has given loans to 76 of the poorest countries in the world. IDA takes the form of long maturity loans, with a maturity of around 40 years, a large grace period, and a very low and fixed interest rate.[10]

IDA eligibility among developing countries is based on two criteria, (i) relative poverty, defined as GNI per capita below an established threshold, and (ii) lack of creditworthiness to borrow on market terms. Until 1987 the threshold for relative poverty was set at the GNI per capital level of $250 in 1964 and was only adjusted for inflation, reaching $950 in 1987. However, as IDA resources were not adequate to permit funding all those countries below the threshold, a new operational cutoff was introduced in 1989. This threshold is adjusted annually, based on the availability of funds. In figure 1, we plot the operational threshold from 1989, the year in which it was formally introduced, until 2020 (the latest World Bank fiscal year). Even though it exhibits an increasing trend over time, as more funds become available, there is significant variability over time.

[Insert Figure 1, Here]

The rule of eligibility, however, is not deterministic. First, although data related to the relative poverty threshold are available from the World Bank's annual reports, the conditions for the creditworthiness criterion are not disclosed. The World Bank does not provide a

specific formula for how countries are categorized as creditworthy, and those reports are kept confidential (Moss and Majerowicz 2012). For this, there may be cases below the threshold that do not receive IDA, as they are classified as creditworthy and receive IBRD funding. Second, IDA replenishment periods cover intervals of three years (World Bank 2010). This implies that for a country to become ineligible there must be a period of three successive years over which its GNI is above the operational threshold. Thus, a country might be above the threshold for up to two consecutive years and still receive IDA. The latter two groups of countries are considered to be blend countries, and might be eligible for IDA funding, but under tougher terms. Finally, over time there have been some exceptions to the GNI per capita operational eligibility cutoff for some small island economies, which are considered to be vulnerable, to be exposed to the hard terms of IBRD borrowing.

Given the above considerations, to estimate the causal effect of international development assistance (IDA) on domestic conflict events, we use a fuzzy regression discontinuity design (Hahn et al. 2001) for a world sample over the 1989-2015 time period.[11,12] The regression discontinuity approach is ideal in our setting, as the operational cutoff of the World Bank is set before each fiscal year. Moreover, the operational threshold of the World Bank is arbitrarily set, without following a specific, predetermined policy rule.[13] Furthermore, a fuzzy design is the correct approach as, following the discussion above, the treatment assignment is not a deterministic function of the running variable, i.e., the difference between GNI and the operational threshold of the World Bank. In other words, the randomness in the treatment assignment exists because there are countries below the threshold that do not receive IDA and countries above the threshold that do.

In this setting, *Fuzzy RDD* exploits the discontinuities in the probability in the assignment of treatment: countries that have a GNI just below the operational threshold see a

jump in the probability of receiving IDA. Then, the discontinuity in the probability of treatment, when the GNI is below and above the operational threshold (i.e., the "running" variable), is an instrument for treatment status, and *Fuzzy RDD* uses a simple 2SLS estimation strategy (Hyytinen et al. 2018; Angrist and Pischke 2009).

To determine whether a country receives IDA, we used the annual IDA reports of the World Bank.[14] The same Bank reports give the operational threshold for each period.[15] Our running variable is constructed as $running_t = threshold_{t-2} - GNI_{i,t-2}$. We use two lags because the World Bank gives IDA in fiscal year t based on the GNI per capita on fiscal year $t-2$. Positive values of this variable imply eligibility for IDA at period t, and negative non-eligibility. For the GNI, we use GNI per capita under the Atlas method, which is the exact variable used by the World Bank to determine the relative poverty criterion. As Atlas conversion rates are updated regularly, we use the variable as reported in the World Development Indicators annual publications for each respective year.[16]

As *RDD*s are sensitive to the underlying functional form, we follow the standard practice (Becker et al. 2010; Potrafke and Rösel 2019) and estimate a local nonparametric model as in Calonico et al. (2014) and Calonico et al. (2018). Furthermore, as Hyytinen et al. (2018) show, we report mainly the results of robust and bias-corrected RDD, as most of the time they report estimations closer to the true treatment effect. To derive the optimal bandwidths, we follow Calonico et al. (2014) and Calonico et al. (2018). Finally, following Lee and Lemieux (2010) we also report the results of a parametric *RDD*.

The dependent variable is the various measures of conflict which are taken from the Banks and Wilson database (Banks and Wilson 2017). We examine the effect of IDA on all eight types of conflict that are reported in Banks and Wilson (2017)[17]. These events are: i) Peaceful public gatherings of at least 100 people for the primary purpose of displaying or

voicing their opposition to government policies or authority, *Antigovernment Demonstrations*; ii) Strikes of 1,000 or more industrial or service workers that involve more than one employer and that is aimed at national government policies, *General Strikes*; iii) Rapidly developing situations that threatens to bring the downfall of the present government, *Government Crises*; iv) Violent demonstrations or a clash of more than 100 citizens involving the use of physical force, *Riots*; v) Armed activities, sabotage or bombings carried out by independent bands of citizens or irregular forces and aimed at the overthrow of the government, *Terrorism*; vi) Systematic elimination by jailing or execution of political opposition within the ranks of the regime or the opposition, *Purges*; vii) Politically motivated murder or the attempted murder of a high government official or politician, *Assassinations*; vii) Illegal or forced changes in the top government elite, any attempt at such a change, or any successful or unsuccessful armed rebellion whose aim is independence from the central government, *Revolutions*. Finally, Banks and Wilson (2017) construct a weighted average of all eight categories and provide a general conflict index.[18]

The conflict events reported in Banks and Wilson (2017) range from simple peaceful gatherings, i.e., *Antigovernment Demonstrations*, to major conflict events such as *Revolutions* and *Political Assassinations.* According to the above definitions we can conceive that *Revolutions, Purges*, and *Assassinations* are major conflict events within the country that aim at overthrowing the present political regime. In contrast, the rest of the conflict events documented are minor, low-level conflict events that simply express the grievance to the policies of the incumbent government. Hence, according to the discussion in the previous section, we should expect that if aid increases conflict events against the regime it should bring an increase to *Revolutions, Purges*, and *Assassinations*. In contrast, if the IDA results in

a "winning a hearts and minds" of the population, we should expect a positive treatment effect on the rest of the variables.

To ensure that our model is correctly specified, we first examine whether there are discontinuities at the threshold in other variables, which might imply a confoundedness of the results, and we then include these variables as controls. The controls that we use are, namely: GDP per capita, as according to Collier (2000), in countries where higher income people have higher opportunity costs of participating in conflict activities. Following Collier (2000), the degree of diversity affects conflict as "the more social ties there are within a rebel organization, the easier it will be to build a fighting force." Therefore, we use an index of ethnic, religious, and linguistic fractionalization. We also use the population growth since countries with a high population are harder for the government to control.[19] We believe that the level of democracy might also affect conflict, since less democratic countries are more prone to experience higher levels of conflict (Hegre 2014). Finally, we use the total commitments of IDA (we have also experimented with the disbursements and the results remain the same).[20]

5. Results

To establish that the RDD is valid, we first provide a graphical representation of the jump of our measures of conflict at the threshold. Figures 2 to 10 show that there is a positive jump of Assassinations and Revolutions at the threshold. There are negative jumps of Antigovernment Demonstrations, Terrorism, Strikes, and Riots in the General Conflict Index. Furthermore, we find a small effect on Purges and Government Crises. According to these graphs, a significant change at the threshold might exist.

[Insert Figures 2 to10, Here]

Panel A in Table 2 shows the baseline estimates of the *Fuzzy RDD* for the nine measures of conflict using three different measures of computing standard errors. We present estimations with conventional, robust, and bias corrected standard errors. Following Hyytinen et al. (2018) and Potrafke and Rösel (2019), even though we report the results for the conventional estimator, we only discuss the results of the robust and of the bias corrected estimator, which are typically considered the appropriate ones. In all columns we use covariates that affect domestic conflict and country and time fixed effects.[21]

[Insert Table 2, Here]

As we proceed from column (1) to column (9) we present the effect of IDA from minor to major conflict events. As the reader can easily verify, the effect of IDA on conflict is negative when we examine minor conflict events and positive when we examine major ones. The results in column (9) suggest that the overall conflict decreases when a country receives IDA. This result is statistically significant at the 1-percent level, when we use the bias corrected estimator, and at the 5-percent level when we use the robust estimator. The estimated treatment effect is quantitatively significant, as it is equal to a two standard-deviation change in the dependent variable.

The results of the overall conflict index, however, do not give a clear picture of the effect of aid on conflict. As the rest of the columns in Table 2 show, there is a high degree of heterogeneity. The only variable that is statistically insignificant and can be considered as not affected by IDA is *Government Crises.* The results suggest that IDA leads to a decline in *Antigovernment Demonstrations* (column 1), *General Strikes* (column 2), *Riots* (column 4), *Terrorism* (column 5), and *Purges* (column 7).[22] In contrast, we observe a positive effect of IDA on *Assassinations* (column 7) which is equivalent to a two standard-deviation increase and also in *Revolutions* (column 8) which is equivalent to a 1.5 standard-deviation increase.

Panel B reports the first-stage estimates. As the reader can easily verify, there is a positive relationship which implies that countries that cross the IDA threshold have a higher probability of receiving IDA, suggesting the validity of the instrument. [23,24]

Even though, at first sight, these results seem contradictive, there appears to be a clear pattern. First, minor conflict events like general strikes or peaceful demonstrations seem to decline after receiving IDA. In contrast, major events, especially those that might ultimately lead to a change in the political regime, like revolutions and purges of the opposition, appear to increase. So, it appears that there might be differences between conflict events directed against the political regime and events directed against the government. According to the results of the table, events that appear to have the aim of destabilizing the government (i.e., *Antigovernment Demonstrations, General Strikes*, *and Riots*) decline, while those that aim at changing the political regime increase (*Purges, Assassinations, and Revolutions*). These results, then, suggest that IDA "wins the hearts and minds" of the population, but at the same time gives incentives to politically powerful groups to engage in a power struggle to capture rents for themselves.

[Insert Table 3, Here]

As a test of the above conjecture, in Table 3 and Figure 11 we also employ a *Fuzzy RDD,* but our dependent variables are i) the number of coups (taken from Bjørnskov and Rode 2019), and ii) the occurrence of an autocratic polity transition. According to the POLITY dataset, an autocratic polity transition occurs when there is at least a 3-point decline in the 20-point polity scale.[25] These results seem to confirm our explanation of our main findings. IDA appears to lead to an increased probability of a coup and to an increase in the probability of an autocratic transition.

6. Robustness

We perform various alternative estimations in order to test the robustness of our results. In Table 4, Panel A, we present the same estimations as in Table 2, however, this time excluding the covariates. The results are similar to our baseline model. The only difference is that the effect on *Antigovernment Demonstrations* and *General Strikes* appears to become statistically insignificant. In Panel B, we perform the same estimates as in Panel A but we include country and time fixed effects in order to control for specific country and time characteristics.[26] The signs and significance of the treatment effect for all conflict events remain the same as in our baseline specification, with the exception of *Purges* which loses statistical significance and now becomes only marginally statistically significant.

[Insert Table 4, Here]

In panels C and D we examine the robustness of our results on the selection of the bandwidth. Therefore, we impose two ad hoc bandwidths of (+/-700 dollars) and (+/- 1,000 dollars) window, respectively, instead of relying on the optimal bandwidth selection. Overall, we find that the results remain similar to those in our baseline model. The *General Conflict Index* and the subindexes of *Revolutions, Terrorism,* and *Assassinations* are statistically significant when we use both the conventional and the bias-corrected estimator and their coefficients are similar to our baseline model. *Strikes* are not significant in Panel C however, they regain significance in Panel D. We should note that in most of the cases the variables lose significance, since restricting the window leads to a significant loss of observations.[27]

In Panel E we exclude countries that receive other types of aid[28]. In this way we exclude the possibility that it is not IDA that drives our results, but other sources of foreign aid. According to Moss and Majerowicz (2012), sometimes other donors also adopt the IDA threshold crossing as a signal of the recipient's need for economic assistance. Therefore, the

jumps observed might be influenced by the aid provided by these countries. For that reason, we drop these countries from the sample in order to ensure that it is the IDA and not any other types of aid that are driving the results. Overall, in this scenario we do not observe any significant change in the main in our results.

In Panel F we perform a sharp regression discontinuity approach. The sharp regression discontinuity suggests a deterministic rule for IDA receipt (i.e., those cases that cross the IDA threshold will receive IDA). Even though the deterministic rule is not the appropriate modeling strategy in our case, it gives us insights on the validity of the *Fuzzy RDD*. Interestingly. all our main results remained unchanged.

As we noted in the previous section, for a country to graduate from IDA, there must be a period of three successive years during which its GNI is above the operational threshold. This means that the World Bank will decide to cut IDA funds only in the subsequent (3-year) replenishment period. During the years 1987–2016 which is the period under examination, the World Bank had 10 replenishment periods. In Panel G we perform our baseline estimations, as in Table 2 using aggregate data across the (3-year) replenishment periods instead of annual observations for each country. Again, the overall index declines with IDA. We also find that the IDA has a negative effect on anti-government demonstrations when we use the robust and the bias-corrected estimator (column 2), as well as in Terrorism and General Strikes. Revolutions are statistically significant at the margin (a t-statistic of 1.57), while Riots and Assassinations lose some of their statistical significance, yet the general result of the previous tables still remains.

[Insert Table 5 and 6, Here]

Finally, in Table 5 and Table 6 we examine the robustness of our nonparametric *Fuzzy RDD* by performing parametric estimations. First, in Table 5 we estimate a global 2SLS model

using a sample of countries which are presented in the appendix.[29] Panel A reports the second-stage results while Panel B the first-stage results. Again, the results suggest that the overall *Conflict Index* decreases once a country receives IDA. Furthermore, *Antigovernment Demonstrations*, *Riots*, *Revolutions,* and *Terrorism* have the expected signs as before. However, we find no statistically significant effect on *Purges*, *General Strikes,* and *Assassinations*. Finally, in Table 6 we perform the same estimations as in Table 5 but we now use quadratic polynomial. The results are similar to those in Table 5.[30]

7. Conclusions

In this paper we tried to examine the causal effect of receiving international development assistance by the World Bank on domestic conflict events. We exploited the operational threshold used to assess the relative poverty criterion for Gross National Income, as set annually by the World Bank, in a *Fuzzy RDD.* According to our findings, the effect of IDA on conflict is not the same across various conflict types. Specifically, we found that IDA increases conflict events that aim at changing the political regime, whereas it has a negative effect on conflict events that simply express popular discontent.

These results suggest that aid has a different effect depending on the intensity of conflict event. In this way, individuals that hold political power within the country may loot the aid revenues, despite the fact that the government has won the political support of the population. Our argument is supported by additional *Fuzzy RDD* estimations in which we find that IDA increases coups as well as leading to autocratic regime change. Our results are robust across alternative specifications.

These results are significant from a policy perspective as they allow us to understand the changes in the political arena within the country, due to the development policies. Even though these policies might be quite effective, and may yield a positive short-run effect in

terms of improving both economic and political conditions, in the long run they might well be quite detrimental. By creating rents within the economy, they might spur a process of internal conflicts with the aim of creating an extractive and authoritarian regime. And, ultimately, unless foreign aid conditions are properly structured, this long-run effect might be adverse enough to nullify all the positive short-run effects of aid on the economy.

8. References

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Tables and Figures

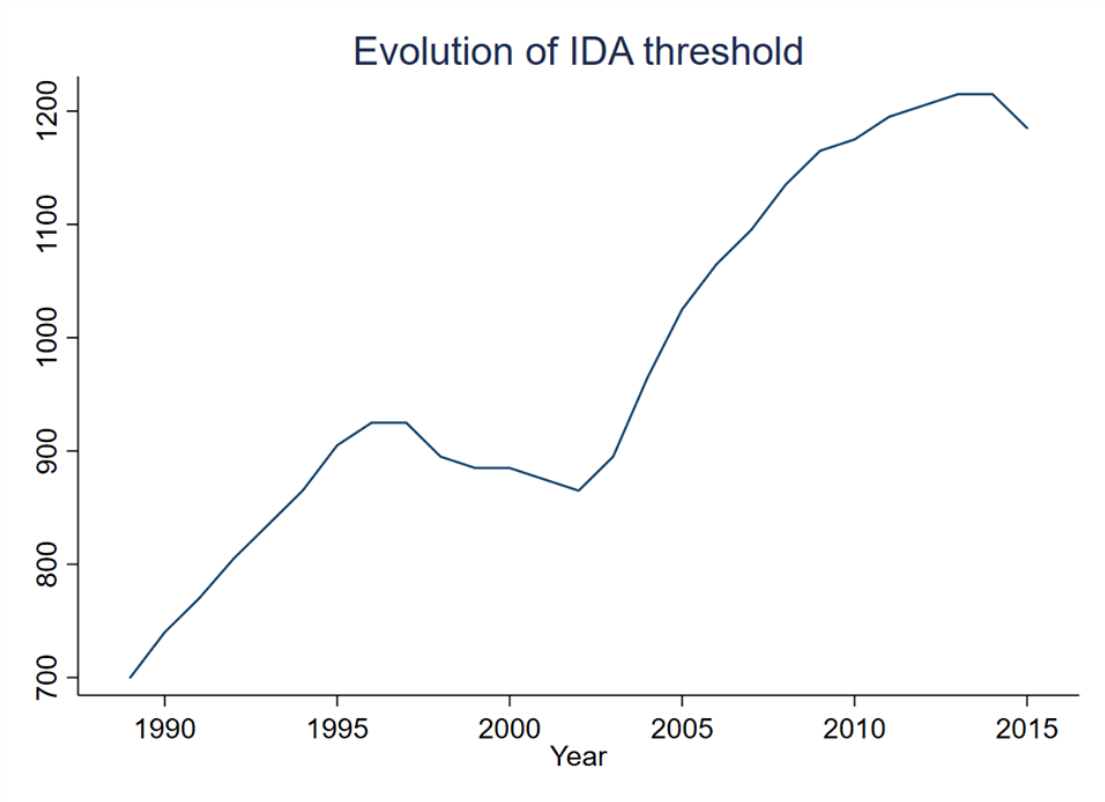


Figure 1: Operational Threshold of IDA.
source: The World Bank Operational Manual : Operational Directive OD3.10 - IBRD/IDA Countries : Per Capita Incomes, Lending Eligibility, and Repayment Terms

Figure 2

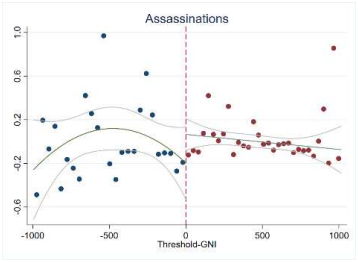


Figure 3

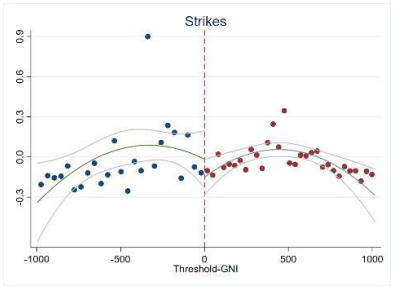


Figure 4

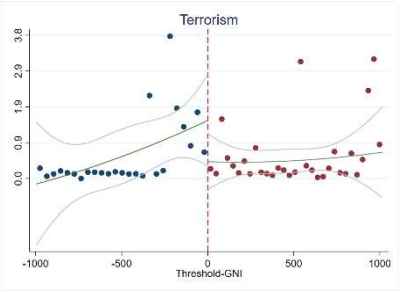


Figure 5

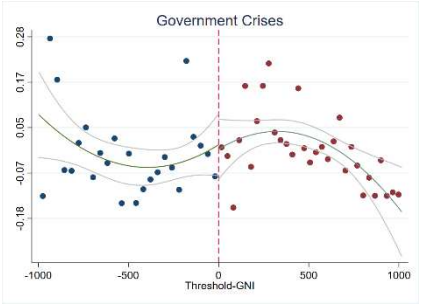


Figure 6

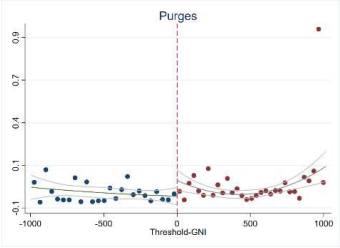
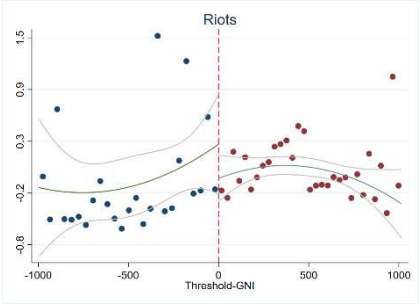


Figure 7



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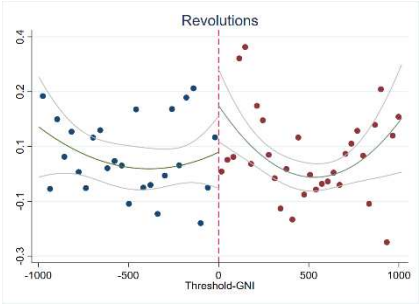

Figure 9

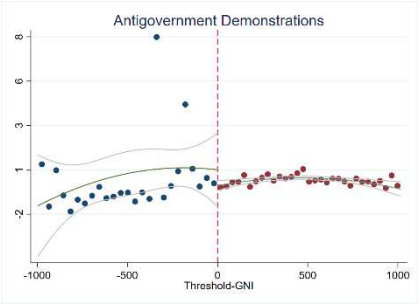

Figure 10

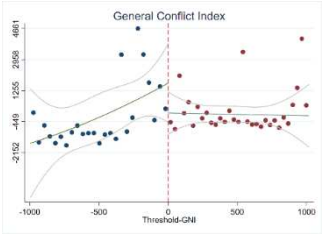

Table 1:Data and definitions

Variable	Mean	St. Dev	Min	Max	Source	Definition
Anti-government demonstrations	0.908132	4.116154	0	149	Banks and Wilson (2017)	Peaceful public gathering of at least 100 people for the primary purpose of displaying or voicing their opposition to government policies or authority.
Strikes	0.1281048	0.6232052	0	13	Banks and Wilson (2016)	Strikes of 1,000 or more industrial or service workers that involve more than one employer and that is aimed at national government policies,
Government crises	0.1252127	0.3925986	0	5	Banks and Wilson (2016)	Rapidly developing situation that threatens to bring the downfall of the present government
Riots	0.4535556	1.716747	0	28	Banks and Wilson (2016)	Violent demonstrations or clash of more than 100 citizens involving the use of physical force
Terrorism	0.6361007	7.678771	0	363	Banks and Wilson (2016)	Armed activities, sabotage or bombings carried out by independent bands of citizens or irregular forces and aimed at the overthrow of the government.
Purges	0.0416808	0.268849	0	5	Banks and Wilson (2016)	Systematic elimination by jailing or execution of political opposition within the ranks of the regime or the opposition
Assassinations	0.1609391	0.8411073	0	26	Banks and Wilson (2016)	Politically motivated murder or attempted murder of a high government official or politician.
Revolutions	0.1480095	0.4661836	0	9	Banks and Wilson (2016)	Illegal or forced changes in the top government elite, any attempt at such a change, or any successful or unsuccessful armed rebellion whose aim is independence from the central government.
General conflict index	1448.598	9895.669	0	455500	Banks and Wilson (2016)	Weighted average of all 8 categories
Coups	0.0005077	0.0225284	0	1	Bjornskov and Rhode	Takes value 1 if a coup occurred and zero otherwise
IDA threshold					World Bank reports	
Receipt of IDA	0.2716489	0.4448475	0	1	World Bank reports	Takes value 1 if a country receives IDA
GNI per capita	8466.696	14674.59	60	203900	World Bank reports	
Regime transition	-1.66595	15.82064	-2	+3	Polity IV Project	Negative values denote an autocratic regime transition while positive a democratic one
GDP per capita	13093.94	15887.26	134	156144	Maddison	Gross Domestic Product per capita
Population growth	1.59	1.48	-6.184	16.33	World Bank	
Oil rents	3.672296	9.35293	0	64.013	World Bank	Oil Rents
Fractionalization	0.4391768	0.1853397	0.0068726	0.8176585	Alesina	Mean of ethnic, religious, and language fractionalization (own calculations)
Commitments of aid	1.766042	5.559134	0	24.8664	OECD	Total commitments of aid (all donors).

Table 2: Baseline Results

Panel A: Second Stage	(1) Anti-Government Demonstrations	(2) General Strikes	(3) Government Crises	(4) Riots	(5) Terrorism	(6) Purges	(7) Assassinations	(8) Revolutions	(9) Weighted Conflict Index
Conventional	-4.512	-0.355	0.250	-0.698	-5.016	0.163*	1.327*	0.492	-5852.6
	(-1.46)	(-1.52)	(1.23)	(-0.95)	(-1.56)	(1.66)	(1.83)	(1.05)	(-1.49)
Bias-corrected	-6.670**	-1.029+	0.0107	-1.935***	-8.135**	0.374+	1.975***	0.943**	-10137.8***
	(-2.16)	(-4.39)	(0.05)	(-2.62)	(-2.53)	(3.81)	(2.73)	(2.01)	(-2.58)
Robust	-6.670*	-1.029+	0.0107	-1.935**	-8.135**	0.374***	1.975**	0.943*	-10137.8**
	(-1.77)	(-4.01)	(0.04)	(-2.29)	(-2.17)	(2.86)	(2.29)	(1.67)	(-2.18)
Panel B: First stage results									
Conventional	0.145***	0.300+	0.230+	0.254+	0.240+	0.258+	0.160**	0.194+	0.255+
	(2.58)	(6.77)	(4.66)	(5.38)	(4.95)	(5.52)	(2.50)	(3.72)	(5.45)
Bias-corrected	0.700	0.187+	0.122**	0.153+	0.156+	0.166***	0.09*	0.118**	0.155+
	(1.23)	(4.35)	(2.47)	(3.26)	(3.22)	(2.85)	(1.65)	(2.25)	(3.30)
Robust	0.700	0.187+	0.122*	0.153**	0.156**	0.166**	0.09	0.118*	0.155***
	(1.03)	(3.30)	(1.92)	(2.54)	(2.61)	(2.81)	(1.39)	(1.88)	(2.58)
Polynomial	1	1	1	1	1	1	1	1	1
Obs (total)	3671	3671	3671	3671	3671	3671	3671	3671	3671
N left- N right	570-1265	811-1265	608-1265	692-1265	727-1265	746-1265	616-1265	662-1265	694-1265
Bwidth_Left	692.6	1411.3	957.5	1083.2	1004.4	1112.4	732.6	837.7	1095.6
Bwidth_Right	692.6	1411.3	957.5	1083.2	1004.4	1112.4	732.6	837.7	1095.6
Covariates	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed and Time Effects	No	No	No	No	No	No	No	No	No

Note: Local polynomial regression discontinuity (RD) estimates running the optimal bandwidth procedure are reported (Calonico et al. 2014, 2018). Yearly observations and three different methods in computing standard errors apply to both panels. In Panel A, we present the second-stage results and in Panel B, the first-stage results. Covariates that are used are: population growth, GDP per capita, fractionalization, democracy index, oil rents, and total commitments of aid. Significance levels (t statistics in parentheses):+0.001, ***0.01, **0.05, *0.1. N left-N Right gives the number of observations to the left and to the right of the optimally chosen bandwidth (Calonico et al. 2014, 2018).

Table 3: Additional Fuzzy RDD estimations

	(1) Regime Transition	(2) Coups
Conventional	-0.26	0.0255
	(-1.09)	(1.50)
Bias-corrected	-0.76***	0.0404**
	(-3.20)	(2.38)
Robust	-0.76**	0.0404
	(-2.68)	(1.51)
Polynomial	1	1
Obs	3639	4550
Bandwidth	1276.550	1680.323

Note: Local polynomial regression discontinuity (RD) estimates running the optimal bandwidth procedure are reported (Calonico et al. 2014, 2018). (t statistics in parentheses):+0.001, ***0.01, **0.05, *0.1.

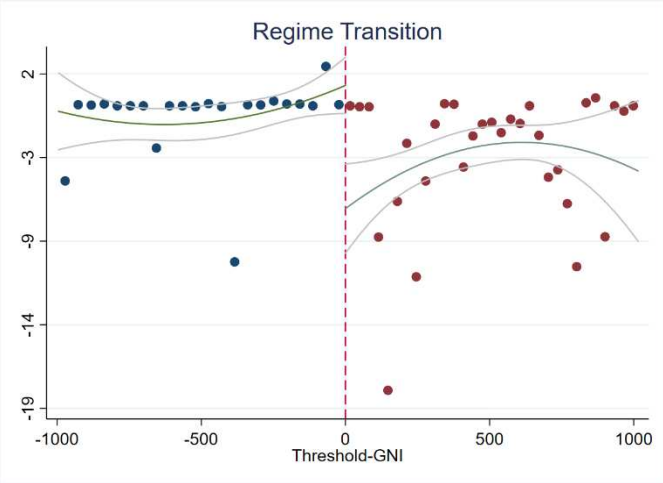

Figure 11

Table 4: Robustness

	(1) Anti-Government Demonstrations	(2) General Strikes	(3) Government Crises	(4) Riots	(5) Terrorism	(6) Purges	(7) Assassinations	(8) Revolutions	(9) Weighted Conflict Index
Panel A: No covariates									
Conventional	-0.0995	-0.649	0.0768	-1.043	-4.472*	0.117	1.174	0.554	-10008.8
	(-0.01)	(-0.66)	(0.40)	(-0.99)	(-1.79)	(0.83)	(1.50)	(1.42)	(-1.40)
Bias-corrected	4.998	-1.192	-0.241	-2.284**	-7.674***	0.290**	1.858**	0.867**	-16520.1**
	(0.47)	(-1.22)	(-1.25)	(-2.16)	(-3.07)	(2.05)	(2.37)	(2.22)	(-2.32)
Robust	4.998	-1.192	-0.241	-2.284*	-7.674**	0.290*	1.858**	0.867*	-16520.1*
	(0.38)	(-1.02)	(-0.97)	(-1.78)	(-2.46)	(1.75)	(1.96)	(1.76)	(-1.96)
Covariates	No	No	No	No	No	No	No	No	No
Country & Time Fixed Effects	No	No	No	No	No	No	No	No	No
Observations (total)	4566	4566	4566	4566	4566	4566	4566	4566	4566
Nleft, Nright	410 858	455 1055	653 1445	615 1425	858 1445	626 1431	519 1305	628 1334	570 1406
	548.39	626.661	1026.636	935.443	1026.636	1373.37	752.708	1263.979	864.439
Panel B: Country & Time Fixed Effects									
Conventional	-3.065	-0.334	-0.316	-1.038	-4.528	0.0840	0.485	0.626**	-4959.4
	(-1.12)	(-1.51)	(-1.01)	(-1.47)	(-1.35)	(0.71)	(1.01)	(2.02)	(-1.31)
Bias-corrected	-2.491	-0.577***	-0.660**	-1.771**	-7.265**	0.200*	0.988**	0.912***	-7907.0**
	(-0.91)	(-2.62)	(-2.12)	(-2.52)	(-2.17)	(1.69)	(2.06)	(2.94)	(-2.09)
Robust	-2.491	-0.577**	-0.660*	-1.771**	-7.265*	0.200	0.988*	0.912**	-7907.0*
	(-0.75)	(-2.25)	(-1.75)	(-1.97)	(-1.81)	(1.40)	(1.67)	(2.31)	(-1.72)
Covariates	No	No	No	No	No	No	No	No	No
Country & Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations (total)	4540	4540	4540	4540	4540	4540	4540	4540	4540
N left, N right	523 1319	713 1444	525 1332	730 1444	615 1424	712 1444	534 1357	620 1428	677 1444
Bandwidth	762.499	1154.519	766.991	1165.978	937.134	1139.534	790.203	951.31	1070.319
Panel C: Window +-700									
Conventional	-4.521	-0.577	0.192	-1.849	-8.506	0.369*	1.453*	0.750	-10395.1
	(-1.50)	(-1.29)	(0.55)	(-1.30)	(-1.40)	(1.73)	(1.78)	(1.06)	(-1.33)
Bias-corrected	-3.479	-0.539	0.0794	-4.173***	-12.83**	0.701***	3.084+	1.323*	-15340.4*
	(-1.15)	(-1.20)	(0.23)	(-2.94)	(-2.12)	(3.29)	(3.77)	(1.87)	(-1.96)
Robust	-3.479	-0.539	0.0794	-4.173**	-12.83	0.701**	3.084***	1.323	-15340.4
	(-0.76)	(-0.86)	(0.16)	(-2.22)	(-1.57)	(2.55)	(2.89)	(1.30)	(-1.46)
Observations (total)	3671	3671	3671	3671	3671	3671	3671	3671	3671
Nleft, Nright	435 1219	616 1265	562 1265	592 1265	585 1265	501 1265	550 1265	373 969	639 1265
Bandwidth	837.654	1341.483	1171.420	1274.868	1235.966	1018.701	1151.894	660.599	1396.948
Covariates	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country & Time Fixed Effects	No	No	No	No	No	No	No	No	No
Observations (total)	3671	3671	3671	3671	3671	3671	3671	3671	3671
N left N right	391 1048	391 1048	391 1048	391 1048	391 1048	391 1048	391 1048	391 1048	391 1048

Table 4:continued

Panel D: Window +- 1000									
Conventional	-4.074**	-0.442	0.260	-0.829	-5.035	0.190*	0.703*	0.363	-6390.7
	(-2.03)	(-1.63)	(1.35)	(-1.06)	(-1.56)	(1.78)	(1.73)	(1.06)	(-1.49)
Bias-corrected	-4.979**	-0.723***	0.117	-2.366***	-9.252***	0.409+	1.538+	0.781**	-11574.4***
	(-2.48)	(-2.67)	(0.60)	(-3.02)	(-2.86)	(3.83)	(3.78)	(2.27)	(-2.70)
Robust	-4.979**	-0.723**	0.117	-2.366**	-9.252**	0.409***	1.538+	0.781	-11574.4**
	(-2.09)	(-2.14)	(0.43)	(-2.39)	(-2.33)	(3.23)	(3.33)	(1.56)	(-2.20)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country & Time Fixed Effects	No	No	No	No	No	No	No	No	No
Observations (total)	3671	3671	3671	3671	3671	3671	3671	3671	3671
N left N right	493 1260	493 1260	493 1260	493 1260	493 1260	493 1260	493 1260	493 1260	493 1260
Panel E: Without Covariates that receive other types of aid									
Conventional	-4.535**	-0.308	0.321*	-0.476	-5.157	0.144	0.856*	0.385	-6048.0
	(-2.06)	(-1.32)	(1.92)	(-0.69)	(-1.62)	(1.40)	(1.78)	(1.20)	(-1.53)
Bias-corrected	-6.908***	-0.974+	0.105	-1.646**	-8.470***	0.374+	1.380***	0.751**	-10533.6***
	(-3.14)	(-4.18)	(0.63)	(-2.38)	(-2.66)	(3.64)	(2.88)	(2.33)	(-2.67)
Robust	-6.908***	-0.974+	0.105	-1.646**	-8.470**	0.374***	1.380**	0.751*	-10533.6**
	(-2.93)	(-3.84)	(0.51)	(-2.02)	(-2.20)	(2.63)	(2.34)	(1.75)	(-2.17)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country & Time Fixed Effects	No	No	No	No	No	No	No	No	No
Observations (total)	3366	3366	3366	3366	3366	3366	3366	3366	3366
N left N right	423 1131	635 1152	458 1182	549 1152	488 1152	527 1152	431 1131	498 1152	521 1152
Bandwidth	909.654	1664.423	1111.661	1324.448	1110.406	1225.495	925.772	1154.834	1211.919
Panel F: Sharp RDD									
Conventional	-1.030*	-0.101	0.0755*	-0.147	-0.934	0.0353	0.181*	0.0852	-1151.8
	(-1.96)	(-1.49)	(1.77)	(-0.79)	(-1.44)	(1.43)	(1.90)	(1.22)	(-1.31)
Bias-corrected	-1.181**	-0.233+	-0.00339	-0.422**	-1.427**	0.0789***	0.236**	0.145**	-1816.4**
	(-2.25)	(-3.44)	(-0.08)	(-2.28)	(-2.20)	(3.20)	(2.47)	(2.08)	(-2.06)
Robust	-1.181***	-0.233***	-0.00339	-0.422**	-1.427*	0.0789**	0.236**	0.145	-1816.4
	(-2.60)	(-3.29)	(-0.06)	(-1.97)	(-1.72)	(2.45)	(2.06)	(1.45)	(-1.63)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country & Time Fixed Effects	No	No	No	No	No	No	No	No	No
Observations (total)	3366	3366	3366	3366	3366	3366	3366	3366	3366
N left N right	595 1265	659 1265	535 1265	584 1265	723 1265	621 1265	545 1265	660 1265	458 1152
Bandwidth	1282.389	1463.884	1103.472	1232.246	1710.466	1350.428	1119.827	1465.006	1154.834
Panel G: Replenishment Periods									
Conventional	-5.098	-0.451	0.101	0.0867	-2.705	-0.00920	0.0970	0.498	-6195.7
	(-1.49)	(-1.13)	(0.21)	(0.08)	(-0.98)	(-0.04)	(0.20)	(0.90)	(-1.27)
Bias-corrected	-7.629**	-1.081***	-0.170	-1.176	-6.064**	0.280	0.303	0.867	-12346.1**
	(-2.23)	(-2.70)	(-0.36)	(-1.13)	(-2.20)	(1.13)	(0.61)	(1.57)	(-2.54)
Robust	-7.629**	-1.081**	-0.170	-1.176	-6.064	0.280	0.303	0.867	-12346.1*
	(-2.12)	(-2.43)	(-0.30)	(-0.97)	(-1.59)	(0.90)	(0.45)	(1.15)	(-1.85)
Covariates	No	No	No	No	No	No	No	No	No
Country & Period Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations (total)	1596	1596	1596	1596	1596	1596	1596	1596	1596
N left-N right	223-499	321-507	264-507	341-507	306-507	323-507	261-507	266-507	306-507
Bandwidth	904.453	1433.478	1129.564	1565.842	1362.378	1457.452	1119.158		1596

Note: Local polynomial regression discontinuity (RD) estimates running the optimal bandwidth procedure are reported (Calonico et al.,2014, 2018). See also the notes in Table 2

Table 5: Global Regression Discontinuity Model

Panel A: Second Stage	(1) Anti-Government Demonstrations	(2) General Strikes	(3) Government Crises	(4) Riots	(5) Terrorism	(6) Purges	(7) Assassinations	(8) Revolutions	(9) Weighted Conflict Index
Treatment Effect	-6.454**	-0.345	-0.072	-1.699**	-6.409**	0.022	0.224	0.345**	-8697.877**
	(-2.167)	(-1.215)	(-0.561)	(-2.231)	(-2.131)	(0.242)	(0.976)	(2.312)	(-2.204)
Forcing	-0.001***	-0.000**	-0.001***	-0.001*	0.000***	0.001***	-0.000**	-0.001***	0.033*
	(-2.710)	(-2.422)	(-2.914)	(-1.679)	(2.863)	(4.302)	(-2.009)	(-5.554)	(1.826)
Observations	4537	4537	4537	4537	4537	4537	4537	4537	4537
r2	-0.0624	0.00823	0.0179	0.0623	-0.0216	0.0512	0.0173	-0.0139	-0.0187
F	4.383	4.094	2.994	7.467	1.312	4.135	3.448	6.555	2.269
First stage results:									
1 if eligible				0.200***					
				(6.906)					
Forcing				-0.001**					
				(-2.202)					
First stage F				47.67					

Note: Global polynomial regression discontinuity (RD) estimates using time and country fixed effects. Significance levels (t statistics in parentheses): ***0.01, **0.05, *0.10.

Table 6: Global Regression Discontinuity Model-Polynomial 2

	(1) Anti-Government Demonstrations	(2) General Strikes	(3) Government Crises	(4) Riots	(5) Terrorism	(6) Purges	(7) Assassinations	(8) Revolutions	(9) Weighted Conflict Index
IDA recipient	-6.548**	-0.356	-0.074	-1.733**	-6.400**	0.022	0.226	0.340**	-8720.045**
	(-2.194)	(-1.251)	(-0.575)	(-2.268)	(-2.126)	(0.240)	(0.977)	(2.271)	(-2.207)
forcing	-0.000***	-0.000***	-0.000**	-0.000***	0.000*	0.000**	-0.000	-0.000***	0.022
	(-4.141)	(-2.880)	(-2.323)	(-3.171)	(1.923)	(2.203)	(-0.806)	(-4.553)	(0.705)
Forcing x forcing	-0.000***	-0.000***	-0.000	-0.000***	0.000	-0.000	0.000	-0.000***	-0.000
	(-3.997)	(-2.748)	(-1.235)	(-3.366)	(0.412)	(-0.040)	(0.483)	(-2.991)	(-0.674)
Observations	4537	4537	4537	4537	4537	4537	4537	4537	4537
r2	-0.0656	0.00789	0.0178	0.0610	-0.0214	0.0512	0.0172	-0.0115	-0.0190
F	4.523	3.995	2.888	7.171	1.282	3.998	3.346	6.348	2.224

First Stage Results

1 if eligible	0.200***
	(6.873)
Forcing	-0.001***
	(-2.849)
Forcing squared	-0.001***
	(-2.713)
First stage F	47.21

APPENDIX

Table A 1

	(1) Population growth	(2) Oil rents	(3) Real GDP per Capita	(4) Fractionalization	(5) Level of Democracy	(6) Commitments
Conventional	-2.839	0.730	-1087.6	-0.0364	0.214	10.42**
	(-1.08)	(0.20)	(-0.72)	(-0.35)	(0.08)	(2.36)
Bias-corrected	-4.077	-3.160	-719.9	0.0320	3.284	16.97+
	(-1.55)	(-0.85)	(-0.48)	(0.31)	(1.17)	(3.84)
Robust	-4.077	-3.160	-719.9	0.0320	3.284	16.97***
	(-1.35)	(-0.69)	(-0.42)	(0.25)	(1.02)	(3.04)
Polynomial	1	1	1	1	1	1
Obs	4507	4370	3959	4410	3959	4566
N_total_left	3067	2960	2634	3024	2562	3121
N_total_right	1440	1410	1325	1386	1397	1445
N_left	703	877	774	917	744	858
N_right	1440	1410	1325	1386	1397	1445
Bwidth_Left	600.5	1110.7	872.5	966.6	699.1	857.8
Bwidth_Right	600.5	1110.7	872.5	966.6	699.1	857.8
Bandwidth	mserd	mserd	mserd	mserd	mserd	mserd
Covariates						
Kernel	Triangular	Triangular	Triangular	Triangular	Triangular	Triangular

t statistics in parentheses * p<0.10, ** p<0.05, *** p<0.01, + p<0.001

Figure A 1

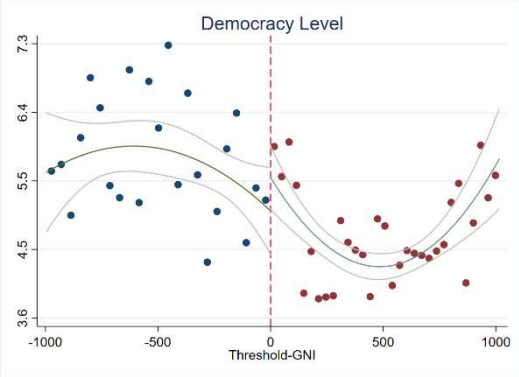

Figure A 2

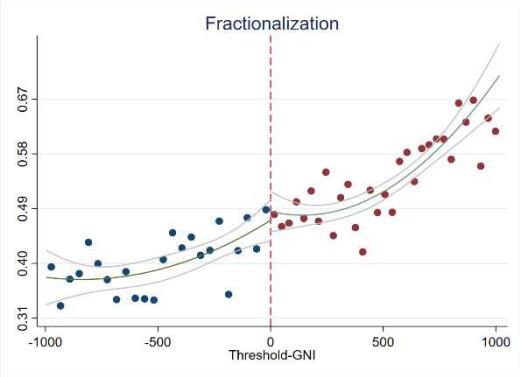

Figure A 3

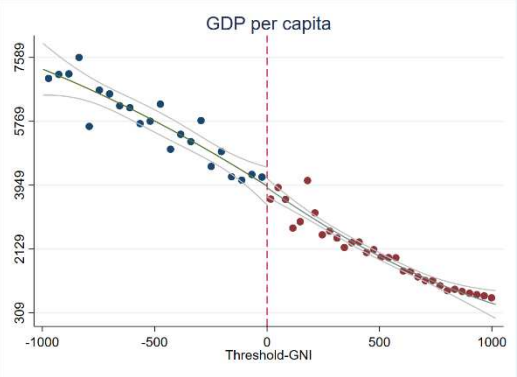

Figure A 4

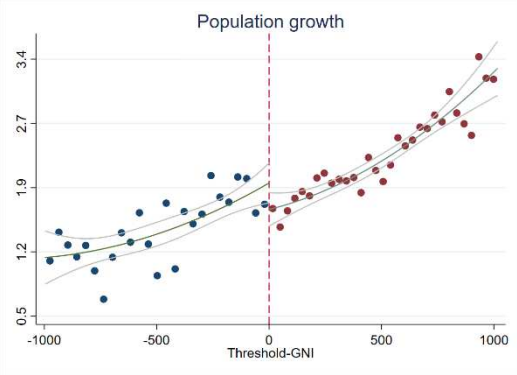

Figure A 5

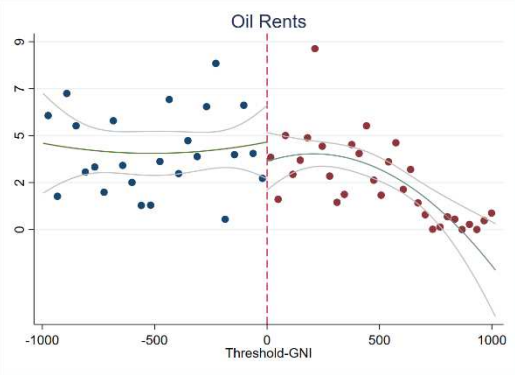

Figure A 6

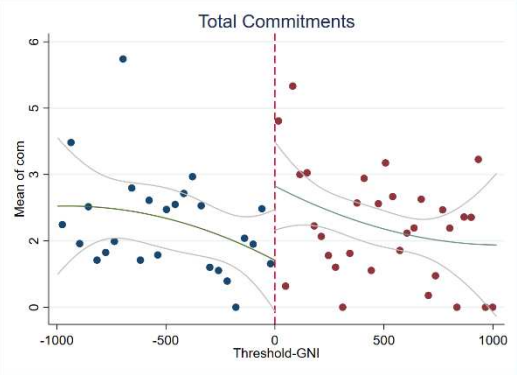

Table A 2: Country List

Afghanistan
Albania
Algeria
Andorra
Angola
Antigua and Barbuda
Argentina
Armenia
Aruba
Australia
Austria
Azerbaijan
Bahamas
Bahrain
Bangladesh
Barbados
Belarus
Belgium
Belize
Benin
Bhutan
Bolivia
Bosnia and Herzegovina
Botswana
Brazil
Brunei
Bulgaria
Burkina Faso
Burundi
Cabo Verde
Cambodia
Cameroon
Canada
Central African Republic
Chad
Chile
China PR
Colombia
Comoros
Congo
Zaire
Congo, Republic
Costa Rica
Cote d'Ivoire
Croatia
Cuba
Cyprus
Czech Republic
Czechoslovakia
Denmark
Djibouti
Dominica
Dominican Republic
Ecuador
Egypt
El Salvador
Equatorial Guinea
Eritrea
Estonia
Ethiopia
Fiji
Finland
France
Gabon
Gambia
Georgia
Germany
Ghana
Greece
Grenada
Guatemala
Guinea
Guinea-Bissau
Guyana
Haiti
Honduras
Hungary
Iceland
India
Indonesia
Iran
Iraq
Ireland
Israel
Italy\
Jamaica
Japan
Jordan
Kazakhstan
Kenya
Kiribati
Korea, North
Korea, South
Kosovo
Kuwait
Kyrgyzstan
Laos
Latvia
Lebanon
Lesotho
Liberia
Libya
Liechtenstein
Lithuania
Luxembourg
Macedonia
Madagascar
Malawi
Malaysia
Maldives
Mali
Malta
Marshall Islands
Mauritania
Mauritius
Mexico
Micronesia
Moldova
Monaco
Mongolia
Montenegro
Morocco
Mozambique
Myanmar (Burma)
Namibia
Nepal
Netherlands
New Zealand
Nicaragua
Niger
Nigeria
Norway
Oman
Pakistan
Palau
Panama
Papua New Guinea
Paraguay
Peru
Philippines
Poland
Portugal
Qatar
Romania
Russia
Rwanda
Saint Kitts and Nevis
Saint Lucia
Saint Vincent and the Grenadines
Samoa
San Marino
Sao Tome and Principe
Saudi Arabia
Senegal
Serbia
Serbia/Montenegro
Seychelles
Sierra Leone
Singapore
Slovak Republic
Slovenia
Solomon Islands
Somalia
South Africa
South Sudan
Spain
Sri Lanka
Sudan
Suriname
Swaziland
Sweden
Switzerland
Syria
Tajikistan
Tanzania
Thailand
Timor-Leste
Togo
Tonga
Trinidad and Tobago
Tunisia
Turkey
Turkmenistan
Tuvalu
Uganda
Ukraine
United Arab Emirates
United Kingdom
United States
Uruguay
Uzbekistan
Vanuatu
Venezuela
Vietnam
Yemen AR
Yemen
Republic
Yugoslavia
Zaire
Zambia
Zimbabwe

Notes:

[1] We use a Fuzzy RDD since a simple OLS regression one would create several biases. First, reverse causality might be a problem as countries with high levels of conflict may also receive aid for conflict reduction. Second, aid recipient countries are less developed, and lower development is associated with higher incidence of conflict (Humphreys 2003).

[2] Using the Banks and Wilson (2017) database, we examine various types of conflict events, specifically, riots, anti-government demonstrations, strikes and government crises, revolutions, purges, terrorist attacks, and assassinations. Following the logic of Banks and Wilson (2017), we separate into these two categories, major and minor conflict events, based on the dataset's codebook https://www.cntsdata.com/domconflict/c1svs.

[3] In the same paper it is argued that even humanitarian aid can have adverse effects by creating shelters for combatants. Similarly, Anderson (1999), Cooley and Ron (2002), and de Waal (2014) argue that refugee camps can help extremists and potential rebels by providing them with camouflage or serving as a point of recruitment. Wood and Molfino (2016) find that humanitarian aid leads to increased violence between government and rebels by performing a difference-in-differences estimation for 20 African countries. Their argument is that large amounts of aid create incentives for rebels to extend their control over larger areas. However, they find that other types of aid have no effect on conflict.

[4] The term "winning the hearts and minds" means that someone tries to bring a subjugated population over to their side by making emotional appeals to the supporters of the other side and was first used by Louis Hubert Gonzalve Lyautey, a French general and colonial administrator, as part of his strategy to counter the Black Flags rebellion along the Indochina-Chinese border in 1895 (Paret et al. 1986).

[5] Conditional cash transfer programs are those types of financial aid that aim to reduce poverty and individuals who are potential recipients of those programs must meet with some criteria.

[6] Against this view, Bradbury (2010), in a study for Kenya, argues that foreign aid does not win the "hearts and minds" of the population as they find that the level of security decreases three years after the receipt of aid. Since many people are skeptical regarding the presence of CJTF-HOA6 this would probably attract extremist violence.

[7] Similarly(Ashley Jackson and Antonio Giustozzi 2012) in their report for Afghanistan, argue that aid resulted in higher conflict because the Taliban could not use humanitarian aid to their advantage.

[8] Several other arguments are proposed for why aid may reduce conflict. First, with aid revenues there is an increase in military expenditures, which makes a possible revolution less likely to occur (Collier and Hoeffler, 2007; (de Ree and Nillesen 2009)). Second, there is less dependence on primary commodity exports (Collier and Hoeffler, 2002). Last, the positive impact on growth makes a revolution more costly, by increasing the opportunity costs of conflict and the opportunity costs of recruiting rebels (Crost et al. 2016). However, all these arguments are, at least indirectly, related to the ones presented in the main text.

[9] Koubi and Böhmelt (2013), argue that armed conflicts in Nepal, Indonesia, Nigeria and Sierra Leone provide anecdotal evidence of cases where asymmetry in wealth distribution led to civil war

10 As of July 2019, the interest rate was set at 1.46% for credits in USD. The maturity period was set at 40 years for small economies, 38 years for regular IDA countries, and 30 years for blend economies, i.e., creditworthy economies which are below the operational GNI cutoff, or standard IDA countries with a GNI above the operational cutoff for 2 consecutive years. Finally, the grace period was set at 10, 6 and 5 years for each of the 3 groups of eligible countries, respectively. See http://ida.worldbank.org/financing/ida-lending-terms for more details.

[11] For a general discussion of the regression discontinuity approach, see Lee and Lemieux (2010).

[12] For the list of countries see the Appendix Table A2. Since the panel is unbalanced, the number of countries that we use in each year may differ due to missing values.

[13] Galiani et al. (2017) have tested the possibility of manipulating the IDA threshold. They performed a density test in order to test whether a brunching exists. Their argument is that if countries could manipulate the threshold, there would have been a significant brunching of observations just below the threshold, relative to those observations just above it. What they found was that, indeed, there was no evidence of brunching or thus threshold manipulation.

[14] These reports were provided directly to us and to date they are not available online.

[15] Galiani et al. (2017) also use the same reports for a more limited time period. For overlapping observations in our sample and the latter sample we confirmed that they are the same.

[16] RDD is sensitive to the measurement of the running variable, so we used the exact same variable that determines the rule. The annual publication of the World Development Indicators is available at https://openknowledge.worldbank.org/handle/10986/2124.
[17] We examine the effect of IDA given at time *t-1* on conflict at *t*. We have also experimented with the effect of IDA at time *t* and *t-2* on conflict at *t*. All the results remain the same as the ones presented here.
[18] As the weights changed after 2007, for consistency, we have computed the variable after 2007 with the same weights as in pre-2007.
[19] Moreover, the literature that examines the effect of the youth bulge on conflict (Huntington 2011), typically uses the population growth rate as a proxy for the growing share of the young age population. We also experimented with the share of young population (aged 15–24) as a dependent variable and our results remain qualitatively unchanged.
[20] Table 1 gives descriptive statistics and data sources for all variables.
[21] A crucial assumption in RD approaches is that there are no discontinuities in other covariates across the threshold. Since those variables, according to the literature, affect conflict, we have also performed fuzzy regression discontinuity designs to examine whether they jump at the threshold. This means that the only variables that change discontinuously at the threshold are just the conflict measures and no other variables that affect conflict. In the appendix we present the estimations and the figures of these specifications (Table A 1,Figures A1-A6).
[22] These results are quantitatively significant. The treatment effect on *Antigovernment demonstrations* is equivalent to a 1.5 standard-deviation decrease. Similarly, the corresponding magnitudes are approximately 1.12 1.5, 1.1 and 2 standard deviations for the *riots*, *purges*, *guerilla warfare* and *strikes,* respectively.
[23] We should note that a simple correlation shows that approximately 60% of the cases that cross the GNI threshold receive IDA, which further indicates the validity of the instrument.
[24] Note that first-stage estimates differ across columns because the optimal bandwidth in each estimation differs. The first stage results for the robustness checks are not reported due to space considerations and are available upon request. The first stage results are the same across only columns that use the same bandwidth, e.g., Panels C and D of Table 4 and Table 6.
[25] Since coups is a binary variable with many zero values, the RDD graph has little meaning.
[26] Since the Calonico and Cattaneo (2014) procedures do not allow for country and time fixed effects, we have double de-meaned the dependent variables.
[27] Jacob et al. (2012) suggest that there is a tradeoff between bias and precision. Using a large window, we get more precise estimates, since more data points are used.
[28] I.e., countries that receive aid both from IDA and other donor countries/institutions.
[29] As already noted, bandwidth selection implies a tradeoff between precision and bias (Jacob et al. 2012). Thus, we use all the observations in order to estimate the causal effect of IDA on conflict.
[30] We have also estimated a global parametric RDD, which is restricted in the window of +/-1000 USD and +/-700 USD. The results are the same as the ones presented here and are available upon request.