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Third parties and the non-monotonicity of the resource curse: Evidence from US military influence and oil value

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Abstract
The relationship between resource value and conflict in a territory is affected by the interest of powerful third parties, which could deter predators. By employing widely-used measures of resource value and geologic predictors of oil presence, as well as a measures of third party presence, we examine this relationship, providing evidence of non-monotonicity in countries exposed to a powerful third party. We show that conflict probability is nonmonotonic in the value of oil in a country, in areas under US military influence. As we show, US influence in the data proxies for a higher probability of intervention in case of conflict, which may deter predator conflict in countries with large resource value.

JEL Classification: F51, Q34, D74, P48.

Keywords: conflict, resource curse, third party, oil, intervention.

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1 Introduction

Resource-rich countries have long been considered 'cursed' by their resource wealth, bringing unwanted attention by competing regional powers and internal challengers to a countries' government. Such wealth, nonetheless, has historically coincided with stronger ability to form connections with powerful third parties, wanting to secure access to a resource. The interaction of these two incentives makes the relation between conflict probability and resource value a priori complex to study, potentially non-monotonic, and largely dependent on third party presence in an area.

The joint role of third parties and resource value in determining the stability of vast geographical areas is likely to become a central discourse of the next years, when the green transition and rapidly emerging new technologies will dramatically alter the value of natural resources across different areas. For instance, it is an open question whether a likely lower future use of hydrocarbons in the global economy will increase or decrease conflict incentives in the Middle-East. Will a lower value of oil coincide with less incentives to steal resources across neighbors? Will it reduce deterrence by third parties by leading to disengagement of, e.g., the U.S.?

In this, paper we empirically assess how a powerful third party can affect the relation between the value of resources and conflict. We focus on the policy-relevant case of the value of hydrocarbons–potentially at the center of the green transition–and U.S. military influence. We use established data on conflict and resource presence, as well as measures of U.S. influence to show that: (i) the relation between conflict and oil vlaue in a country is non-monotonic and such non-monotonicity is driven by exposure to U.S. influence, represented by arms' trade relations and the presence of military bases, (ii) U.S. military influence in an area does coincide with a larger likelihood of U.S. military intervention during a conflict. Our results hold both using on measures of actual resource value as well as measures of geological determinants of hydrocarbons presence in an area. The empirical regularities that we unconver are entirely consistent with the theory of resource conflict and third-party involvement set out in the companion paper Battiston et al. (2024).

Our analysis uses data on interstate and civil conflict from the Peace Research Institute of Oslo (PRIO) and the Uppsala Conflict Data Program (UCDP) covering the second half of the last century (1946-1999). As a measure of the resource values, we rely on accounting of oil, gas, and coal value provided by the World Bank as well as sedimentary basins. The latter represent a geologically-determined proxy for hydrocarbons value, addressing several endogeneity conncerns, especially when used in couple with a rich set of geographical factors correlated to geology conflict (e.g., elevation average and dispersion, temperature, and precipitation), similar to Hunziker and Cederman (2017).

First, we regress the probability of conflict in a specific country in our sample over its resoure value and the resource value squared. Positive estimates for linear terms and negative estimates for squared terms support the non-monotonicity prediction. We show that such non-monotonicity is sufficiently pronounced to make for a non-monotonic correlation in the overall sample of countries.[1] In addition, we show that the non-monotonicity between conflict probability and resource value is entirely driven by countries exposed to US influence. Second, we use data on third-party interventions in conflict by Koga (2011) to show that US interventions are more likely in areas with bases and arms' trade, lending support to the measures used in our analysis.

The evolution of resource conflict after WWII represents an ideal case study to test our theory. Our sample period (1946-1999) mostly overlaps with the Cold War. During that period, the US and the USSR were considered the most important military and economic powers globally.[2] Among the two, only the U.S. preserved a strong interest and the power of securing oil for its economy. During our sample years, the US has always been a major superpower, with an economy extensively relying on oil imports (EIA, 2021). As we document below, the US has intervened directly or indirectly in a number of oil-rich contexts, like Kuwait, Angola, Guatemala, and Indonesia (Bove et al., 2016). In addition, oil interests have likely motivated the long-standing US strategic partnership with Saudi Arabia (Metz, 1993). Instead, the USSR is a net oil exporter for most of our sample. The USSR did conduct interventions in two conflicts involving resource-rich countries, Nigeria (1957-1968) and Indonesia (1958), but both happened

[1]We formally test for an inverse-U-shaped relation using the methodology suggested by Lind and Mehlum (2010).

[2]In a reknown book published in the 1940s (Fox, 1944), William T. R. Fox coined the word 'superpower' to describe the role that the US, the USSR, and the UK would take up in a world transformed by WWII. The UK, prior to the end of its colonial history, did conduct third-party interventions in accordance with our hypotheses. For instance, it intervened in the Biafran war in oil-rich Nigeria (1957-1968) while it did not intervene in Sierra Leone nor Rhodesia, both countries without comparable oil reserves (Bove et al., 2016). Still, a few years later, a broad consensus had emerged that the US and the USSR were the only global players able to command a similar role, leading Fox himself to comment on the inclusion of the UK in his book as 'what [...] appears to have been an elementary mistake' (Fox, 1980).

in a period when Soviet oil production was just starting to gain prominence.[3,4]

We use two ways to measure US involvement, relying on the presence abroad of US troops and arms imports from the US.[5] Employing data by Koga (2011), we validate these measures showing that they predict US intervention in civil conflict. In addition, we show that the same results apply if we use as a measure of involvement a measure of affinity calculated from UN voting patterns, or simply geographical distance from the US. In addition, we show that our empirical results are not driven by differences in the ability to convert resource value into military power, an alternative explanation for non-monotonicity. Indeed, we show that resource value does not increase military expenditure more in countries exposed to US influence.

In sum, our work improves the understanding of the geographical determinants of conflict; further, it sheds light on the challenges raised by today's rapid technological change. Technological progress can rapidly affect the importance of a resource as input for production. For instance, the surge in the use of battery-powered devices quickly raised the strategic importance of cobalt for our economies (USGS and USDI, 2012). Similarly, pollution and the threat of climate change prompted investments in the development of alternatives to fossil fuels, in turn affecting conflict incentives in oil-rich areas for local countries and third parties.

1.1 Related Literature

As anticipated in the previous section, our paper contributes to the literature on the resource curse of conflict and it connects it to the literature on third-party interventions and their effects on conflict.

A wide liteature, summarized by Van der Ploeg (2011), has found deterimental effects of resource abondance on economic outcomes, politics, internal and international conflicts. Collier and Hoeffler (1998; 2004), pionieering the use of quantitave analysis to study conflict, analyzed the determinants of civil war, showing that economic opportunities, such as resource abundance, are a key determinant of conflict occurrence. They find a non-monotonic relationship between primary exports over GDP and the probability of conflict. Work by Fearon and Laitin (2003) and Fearon (2005), conducting a similar analysis, emphasises the role of dysfunctional institutions and weaker government control in inducing civil conflict. Despite accepting the

[3] See the data in Feenstra et al. (2005).

[4] In a robustness check, we show that the effects do not replicate in the case of USSR influence.

[5] Bove et al. (2018) provide evidence that arms trade is an effective foreign policy tool in maintaining access to natural resources.

non-monotonicity argument, they do not find evidence in its support with their methodology and suggest that a better test of the hypothesis should look at the effect of different types of resources in separation.[6] Later work by Collier et al. (2009), exploiting a more complete dataset of conflicts than Collier and Hoeffler (2004) and extending the time period of the analysis, provides aadditional evidence on the non-monotonic relation between primary commodity exports and the probability of conflict. Subsquent literature has turned to different measures of resource abundance in order to strengthen their exogeneity in the analysis. Brunnschweiler and Bulte (2009) introduced the use of World Bank natural capital measures to study the resource curse of conflict. They do not find strong evidence in support of the resource curse hypothesis, and they conduct a basic test of non-monotonicity.[7] Hunziker and Cederman (2017) exploits exogenous geographical variation in sedimentary basins volumes in different countries to obtain exogenous variation for oil presence and measure its effect on interastate and civil war. They show a positive association between resource presence and civil conflict in the case of oil resources.[8] Caselli et al. (2015) exploit variation in the location of oil fields with respect to borders, showing that oil fields closer to other countries. In sum, many works found an effect of resources on conflict, but only few allowed for a non-monotonic effect of resource value, as we do.[9] More importantly, we test for the role of third parties as a mechanism moderating the resource curse. To the best of our knowledge, we are the first to explore this meachnism in the empirical literature on resource conflict using cross-country analyses.

Our work also relates to the research findings using conflict micro-data and leveraging exogenous variation, e.g., in resource prices, to assess the impact of resource value of conflict. For instance, Berman et al. (2017) used data from the Armed Conflict Location & Event Data Project (ACLED) to show a positive impact of the global increase in the price of minerals on local conflict in Africa. Sonno (2020) finds a causal association between multinationals operations in Africa and conflict, using an instrument for multinational specific location. While our work looks at the general question of how resource conflict occurrence depends on third-party influ-

[6]See Blattman and Miguel (2010) for a comprehensive review of the literature on civil wars and an in-depth comparison between Collier and Hoeffler (2004) and Fearon and Laitin (2003).

[7]They run a regression allowing for non-monotonicity and using 'ratio of primary exports to GDP' as the independent variable, finding a negative but insignificant coefficient on the square value. Differently from them, in this paper we test for non-monotonicity allowing differential effects in countries exposed to third-party interventions and using oil and hydrocarbons measures.

[8]See Paine et al. (2022) and Paine (2019) for a theoretical explanation on how oil extraction can increase conflict probability.

[9]If the presence of a third-party leads to a inverse-U-shaped relation, this may impair inference (Signorino and Yilmaz, 2003).

ence at a country level, these works are an important basis to claim that conflict and resource presence are causally linked.

Our work also contributes to the literature on 'biased' third-party interventions in conflict, where third parties act to maximize their own benefit. Many papers explored potential explanations for such interventions, e.g., avoiding another player's hegemony in a region (Levine and Modica, 2018), or enlarging markets for their products, as shown by Berger et al. (2013a) and Berger et al. (2013b). Given such incentives, involvement by external powers can induce regime or area stabilization, as shown in Di Lonardo et al. (2019). Empirical work has investigated the determinants and consequences of such interventions. Koga (2011) investigates the determinants of third-party interventions, showing that the presence of lootable resources in an area incentivises third-party interventions by autocracies. Bove et al. (2016) show both theoretically and empirically that oil presence is a driver of third-party interventions. DiGiuseppe and Shea (2022) empirically establish that US support for a leader in another country can foster state capacity and reduce the risk of civil unrest. Regan (2002) documents that biased external interventions in civil wars, backing one opponent, reduce conflict duration. In a companion theoretical paper (Battiston et al., 2024), we show that the presence of a interested third-party generates an hump-shaped relationship between resource value and the probability of conflict. We contribute to this stream of literature by showing the consequences of third-party involvement on the occurrence of resource conflict.

We organize the rest of the paper as follows. In Section 2, we present the dataset, while in 2.1 we show the descriptive statistics related. Then, in 2.2 we describe our methodology and our empirical test for monotonicity in the relationshiop between conflict and resource value, exploiting US involvement and hydrocarbons. The Online Appendix B contains empirical robustness checks.

2 Data

World Bank and CRUST data on resources. World Bank Wealth Accounts provide various measures of natural capital for a country in a given year, covering the value of fuel and non-fuel minerals, agricultural land, protected areas, and forests, calculated as the discounted value of resources present in a country (WB, 2018). These measures are only available at the end or after our sample period (1946-1999). Since recent measures are more accurate beacause of an improved methodology for natural capital accounting (Wodon and Carey, 2018) and longer time for potential exploration (Hunziker and Cederman, 2017), we use accounts from 2014. Doing so, we leverage the persistence of resource abundance (Brunnschweiler and Bulte, 2009) and reduce reverse causality concerns (conflict potentially affecting resource value) because the sample period of the resource data does not overlap with our conflict sample.

World Bank Wealth Accounts have been used in the literature and represent an important benchmark to test our theory. However, using such measure as our only dependent variable presents two methodological challenges. First, resource extraction induces endogeneity concerns which cannot be fully solved by choosing a different a time period out of the conflict sample. Second, as we show below, high values in the Wealth Accounts oil measures tend to be very concentrated among a small group of important oil exporters, mostly MENA countries.

To deal with both issues, we employ data on the distribution of thick layers of sedimentary rock, a determinant of oil presence, as an additional measure of resource value. We use a country dataset constructed by Hunziker and Cederman (2017), based on the CRUST 1.0 dataset by Laske et al. (2013). The latter contains information about the thickness of sedimentary basins layers on a 1-decimal-degree-cell grid for the whole planet. Such measures provide a source of variation in the availability of hydrocarbons that does not depend on exploration, extraction activities, and then conflict. Oil and gas develop from organic matter depositing in sediments and being exposed to high temperatures (Hunziker and Cederman, 2017). Sedimentary basins are thick layers of sedimentary rocks, with sufficiently high geothermal energy for the formation of hydrocarbons. For this reason, these basins contain almost all of the recoverable oil and gas reserves of the planet, making their location highly predictive of oil presence (Norman, 2012). Still, some geographic characteristcs connected to sedimentary basins, like the presence montainous terrain, could be also correlated with conflict (Hunziker and Cederman, 2017). In the analysis, we take care of this issue by introducing potentially important omitted variables related to geography.

For the sake of comparability across different measures, in the analysis, we standardize the oil and sedimentary basins variables. This also makes it easy to evaluate the correlation between sedimentary basins volume and WB measures of oil value in the country. A one standard deviation increase in sedimentary basins volume results in a 0.20 SD increase in the value of oil–the coefficient is statitically significant at a 5% level–the between the two measures correlation is 0.2.

The World Bank data include naturally measures of the *known* reserves: there are potentially many undiscovered resources, since exploration is costly and may require more advanced technology (as an example, consider how the introduction of the technology of fracking caused the exploitation of many more reserves that previously were not economically viable, making the USA a net oil exporter in 2019[10]). Such potential reserves are not directly measured, though, neither by us nor, in all likelihood, by potential predators and third parties, and as such are unlikely to intervene in decisions leading to conflict. Anyway, these considerations provide yet another reason why we perform the analysis using the data on sedimentary basins, whose presence should correlate with the presence of reserves, both discovered and undiscovered.

UCDP/PRIO data on conflict. As we briefly sketched above, we measure conflict occurrence using the Armed Conflict Dataset Uppsala Conflict Data Program and Peace Research Institute of Oslo UCDP/PRIO , the most standard dataset for conflicts at the country level (Morelli and Rohner, 2015). The dataset is a year-country panel that gives information about the presence of armed conflict in a country for each year in the sample period. Armed conflicts are defined as internal or external disputes involving (i) the use of armed force, (ii) at least one state or government contestant, and (iii) at least 25 battle-related deaths, the criterion used by the UCDP Conflict Encyclopedia for the definition of armed conflict. The data also includes an intensity variable reporting whether there the conflict caused at least 1,000 battle-related deaths, the threshold used in the dataset to define the occurrence of a war. We use such variables to construct a 'War' indicator, which we use as an alternative measure to assess robustness.

US military presence and arms' trade. We construct two dummy variables for US military influence from different sources. First, we collect the number of US troops deployed by country in 1950, obtained from the Defense Manpower Data Center (DMDC). Coupling these data with the GeoDist CEPII database, we define our first measure of US involvement by creating a country dummy taking value one if the nation had a US troops in 1950 or if it is in a 1000-km radius of a country with US troops, using population-weighted distance in the CEPII database (Conte et al., 2021). The resulting dummy variable indicates countries where US involvement could be possible in case of a sudden escalation of a local conflict. Our approach is based on the idea that the ability of a country to deploy military forces to a location is decreasing in the distance of the engagement location from the home country or its area of military influence–the 'Loss-of-Power Gradient' (Boulding, 1962) in the international relations

[10]See `https://archive.ph/i3z5Q`

literature (see also, De Mesquita, 1983; Lemke and Allee, 2002). We choose 1000-km benchmark to balance the objectives of (1) defining an area sufficiently close to US military forces, allowing for quick deployment of US troops and, (2) having a high enough number of countries close to US troops to have power for our statistical tests. According to O'Mahony et al. (2018), countries within the 1000-km radius could be reached in three days by US forces in case of local conflict. At the same time, the 1000-km radius results in a quarter of the sample being classified as exposed to US influence. As we show performing robustness checks with distances, reducing the threshold distance drastically reduces the power of our tests, while increasing it augments it.

As a second measure of US influence, we use the Stockholm International Peace Research Institute (SIPRI) Arms Trade Database to obtain information about US arms importers. We use this dataset to build another US involvement dummy, taking value one if a country imported arms from the US in 1950. Both military presence and arms' trade are measured at the start of our dataset to reduce endogeneity concerns.

SIPRI Military Expenditure Database. To disentangle the effect of third-party deterrence from other potential sources of deterrence, we run auxilliary analses employing measures of countries' military power. We use the SIPRI Military Expenditure Database, containing information on countries' military expenditure, in 2020 US dollars, from the 1950s to the present day. For each country, we average such measures across the sample period.

UNGA voting affinity and distance from the US. To evaluate the robustness of our findings, we also employ two additional proxies for US involvement: (i) voting similarities in the UN General Assembly between a country and the USA and (ii) high geographical distance between the country and the USA. For the first measure, we use an index of the affinity between US votes and other countries' votes for every year from 1946, described in Gartzke and Jo (2006). The index range spans from one, which indicates perfect coincidence, to minus one, which indicates complete disagreement.[11,12] For each country, we compute the index average between 1946 and 1965 and construct a dummy for US affinity reporting when the index is larger than zero.[13] As for the second measure, we construct a dummy variable that takes the

[11]This is a S score as described in Signorino and Ritter (1999). See Gartzke and Jo (2006) for a more detailed description.

[12]Countries have three possible choices when voting on proposals at the UNGA: approve, not approve, abstain. For this reason, two different indexes can be built depending on whether abstentions are considered. The index we use does not consider them; results remain similar using the alternative index.

[13]Ideally, we would have computed the average between 1946 and 1959, but the sample of countries would have been extremely restricted. The decolonization wave that happened in those years allows us to estimate the

value one only for countries below the 75^{th} percentile in terms of distance from the US; zeros in this variable proxy the inability of the US to conduct a swift intervention in the country.

2.1 Sample and descriptive statistics

Our sample consists of countries included in the World Bank dataset, in Hunziker and Cederman (2017) dataset, and in the complementary data used to extract geographic controls.[14] To preserve consistency, we focus on countries that are not powerful enough to intervene in conflicts as third parties. Hence, we exclude from our sample important regional players: other G8 countries and China. We are left with a panel of 115 countries, and we set our sample years from 1946 to 1999 included.

In Appendix Table A1, we report the main summary statistics about the variables we have just described. Descriptives statistics for resource variables are all standardized. As we explained above, high values for World Bank measures of oil, coal, and gas are concentrated among important oil exporters, leading to large differences between the 3^{rd} quartile and the maximum value of resources across countries. However, the issue is far less pronounced for sedimentary basins volume. Also, skewedness in the data is partially driven by the presence of countries with no resources. As we show below, removing such countries from our estimation leaves result unchanged.

On average, among the countries considered, the share of years in which at least one armed conflict was reported is 14.1%. In contrast, the share decreases for 'War' to 4.5%. To better evaluate the external validity of our empirical analysis, we compare descriptive statistics of countries that we use in the analysis–countries for which we have natural resource and conflict data, as well as controls–to those of countries for which we do not have some of the data. In the overall sample of countries, ranging between 139 and 151 countries, average controls–log area (7.57), absolute latitude (25.2), average and dispersion in altitude (0.53 and 0.36), temperature (19.2), precipitation (91.3), and log population (16.1)–are almost identical to the statistics reported in the table, referring to the 115 countries included in the analysis. Also years with conflict and war in the overall sample (156) are 14.6% and 5.6%, very close to 14.1% and 4.5% from our sample.

Figure 1a and 1b, respectively, show the distribution of the World Bank wealth measure of

model on a reasonable number of countries.

[14]We run a robustness check including the additional 4 countries that have some missing observations in controls and results remain unchanged.

oil and the volume of sedimentary basins by CRUST 1.0 across the World. The two measures are strongly correlated and considerably spread across continents. Oil is more concentrated than sedimentary basins. In our sample, 42.6% of countries has no oil value according to WB data; instead, the volume of sedimentary basins is zero only in 18.2% of the cases.

Figure 3, instead, depicts the distribution of conflict years occurrences in the sample period. There is variation in the number of conflicts within and across continents. In Figure 2a, we report the countries hosting US military presence in 1950 or sufficiently close to them. US troops presence and US arms trade are both higher in the Middle East region, Europe, and South America.

2.2 Methodology

The theoretical model studied in Battiston et al. (2024) predicts non-monotonicity in areas exposed to third-party conflict, driven by contrasting effects of predation incentives and third-party deterrance. Nonetheless, it is useful to look at effects in the general sample before inspecting the effects separately third-party presence. We estimate the following equation:

$$W_i = \alpha_0 + \alpha_1 v_i + \alpha_2 v_i^2 + \alpha_X' X_i + \varepsilon_i \tag{1}$$

Where W_i is the share of years with the chosen conflict outcome–'Armed Conflict' and 'War'–in country i, v_i is a vector containing resource values, and X_i is a vector of geographical controls including the continent fixed effects and other variables common in literature: area, population in logs, average elevation, dispersion in elevation, latitude, temperature, and precipitation. We retrieve the population in 2014 from control from World Bank data, country area from Hunziker and Cederman (2017), and all of the remaining controls from Ashraf and Galor (2013).

We measure value v using World Bank Wealth Accounts and sedimentary basins. World Bank data consists of per capita oil, gas, and coal values in 2014. We limit our analysis to the role of oil, gas, and coal, coherently with the body of literature analyzing the relevance of different resources in causing conflict.[15] Hydrocarbons are mostly linked to the probability of conflict; other minerals seem to influence the duration of conflicts rather than their onset (Lujala et al., 2005). Further, the value of hydrocarbons, and oil in particular, constitutes most of the natural wealth of countries in WB data. Other types of assets (such as forestry or

[15] A review can be found in Ross (2015) and Koubi et al. (2014).

agricultural land) are not robustly associated with conflict onset, as described in Koubi et al. (2014). Most importantly, the value of these resources is probably related to countries' ability to exploit them, rather than their exogenous initial endowment: they are produced rather than extracted, as pointed out in Ross (2015). Finally, the presence of conflict in a country would highly impact the value of these resources leading to a reverse causality problem in our analysis.

Given the absence of time variation in our wealth measure, we employ as dependent variable the share of years with conflict in our sample as dependent variable. The results would not change by using a dummy variable indicating the presence of conflict in a specific country-year pair as outcome and adding time fixed-effects as controls. Since conflict likely reduces resource wealth in a country by making extraction more difficult, introducing a time dimension in both conflicts and resource measures would exacerbate endogeneity concerns in our analysis employing the WB accounts. Nonetheless, as a robustness check, we run a regression exploiting the time-variation of international commodities prices, obtaining similar results.

To tame endogeneity concerns, we employ an alternative measure of resource value introduced by Hunziker and Cederman (2017). In their work, they show that the thickness of layers of sedimentary rock in a country is associated with oil and gas presence and they use it to instrument oil extraction with geographical variation. In our estimation, we use their thickness information as an alternative measure of resource value.[16]

Employing thickness of layers of sedimentary rock as an alternative measure of resource value addresses endogeneity concerns relating to the ability of countries to search for and extract resources on their territory, likely related to the occurrence of conflict. However, since WB resource value are arguably a better measure of what predators and powerful third parties are interested in, we employ both measures throughout our analysis.

Given that the results of an OLS regression can be strongly affected by the presence of a few resource-wealthy outliers, we winsorize the data for the resource value before moving to the model estimation. The left part of the distribution is naturally limited by the hard zero threshold; so, we only winsorize the right end of the distribution at the 97.5^{th} percentile. In other words, we replace resource values above the 97.5^{th} percentile with the value of the 97.5^{th} percentile. This procedure has the advantage of dealing with outliers without dropping

[16]Differently from Hunziker and Cederman (2017), running 2SLS estimations, we would have two endogenous variables, oil and squared oil, and two instruments, sedimentary basins volume and its square. Cragg-Donald F-statistics associated with using two instruments are well below Stock-Yogo critical values even for relatively high levels of bias (25%) of the IV size. For this reason, we use sedimentary basins volume and its square as alternative measure of value, instead.

observations and introducing selection based on the independent variable.

To detect potential non-monotonic effects, we formally test for an inverse-U-shaped relation against the null of a monotonic or U-shaped relation using the test developed by Lind and Mehlum (2010). Calling $\underline{v}$ and $\overline{v}$ respectively the lower and the upper bounds of the support of the value v, the procedure is a joint test for $\alpha_1 + \alpha_2 \underline{v} > 0$ (the marginal effect is initially positive) and $\alpha_1 + \alpha_2 \overline{v} < 0$ (the marginal effect is eventually negative). This can happen if $\alpha_1 > 0$ and $\alpha_2 < 0$: we also report estimates and errors for α_1, α_2 for transparency. Nonetheless, since significance of α_2 is neither a necessary nor a sufficent condition for non-monotonicity, Lind and Mehlum (2010) remains our benchmark test. Finding evidence of non-monotonic effects would suggest that the non-monotonic effects in third-party exposed countries are sufficiently pronounced for the non-monotonicity to show up in the overall sample.

After testing for non-monotonic effects of resource value on conflict in the overall sample, we test whether non-monotonic effects are concentrated among countries with US third-party influence. We use two different measures of US influence in a country: (i) the presence or proximity of US troops, and (ii) arms' import relations between a country in the US.

To test for heterogenous effects based on these measures, we introduce interaction terms as in the previous model, to obtain:

$$W_c = \beta_0 + \beta_1 v_i + \beta_2 v_i \times T_i + \beta_3 v_i^2 + \beta_4 v_i^2 \times T_i + \beta_5 T_i + \beta_X' X_i + \nu_i \quad (2)$$

Although the latter analysis is correlational, it can recover a causal relation even if third-party influence depends on resource presence. In particular, the necessary identifying assumption is that third-party influence in a country does not depend on the relation between resource presence and conflict after controlling for observable country characteristics. To make this assumption more credible, we use measures of military presence and arms' trade from the earliest years available (the starting years of our sample). Further, we investigate the determinants of third-party presence at the start of our sample in Appendix Table A2. US military presence and arms' trade are predicted by different country features (with the exception of population). Further, oil value increases the probability of US troops presence in a statistically significant way. However, as we explain below, our results remain very similar across US influence measures. Also, the correlation between US military presence and oil value is not alone a threat to our identification strategy. Instead, the key assumption we need to make is that US influence does not depend on the relation between resource presence and conflict. By using measures of US influence from the 1950s, we make this assumption more credible, e.g., by excluding that the US troops we measure were deployed in reaction to resource conflicts in our sample.

The dummy variable T_i represents our measure of third-party presence. The latter should deter conflicts more in areas where an intervention is easier. A sufficient–though not necessary–condition for a test of our theory is that conflict probability is non-monotonic in resource value only in areas with third-party influence. Since the differential non-monotonicity in countries exposed to US influence depends on both the squared coefficient and the linear one, the statistical significance of β_4 is not informative for our tests. Instead, we formally test for an inverse-U-shaped relation distinguishing countries with and without US involvement, again using the test developed by Lind and Mehlum (2010). We expect that p-values associated with this tests will be lower than conventional significance thresholds in areas exposed to third-party involvement. In addition, we expect a significant negative squared coefficient only when considering the sum of the two coefficients, not interacted and interacted with our proxy for US proximity. In other words, we expect a negative and statistically significant estimate for $\beta_3+\beta_4$ and a non-significant estimate for β_3.

We will compare our main results to employing the USSR as an alternative third party. In the sample period, the USSR was a significant producer of oil, coal, and gas (Block, 1977), implying lower incentives to intervene to preserve access to oil. In this case, we can expect to find less evidence of non-monotonicity.

2.3 Results and discussion

Results for the analysis on UCDP/PRIO data, for the overall sample and without distinguishing effects for third-party exposed countries, are shown in Table 1. Outcomes in (1), (2), (5), and (6) are the share of years in the sample with at least 25 battle-related deaths in the country. Other columns have the share of war years as an outcome, recording whether there were at least 1,000 battle-related deaths in the year. The first four columns have per-capita oil and its squared value as the main independent variables. We focus on oil since it represents the vast majority of resource value for countries–its average value is one order of magnitude larger than gas and coal elements of the analysis. Hence, we present only the coefficient for oil in this table, but a complete presentation of the results, including the coefficients for coal, gas and geographical controls, can be found in the Appendix Table A3. In the last four columns, instead, we use sedimentary basins as a measure of resource value. All columns include year and continent controls. Odd columns include geographical controls.

Table 1: Impact of Resources on Conflict

	Resource Value: Oil pc				Resource Value: Sedimentary basins			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Conf.	Conf.	War	War	Conf.	Conf.	War	War
Res. Value	0.116	0.120*	0.0573	0.0590	0.119***	0.0632	0.0283	0.0105
	(0.0880)	(0.0663)	(0.0457)	(0.0427)	(0.0436)	(0.0524)	(0.0196)	(0.0281)
Res. Value^2	-0.0215	-0.0241**	-0.0101	-0.0109	-0.0490***	-0.0338**	-0.0123*	-0.00831
	(0.0142)	(0.0108)	(0.00763)	(0.00716)	(0.0146)	(0.0151)	(0.00647)	(0.00782)
H0: No inv.-U shape (Lind and Mehlum, 2010)								
p-value	0.092*	0.034**	0.105	0.083*	0.002***	0.070*	0.057*	0.291
Gas, Gas^2	Yes	Yes	Yes	Yes	No	No	No	No
Coal, Coal^2	Yes	Yes	Yes	Yes	No	No	No	No
Continent FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geo Controls	No	Yes	No	Yes	No	Yes	No	Yes
Peak	2.71	2.49	2.83	2.70	1.21	0.94	1.15	0.63
N	115	115	115	115	115	115	115	115

Note: The outcome variable in (1), (2), (5), and (6) is the share of armed conflict years, defined as years with at least 25 battle-related deaths. Other columns have the share of war years as the outcome, defined as years with at least 1,000 battle-related deaths. In the first four columns, the main independent variables (resource value and squared resource value) are per capita oil and per capita oil squared, measured by the World Bank; in the last four columns, the main independent variables are a measure of sedimentary basins' volume and the same variable squared,. All resource variables are expressed as z-scores. Heteroskedasticity-robust standard errors in parentheses. P-values are denoted as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 2: Impact of Resources on Conflict by Third-Party Presence, by Geographic Proximity to US Military Forces

	Resource Value: Oil pc				Resource Value: Sedimentary basins			
	Conf.	Conf.	War	War	Conf.	Conf.	War	War
Res. Value	-0.0409	-0.0302	0.0124	-0.00248	0.0793*	0.0216	0.00415	-0.0117
	(0.102)	(0.0919)	(0.0414)	(0.0423)	(0.0456)	(0.0517)	(0.0173)	(0.0258)
Res. Value × US troops dummy	0.346***	0.293***	0.142***	0.152***	0.206**	0.210***	0.119**	0.118***
	(0.116)	(0.108)	(0.0545)	(0.0545)	(0.0857)	(0.0807)	(0.0474)	(0.0455)
Res. Value^2	0.0616	0.0566	-0.00888	0.00196	-0.0389**	-0.0156	-0.00483	0.000896
	(0.0764)	(0.0693)	(0.0318)	(0.0318)	(0.0173)	(0.0167)	(0.00692)	(0.00789)
Res. Value^2 × US troops dummy	-0.116	-0.106	-0.0186	-0.0291	-0.0597**	-0.0767***	-0.0373**	-0.0419***
	(0.0768)	(0.0698)	(0.0323)	(0.0323)	(0.0286)	(0.0268)	(0.0158)	(0.0151)
US troops dummy	0.150**	0.101*	0.0667**	0.0601**	0.152***	0.137***	0.0848***	0.0814***
	(0.0590)	(0.0544)	(0.0279)	(0.0273)	(0.0553)	(0.0487)	(0.0321)	(0.0288)
Countries with US troops								
Res. Value + Res. Value × US troops	0.3055***	0.2631***	0.1542***	0.1495***	0.2849***	0.2312***	0.1236***	0.1063**
p-value	0.000	0.000	0.000	0.000	0.000	0.007	0.006	0.031
Res. Value^2 + Res. Value^2 × US troops	-0.0547***	-0.0491***	-0.0275***	-0.0271***	-0.0985***	-0.0923***	-0.0422***	-0.0410***
p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.005
H0: No inv.-U shape (Lind and Mehlum, 2010)								
p-value: countries w/o US troops	.	.	0.393	.	0.027**	0.285	0.344	.
p-value: countries w/ US troops	0.000***	0.000***	0.000***	0.000***	0.000***	0.002***	0.003***	0.011**
Gas, Gas^2	Yes	Yes	Yes	Yes	No	No	No	No
Coal, Coal^2	Yes	Yes	Yes	Yes	No	No	No	No
Continent FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geo Controls	No	Yes	No	Yes	No	Yes	No	Yes
N	115	115	115	115	115	115	115	115

Note: The outcome variable in (1), (2), (5), and (6) is the share of armed conflict years, defined as years with at least 25 battle-related deaths. Other columns have the share of war years as the outcome, defined as years with at least 1,000 battle-related deaths. In the first four columns, resource value is measured by oil value per capita. In the last four, it is proxied by sedimentary basins in the country. The resource value and its squared term are both interacted with a dummy which takes value one if the country had US troops in 1950 or was less than 1000km from a country with US troops. In the last two rows before the list of controls, we report the p-values for the inverse-U shape test developed by Lind and Mehlum (2010), referenced in Section 2.2. The first block of rows report the p-values of the test for the base coefficients (countries with no third-party presence); the second block of rows reports the p-values for the linear combination coefficients (countries with third-party presence). This table is referenced in Section 2.3. All resource variables are expressed as z-scores. Heteroskedasticity-robust standard errors in parentheses. P-values are denoted as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 3: Impact of Resources on Conflict by Third-Party Presence, by Arms Trade Relation with the US

	Resource Value: Oil pc				Resource Value: Sedimentary basins			
	Conf.	Conf.	War	War	Conf.	Conf.	War	War
Res. Value	0.0718	0.0895	0.0162	0.0185	0.0169	-0.00638	-0.0125	-0.0162
	(0.0732)	(0.0598)	(0.0239)	(0.0265)	(0.0468)	(0.0547)	(0.0227)	(0.0326)
Res. Value × US arms' trade dummy	0.103	0.0626	0.0894	0.0813	0.158**	0.138**	0.0631*	0.0516
	(0.120)	(0.107)	(0.0561)	(0.0566)	(0.0696)	(0.0648)	(0.0333)	(0.0336)
Res. Value^2	-0.0104	-0.0166*	-0.00172	-0.00296	-0.0143	-0.000197	0.00378	0.00579
	(0.0119)	(0.00976)	(0.00387)	(0.00444)	(0.0189)	(0.0175)	(0.00885)	(0.0100)
Res. Value^2 × US arms' trade dummy	-0.0253	-0.0155	-0.0188*	-0.0165	-0.0571**	-0.0621***	-0.0260**	-0.0252**
	(0.0215)	(0.0197)	(0.0101)	(0.0103)	(0.0261)	(0.0230)	(0.0124)	(0.0122)
US arms' trade dummy	0.182***	0.112***	0.0735***	0.0571**	0.213***	0.168***	0.0847***	0.0683**
	(0.0405)	(0.0429)	(0.0202)	(0.0231)	(0.0458)	(0.0477)	(0.0242)	(0.0273)
Countries with US arms' trade								
Res. Value + Res. Value × US arms' trade	0.1752*	0.1520	0.1056**	0.0998*	0.1745***	0.1319**	0.0506**	0.0354
p-value	0.090	0.121	0.050	0.074	0.001	0.029	0.045	0.279
Res. Value^2 + Res. Value^2 × US arms' trade	-0.0357**	-0.0321*	-0.0205**	-0.0194**	-0.0715***	-0.0623***	-0.0222***	-0.0194**
p-value	0.050	0.062	0.030	0.046	0.000	0.001	0.008	0.044
H0: No inv.-U shape (Lind and Mehlum, 2010)								
p-value: countries w/o US arms' trade	0.229	0.067*	0.428	0.271	0.305	.	.	.
p-value: countries w/ US arms' trade	0.044**	0.059*	0.025**	0.037**	0.000***	0.006***	0.015**	0.092*
Gas, Gas^2	Yes	Yes	Yes	Yes	No	No	No	No
Coal, Coal^2	Yes	Yes	Yes	Yes	No	No	No	No
Continent FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geo Controls	No	Yes	No	Yes	No	Yes	No	Yes
N	115	115	115	115	115	115	115	115

Note: The outcome variable in (1), (2), (5), and (6) is the share of armed conflict years, defined as years with at least 25 battle-related deaths. Other columns have the share of war as the outcome, defined as years with at least 1,000 battle-related deaths. The main independent variables are measures of resource value and its square, both interacted with a dummy taking value one if a third party is present in the country. In the first four columns, resource value is measured by oil value per capita. In the last four, it is measured by the volume of sedimentary basins in the country. Third-party presence is measured by the presence of arms' trade relation with the US in the 1950s. In the last two rows before the list of controls, we report the p-values for the inverse-U shape test developed by Lind and Mehlum (2010), referenced in Section 2.2. The first rows report the p-values of the test for the base coefficients (countries with no third-party presence); the second row reports the p-values for the linear combination coefficients (countries with third-party presence). This table is referenced in Section 2.3. All resource variables are expressed as z-scores. Heteroskedasticity-robust standard errors in parentheses. P-values are denoted as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

In the first four columns, we report results using oil as our measure for resource presence. In the last four columns, we report results using sedimentary basins, whose variation is more plausibly exogenous, as a measure of value. Across specifications, the positive estimates for the linear terms and the negative estimates for the square agree with the non-monotonicity prediction. The exact test of an inverse-U-shaped relation, reported in the middle the table, rejects the null of a monotonic or U-shaped relation at least at the 10% level in six out of eight specifications, lending support to our theory. However, the test statistic is significant at a 5% level in only two specifications. Square terms are signficant when using oil as the main inependent and looking to conflict, and for three out of four specifications employing sedimentary basins.

In Appendix Table A3, we also report coefficients for our control variables. Only log population has a statistically significant impact, robust across different specifications. Higher population in the country is associated with higher presence of conflict. The effects of all the other geographical controls are almost never statistically significant. However, the coefficient for area has a consistent negative sign while average altitude and temperature have a positive sign across specifications. In terms of magnitude, in the specifications employing conflict as the dependent variable, a one-percent increase in population has an effect on the probability of conflict similar to the maximum effect of a 0.5 standard-deviation increase in oil value or a one-standard deviation increase in sedimentary basins' volume.

The estimated peaks of the hump-shaped relation, reported in Table 1, fall well within the winsorized ranges for both oil value and sedimentary basins. For the WB oil measure, peaks range between 2.49 and 2.83, about 3 standard deviations from both the minimum and the winsorized maximum oil values. As for sedimentary basins' volume, peaks are between 0.63 and 1.21, 1.2-1.8 standard deviations from the minimum and 2.4-3 standard deviations from the winsorized maximum. Since the distribution of oil is extremely skewed, as we notice above, only a few MENA countries (i.e., Saudi Arabia, Kuwait and UAE) lie above the peak, but the closest countries to the peak are Norway, Iraq, and Oman. Instead, the distribution sedimentary basins volume is less skewed, and 12%-15% of countries lie above the peak, the closest being Mali, Pakistan, and Bolivia for sedimentary basins.

In sum, despite our theory predicts non-monotonic effects only for countries that are exposed to third-party influence, we show that such effects may be strong enough to hold in the overall sample. We now turn to the analysis of how third-party presence influences the effect of resources, showing that, in accordance with our theory, non-monotonic effects hold robustly especially among countries exposed to US influence.

In Table 2 and Table 3 we focus on how US involvement mediates the effect of oil value or sedimentary basins on conflict by interacting the linear and squared coefficients with dummies for US influence. Dummies for US influence in these tables take value one, respectively, for countries with US troops less than 1000 km away from a country with US troops, and for countries that traded arms with the US. In both tables, in the first four columns, we define resource value as the amount of oil in a country; in the last four columns, instead, we define resource value based on the volume of sedimentary basins. We also report the linear combinations between base coefficients and interactions with relative p-values and run the exact test for non-monotonicity presented above.

As we explain above, based on our theory, we expect a non-significant estimate for Equation 2 coefficient β_3–representing the effect of 'Res. Value^2' on conflict in countries with US influence– and a negative and significant estimated $\beta_3 + \beta_4$–representing the effect of 'Res. Value^2' on conflict in countries with US influence. In other words, the resource values should not present a non-monotonic effect for countries outside the US influence, while it should have an inverse U-shaped effect for countries closer to US. We do find evidence supporting our hypotheses. In Table 2 the sum $\beta_3 + \beta_4$ is reported in the second block of rows.

As shown in Table 2, the non-monotonicity of conflict probability in oil value or sedimentary basins volume is driven by countries with or close to a US troops in 1950. Base oil coefficients for squared value, representing effects for countries with low US military involvement, are almost never significant, and their sign changes across specifications. Similarly, base coefficients are only significant at the 10% level in column 5, with no geographical controls. Instead, linear combinations, representing effects for countries with high US involvement, are always significant, and their signs agree with our theory. The same pattern holds for the significance of the exact test for an inverse-U-shape. For countries with no US presence, even signs do not agree with a hump-shaped effect in many cases, implying that the test statistic of Lind and Mehlum (2010) is not even defined.

In Table 3, we show similar results changing the definitions of US military involvement, using arms trade instead of the presence of US troops. The results for linear combinations are similar to the previous table. In all specifications, the coefficient is negative and significant at least at the 10% level. Also in this table, the resource value coefficients are non-significant in most specifications, and the exact test for an inverse-U shape confirms these results. Interestingly, results on countries that are not exposed to third parties are somewhat indecisive, consistent with both the previous literature and theoretical predictions. Indeed, previous research has found conflicting answers when investigating the link between resources and conflict–see for instance, the positive association in Collier and Hoeffler (2004) and Hunziker and Cederman (2017) versus the null effects in Brunnschweiler and Bulte (2009). While this is partly due to not distinguishing between areas exposed and not exposed to third parties, as our model shows, the effect in areas without third-party influence can be monotonic or inverse-U-shaped depending on the elasticity of military power to resource presence.

In this section, we perform a reality check on our main measures of US involvement (our proxies of deterrence), by showing that US interventions are indeed more likely in areas with US troops or arms trade with the US in the 1950s. To test for this hypothesis, using the dyadic data by Koga (2011) we regress a dummy for US intervention in a civil conflict on our main measures of US influence; in addition, we show results when controlling for potential confounders such as countries' military expenditure per capita–a robustness check that we perform also on our main tables below. Estimations are reported in Table 4. In columns (1), (2), (5), and (6), the dependent variable is a dummy taking value one if the US conducted any military intervention; in columns (3), (4), (7), and (8), the dummy takes value one if the US intervened in support of the government. In the first four columns, we use US troops presence as the measure of US influence; in the last four columns, we use arms' trade relations with the US. Odd columns employ all of the controls we use in our paper, even columns introduce military expenditure. Results back our hypotheses and approach. The US tend to intervene more in civil wars in countries where they have military presence or with which they have an arms' trade relation. This provides important evidence that the variables that we employ to measure US influence actually measure US deterrence for predators. Military expenditure in a country and US interventions in the same country are negatively correlated, potentially implying strategic substitubability between third-party proctection and own military power.

Table 4: Impact of US troops and arms trade on US third-party interventions

	y = Military intevention							
	US influence: troops				US influence: arms' trade			
	All interventions		Gov't-supporting interventions		All interventions		Gov't-supporting interventions	
US influence	0.0357	0.0426*	0.0402*	0.0444*	0.0857***	0.0877***	0.0476*	0.0484*
	(1.49)	(1.72)	(1.74)	(1.87)	(3.06)	(3.11)	(1.86)	(1.88)
Military expediture pc		-0.436**		-0.265*		-0.393**		-0.165
		(-2.39)		(-1.83)		(-2.29)		(-1.22)
Continent FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geo Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	665	665	665	665	665	665	665	665

Note: Impact of third-party involvement measures (troops presence and arms trade) on the likelihood of a US intervention in civil conflict, using the data by (Koga, 2011). Every observation in the data is a civil war in a country in a given year. The outcome variable in (1)-(2) and (5)-(6) is a dummy taking value 1 if the US intervened in an ongoing civil conflict; the outcome in the remaining columns is a dummy taking value 1 if the US intervened in a civil conflict in favor of the government. In columns (1)-(4), the presence of US troops is used as the main measure of US involvement; in columns (5)-(8), an arms' trade relation in 1950 is used as a measure of US involvement. For each couple of columns, the first report results controlling only for year FEs, continent FEs, and geographical controls used throughout the paper, while the second column introduces as controls both the average military expenditure per capita in the country at war and the distance from the US. All resource variables are expressed as z-scores. Heteroskedasticity-robust standard errors in parentheses. P-values are denoted as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Based on our theory, resource value increasing military power provides an alternative explanation for non-monotonicity. While the empirical analysis suggests that non-monotonicity in our data is concentrated in areas under US influence, this effect could be due to resource wealth translating into military power at a higher rate such countries. To rule this out, we test whether the effect of resource value on military expenditure is higher in countries exposed to US influence. In particular, we regress arms' expenditure per capita on resource value and resource value interacted with third-party presence in Appendix Table A4. In Panel (a) we measure US influence with US troops presence and in Panel (b) we measure US influence with the dummy for having an arms' trade relation with the US. Based on our analysis, resource value does not increase military power more in countries that are exposed to third-party influence. The interaction between third-party influence and resource value is almost never significant, and when it is (in the specification employing sedimentary basins as a measure of value and arms trade as a measure of US involvement), it has a negative coefficient, which, based on the theory, should reduce the scope for military-power induced non-monotonicity. In the next subsection we run another robustness check to exclude this channel.

To conclude our main analysis, we repeat the test in Table 3 using the USSR as an alternative third party. As we briefly explained above, we can argue that the USSR had less incentives to intervene in oil conflict because it was itself a major producer of hydrocarbons. Appendix Table A5 backs the idea, showing the results of a regression where resource value is interacted with a dummy for arms' trade with the USSR.[17] The exact tests only support an inverse-U shape for countries exposed to USSR influence in three of the eight specifications. In addition, the test rejects the null in one case also for countries with low USSR influence. These results lend support to the argument that the interest of the third party in the resource is key in driving the relation between conflict probability and resource value.

2.4 Robustness checks

Overall, our results provide suggestive evidence that the relationship between resource value and conflict is non-monotonic and that third parties' presence drives such non-monotonicity. In the appendix, we assess the robustness of our findings to other potential mechanism, changes in the distance threshold for the US troops influence measure, variations in sample, estimated model, the measure of third-party presence or resource value employed.

First, we run an additional check to exclude that countries that are exposed to third parties simply have a higher ability of converting resource abundance into military power, providing an alternative explanation for non-monotonicity. We replicate our main tables, controlling for military expenditure per capita. We report results in Appendix Table A6 and Appendix Table

[17]For the USSR, we were not able to assemble data on the presence of military troops. So, we limit our analysis to arms trade.

A7. Military expenditure has a negative impact on conflict, potentially capturing deterrence by the resource-holder's military power, statistically significant when considering specifications employing sedimentary basins as a measure of value. More importantly, we still find evidence of non-monotonicity, driven by countries that are exposed to US influence. We perform a number of variations in the specifcations used, which do not affect results at all.[18]

We show estimations of our main specification (conflict as dependent variable and controls) using a 750-km threshold to a 1750-km threshold to define contiguity to US troops, by 250-km increases (except for 1000-km, used in the main analysis). Results, reported in Table A8, confirm our hypotheses. Evidence of non-monotonicity, localized in countries that are exposed to third-party influence, passes the test by Lind and Mehlum (2010) for distance thresholds higher than 750 km (resulting in 34.8% to 43.5% treated countries), and, in the case of the sedimentary basins, our more exogenous measures, also for a distance threshold of 750km, resulting in only 22.6% treated countries).

Resource value measures have a mass of observations at zero.[19] This is far more pronounced for the oil measure (42.31%) than for sedimentary basins value (18.26%). Zero observations contribute to the estimation of our relation of interest, and there is no reason to drop them in the main analysis, potentially introducing bias. Still, it is reassuring that excluding zero observations does not affect our main results, as shown in Appendix tables A9 and A10. In Appendix Tables A11, A12, and A13, we run the same analysis excluding a resource outlier with low conflict, Australia, and the results remain similar.

In Appendix Table A14 and Appendix Table A15, we perform a robustness check using different measures for US involvement: affinity of the country's votes at UN General Assembly with the US and a dummy for high geographical distance from the USA. Affinity with US' votes at UN General Assembly could be seen as a proxy for alliance with the US, therefore enhancing the chances of a US interventions in case of conflict. High geographical distance from USA is an exogenous determinant of disengagement of the third party from conflict in the area. In both cases, results agree with our theory; countries with higher US influence drive the hump-shaped relationship between conflict probability and resource value.[20]

[18]Including a squared measure of military expenditure, too, or including an interaction with third-party presence does not change results.

[19]All varibles are standardized, so zeros in the original resource data are actually equal to minus ones standard deviation.

[20]We run other robustness checks, excluded from the draft for brevity. In particular, we show that results hold when leaving out Australia, a resource outlier with low conflict, and when controlling for being a net exporter of oil. Results are available upon request.

Finally, in Table A16, we show that our results are robust to using time variation in oil prices as a shock to resource value. In particular, we interact oil price and squared oil price in a given year with sedimentary basins volume and its square, respectively. In all specifications, we control for year and country fixed effects. The outcome variable in these specifications is a dummy variable recording whether there was a conflict in the specific year-country pair. Results are consistent with Table 1 and they are robust to the inclusion of regional trends (columns 2 and 4).

Conclusions

Our paper shows that third-party influence affects the empirical relation between resources and conflict. Using established measures of resource abundance and conflict, as well as measures of third party presence, we show that U.S. involvement results in a non-monotonic relation between resource presence and conflict.

Testing hypotheses on the relation between resource presence and conflict creates several methodological concerns, known to the large literature testing the resource curse with cross-country data. Such literature has historically addressed in various ways the potential endogeneity of the value of oil, gas, and coal, which could be influenced by conflict in an area, and it is worth stressing here what could cause endogeneity in our setting and how we deal with this. Destruction and disruptions due to conflict can change the capacity of the country to exploit potentially available resources, or deter investiment, reducing World Bank measures of resource value. Employing WB data from 2014 we try to limit these concerns, but it is still possible that conflicts that happened decades before affect the ability of a country to find and extract natural resources. In addition, other omitted variables, such as technological progress may bias the connection between resource presence and conflict. By replicating all analyses using measures of the sedimentary basins introduced by Hunziker and Cederman (2017), robust to the endogeneity concerns above, we always find effects in line with the ones found with oil measures. In addition, our main results do not come from the relation between resources and conflict per se but on how this depends on the presence of a third party. As long as potential endogeneity concerns affect both countries with and without basis, the analyses performed with WB data are informative about the comparison of countries with and without US influence.

Another limitation of our work suggests an avenue for future research. Third parties other than the US could be present in some countries, e.g., the USSR in our sample period, or China today. While this issue limits the extent to which we can measures the effects of interest, it likely does introduce endogeneity concerns. Since countries with third parties other than the US are most likely not under the military influence of the US, this would likely produce a source of non-monotonicity in the 'control' group, going against our main hypothesis. More generally, we believe that other empirical and theoretical work is needed to understand how the formation spheres of influence interact with conflict incentives and resource abundance in a World of multiple third parties. We conjecture that different main powers tend to build their own area of influence. If this is the case, the overall effect across the world is similar to the case of having just one powerful third party. While this is an hypothesis, we stress it here, since studying the endogenous emergence of third-party relations and their empirical consequences would provide a natural evolution to the empirical evidence shown in this paper.

While the study of third parties and their connection with resource presence requires new research, our paper shows third parties are an important determinat of the link between the resource abundance and conflict.

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Online Appendix

A Figures

Figure 1: Resource value by country

(a) Oil value

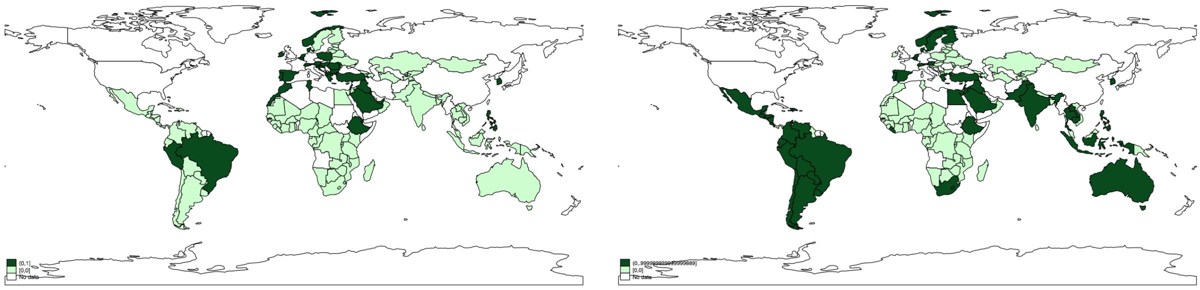
(b) Sedimentary basins volume

Note: This map reports measure of resource value by country. Panel 1a reports the value of oil natural capital per capita in the country in 2014, in million dollars, according to the Wold Bank. Panel 1b reports the volume of sedimentary basins in the country according to the CRUST dataset.

Figure 2: Third-party presence by country

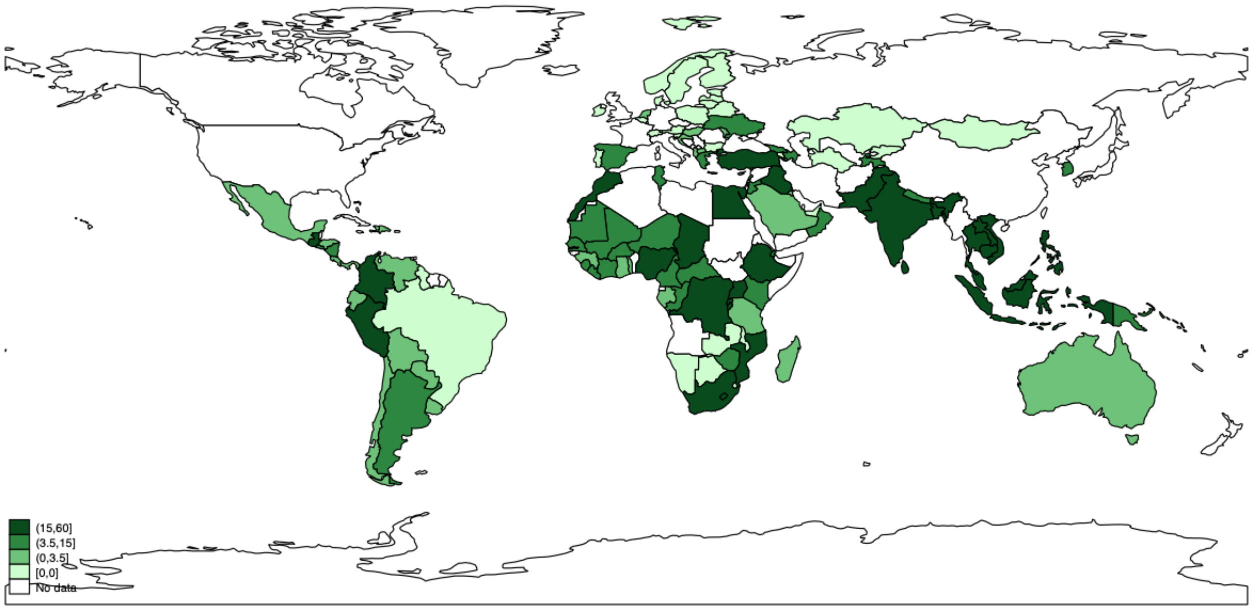
(a) Geogr. Proximity to US Military Forces, 1950

(b) US arms importers, 1950s



Note: This map reports measure of third-party presence by country. In panel 2a, third-party presence is measured by the presence of US troops within the country or in a country less than 1000km away, in 1950. In panel 2b, third-party presence is measured by whether the country is among US arms' importers in the 1950s.

Figure 3: Conflict by Country



This map reports the total number of conflict years by country from 1950 till 2000, collected in UCDP/PRIO. Conflict is defined as at least 25 battle-related deaths. Referenced in Section 2.

B Tables

Table A1: Summary statistics

	Mean	sd	Min	1^{st} Quartile	Median	3^{rd} Quartile	Max	N
(a): Resource presence								
Sedimentary basins volume	0.0175	1.02	-0.603	-0.595	-0.424	0.154	3.684	115
Oil value pc	0.0085	1.02	-0.253	-0.253	-0.251	-0.224	5.888	115
Gas value pc	0.0096	1.02	-0.328	-0.328	-0.326	-0.261	4.784	115
Coal value pc	0.0093	1.02	-0.312	-0.312	-0.312	-0.269	4.982	115
(b): Geographic characteristics								
Area, (log Km^2)	7.669	1.566	1.855	6.552	7.793	8.914	11.347	115
Absolute latitude	25.397	17.241	1.000	10.000	22.000	40.000	64.000	115
Average altitude (Km)	0.553	0.486	0.024	0.231	0.395	0.793	2.674	115
Dispersion in altitude	0.367	0.348	0.000	0.136	0.265	0.438	1.921	115
Average temperature (C)	18.871	8.020	-0.344	11.323	22.031	25.209	28.639	115
Average precipitation (mm)	90.750	61.282	2.911	46.706	82.877	127.367	259.952	115
Population, logs	16.356	1.336	13.546	15.385	16.197	17.240	20.982	115
(c): Conflict								
Conflict, at l. 25 deaths	0.141	0.204	0	0.000	0.056	0.167	0.741	115
Conflict, at l. 1000 deaths	0.045	0.085	0	0.000	0.000	0.056	0.389	115
(d): Third-party presence								
Close to US troops dummy	0.287	0.454	0	0	0	1	1	115
Traded arms with US	0.409	0.494	0	0	0	1	1	115
UNGA voting affinity	0.711	0.456	0	0	1	1	1	90
Distance from the US (Km)	8756.898	3213.569	2476	6626	8336	11340	16180.3	115

Note: summary statistics for the variables used in the analysis. Panel (a) reports the mean, standard deviation, minimum, 1^{st} quartile, median, 3^{rd} quartile, maximum values and number of observations for the measures of resource value: sedimentary basins volume, and oil, gas, and coal per capita. All of these measure are winsorized above as in the analysis. Panel (b) reports the same statistics for the geographical controls employed in the analysis, country areas, latitude, altitude mean and standard deviation, temperature in Celsius degrees, precipitation, and number of inhabitants in logs. Panel (c) reports summary statistics on the occurrence of conflict. Panel (d) reports third-party presence measures: a dummy for having US troops or being close to a country with US troops, having traded arms with the US or voting similarly (affinity larger than 0) on roll-call votes in the UN General Assembly (UNGA), and the distance from the US. Table referenced in Section 2.1.

Table A2: Determinants of third-party presence

	y = US Involvement			
	Involvment: Troops		Involvement: Arms' Trade	
Area, (log Km^2)	-0.112***	-0.141***	0.0124	-0.0106
	(0.0308)	(0.0350)	(0.0341)	(0.0403)
Absolute latitude	0.00938	0.00686	0.0190**	0.0192**
	(0.00793)	(0.00766)	(0.00877)	(0.00882)
Average altitude (Km)	-0.160	-0.119	-0.158	-0.124
	(0.155)	(0.151)	(0.172)	(0.174)
Dispersion in altitude	0.104	0.0278	0.498***	0.454**
	(0.167)	(0.164)	(0.184)	(0.188)
Average temperature (C)	0.00206	-0.00672	0.0242	0.0238
	(0.0155)	(0.0152)	(0.0172)	(0.0175)
Average precipitation (mm)	-0.00117	-0.000476	0.00232**	0.00257**
	(0.000901)	(0.000896)	(0.000998)	(0.00103)
Population, logs	0.0950***	0.0975***	0.0900**	0.0865**
	(0.0358)	(0.0345)	(0.0397)	(0.0397)
Oil value pc		0.0948**		-0.00280
		(0.0371)		(0.0427)
Sedimentary basins volume		0.0715		0.0611
		(0.0506)		(0.0582)
Constant	-0.527	-0.181	-2.406***	-2.196***
	(0.749)	(0.738)	(0.829)	(0.849)
Observations	115	115	115	115

Note: The outcome variable in the first column is a dummy taking value 1 if the country hosted US military troops in 1950 or was less than 1,000km away from a country hosting one. The outcome variable in the second column is a dummy taking value 1 if the country was a US arms' importer in the 1950s. Independent variables include country area, absolute latitude, average and dispersion in altitude, average temperature, average precipitation, and population in logs. This table is referenced in Section 2.2. All resource variables are expressed as z-scores. Heteroskedasticity-robust standard errors in parentheses. P-values are denoted as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A3: Impact of Resources on Conflict (extended)

	(1) Conf.	(2) Conf.	(3) War	(4) War	(5) Conf.	(6) Conf.	(7) War	(8) War
Oil	0.116	0.120*	0.0573	0.0590				
	(0.0880)	(0.0663)	(0.0457)	(0.0427)				
Oil^2	-0.0215	-0.0241**	-0.0101	-0.0109				
	(0.0142)	(0.0108)	(0.00763)	(0.00716)				
Gas	-0.0599	-0.101**	-0.0418	-0.0542**				
	(0.0534)	(0.0430)	(0.0269)	(0.0250)				
Gas^2	0.00293	0.0170**	0.00447	0.00884*				
	(0.0106)	(0.00849)	(0.00500)	(0.00468)				
Coal	0.166**	0.0910	0.0492***	0.0235				
	(0.0661)	(0.0581)	(0.0185)	(0.0185)				
$Coal^2$	-0.0436***	-0.0193	-0.0131***	-0.00533				
	(0.0148)	(0.0130)	(0.00456)	(0.00461)				
Sed. Vol.					0.119***	0.0632	0.0283	0.0105
					(0.0436)	(0.0524)	(0.0196)	(0.0281)
Sed. $Vol.^2$					-0.0490***	-0.0338**	-0.0123*	-0.00831
					(0.0146)	(0.0151)	(0.00647)	(0.00782)
Area, (log Km^2)		-0.00977		-0.00599		-0.00123		-0.00104
		(0.0117)		(0.00549)		(0.0125)		(0.00618)
Absolute latitude		0.00397		-0.000395		0.00169		-0.00103
		(0.00337)		(0.00174)		(0.00341)		(0.00167)
Average altitude (Km)		0.0433		0.00796		0.0533		0.0125
		(0.0515)		(0.0267)		(0.0505)		(0.0268)
Dispersion in altitude		0.0551		-0.00550		-0.0127		-0.0226
		(0.0776)		(0.0383)		(0.0764)		(0.0391)
Average temperature (C)		0.0153**		0.00174		0.00890		-0.000138
		(0.00621)		(0.00299)		(0.00593)		(0.00274)
Average precipitation (mm)		0.000479		0.0000118		0.000705		0.000115
		(0.000399)		(0.000206)		(0.000478)		(0.000244)
Population, logs		0.0611***		0.0239***		0.0625***		0.0248***
		(0.0156)		(0.00783)		(0.0147)		(0.00731)
H0: No inv.-U shape (Lind and Mehlum, 2010)								
p-value	0.092*	0.034**	0.105	0.083*	0.002***	0.070*	0.057*	0.291
Continent FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geo Controls	No	Yes	No	Yes	No	Yes	No	Yes
Peak	2.71	2.49	2.83	2.70	1.21	0.94	1.15	0.63
N	115	115	115	115	115	115	115	115

Note: The outcome variable in (1), (2), (5), and (6) is the share of armed conflict years, defined as years with at least 25 battle-related deaths. Other columns have the share of war years as the outcome, defined as years with at least 1,000 battle-related deaths. In the first four columns, the main independent variables are resource value and squared resource value per capita for oil, gas, and coal, measured by the World Bank; in the last four columns, the main independent variable is a measure of sedimentary basins' volume. This table is referenced in Section 2.3. All resource variables are expressed as z-scores. Heteroskedasticity-robust standard errors in parentheses. P-values are denoted as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A4: Resource value and military expenditure by US influence

	y = Military expenditure pc			
	Res. Value: Oil pc		Res. Value: Sed. bas.	
Panel (a) *US troops*				
Res. Value	0.00695	-0.000411	0.0276	0.0379
	(0.00490)	(0.00813)	(0.0264)	(0.0295)
Res. Value × US troops dummy	-0.0150	-0.0123	0.0261	0.0180
	(0.0197)	(0.0186)	(0.0290)	(0.0310)
US troops dummy	0.0431**	0.0502**	0.0354**	0.0343*
	(0.0206)	(0.0201)	(0.0178)	(0.0177)
Panel (b) *Arms' trade*				
Res. Value	0.00165	-0.00419	0.0711***	0.0733***
	(0.00423)	(0.00843)	(0.0148)	(0.0142)
Res. Value × US arms' trade dummy	0.00172	0.00701	-0.0372***	-0.0361***
	(0.00951)	(0.00933)	(0.0138)	(0.0130)
US arms' trade dummy	0.0153	0.0212	0.0371***	0.0413***
	(0.0204)	(0.0207)	(0.0130)	(0.0136)
Gas	No	No	Yes	Yes
Coal	No	No	Yes	Yes
Continent FEs	Yes	Yes	Yes	Yes
Geo Controls	No	Yes	No	Yes
N	115	115	115	115

Note: This table reports the impact of resource presence on a country's military expenditure, by US influence. The dependent variable in all measures is military expenditure averaged over our sample period. The main independent variables is a measure of resource value, interacted with a dummy taking value one if a third party is present in the country. In the first two columns, resource value is measured by oil value per capita. In the second two columns, it is measured by the volume of sedimentary basins in the country. In Panel (a), the presence of US troops is used as the main measure of US involvement; in Panel (b), an arms' trade relation in 1950 is used as a measure of US involvement. This table is referenced in Section 2.3. Heteroskedasticity-robust standard errors in parentheses. P-values are denoted as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A5: Impact of Oil on Conflict by Third-Party Presence, USSR Arms trade

	Resource Value: Oil pc				Resource Value: Sedimentary basins			
	Conf.	Conf.	War	War	Conf.	Conf.	War	War
Res. Value	0.0100	0.0223	-0.00423	-0.00806	0.0619	0.00665	0.00781	-0.00653
	(0.0584)	(0.0468)	(0.0194)	(0.0210)	(0.0420)	(0.0516)	(0.0180)	(0.0247)
Res. Value × USSR arms' trade dummy	2.101**	2.157***	1.202	1.263*	0.184	0.116	0.0693	0.0445
	(0.947)	(0.791)	(0.786)	(0.753)	(0.134)	(0.119)	(0.0791)	(0.0835)
Res. Value^2	-0.00347	-0.00757	0.000253	0.000398	-0.0324**	-0.0186	-0.00612	-0.00329
	(0.00914)	(0.00751)	(0.00313)	(0.00339)	(0.0139)	(0.0146)	(0.00587)	(0.00680)
Res. Value^2 × USSR arms' trade dummy	-1.449*	-1.530**	-0.830	-0.880	-0.0231	0.00297	-0.0237	-0.0145
	(0.744)	(0.618)	(0.640)	(0.614)	(0.0919)	(0.0805)	(0.0484)	(0.0518)
USSR arms' trade dummy	0.587***	0.576***	0.344	0.350	0.0839	0.0394	0.0694	0.0507
	(0.227)	(0.200)	(0.232)	(0.223)	(0.0906)	(0.0852)	(0.0494)	(0.0537)
Countries w/ USSR arms' trade								
Res. Value + Res. Value × USSR arms' trade	2.1111**	2.1792***	1.1976	1.2546*	0.2464*	0.1231	0.0772	0.0380
p-value	0.025	0.005	0.129	0.097	0.055	0.315	0.323	0.665
Res. Value^2 + Res. Value^2 × USSR arms' trade	-1.4521*	-1.5379**	-0.8302	-0.8799	-0.0555	-0.0157	-0.0298	-0.0178
p-value	0.051	0.013	0.195	0.152	0.541	0.848	0.535	0.736
H0: No inv.-U shape (Lind and Mehlum, 2010)								
p-value: countries w/o USSR arms' trade	0.426	0.303	.	.	0.042**	0.336	0.270	.
p-value: countries w/ USSR arms' trade	0.029**	0.008***	0.103	0.081*	0.384	.	0.307	0.381
Gas, Gas^2	Yes	Yes	Yes	Yes	No	No	No	No
Coal, Coal^2	Yes	Yes	Yes	Yes	No	No	No	No
Continent FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geo Controls	No	Yes	No	Yes	No	Yes	No	Yes
N	115	115	115	115	115	115	115	115

Note: The outcome variable in (1), (2), (5), and (6) is the share of armed conflict years, defined as years with at least 25 battle-related deaths. Other columns have the share of war years as the outcome, defined as years with at least 1,000 battle-related deaths. The main independent variables are measures of resource value and its square, both interacted with a dummy taking value one if a third party is present in the country. In the first four columns, resource value is measured by oil value per capita. In the last four, it is measured by the volume of sedimentary basins in the country. Third-party presence is measured by a dummy taking value 1 if the country has a arms' trade relation with the USSR in the 1950s. This table is referenced in Section 2.3. All resource variables are expressed as z-scores. Heteroskedasticity-robust standard errors in parentheses. P-values are denoted as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A6: Impact of Resources on Conflict by Third-Party Presence, by Geographic Proximity to US Military Forces, Controlling for Military Expenditure

	Resource Value: Oil pc				Resource Value: Sedimentary basins			
	Conf.	Conf.	War	War	Conf.	Conf.	War	War
Res. Value	-0.0707	-0.0457	-0.0000603	-0.0101	0.0779*	0.0111	0.00346	-0.0169
	(0.0963)	(0.0900)	(0.0383)	(0.0403)	(0.0455)	(0.0527)	(0.0173)	(0.0260)
Res. Value × US troops dummy	0.379***	0.309***	0.155***	0.160***	0.180**	0.188**	0.107**	0.107**
	(0.108)	(0.104)	(0.0497)	(0.0511)	(0.0816)	(0.0769)	(0.0446)	(0.0429)
Res. Value^2	0.0949	0.0745	0.00508	0.0108	-0.0371**	-0.0122	-0.00396	0.00258
	(0.0731)	(0.0709)	(0.0301)	(0.0308)	(0.0171)	(0.0168)	(0.00676)	(0.00789)
Res. Value^2 × US troops dummy	-0.147**	-0.122*	-0.0316	-0.0372	-0.0527*	-0.0708***	-0.0338**	-0.0390***
	(0.0728)	(0.0706)	(0.0302)	(0.0309)	(0.0273)	(0.0258)	(0.0148)	(0.0144)
US troops dummy	0.169***	0.112**	0.0749**	0.0651**	0.158***	0.144***	0.0877***	0.0847***
	(0.0598)	(0.0563)	(0.0291)	(0.0282)	(0.0536)	(0.0471)	(0.0311)	(0.0283)
Military expenditure	-0.298	-0.155	-0.125	-0.0761	-0.329***	-0.283**	-0.165***	-0.141**
	(0.211)	(0.188)	(0.0859)	(0.0799)	(0.122)	(0.139)	(0.0630)	(0.0673)
Countries with US troops								
Res. Value + Res. Value × US troops	0.3085***	0.2638***	0.1554***	0.1499***	0.2582***	0.1987**	0.1102***	0.0901*
p-value	0.000	0.000	0.000	0.000	0.000	0.018	0.008	0.053
Res. $\textit{Value}^2$ *+ Res.* $\textit{Value}^2$ *× US troops*	-0.0523***	-0.0477***	-0.0265***	-0.0264***	-0.0898***	-0.0831***	-0.0378***	-0.0364***
p-value	0.000	0.000	0.000	0.000	0.000	0.001	0.004	0.009
H0: No inv.-U shape (Lind and Mehlum, 2010)								
p-value: countries w/o US troops	.	.	.	.	0.030**	0.360	0.369	.
p-value: countries w/ US troops	0.000***	0.000***	0.000***	0.000***	0.000***	0.005***	0.004***	0.018**
Gas, Gas^2	Yes	Yes	Yes	Yes	No	No	No	No
Coal, Coal^2	Yes	Yes	Yes	Yes	No	No	No	No
Continent FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geo Controls	No	Yes	No	Yes	No	Yes	No	Yes
N	115	115	115	115	115	115	115	115

Note: The outcome variable in (1), (2), (5), and (6) is the share of armed conflict years, defined as years with at least 25 battle-related deaths. Other columns have the share of war years as the outcome, defined as years with at least 1,000 battle-related deaths. In the first four columns, resource value is measured by oil value per capita. In the last four, it is proxied by sedimentary basins in the country. The resource value and its squared term are both interacted with a dummy which takes value one if the country had US troops in 1950 or was less than 1000km from a country with US troops. In the last two rows before the list of controls, we report the p-values for the inverse-U shape test developed by Lind and Mehlum (2010), referenced in Section 2.2. The first block of rows report the p-values of the test for the base coefficients (countries with no third-party presence); the second block of rows reports the p-values for the linear combination coefficients (countries with third-party presence). All columns include a control for military expenditure per capita. This table is referenced in Section 2.3. All resource variables are expressed as z-scores. Heteroskedasticity-robust standard errors in parentheses. P-values are denoted as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A7: Impact of Resources on Conflict by Third-Party Presence, by Arms Trade Relation with the US, Controlling for Military Expenditure

	Resource Value: Oil pc				Resource Value: Sedimentary basins			
	Conf.	Conf.	War	War	Conf.	Conf.	War	War
Res. Value	0.0672	0.0852	0.0144	0.0166	0.0193	-0.0131	-0.0113	-0.0195
	(0.0759)	(0.0596)	(0.0215)	(0.0245)	(0.0468)	(0.0550)	(0.0226)	(0.0326)
Res. Value × US arms' trade dummy	0.107	0.0664	0.0908*	0.0830	0.141**	0.128**	0.0545*	0.0463
	(0.117)	(0.104)	(0.0522)	(0.0540)	(0.0695)	(0.0633)	(0.0320)	(0.0318)
Res. Value^2	-0.00177	-0.0110	0.00171	-0.000438	-0.0153	0.00143	0.00328	0.00661
	(0.0132)	(0.0101)	(0.00347)	(0.00418)	(0.0189)	(0.0176)	(0.00881)	(0.0101)
Res. Value^2 × US arms' trade dummy	-0.0307	-0.0193	-0.0209**	-0.0182*	-0.0498*	-0.0574**	-0.0222*	-0.0229**
	(0.0213)	(0.0195)	(0.00943)	(0.00995)	(0.0259)	(0.0225)	(0.0119)	(0.0116)
US arms' trade dummy	0.211***	0.134***	0.0852***	0.0667**	0.212***	0.168***	0.0837***	0.0682**
	(0.0470)	(0.0483)	(0.0226)	(0.0259)	(0.0448)	(0.0468)	(0.0235)	(0.0268)
Military expenditure	-0.643*	-0.386	-0.255**	-0.172	-0.332**	-0.289**	-0.169**	-0.145*
	(0.346)	(0.275)	(0.121)	(0.109)	(0.149)	(0.139)	(0.0776)	(0.0748)
Countries with US arms' trade								
Res. Value + Res. Value × US arms' trade	0.1742*	0.1516	0.1052**	0.0996*	0.1598***	0.1147*	0.0432*	0.0267
p-value	0.069	0.107	0.036	0.064	0.003	0.053	0.066	0.372
Res. Value^2 + Res. Value^2 × US arms' trade	-0.0324*	-0.0302*	-0.0192**	-0.0186**	-0.0651***	-0.0560***	-0.0190**	-0.0163*
p-value	0.053	0.066	0.029	0.046	0.000	0.001	0.013	0.058
H0: No inv.-U shape (Lind and Mehlum, 2010)								
p-value: countries w/o US arms' trade	.	0.263	.	.	0.286	.	.	.
p-value: countries w/ US arms' trade	0.035**	0.053*	0.019**	0.032**	0.001***	0.012**	0.022**	0.124
Gas, Gas^2	Yes	Yes	Yes	Yes	No	No	No	No
Coal, Coal^2	Yes	Yes	Yes	Yes	No	No	No	No
Continent FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geo Controls	No	Yes	No	Yes	No	Yes	No	Yes
N	115	115	115	115	115	115	115	115

Note: The outcome variable in (1), (2), (5), and (6) is the share of armed conflict years, defined as years with at least 25 battle-related deaths. Other columns have the share of war as the outcome, defined as years with at least 1,000 battle-related deaths. The main independent variables are measures of resource value and its square, both interacted with a dummy taking value one if a third party is present in the country. In the first four columns, resource value is measured by oil value per capita. In the last four, it is measured by the volume of sedimentary basins in the country. Third-party presence is measured by the presence of arms' trade relation with the US in the 1950s. In the last two rows before the list of controls, we report the p-values for the inverse-U shape test developed by Lind and Mehlum (2010), referenced in Section 2.2. The first rows report the p-values of the test for the base coefficients (countries with no third-party presence); the second row reports the p-values for the linear combination coefficients (countries with third-party presence). This table is referenced in Section 2.3. All columns include a control for military expenditure per capita. All resource variables are expressed as z-scores. Heteroskedasticity-robust standard errors in parentheses. P-values are denoted as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A8: Impact of Resources on Conflict by Third-Party Presence, by Geographic Proximity to US Military Forces, Robustness with Different Distance Thresholds

	Thr. 750KM		Thr. 1250KM		Thr. 1500KM		Thr. 1750KM	
	Oil	Sed. Bas.	Oil	Sed. Bas.	Oil	Sed. Bas.	Oil	Sed. Bas.
Res. Value	0.126*	0.0427	0.00490	0.0219	0.132	0.0329	0.137	0.0323
	(0.0671)	(0.0537)	(0.142)	(0.0543)	(0.163)	(0.0538)	(0.162)	(0.0544)
Res. Value × US troops dummy	-0.498	0.224***	0.201	0.125*	0.0514	0.0766	0.0457	0.0805
	(0.529)	(0.0765)	(0.150)	(0.0745)	(0.165)	(0.0857)	(0.166)	(0.0817)
Res. Value^2	-0.0274**	-0.0210	0.00846	-0.0161	-0.152	-0.0195	-0.155	-0.0204
	(0.0110)	(0.0170)	(0.185)	(0.0173)	(0.210)	(0.0172)	(0.211)	(0.0169)
Res. Value^2 × US troops dummy	0.0900	-0.0851***	-0.0462	-0.0473*	0.118	-0.0341	0.121	-0.0339
	(0.0930)	(0.0253)	(0.184)	(0.0247)	(0.208)	(0.0267)	(0.209)	(0.0259)
US troops dummy	-0.0839	0.145***	0.0639	0.0682	0.0654	0.0907	0.0716	0.0979*
	(0.132)	(0.0447)	(0.0617)	(0.0480)	(0.0736)	(0.0570)	(0.0726)	(0.0561)
Countries with US troops								
Res. Value + Res. Value × US troops	-0.3722	0.2671***	0.2061***	0.1466*	0.1830**	0.1095	0.1828**	0.1128
p-value	0.489	0.001	0.004	0.056	0.017	0.208	0.018	0.160
Res. Value^2 + Res. Value^2 × US troops	0.0626	-0.1061***	-0.0378***	-0.0634***	-0.0341***	-0.0537**	-0.0341***	-0.0542**
p-value	0.506	0.000	0.002	0.004	0.006	0.028	0.007	0.020
H0: No inv.-U shape (Lind and Mehlum, 2010)								
p-value: countries w/o US troops	0.028**	0.177	.	0.289	0.237	0.222	0.234	0.221
p-value: countries w/ US troops	.	0.000***	0.002***	0.016**	0.009***	0.067*	0.009***	0.050*
Gas, Gas^2	Yes	No	Yes	No	Yes	No	Yes	No
Coal, Coal^2	Yes	No	Yes	No	Yes	No	Yes	No
Continent FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geo Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
% w/ bases	0.226	0.226	0.348	0.348	0.417	0.417	0.435	0.435
N	115	115	115	115	115	115	115	115

Note: The outcome variable is the share of armed conflict years, defined as years with at least 25 battle-related deaths. The main independent variables are a measure of resource value and its square, both interacted with a dummy taking value one if a third party is present in the country. In odd columns, resource value is measured by oil value per capita. In even columns, it is measured by the volume of sedimentary basins in the country. Third-party presence is measured by a dummy taking value 1 if the country had US troops in 1950 or was less than 750km (1)-(2), 1250km (3)-(4), 1500km (5)-(6), or 1750km (7)-(8), from a country with US troops. In the last two rows before the list of controls, we report the p-values for the inverse-U shape test developed by Lind and Mehlum (2010), referenced in Section 2.2. The first rows report the p-values of the test for the base coefficients (countries with no third-party presence); the second row reports the p-values for the linear combination coefficients (countries with third-party presence). This table is referenced in Section 2.3. All resource variables are expressed as z-scores. Heteroskedasticity-robust standard errors in parentheses. P-values are denoted as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A9: Impact of Resources on Conflict by Third-Party Presence, by Geographic Proximity to US Military Forces, Excluding Countries without Resources

	Resource Value: Oil pc				Resource Value: Sedimentary basins			
	Conf.	Conf.	War	War	Conf.	Conf.	War	War
Res. Value	-0.161	0.00941	0.0104	0.0387	0.0755	0.000566	-0.000404	-0.0130
	(0.125)	(0.104)	(0.0466)	(0.0393)	(0.0534)	(0.0627)	(0.0204)	(0.0307)
Res. Value × US troops dummy	0.491***	0.226	0.147**	0.0971	0.209**	0.212**	0.120**	0.117**
	(0.147)	(0.138)	(0.0597)	(0.0597)	(0.0946)	(0.0832)	(0.0512)	(0.0486)
Res. Value^2	0.132	0.0430	-0.0142	-0.0230	-0.0386*	-0.00767	-0.00372	0.00199
	(0.0918)	(0.0751)	(0.0344)	(0.0275)	(0.0197)	(0.0190)	(0.00783)	(0.00873)
Res. Value^2 × US troops dummy	-0.190**	-0.0860	-0.0141	-0.00154	-0.0609**	-0.0806***	-0.0377**	-0.0425***
	(0.0928)	(0.0781)	(0.0351)	(0.0293)	(0.0310)	(0.0270)	(0.0167)	(0.0156)
US troops dummy	0.138**	0.0176	0.0576**	0.0300	0.157***	0.137***	0.0878***	0.0860***
	(0.0670)	(0.0536)	(0.0289)	(0.0243)	(0.0588)	(0.0508)	(0.0339)	(0.0304)
Countries with US troops								
Res. Value + Res. Value × US troops	0.3302***	0.2354***	0.1574***	0.1358***	0.2849***	0.2128**	0.1198**	0.1044*
p-value	0.000	0.005	0.000	0.002	0.001	0.020	0.012	0.053
Res. Value^2 + Res. Value^2 × US troops	-0.0588***	-0.0430***	-0.0283***	-0.0245***	-0.0996***	-0.0883***	-0.0415***	-0.0405***
p-value	0.000	0.003	0.000	0.001	0.000	0.001	0.005	0.009
H0: No inv.-U shape (Lind and Mehlum, 2010)								
p-value: countries w/o US troops	.	.	0.390	0.214	0.054*	0.454	0.444	.
p-value: countries w/ US troops	0.000***	0.003***	0.000***	0.002***	0.000***	0.005***	0.005***	0.019**
Gas, Gas^2	Yes	Yes	Yes	Yes	No	No	No	No
Coal, Coal^2	Yes	Yes	Yes	Yes	No	No	No	No
Continent FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geo Controls	No	Yes	No	Yes	No	Yes	No	Yes
N	66	66	66	66	94	94	94	94

Note: The outcome variable in (1), (2), (5), and (6) is the share of armed conflict years, defined as years with at least 25 battle-related deaths. Other columns have the share of war years as the outcome, defined as years with at least 1,000 battle-related deaths. In the first four columns, resource value is measured by oil value per capita. In the last four, it is proxied by sedimentary basins in the country. The resource value and its squared term are both interacted with a dummy which takes value one if the country had US troops in 1950 or was less than 1000km from a country with US troops. In the last two rows before the list of controls, we report the p-values for the inverse-U shape test developed by Lind and Mehlum (2010), referenced in Section 2.2. The first block of rows report the p-values of the test for the base coefficients (countries with no third-party presence); the second block of rows reports the p-values for the linear combination coefficients (countries with third-party presence). In all specifications, we drop from the sample countries without oil or at the minimum of the distribution of sedimentary basins. This table is referenced in Section 2.3. All resource variables are expressed as z-scores. Heteroskedasticity-robust standard errors in parentheses. P-values are denoted as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A10: Impact of Resources on Conflict by Third-Party Presence, by Arms Trade Relation with the US, Excluding Countries without Resources

	Resource Value: Oil pc				Resource Value: Sedimentary basins			
	Conf.	Conf.	War	War	Conf.	Conf.	War	War
Res. Value	0.0347	0.106	-0.00204	0.0123	0.0154	-0.0170	-0.0186	-0.0155
	(0.0850)	(0.0811)	(0.0261)	(0.0313)	(0.0539)	(0.0674)	(0.0274)	(0.0422)
Res. Value × US arms' trade dummy	0.125	0.0404	0.122**	0.106**	0.138*	0.116*	0.0599	0.0469
	(0.142)	(0.118)	(0.0543)	(0.0474)	(0.0763)	(0.0704)	(0.0375)	(0.0380)
Res. Value^2	-0.00520	-0.0209	0.000947	-0.00260	-0.0142	0.00597	0.00558	0.00630
	(0.0137)	(0.0136)	(0.00411)	(0.00518)	(0.0208)	(0.0202)	(0.00997)	(0.0122)
Res. Value^2 × US arms' trade dummy	-0.0283	-0.00867	-0.0245**	-0.0198**	-0.0518*	-0.0586**	-0.0253*	-0.0236*
	(0.0254)	(0.0224)	(0.00955)	(0.00868)	(0.0277)	(0.0243)	(0.0134)	(0.0133)
US arms' trade dummy	0.174***	0.0178	0.0663***	0.0114	0.227***	0.177***	0.0927***	0.0760***
	(0.0448)	(0.0479)	(0.0213)	(0.0251)	(0.0487)	(0.0486)	(0.0260)	(0.0285)
Countries with US arms' trade								
Res. Value + Res. Value × US arms' trade	0.1594	0.1461	0.1203**	0.1185***	0.1535***	0.0995	0.0414	0.0314
p-value	0.175	0.127	0.013	0.007	0.009	0.151	0.130	0.408
Res. Value^2 + Res. Value^2 × US arms' trade	-0.0335	-0.0296*	-0.0235***	-0.0224***	-0.0660***	-0.0527***	-0.0197**	-0.0173
p-value	0.105	0.081	0.006	0.003	0.000	0.008	0.026	0.102
H0: No inv.-U shape (Lind and Mehlum, 2010)								
p-value: countries w/o US arms' trade	0.368	0.095*	.	0.344	0.335	.	.	.
p-value: countries w/ US arms' trade	0.086*	0.063*	0.007***	0.004***	0.002***	0.040**	0.044**	0.151
Gas, Gas^2	Yes	Yes	Yes	Yes	No	No	No	No
Coal, Coal^2	Yes	Yes	Yes	Yes	No	No	No	No
Continent FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geo Controls	No	Yes	No	Yes	No	Yes	No	Yes
N	66	66	66	66	94	94	94	94

Note: The outcome variable in (1), (2), (5), and (6) is the share of armed conflict years, defined as years with at least 25 battle-related deaths. Other columns have the share of war as the outcome, defined as years with at least 1,000 battle-related deaths. The main independent variables are measures of resource value and its square, both interacted with a dummy taking value one if a third party is present in the country. In the first four columns, resource value is measured by oil value per capita. In the last four, it is measured by the volume of sedimentary basins in the country. Third-party presence is measured by the presence of arms' trade relation with the US in the 1950s. In the last two rows before the list of controls, we report the p-values for the inverse-U shape test developed by Lind and Mehlum (2010), referenced in Section 2.2. The first rows report the p-values of the test for the base coefficients (countries with no third-party presence); the second row reports the p-values for the linear combination coefficients (countries with third-party presence). In all specifications, we drop from the sample countries without oil or at the minimum of the distribution of sedimentary basins. This table is referenced in Section 2.3. All resource variables are expressed as z-scores. Heteroskedasticity-robust standard errors in parentheses. P-values are denoted as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A11: Impact of Resources on Conflict, Excluding Australia

	Resource Value: Oil pc				Resource Value: Sedimentary basins			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Conf.	Conf.	War	War	Conf.	Conf.	War	War
Res. Value	0.111	0.102	0.0560	0.0552	0.115***	0.0602	0.0268	0.00947
	(0.0911)	(0.0700)	(0.0469)	(0.0443)	(0.0438)	(0.0541)	(0.0199)	(0.0292)
Res. Value^2	-0.0206	-0.0219*	-0.00996	-0.0104	-0.0452***	-0.0319*	-0.0108	-0.00763
	(0.0147)	(0.0114)	(0.00781)	(0.00739)	(0.0152)	(0.0165)	(0.00692)	(0.00862)
H0: No inv.-U shape (Lind and Mehlum, 2010)								
p-value	0.111	0.068*	0.116	0.105	0.003***	0.090*	0.078*	0.318
Gas, Gas^2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Coal, Coal^2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Continent FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geo Controls	No	Yes	No	Yes	No	Yes	No	Yes
Peak	2.68	2.34	2.81	2.65	1.28	0.95	1.25	0.62
N	114	114	114	114	114	114	114	114

Note: The outcome variable in (1), (2), (5), and (6) is the share of armed conflict years, defined as years with at least 25 battle-related deaths. Other columns have the share of war years as the outcome, defined as years with at least 1,000 battle-related deaths. In the first four columns, the main independent variables are resource value and squared resource value per capita for oil, gas, and coal, measured by the World Bank; in the last four columns, the main independent variable is a measure of sedimentary basins' volume. This table is referenced in Section 2.3. In this Table, the sample excludes Australia. All resource variables are expressed as z-scores. Heteroskedasticity-robust standard errors in parentheses. P-values are denoted as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A12: Impact of Resources on Conflict by Third-Party Presence, by Geographic Proximity to US Military Forces (excl. Australia)

	Resource Value: Oil pc				Resource Value: Sedimentary basins			
	Conf.	Conf.	War	War	Conf.	Conf.	War	War
Res. Value	-0.0580	-0.0639	0.00746	-0.0126	0.0717	0.000393	0.000203	-0.0209
	(0.105)	(0.0903)	(0.0425)	(0.0420)	(0.0471)	(0.0559)	(0.0184)	(0.0286)
Res. Value × US troops dummy	0.364***	0.325***	0.147***	0.161***	0.214**	0.224***	0.124***	0.124***
	(0.119)	(0.106)	(0.0554)	(0.0537)	(0.0866)	(0.0817)	(0.0478)	(0.0461)
Res. Value^2	0.0679	0.0613	-0.00705	0.00338	-0.0312	-0.00155	-0.000873	0.00699
	(0.0777)	(0.0681)	(0.0321)	(0.0314)	(0.0213)	(0.0193)	(0.00879)	(0.00960)
Res. Value^2 × US troops dummy	-0.123	-0.111	-0.0205	-0.0307	-0.0674**	-0.0904***	-0.0414**	-0.0479***
	(0.0781)	(0.0687)	(0.0326)	(0.0319)	(0.0313)	(0.0282)	(0.0167)	(0.0159)
US troops dummy	0.153***	0.109**	0.0678**	0.0624**	0.157***	0.148***	0.0873***	0.0864***
	(0.0590)	(0.0538)	(0.0279)	(0.0272)	(0.0559)	(0.0495)	(0.0323)	(0.0294)
Countries with US troops								
Res. Value + Res. Value × US troops	0.3058***	0.2607***	0.1543***	0.1488***	0.2853***	0.2247***	0.1238***	0.1035**
p-value	0.000	0.000	0.000	0.000	0.000	0.008	0.006	0.035
Res. Value^2 + Res. Value^2 × US troops	-0.0550***	-0.0498***	-0.0276***	-0.0273***	-0.0986***	-0.0919***	-0.0422***	-0.0409***
p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.005
H0: No inv.-U shape (Lind and Mehlum, 2010)								
p-value: countries w/o US troops	.	.	0.424	.	0.095*	0.489	0.482	.
p-value: countries w/ US troops	0.000***	0.000***	0.000***	0.000***	0.000***	0.002***	0.003***	0.012**
Gas, Gas^2	Yes	Yes	Yes	Yes	No	No	No	No
Coal, Coal^2	Yes	Yes	Yes	Yes	No	No	No	No
Continent FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geo Controls	No	Yes	No	Yes	No	Yes	No	Yes
N	114	114	114	114	114	114	114	114

Note: The outcome variable in (1), (2), (5), and (6) is the share of armed conflict years, defined as years with at least 25 battle-related deaths. Other columns have the share of war years as the outcome, defined as years with at least 1,000 battle-related deaths. The main independent variables are measures of resource value and its square, both interacted with a dummy taking value one if a third party is present in the country. In the first four columns, resource value is measured by oil value per capita. In the last four, it is measured by the volume of sedimentary basins in the country. Third-party presence is measured by a dummy taking value 1 if the country had US troops in 1950 or was less than 1000km from a country with US troops. In the last two rows before the list of controls, we report the p-values for the inverse-U shape test developed by Lind and Mehlum (2010), referenced in Section 2.2. The first rows report the p-values of the test for the base coefficients (countries with no third-party presence); the second row reports the p-values for the linear combination coefficients (countries with third-party presence). This table is referenced in Section 2.3. In this Table, the sample excludes Australia. All resource variables are expressed as z-scores. Heteroskedasticity-robust standard errors in parentheses. P-values are denoted as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A13: Impact of Resources on Conflict by Third-Party Presence, by Arms Trade Relation with the US (excl. Australia)

	Resource Value: Oil pc				Resource Value: Sedimentary basins			
	Conf.	Conf.	War	War	Conf.	Conf.	War	War
Res. Value	0.0461	0.0394	0.00754	0.00244	0.0162	-0.00710	-0.0127	-0.0164
	(0.0693)	(0.0500)	(0.0216)	(0.0243)	(0.0471)	(0.0550)	(0.0227)	(0.0328)
Res. Value × US arms' trade dummy	0.131	0.112	0.0986*	0.0971*	0.151**	0.137**	0.0610*	0.0513
	(0.118)	(0.103)	(0.0553)	(0.0559)	(0.0702)	(0.0651)	(0.0336)	(0.0338)
Res. Value^2	-0.00617	-0.00865	-0.000280	-0.000405	-0.0144	-0.000141	0.00375	0.00581
	(0.0115)	(0.00820)	(0.00350)	(0.00408)	(0.0191)	(0.0176)	(0.00890)	(0.0101)
Res. Value^2 × US arms' trade dummy	-0.0307	-0.0255	-0.0206**	-0.0197*	-0.0500*	-0.0600**	-0.0238*	-0.0247**
	(0.0213)	(0.0191)	(0.00992)	(0.0102)	(0.0266)	(0.0235)	(0.0128)	(0.0123)
US arms' trade dummy	0.194***	0.134***	0.0775***	0.0642***	0.211***	0.169***	0.0839***	0.0685**
	(0.0414)	(0.0431)	(0.0206)	(0.0239)	(0.0460)	(0.0479)	(0.0244)	(0.0274)
Countries with US arms' trade								
Res. Value + Res. Value × US arms' trade	0.1769*	0.1513	0.1062**	0.0995*	0.1669***	0.1300**	0.0483*	0.0349
p-value	0.088	0.122	0.049	0.074	0.002	0.033	0.062	0.294
Res. Value^2 + Res. Value^2 × US arms' trade	-0.0369**	-0.0342**	-0.0209**	-0.0201**	-0.0644***	-0.0602***	-0.0200**	-0.0189*
p-value	0.043	0.047	0.027	0.038	0.000	0.002	0.025	0.064
H0: No inv.-U shape (Lind and Mehlum, 2010)								
p-value: countries w/o US arms' trade	0.348	0.210	.	0.463	0.309	.	.	.
p-value: countries w/ US arms' trade	0.043**	0.058*	0.025**	0.036**	0.001***	0.008***	0.025**	0.102
Gas, Gas^2	Yes	Yes	Yes	Yes	No	No	No	No
Coal, Coal^2	Yes	Yes	Yes	Yes	No	No	No	No
Continent FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geo Controls	No	Yes	No	Yes	No	Yes	No	Yes
N	114	114	114	114	114	114	114	114

Note: The outcome variable in (1), (2), (5), and (6) is the share of armed conflict years, defined as years with at least 25 battle-related deaths. Other columns have the share of war years as the outcome, defined as years with at least 1,000 battle-related deaths. The main independent variables are measures of resource value and its square, both interacted with a dummy taking value one if a third party is present in the country. In the first four columns, resource value is measured by oil value per capita. In the last four, it is measured by the volume of sedimentary basins in the country. Third-party presence is measured by the presence of arms' trade relation with the US in the 1950s. In the last two rows before the list of controls, we report the p-values for the inverse-U shape test developed by Lind and Mehlum (2010), referenced in Section 2.2. The first rows report the p-values of the test for the base coefficients (countries with no third-party presence); the second row reports the p-values for the linear combination coefficients (countries with third-party presence). This table is referenced in Section 2.3. In this Table, the sample excludes Australia. All resource variables are expressed as z-scores. Heteroskedasticity-robust standard errors in parentheses. P-values are denoted as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A14: Impact of Resources on Conflict by Third-Party Presence, by UNGA Voting Similarity with the US

	Resource Value: Oil pc				Resource Value: Sedimentary basins			
	Conf.	Conf.	War	War	Conf.	Conf.	War	War
Res. Value	0.419	-0.226	0.552**	0.339	0.0155	-0.0308	-0.0218	-0.0335
	(0.357)	(0.512)	(0.274)	(0.319)	(0.0751)	(0.0831)	(0.0279)	(0.0355)
Res. Value × US UNGA affinity dummy	-0.342	0.372	-0.498*	-0.262	0.153*	0.157*	0.0679*	0.0650*
	(0.372)	(0.519)	(0.277)	(0.321)	(0.0892)	(0.0933)	(0.0366)	(0.0336)
Res. Value^2	-0.0749	0.0425	-0.0970**	-0.0582	0.00982	0.140	0.0154	0.0678
	(0.0620)	(0.0902)	(0.0484)	(0.0567)	(0.0974)	(0.118)	(0.0340)	(0.0419)
Res. Value^2 × US UNGA affinity dummy	0.0579	-0.0716	0.0862*	0.0436	-0.0764	-0.198*	-0.0348	-0.0850**
	(0.0652)	(0.0913)	(0.0492)	(0.0571)	(0.0996)	(0.120)	(0.0354)	(0.0405)
US UNGA affinity dummy	-0.000584	0.162	-0.0924	-0.0352	0.132**	0.162**	0.0552**	0.0696***
	(0.0734)	(0.109)	(0.0731)	(0.0841)	(0.0628)	(0.0762)	(0.0222)	(0.0231)
Countries with US UNGA affinity								
Res. Value + Res. Value × US UNGA affinity	0.0770	0.1456*	0.0544	0.0768	0.1682***	0.1258**	0.0461**	0.0316
p-value	0.537	0.094	0.366	0.133	0.000	0.023	0.039	0.306
Res. Value^2 + Res. Value^2 × US UNGA affinity	-0.0170	-0.0291**	-0.0108	-0.0146*	-0.0666***	-0.0584***	-0.0193**	-0.0172*
p-value	0.421	0.048	0.289	0.092	0.000	0.001	0.014	0.061
H0: No inv.-U shape (Lind and Mehlum, 2010)								
p-value: countries w/o US UNGA affinity	0.121	.	0.025**	0.162	.	.	.	.
p-value: countries w/ US UNGA affinity	0.264	0.046**	0.181	0.066*	0.000***	0.005***	0.015**	0.105
Gas, Gas^2	Yes	Yes	Yes	Yes	No	No	No	No
Coal, Coal^2	Yes	Yes	Yes	Yes	No	No	No	No
Continent FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geo Controls	No	Yes	No	Yes	No	Yes	No	Yes
N	90	90	90	90	90	90	90	90

Note: The outcome variable in (1), (2), (5), and (6) is the share of armed conflict years, defined as years with at least 25 battle-related deaths. Other columns have the share of war years as the outcome, defined as years with at least 1,000 battle-related deaths. The main independent variables are measures of resource value and its square, both interacted with a dummy taking value one if a third party is present in the country. In the first four columns, resource value is measured by oil value per capita. In the last four, it is measured by the volume of sedimentary basins in the country. Third-party presence by a dummy taking value 1 if the country has average measure of voting similarity to the US in the UN General Assembly roll-call votes larger than 0 between 1946 and 1965. In the last two rows before the list of controls, we report the p-values for the inverse-U shape test developed by Lind and Mehlum (2010), referenced in Section 2.2. The first rows report the p-values of the test for the base coefficients (countries with no third-party presence); the second row reports the p-values for the linear combination coefficients (countries with third-party presence). This table is referenced in Section 2.3. All resource variables are expressed as z-scores. Heteroskedasticity-robust standard errors in parentheses. P-values are denoted as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A15: Impact of Resources on Conflict by Third-Party Presence, by Being Close to the US

	Resource Value: Oil pc				Resource Value: Sedimentary basins			
	Conf.	Conf.	War	War	Conf.	Conf.	War	War
Res. Value	-0.0139	-0.264	0.00642	-0.0939	0.0644	-0.0149	-0.0136	-0.0400
	(0.634)	(0.836)	(0.393)	(0.437)	(0.102)	(0.0871)	(0.0459)	(0.0464)
Res. Value × Close to US	0.155	0.398	0.0734	0.171	0.0715	0.114	0.0554	0.0732
	(0.624)	(0.827)	(0.386)	(0.426)	(0.113)	(0.0931)	(0.0510)	(0.0477)
Res. Value^2	0.00902	0.182	-0.0271	0.0420	-0.0325	-0.00596	-0.000618	0.00791
	(0.403)	(0.534)	(0.251)	(0.278)	(0.0320)	(0.0258)	(0.0140)	(0.0132)
Res. Value^2 × Close to US	-0.0354	-0.210	0.0123	-0.0567	-0.0203	-0.0396	-0.0151	-0.0232
	(0.401)	(0.532)	(0.250)	(0.276)	(0.0361)	(0.0305)	(0.0161)	(0.0153)
Close to US	-0.0450	0.0580	-0.0242	0.0118	-0.0810	-0.0189	-0.0266	-0.00652
	(0.165)	(0.229)	(0.106)	(0.120)	(0.0604)	(0.0515)	(0.0270)	(0.0259)
Countries close to US								
Res. Value + Res. Value × Close to US	0.1414	0.1343*	0.0798*	0.0772*	0.1359***	0.0996*	0.0418**	0.0332
p-value	0.129	0.058	0.080	0.069	0.003	0.082	0.050	0.244
Res. Value^2 + Res. Value^2 × Close to US	-0.0264*	-0.0272**	-0.0147*	-0.0148**	-0.0527***	-0.0455**	-0.0158**	-0.0153*
p-value	0.092	0.024	0.055	0.039	0.001	0.011	0.037	0.082
H0: No inv.-U shape (Lind and Mehlum, 2010)								
p-value: countries close to US	.	.	0.485	.	0.227	.	.	.
p-value: countries close to US	0.064*	0.028**	0.040**	0.034**	0.001***	0.025**	0.023**	0.093*
Gas, Gas^2	Yes	Yes	Yes	Yes	No	No	No	No
Coal, Coal^2	Yes	Yes	Yes	Yes	No	No	No	No
Continent FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geo Controls	No	Yes	No	Yes	No	Yes	No	Yes
N	115	115	115	115	115	115	115	115

Note: The outcome variable in (1), (2), (5), and (6) is the share of armed conflict years, defined as years with at least 25 battle-related deaths. Other columns have the share of war years as the outcome, defined as years with at least 1,000 battle-related deaths. The main independent variables are measures of resource value and its square, both interacted with a dummy taking value one if a third party is present in the country. In the first four columns, resource value is measured by oil value per capita. In the last four, it is measured by the volume of sedimentary basins in the country. Third-party presence is measured by a dummy taking value 1 if the country is less far from the US than the 75^{th} percentile in the distribution of distances. In the last two rows before the list of controls, we report the p-values for the inverse-U shape test developed by Lind and Mehlum (2010), referenced in Section 2.2. The first rows report the p-values of the test for the base coefficients (countries with no third-party presence); the second row reports the p-values for the linear combination coefficients (countries with third-party presence). This table is referenced in Section 2.3. All resource variables are expressed as z-scores. Heteroskedasticity-robust standard errors in parentheses. P-values are denoted as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A16: Impact of Sedimentary Basins and Prices on Conflict

	(1) Conf.	(2) Conf.	(3) War	(4) War
Sed. Vol. × Oil Price	0.157*	0.127	0.125	0.122
	(0.0904)	(0.0924)	(0.0784)	(0.0774)
Sed. Vol.^{2} × Oil Price^2	-0.0715**	-0.0625*	-0.0510*	-0.0489*
	(0.0334)	(0.0333)	(0.0289)	(0.0279)
Year FEs	Yes	Yes	Yes	Yes
Country FEs	Yes	Yes	Yes	Yes
Regional trends	No	Yes	No	Yes
Peak	1.10	1.02	1.23	1.25
N	6095	6095	6095	6095

Note: The outcome variable in (1) and (3) is a conflict dummy, defined as episodes with at least 25 battle-related deaths. Other columns have a war dummy as the outcome, where war is defined as conflict episodes with at least 1,000 battle-related deaths. The main independent variables are a measure of sedimentary basins' volume,, interacted with yearly oil prices in 2012 dollars and this value squared. This table is referenced in Section 2.3. All resource variables are expressed as z-scores. Heteroskedasticity-robust standard errors in parentheses. P-values are denoted as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

C Dataset

In this appendix we list the data sources we employ in the empirical section and we describe the creation of the working dataset that we use for our analysis.

Resource data and geographical controls

From the 2014 World Bank Wealth dataset, we collect information about oil, gas, and coal value by country.[21] We merge this source with information about sedimentary basins thickness organized by Hunziker and Cederman (2017) into a country dataset. Then, we merge our data with climate and geographical controls in Ashraf and Galor (2013).

US military involvement

The Defense Manpower Data Center dataset (DMDC) reports US forces abroad by country along with the number of employees of from Department of Defense (DoD). Similarly to Kane (2006), we organize DoD data in a country database; we then merge with the CEPII GeoDist dataset, containing information about whether two countries are neighbors. In this way, we construct a country dummy reporting if the nation hosts a more than 100 US DoD employees or it is contiguous to one such a country.

To construct another measure of US military involvement, we use the SIPRI Arms Trade Database containing the data of the US arms export. We fix discrepancies in the country coding in order to merge this database with the other ones described above. Then, we proceed to create a dataset containing the value of US arms exported to each country.

WTI oil prices and GDP deflator

From FRED, we collect a time series of monthly oil prices, and compute the yearly average to merge it with conflict information. To compute real prices, we collect the quarterly time series for the US GDP deflator from the same source and turn it into a yearly time series by computing an yearly average.[22]

[21] World Bank, `https://databank.worldbank.org/reports.aspx?source=wealth-accounts`

[22] U.S. Energy Information Administration, Crude Oil Prices: West Texas Intermediate (WTI) - Cushing, Oklahoma [MCOILWTICO], retrieved from FRED, Federal Reserve Bank of St. Louis; `https://fred.stlouisfed.org/series/MCOILWTICO`, August 1, 2021 and U.S. Bureau of Economic Analysis, Gross Domestic Product: Implicit Price Deflator [GDPDEF], retrieved from FRED, Federal Reserve Bank of St. Louis; `https://fred.stlouisfed.org/series/GDPDEF`, August 1, 2021.

Conflicts Data

The database UCDP/PRIO Armed Conflict Dataset contains information about all armed conflict from World War II. Each row in the dataset corresponds to a conflict and reports all countries involved. We rearrange such dataset into a year-country dataset for conflict. Conflict intensity for a given couple is the maximum amount of intensity (in terms of deaths) among all conflicts in which the part was involved. Using such intensity variable, we create a new dummy for conflict taking value one only in the presence of a high number of casualties.

To conclude, we merge all the previous year-country or country databases and drop G8 countries. We winsorize our resource variables at the 97.5 percentile and create a categorical variable distinguishing different regions of the world.

Similarity in UN General Assembly Voting (Affinity)

From the dataset described in Gartzke and Jo (2006), we obtained the Affinity of Nations index. This index provides a metric that compute the similarity of state preferences based on voting positions of pairs of countries in the United Nations General Assembly. The index is calculated using 'S score' as in Signorino and Ritter (1999): it goes from -1 (maximum distance in votes) to 1 (perfect similarity in votes). We average this index for the years from 1945 to 1960 and we keep the affinity index between all countries and the USA.