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Abstract

This study investigates the impact of oil discoveries on conflict. We argue that rents from resources is only part of the resource curse story, with discoveries of natural resources being just as prominent. Using a new measure for oil discoveries for a global panel of countries between 1960 and 2012, we find a positive correlation between oil discoveries and conflict, controlling for regional effects and other conflict determinants. Further analysis by type of conflict reveals that the discovery of oil deposits increases intrastate conflict in relation to interstate conflict, more so ethnic violence within countries. These effects are evident within a year of discovering the oil, and are persistent for over ten years after the discovery. The results also indicate that North Africa and Middle East countries are the most affected by oil discoveries in relation to other global regions. We find similar positive effects on conflict with quantity of oil discovered, as well as the expectation of oil discoveries. Interestingly, while institutions have a significant non-linear effect on conflict, they appear to have no significant mitigating effect when interacted with oil discoveries. The implication of this result may allude to countries with natural resources needing more transparent institutions to alleviate the resource curse. Overall, we believe the results from this study will provide some further understanding to the complex nature involving natural resources and incidences of conflict.

Keywords: panel data, conflict, natural resources

JEL Classification: C23, O13, O50, Q34

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1 Introduction

The debate surrounding the wealth obtained from natural resources continues to dominate the economic growth literature today. According to [Malthus and Gilbert \(1999\)](#), resource scarcity and a rising population contribute to lower standards of living, and this in turn may trigger conflicts in society. Several studies that focussed on the effects of natural resource rents on economic growth found evidence of a negative relationship suggesting that resource-rich countries had poorer growth ([Sachs and Warner \(1995\)](#), [Gylfason et al. \(1999\)](#), [Ross \(2004\)](#)). Other studies found evidence of adverse effects of natural resources on institutions and conflict ([Arezki and Gylfason \(2013\)](#), [Collier and Hoeffler \(2004\)](#), [Fearon and Laitin \(2003\)](#), [Lujala \(2009\)](#)).

With improved data availability over the years, more recent studies have been able to use disaggregated measures of natural resource discoveries, such as oil and minerals (diamonds, bauxite) to investigate the effects on conflict, with contradictory findings ([Cotet and Tsui \(2013\)](#), [Lei and Michaels \(2014\)](#), [Rigterink \(2019\)](#), [Ross \(2006\)](#), [Snyder and Bhavnani \(2005\)](#), [K. Tsui \(2009\)](#)). However, the studies that use cross-sectional analysis assume that conflict is homogeneous by only looking at impact on aggregate conflict, namely civil conflict. A previous study by [Chisadza and Clance \(2018\)](#) highlights that various factors, including natural resource rents, can have different effects on conflict given the type of conflict. As such, we contribute to the natural resources literature by investigating the impact of oil discoveries on different types of conflict, namely interstate (between countries) and intrastate (within countries). We further disaggregate intrastate into civil and ethnic conflicts. As evidenced by Figure 1, the correlation between oil discoveries and aggregate conflicts is not so clear cut across regions. However, there are some observable differences on the effects of oil discoveries by types of conflicts. For example, oil discoveries in South American and North African regions appear to drive intrastate conflict, while oil discoveries in the Middle East are correlated more with interstate conflicts. According to findings by [Denly et al. \(2019\)](#), resource wealth is strongly associated with higher conflict in the African regions in relation to other global regions.

Making use of a relatively recent dataset on giant oil discoveries ([Horn \(2014\)](#)) and panel data analysis from 1970 to 2012, we find that oil discoveries have a positive and significant effect on intrastate conflict in relation to interstate conflict. The magnitude is however greater for ethnic violence. These effects are evident within a year of discovering the oil, and are persistent for over ten years after the discovery. We find similar positive effects on conflict with quantity of oil discovered, as well as the expectation of oil discoveries. Given that resource-abundant nations are predominantly found in low income regions, in economies with weak governments ([Sachs and Warner \(2001\)](#), [Ross \(2004\)](#)) and /or prone to conflict, such as Africa and the Middle East, we believe the results from this study will provide some further understanding to the complex nature involving natural resources and incidences of conflict.

2 Related Literature

The Malthusian theory is the premise of various theoretical models based on natural resources and economic or political outcomes. Competition over scarce resources triggers conflicts. For instance, wealth from resource rents can lead to grievances over income inequality between those with access to the resources and those that are marginalised. This resource-induced inequality can lead to conflict (Collier and Hoeffler (2004)). Another mechanism is greed where resource rents are not redistributed to benefit society as a whole. Instead, the wealth is used for self-preservation by either rebel armies (funds their cause through increased recruitments and ammunition exacerbating their monopoly of violence) or authoritarian governments to oppress civilians and stem any revolutions (Arezki and Gylfason (2013), Aslaksen and Torvik (2006), Barbieri and Reuveny (2005), Ross (2012)). A related mechanism is the state capacity where resource extraction, such as oil, weakens the state capacity because governments that rely on natural resources have little incentive to create strong institutions (Fearon and Laitin (2003), Besley and Persson (2011)). The resource revenue simply gives government the capacity to defend itself from oppositions. Resource rents can also increase the opportunity cost of conflict either by increasing wages and incomes to households (Bo and Bo (2011)) or by not wanting to lose control over the resources through political violence from opposition (Rigterink (2019), Tsui (2010)).

Previous empirical evidence highlights contrasting results on the effects of oil wealth on conflict. On the one hand, while Collier and Hoeffler (1998) find a positive effect between low levels of natural resource dependence and the onset and duration of civil war and a negative effect at high levels of natural resources. However, a follow-up study from the same authors finds that high levels of oil dependence increases the likelihood of civil war (Collier and Hoeffler (2004)). Similar positive civil war outcomes are observed by Ross (2006) and Humphreys (2005)). Moreover, Lei and Michaels (2014) find that giant oil discoveries not only increase per capita oil production and oil exports by up to 50%, but they also fuel internal armed conflicts, especially in countries that have already experienced armed conflicts in the decade prior to oil discovery. K. Tsui (2009) also finds that crude oil discoveries have a negative impact on democracy.

On the other hand, several studies fail to find any robust correlation between oil wealth and conflict (Bazzi and Blattman (2014), Besley and Persson (2009), Cotet and Tsui (2013), Hegre and Sambanis (2006)). In fact, Caselli and Michaels (2013)) find no evidence of armed conflict in typically oil-rich countries. However, while ? also finds no evidence of a relationship between natural resources and conflict, he does find that using Primary Commodity Exports as a measure for natural resources and including geography and ethnic fractionalization as controls significantly impacts the conflict results. Brunnschweiler and Bulte (2009) further argue that rentier effects from resource wealth lowers the probability of conflict, while Smith (2004) finds that oil dependence has a negative effect on civil war.

Moreover, several studies investigate the impact of natural resource price shocks or expectations of resource discoveries on conflict and other economic outcomes. Bazzi and Blattman (2014) find

that oil price shocks are associated with shorter, less intense conflicts at a country level, whereas [Dube and Vargas \(2013\)](#) observe that high oil prices are related to greater intensity of violence in Colombian areas where oil is extracted from or shipped via pipelines. [Miguel et al. \(2004\)](#) find that temporary negative economic shocks trigger conflict, while [Rigterink \(2019\)](#) highlights that world price increases of a lootable labour-intensive natural resource can increase conflict. He finds the effects true for secondary diamonds which are labour-intensive and hence easy to extract, compared to primary diamonds which are more capital-intensive to extract. [Arezki et al. \(2017\)](#) observe a delayed response of five years on economic growth and savings rate after the news shock of an oil discovery. Analysis by [Snyder and Bhavnani \(2005\)](#) find that the resource curse is more evident in countries where non-lootable resources, such as bauxite in Guinea, are not available to rulers as a source of revenue, and in countries where lootable resources, such as diamonds in Sierra Leone or gold in Ghana, are extracted by companies that are difficult to tax. [Bellows and Miguel \(2009\)](#) find that chiefdoms with more diamond wealth in Sierra Leone experienced more armed conflict, while [Lujala \(2009\)](#), [Lujala \(2010\)](#) finds secondary diamond to be related to longer duration of conflict and increased number of deaths. Moreover, [Angrist and Kugler \(2008\)](#) find that high coca prices increase conflict in coca producing Colombian regions.

3 Data and Methodology

To test the impact of oil discoveries on conflict types, we estimate the following Poisson model:

$$E[V_{ijt}|x_{ijt}, \phi_i, \epsilon_{ijt}] = \exp(\gamma + \beta x_{ijt} + \epsilon_{ijt})$$

where V_{ijt} is the intensity measure associated with the episode of violence by conflict type i in country j , x_{ijt} is a vector of determinants of conflict, and ϵ_{ijt} is unobserved regional heterogeneity. We use a Poisson model because the conflict intensity measures are recorded as discrete integers.¹ We also include regional effects to allow for regional spill-over effects from oil discoveries on conflict.

The conflict variable is taken from the Major Episodes of Political Violence (MEPV) and Conflict Regions ([Marshall \(2017\)](#)). Major episodes of political violence involve at least 500 directly-related deaths and reach a level of intensity in which the use of lethal violence by organised groups is systematic and sustained. The variable *Conflict* measures the total summed magnitudes or severity of all societal and interstate violence which include international, civil, ethnic, communal, and genocidal violence and warfare. Episodes are scaled from one (low intensity) to ten (high intensity) according to an assessment of the full impact of the violence on the society's normal networking and functioning which is directly affected by the conflict. The variable therefore takes into account the intangible aspects of conflict such as torture, rape and a general deterioration in the living standards of the affected country. It does not include other measures of political action such as general strikes or anti-government demonstrations, but focuses on violence that disrupts economic activities, destroys

¹We also use the Negative Binomial estimator as a robustness check. The overall interpretation of our findings remains consistent. Complete details of these results available upon request from the authors.

infrastructure, displaces population and causes grievous injury resulting in deaths. The greater the effects of the violence on society, for example, the higher the number of fatalities or casualties, the greater the magnitude of the conflict.

We further separate the conflict variable into intrastate and interstate conflict. Interstate conflict (both wars and violence) takes place between two or more countries. Intrastate conflict includes civil and ethnic wars and violence that take place between the government of a country and internal opposition group/s without intervention from other countries. "Civil" involves rival political groups, while "Ethnic" involves the state agent and a distinct ethnic group. "Violence" refers to the use of instrumental violence without necessarily exclusive goals, while "War" refers to violence between distinct, exclusive groups with the intent to impose a unilateral result to the contention.

The main explanatory variable is an oil discovery measure which is taken from [Horn \(2014\)](#) dataset. The dataset contains information on the country and year of the discovery, whether the field contains oil and/or gas, the estimated total ultimately recoverable amount in oil equivalent, the revenues from the oil discoveries and countries with exploratory drilling (wild cat) for oil and/or gas. For the baseline analysis, we use the discovery event indicator that captures the number of oil discoveries across the sample of countries. For the robustness analysis, we make use of the net present value of the oil discoveries to capture the revenue effects, the total ultimate recovery of oil equivalence measured by barrels, as well as the wild cat drilling measure.

The control variables are taken from the World Development Indicators and include military expenditure, income per capita and population density. We also include a globalisation index for openness compiled by [Dreher \(2006\)](#) and updated by [Dreher et al. \(2008\)](#). The globalisation index combines three key components of globalisation (political, economic and social globalisation) into a weighted index ranging from 0 to 100. The index captures international flows of goods, capital, businesses, people, technology, information and the presence of international organisations. The institutional variable, from the Polity IV Project ([Marshall et al. \(2018\)](#)), is the polity2 index which is a revised combined score that is computed by subtracting the autocracy score from the democracy score. The resulting unified polity score ranges from -10 +10.² All variables are logged except the conflict and democracy indices.

4 Baseline Results

Tables 1 to 3 indicate that countries with oil discoveries are prone to increased conflict, both interstate and intrastate. These effects are more prominent within the first five years of discovering the oil, and are persistent for over ten years after the discovery. This is in line with [Arezki et al. \(2017\)](#) who find that oil discoveries come with a production lag of four to six years due to delay of setting up the infrastructure necessary to extract the oil. We also observe that in the first year of discovering oil, there is no immediate effect on interstate conflicts compared to intrastate

²Tables with the variable statistics and definitions can be found in the Appendix under Table A3 and A4

conflicts. On the other hand, intrastate conflict in the first year of discovering oil is driven by the ethnic type whose coefficients are relatively larger than the other conflict types. These results are in line with the grievance and greed model that makes inference to rentier effects from natural resources. Higher levels of wealth from oil discoveries provide motivation and opportunities for discontented groups and governments to support themselves through expropriation, particularly when it comes to controlling state power (for example, oil conflicts in Angola, Colombia, Nigeria, Indonesia, Venezuela, the Middle East). The implications of oil discoveries is the resource-induced inequality that may take place between groups in society (Fearon and Laitin (2003), (Collier and Hoeffler (2004), Barbieri and Reuveny (2005))).

The control variables show that military expenditure, population density and surprisingly, democracy increase conflicts regardless of type. Increased military spending can increase the risk of renewed conflict especially if opponents perceive it to be a show of force. Larger populations may become difficult to sustain as they can put strain on resources such as land availability, resulting in civil unrest (Barbieri and Reuveny (2005), Fearon and Laitin (2003), Gleditsch (1998)). According to Pinker (2011), although longer periods of democracy can lead to less conflict, he highlights that democracy can be delayed in countries where governments do not encourage the establishment of better institutions but instead prefer to protect their positions of power.

Globalisation has mitigating effects on all types of conflicts. The rise of globalisation has contributed to lowering levels of conflict through increased trade, social interactions with heterogeneous societies, and increased access to information through social media ((Blanton and Apodaca, 2007; Choi, 2010; Flaten and de Soysa, 2012; Hegre et al., 2010)). Of interest is the heterogeneous effects of income per capita on intrastate and interstate. Collier and Hoeffler (2004) find that reductions in civil conflict are possible through increasing the standards of living and lowering the risk of conflict over grievances or incurring high opportunity costs from instability due to conflict. On the other hand, rising income per capita can increase income inequality resulting in unrest (Collier and Hoeffler (1998)), as evidenced by the positive and significant coefficient for interstate conflict.

5 Additional analysis

Findings by O’Brochta (2019) suggest that there may be subtle interconnections between natural resources and conflict that may not be easily observed through the aggregate relationship between natural resources and conflict. We attempt to explore some of these nuances in this section.

For our further analysis, we include income classifications of countries according to the World Bank.³ We interact these classifications with oil discoveries to determine if wealthier countries that discover oil are prone to increased conflict. The results in Table 4 indicate that middle to high income countries that discover oil have fewer conflicts in general which is in line with the income per

³Low to middle income is between US\$996 and US\$3895; Middle to high income is between US\$3896 and US\$12055; high income is above US\$12055

capita effect that wealthier countries can afford bigger military and police forces to deter violence (Pinker (2011)). High income countries that discover oil also appear to have increased conflicts, regardless of type. In this instance, the channel of increased inequality works similarly to that for low income countries where any increases in wealth can widen income inequality and cause social grievances between marginalised groups and the elite (Michalopoulos and Papaioannou (2016), Gleditsch (2007)).

In Table 5, we investigate the impact of institutions on conflict in countries that discover oil. Our baseline results in Tables 1 to 3 indicated that democracy had a positive correlation with all types of conflicts. We therefore test for non-linearity and find that at low levels of democracy, there is evidence of increased conflicts, but the longer democracy is in effect, countries become less prone to conflicts. Maybe as the institutions improve, it increases the effectiveness of the government in defusing potentially volatile situations. However, we find no significant evidence from the interaction term of institutions mitigating conflict in countries with oil discoveries, in contrast to Bhattacharyya and Mamo (2019). They find that oilfield discoveries lead to less intra-state conflict onset and that the negative effect is magnified in countries with good institutions. The implication of our findings may therefore allude to countries with natural resources needing more transparent institutions to alleviate the resource curse.

Given the results in Table 5, we decided to isolate the largest oil producers in the world to determine the effects on conflict. We use the Organization for Petroleum Exporting Countries (OPEC) to identify the largest oil producers as of 2019 ⁴. The results in Table 6 indicate that while OPEC countries are highly prone to all conflict types, there is no significant effect when interacted with oil discoveries implying that oil discoveries may not necessarily be the cause of conflict in these countries. On the other hand, we do find significant evidence of strong institutions mitigating civil conflict in OPEC countries.

As a final analysis, we check the robustness of our baseline results by using the oil revenues (revenue), quantity of oil discovered (retrievable), as well as the expectation of oil discovery (wildcat). The oil revenue is the net present value (NPV) of oil discoveries with country specific risk discount factor and constant production profile taken into account. The quantity of oil is measured by the total ultimate recovery of oil in million barrels of oil equivalent (MMBOE), while the expectation of oil discovery is measured by the number of exploratory drilling taking place in the country. All these variables are logged.

In Table 7, we find a positive effect of oil revenues on intrastate conflict types, in line with the resource curse theory. Rentier effects from resource rents provide avenues for expropriation which can result in conflict. We also observe similar positive effects on intrastate conflict types from the quantity of oil discovered. The significant effects, shown in Table 8, extend to interstate conflict after a delay for 5 years and longer. The control variables remain consistent as in previous results.

⁴Algeria, Angola, Ecuador, Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Republic of the Congo, Saudi Arabia, United Arab Emirates and Venezuela

Table 9 indicates that the expectation of oil discoveries significantly increases ethnic conflict within a year of hearing the news. This effect is magnified after 5 years on intrastate conflict types. This is in line with empirical studies that find that there are lagged effects of oil wealth on political violence (Cotet and Tsui (2013)), as well as on economic outcomes such as economic growth (Arezki et al. (2017)).

6 Conclusion

Previous literature finds that countries with an abundance of non-renewable easily controllable resources are prone to violence. Using oil discovery data for a global panel of countries, we establish positive correlations between oil discoveries and intrastate conflicts, more so ethnic violence, that can persist for as long as ten years. We also find this correlations to hold across oil revenues, quantity of oil discovered and expected oil discoveries. Of concern is the lack of significance that institutions have in mitigating the effects of oil discoveries on intrastate conflict. Given the importance of poverty alleviation worldwide, such research brings awareness to weaknesses, such as poor institutions, that may prevail in countries with resource abundance and need to be redressed.

References

- ANGRIST, J. D. AND A. D. KUGLER (2008): “Rural Windfall or a New Resource Curse? Coca, Income, and Civil Conflict in Colombia,” *The Review of Economics and Statistics*, 90, 191–215.
- AREZKI, R. AND T. GYLFASSON (2013): “Resource Rents, Democracy, Corruption and Conflict: Evidence from Sub-Saharan Africa,” *Journal of African Economies*, 22, 552–569.
- AREZKI, R., V. A. RAMEY, AND L. SHENG (2017): “News Shocks in Open Economies: Evidence from Giant Oil Discoveries*,” *The Quarterly Journal of Economics*, 132, 103–155.
- ASLAKSEN, S. AND R. TORVIK (2006): “A Theory of Civil Conflict and Democracy in Rentier States,” *Scandinavian Journal of Economics*, 108, 571–585.
- BARBIERI, K. AND R. REUVENY (2005): “Economic Globalization and Civil War,” *Journal of Politics*, 67, 1228–1247.
- BAZZI, S. AND C. BLATTMAN (2014): “Economic Shocks and Conflict: Evidence from Commodity Prices,” *American Economic Journal: Macroeconomics*, 6, 1–38.
- BELLOWS, J. AND E. MIGUEL (2009): “War and local collective action in Sierra Leone,” *Journal of Public Economics*, 93, 1144 – 1157.
- BESLEY, T. AND T. PERSSON (2009): “Repression or Civil War?” *The American Economic Review*, 99, 292–297.
- (2011): “The Logic of Political Violence*,” *The Quarterly Journal of Economics*, 126, 1411–1445.
- BHATTACHARYYA, S. AND N. MAMO (2019): “Natural Resources and Conflict in Africa: What Do the Data Show?” *Economic Development and Cultural Change*, 0, null.
- BLANTON, R. AND C. APODACA (2007): “Economic Globalization and Violent Civil Conflict: Is Openness a Pathway to Peace?” *The Social Science Journal*, 44, 599–619.
- BO, E. D. AND P. D. BO (2011): “Workers, Warriors, And Criminals: Social Conflict In General Equilibrium,” *Journal of the European Economic Association*, 9, 646–677.
- BRUNNSCHWEILER, C. N. AND E. H. BULTE (2009): “Natural resources and violent conflict: resource abundance, dependence, and the onset of civil wars,” *Oxford Economic Papers*, 61, 651–674.
- CASELLI, F. AND G. MICHAELS (2013): “Do Oil Windfalls Improve Living Standards? Evidence from Brazil,” *American Economic Journal: Applied Economics*, 5, 208–38.
- CHISADZA, C. AND M. CLANCE (2018): “Conflict Heterogeneity in Africa,” Working Papers 201852, University of Pretoria, Department of Economics.

- CHOI, S.-W. (2010): “Beyond Kantian Liberalism,” *Conflict Management and Peace Science*, 27, 272–295.
- COLLIER, P. AND A. HOEFFLER (1998): “On Economic Causes of Civil War,” *Oxford Economic Papers*, 50, 563–573.
- (2004): “Greed and grievance in civil war,” *Oxford Economic Papers*, 56, 563–595.
- COTET, A. M. AND K. K. TSUI (2013): “Oil and Conflict: What Does the Cross Country Evidence Really Show?” *American Economic Journal: Macroeconomics*, 5, 49–80.
- DENLY, M., M. FINDLEY, J. HALL, A. STRAVERS, AND J. I. WALSH (2019): “Natural Resources and Civil Conflict: Evidence From a New Georeferenced Dataset,” *University of Texas at Austin, Innovations for Peace and Development*.
- DREHER, A. (2006): “Does globalization affect growth? Evidence from a new index of globalization,” *Applied Economics*, 38, 1091–1110.
- DREHER, A., N. GASTON, AND P. MARTENS (2008): *Measuring Globalisation: Gauging its Consequences*, New York, Springer.
- DUBE, O. AND J. F. VARGAS (2013): “Commodity Price Shocks and Civil Conflict: Evidence from Colombia,” *The Review of Economic Studies*, 80, 1384–1421.
- FEARON, J. D. AND D. D. LAITIN (2003): “Ethnicity, Insurgency, and Civil War,” *American Political Science Review*, 97, 75–90.
- FLATEN, R. D. AND I. DE SOYSA (2012): “Globalization and Political Violence, 1970–2008,” *International Interactions*, 38, 622–646.
- GLEDITSCH, K. S. (2007): “Transnational Dimensions of Civil War,” *Journal of Peace Research*, 44, 293–309.
- GLEDITSCH, N. P. (1998): “Armed Conflict and The Environment: A Critique of the Literature,” *Journal of Peace Research*, 35, 381–400.
- GYLFASSON, T., T. HERBERTSSON, AND G. ZOEGA (1999): “A Mixed Blessing,” *Macroeconomic Dynamics*, 3, 204–225.
- HEGRE, H., J. R. ONEAL, AND B. RUSSETT (2010): “Trade does promote peace: New simultaneous estimates of the reciprocal effects of trade and conflict,” *Journal of Peace Research*, 47, 763–774.
- HEGRE, H. AND N. SAMBANIS (2006): “Sensitivity Analysis of Empirical Results on Civil War Onset,” *Journal of Conflict Resolution*, 50, 508–535.
- HORN, M. K. (2014): “Giant Oil and Gas Fields of the World,” <http://www.datapages.com/AssociatedWebsites/GISOpenFiles/HornGiantFields.aspx>.

- HUMPHREYS, M. (2005): “Natural Resources, Conflict, and Conflict Resolution: Uncovering the Mechanisms,” *The Journal of Conflict Resolution*, 49, 508–537.
- K. TSUI, K. (2009): “More Oil, Less Democracy: Evidence from Worldwide Crude Oil Discoveries,” *SSRN Electronic Journal*.
- LEI, Y.-H. AND G. MICHAELS (2014): “Do giant oilfield discoveries fuel internal armed conflicts?” *Journal of Development Economics*, 110, 139 – 157, land and Property Rights.
- LUJALA, P. (2009): “Deadly Combat over Natural Resources: Gems, Petroleum, Drugs, and the Severity of Armed Civil Conflict,” *The Journal of Conflict Resolution*, 53, 50–71.
- (2010): “The spoils of nature: Armed civil conflict and rebel access to natural resources,” *Journal of Peace Research*, 47, 15–28.
- MALTHUS, T. AND G. GILBERT (1999): *An Essay on the Principle of Population*, Oxford world’s classics, Oxford University Press.
- MARSHALL, M. G. (2017): “Major Episodes and Political Violence (MEPV) and Conflict Regions, 1946-2016,” *Center for Systemic Peace*.
- MARSHALL, M. G., T. R. GURR, AND K. JAGGERS (2018): “Polity IV Project: Political Regime Characteristics and Transitions, 1800-2017,” *Center for Systemic Peace*.
- MICHALOPOULOS, S. AND E. PAPAIOANNOU (2016): “The Long-Run Effects of the Scramble for Africa,” *Journal of Economic Review*, 106, 1802–1848.
- MIGUEL, E., S. SATYANATH, AND E. SERGENTI (2004): “Economic Shocks and Civil Conflict: An Instrumental Variables Approach,” *Journal of Political Economy*, 112, 725–753.
- O’BROCHTA, W. (2019): “A meta-analysis of natural resources and conflict,” *Research & Politics*, 6, 1–6.
- PINKER, S. (2011): *The Better Angels of our Nature*, New York, NY: Viking.
- RIGTERINK, A. S. (2019): “Diamonds, Rebel’s and Farmer’s Best Friend: Impact of Variation in the Price of a Lootable, Labor-intensive Natural Resource on the Intensity of Violent Conflict,” *Journal of Conflict Resolution*, 0, 1–37.
- ROSS, M. (2006): “A Closer Look at Oil, Diamonds, and Civil War,” *Annual Review of Political Science*, 9, 265–300.
- ROSS, M. L. (2004): “What Do We Know about Natural Resources and Civil War?” *Journal of Peace Research*, 41, 337–356.
- (2012): *The Oil Curse: How Petroleum Wealth Shapes the Development of Nations*, Princeton University Press, stu - student edition ed.

- SACHS, J. D. AND A. WARNER (2001): "The curse of natural resources," *European Economic Review*, 45, 827–838.
- SACHS, J. D. AND A. M. WARNER (1995): "Natural Resource Abundance and Economic Growth," NBER Working Papers 5398, National Bureau of Economic Research, Inc.
- SMITH, B. (2004): "Oil Wealth and Regime Survival in the Developing World, 1960-1999," *American Journal of Political Science*, 48, 232–246.
- SNYDER, R. AND R. BHAVNANI (2005): "Diamonds, Blood, and Taxes: A Revenue-Centered Framework for Explaining Political Order," *The Journal of Conflict Resolution*, 49, 563–597.
- TSUI, K. K. (2010): "Resource Curse, Political Entry, And Deadweight Costs," *Economics and Politics*, 22, 471–497.

7 Figures and Tables

Figure 1

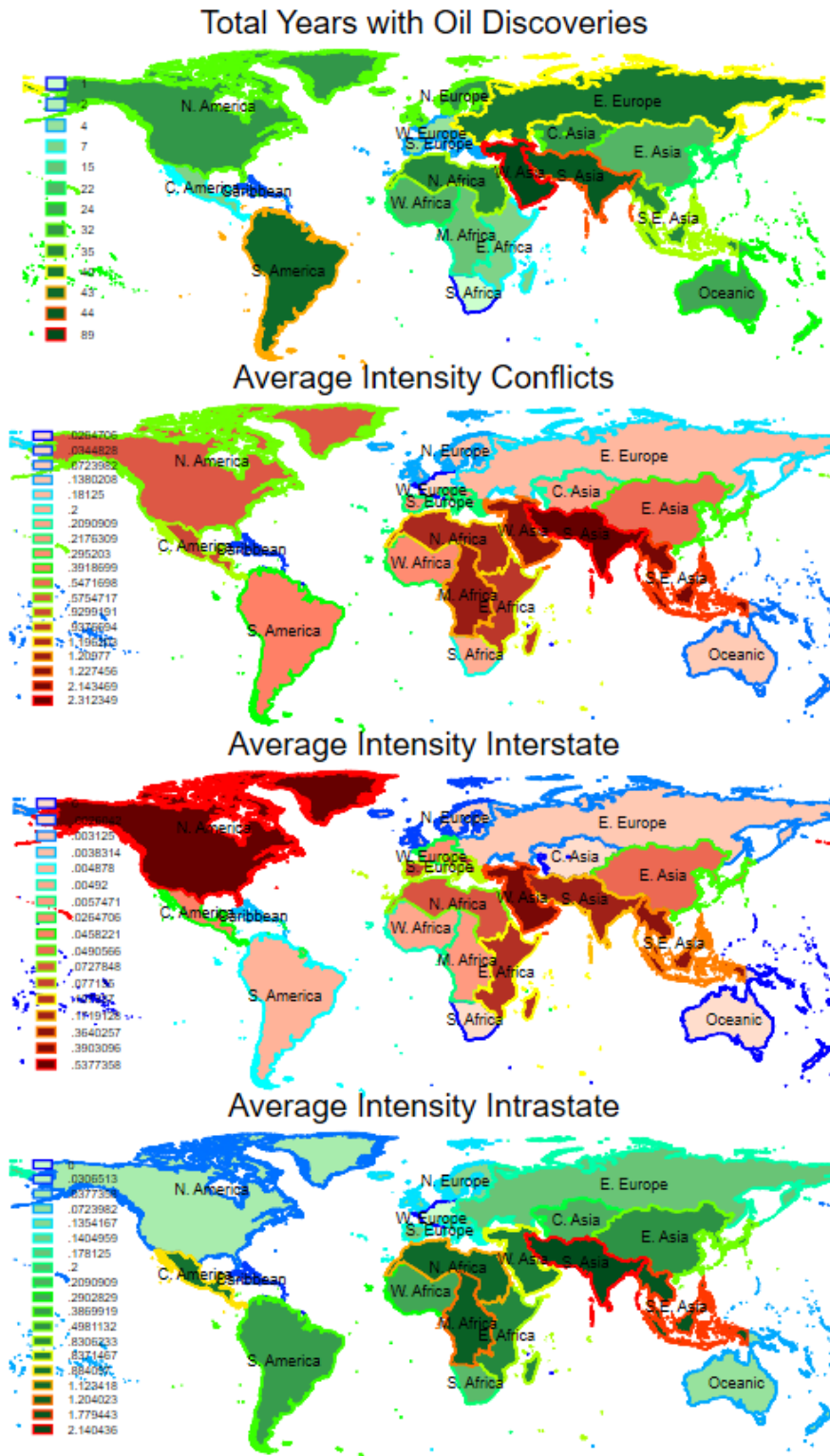


Table 1: Poisson: Oil discovery 1 period Lag

| | Aggregates | | | Intrastate Conflicts | |
|----------------------------|----------------------|-------------------------|-------------------------|----------------------|----------------------|
| | All Conflict | All Interstate Conflict | All Intrastate Conflict | All Ethnic Conflict | All Civil Conflict |
| Discovery $_{t-1}$ | 0.502*** (0.114) | 0.231 (0.325) | 0.536*** (0.113) | 0.628*** (0.138) | 0.420** (0.177) |
| ln(Military Exp.) $_{t-1}$ | 0.650*** (0.057) | 1.229*** (0.119) | 0.592*** (0.055) | 0.501*** (0.051) | 0.720*** (0.084) |
| ln(GDPpc) $_{t-1}$ | -0.045 (0.054) | 0.542*** (0.189) | -0.117*** (0.045) | -0.215*** (0.047) | 0.063 (0.085) |
| ln(Globalisation) $_{t-1}$ | -1.973*** (0.188) | -3.710*** (0.699) | -1.796*** (0.186) | -1.753*** (0.234) | -1.834*** (0.306) |
| ln(Pop. Density) $_{t-1}$ | 0.202*** (0.030) | 0.295*** (0.072) | 0.208*** (0.028) | 0.245*** (0.030) | 0.113** (0.051) |
| Democracy $_{t-1}$ | 0.934*** (0.124) | 0.511 (0.376) | 0.968*** (0.126) | 1.153*** (0.155) | 0.713*** (0.207) |
| Region FE | Yes | Yes | Yes | Yes | Yes |
| Pseudo-R2 | 0.301 | 0.367 | 0.296 | 0.315 | 0.272 |
| Obs | 4529 | 4529 | 4529 | 4529 | 4529 |

Standard errors in parentheses

* $p < .10$, ** $p < .05$, *** $p < .01$

Table 2: Poisson: Oil discovery 2 period Lag

| | Aggregates | | | Intrastate Conflicts | |
|----------------------------------|----------------------|-------------------------|-------------------------|----------------------|----------------------|
| | All Conflict | All Interstate Conflict | All Intrastate Conflict | All Ethnic Conflict | All Civil Conflict |
| Discovery _{t-1} | 0.424*** (0.115) | 0.060 (0.340) | 0.468*** (0.113) | 0.540*** (0.133) | 0.380** (0.183) |
| Discovery _{t-5} | 0.642*** (0.123) | 0.830** (0.351) | 0.613*** (0.118) | 0.730*** (0.138) | 0.471*** (0.179) |
| ln(Military Exp.) _{t-1} | 0.646*** (0.057) | 1.242*** (0.121) | 0.588*** (0.055) | 0.489*** (0.051) | 0.722*** (0.085) |
| ln(GDPpc) _{t-1} | -0.072 (0.053) | 0.483** (0.189) | -0.142*** (0.045) | -0.238*** (0.047) | 0.040 (0.085) |
| ln(Globalisation) _{t-1} | -1.979*** (0.188) | -3.644*** (0.705) | -1.807*** (0.187) | -1.784*** (0.237) | -1.827*** (0.306) |
| ln(Pop. Density) _{t-1} | 0.226*** (0.029) | 0.348*** (0.074) | 0.230*** (0.028) | 0.271*** (0.030) | 0.129** (0.052) |
| Democracy _{t-1} | 0.990*** (0.124) | 0.599 (0.377) | 1.019*** (0.127) | 1.234*** (0.157) | 0.726*** (0.208) |
| Region FE | Yes | Yes | Yes | Yes | Yes |
| Pseudo-R2 | 0.308 | 0.375 | 0.302 | 0.322 | 0.275 |
| Obs | 4528 | 4528 | 4528 | 4528 | 4528 |

Standard errors in parentheses

* $p < .10$, ** $p < .05$, *** $p < .01$

Table 3: Poisson: Oil discovery 3 period Lag

| | Aggregates | | | Intrastate Conflicts | |
|----------------------------|----------------------|-------------------------|-------------------------|----------------------|----------------------|
| | All Conflict | All Interstate Conflict | All Intrastate Conflict | All Ethnic Conflict | All Civil Conflict |
| Discovery $_{t-1}$ | 0.384*** (0.114) | 0.042 (0.331) | 0.431*** (0.113) | 0.506*** (0.132) | 0.346* (0.186) |
| Discovery $_{t-5}$ | 0.587*** (0.122) | 0.803** (0.331) | 0.563*** (0.119) | 0.669*** (0.136) | 0.434** (0.184) |
| Discovery $_{t-10}$ | 0.582*** (0.126) | 0.946*** (0.345) | 0.518*** (0.125) | 0.614*** (0.132) | 0.405** (0.194) |
| ln(Military Exp.) $_{t-1}$ | 0.639*** (0.057) | 1.249*** (0.124) | 0.582*** (0.055) | 0.479*** (0.051) | 0.720*** (0.085) |
| ln(GDPpc) $_{t-1}$ | -0.100** (0.051) | 0.376** (0.182) | -0.164*** (0.045) | -0.258*** (0.047) | 0.019 (0.085) |
| ln(Globalisation) $_{t-1}$ | -1.989*** (0.189) | -3.491*** (0.681) | -1.821*** (0.189) | -1.813*** (0.243) | -1.827*** (0.307) |
| ln(Pop. Density) $_{t-1}$ | 0.246*** (0.028) | 0.416*** (0.083) | 0.245*** (0.028) | 0.290*** (0.030) | 0.139*** (0.052) |
| Democracy $_{t-1}$ | 1.033*** (0.123) | 0.741* (0.379) | 1.052*** (0.127) | 1.286*** (0.157) | 0.735*** (0.209) |
| Region FE | Yes | Yes | Yes | Yes | Yes |
| Pseudo-R2 | 0.313 | 0.385 | 0.306 | 0.327 | 0.277 |
| Obs | 4527 | 4527 | 4527 | 4527 | 4527 |

Standard errors in parentheses

* $p < .10$, ** $p < .05$, *** $p < .01$

Table 4: Poisson: Income Classifications

| | Aggregates | | | Intrastate Conflicts | |
|---|----------------------|-------------------------|-------------------------|-----------------------|-----------------------|
| | All Conflict | All Interstate Conflict | All Intrastate Conflict | All Ethnic Conflict | All Civil Conflict |
| Discovery _{t-1} | 0.481*** (0.176) | -0.853 (0.996) | 0.497*** (0.174) | 0.526*** (0.192) | 0.425 (0.312) |
| Low-Mid Income | 0.032 (0.135) | 1.007** (0.470) | -0.061 (0.137) | -0.205 (0.167) | 0.258 (0.203) |
| High-Mid Income | -1.039*** (0.210) | -1.687 (1.216) | -1.011*** (0.210) | -0.784*** (0.217) | -1.090*** (0.348) |
| High Income | -1.466*** (0.283) | -0.043 (1.283) | -1.760*** (0.284) | -1.084*** (0.280) | -18.971*** (0.533) |
| Discovery _{t-1} xLow-Mid Income | -0.065 (0.238) | 0.522 (1.132) | 0.001 (0.227) | 0.180 (0.290) | -0.075 (0.366) |
| Discovery _{t-1} xHigh-Mid Income | -1.845*** (0.551) | -14.951*** (1.141) | -1.741*** (0.550) | -18.390*** (0.296) | -0.999 (0.625) |
| Discovery _{t-1} xHigh Income | 0.722** (0.283) | 1.808* (1.076) | 1.012*** (0.290) | 0.843*** (0.291) | 0.988** (0.488) |
| ln(Military Exp.) _{t-1} | 0.676*** (0.056) | 1.228*** (0.121) | 0.626*** (0.057) | 0.530*** (0.056) | 0.771*** (0.079) |
| ln(GDPpc) _{t-1} | 0.264*** (0.077) | 0.538 (0.335) | 0.223*** (0.075) | 0.044 (0.082) | 0.438*** (0.133) |
| ln(Globalisation) _{t-1} | -2.236*** (0.187) | -3.452*** (0.700) | -2.093*** (0.187) | -1.962*** (0.230) | -1.995*** (0.298) |
| ln(Pop. Density) _{t-1} | 0.235*** (0.030) | 0.231** (0.104) | 0.255*** (0.031) | 0.258*** (0.033) | 0.231*** (0.063) |
| Democracy _{t-1} | 1.099*** (0.124) | 0.361 (0.472) | 1.133*** (0.128) | 1.274*** (0.154) | 0.723*** (0.216) |
| Region FE | Yes | Yes | Yes | Yes | Yes |
| Pseudo-R2 | 0.324 | 0.411 | 0.318 | 0.326 | 0.316 |
| Obs | 4510 | 4510 | 4510 | 4510 | 4510 |

Standard errors in parentheses

* $p < .10$, ** $p < .05$, *** $p < .01$

Table 5: Poisson: Oil discovery and institutions interacted

| | Aggregates | | | Intrastate Conflicts | |
|---|----------------------|-------------------------|-------------------------|----------------------|----------------------|
| | All Conflict | All Interstate Conflict | All Intrastate Conflict | All Ethnic Conflict | All Civil Conflict |
| main | | | | | |
| Discovery _{t-1} | 0.344 (0.312) | -0.125 (1.041) | 0.387 (0.283) | 0.453 (0.360) | 0.354 (0.439) |
| ln(Military Exp.) _{t-1} | 0.648*** (0.057) | 1.288*** (0.118) | 0.592*** (0.056) | 0.499*** (0.052) | 0.719*** (0.084) |
| ln(GDPpc) _{t-1} | -0.039 (0.054) | 0.592*** (0.135) | -0.117** (0.046) | -0.213*** (0.049) | 0.065 (0.085) |
| ln(Globalisation) _{t-1} | -1.984*** (0.187) | -3.753*** (0.583) | -1.797*** (0.187) | -1.754*** (0.234) | -1.849*** (0.309) |
| ln(Pop. Density) _{t-1} | 0.193*** (0.030) | 0.160** (0.068) | 0.205*** (0.029) | 0.241*** (0.032) | 0.113** (0.051) |
| Democracy _{t-1} | 1.974*** (0.580) | 11.982*** (2.098) | 1.257** (0.570) | 1.400** (0.705) | 1.017 (0.931) |
| Democracy _{t-1} ² | -1.111* (0.584) | -12.323*** (2.021) | -0.313 (0.573) | -0.289 (0.715) | -0.292 (0.924) |
| Discovery _{t-1} xDemocracy _{t-1} | 0.716 (1.733) | -2.215 (4.835) | 0.953 (1.649) | 0.684 (2.107) | 1.154 (2.616) |
| Discovery _{t-1} xDemocracy _{t-1} ² | -0.531 (1.682) | 3.745 (4.447) | -0.904 (1.642) | -0.421 (2.030) | -1.523 (2.747) |
| Region FE | Yes | Yes | Yes | Yes | Yes |
| Pseudo-R2 | 0.302 | 0.413 | 0.296 | 0.315 | 0.273 |
| Obs | 4529 | 4529 | 4529 | 4529 | 4529 |

Standard errors in parentheses

* $p < .10$, ** $p < .05$, *** $p < .01$

Table 6: Poisson: Petroleum Exporting Countries

| | Aggregates | | | Intrastate Conflicts | |
|----------------------------------|----------------------|-------------------------|-------------------------|----------------------|----------------------|
| | All Conflict | All Interstate Conflict | All Intrastate Conflict | All Ethnic Conflict | All Civil Conflict |
| main | | | | | |
| Discovery _{t-1} | 0.300** (0.134) | 0.598** (0.301) | 0.273* (0.144) | 0.330* (0.174) | 0.162 (0.216) |
| OPEC | 1.604*** (0.166) | 1.763*** (0.483) | 1.597*** (0.164) | 0.913*** (0.234) | 2.214*** (0.212) |
| OPECxDiscovery _{t-1} | -0.176 (0.220) | -1.598** (0.719) | -0.013 (0.211) | 0.065 (0.265) | 0.049 (0.350) |
| ln(Military Exp.) _{t-1} | 0.658*** (0.059) | 1.346*** (0.133) | 0.597*** (0.057) | 0.536*** (0.054) | 0.689*** (0.083) |
| ln(GDPpc) _{t-1} | -0.239*** (0.051) | 0.185 (0.165) | -0.310*** (0.047) | -0.353*** (0.054) | -0.232*** (0.086) |
| ln(Globalisation) _{t-1} | -1.833*** (0.194) | -3.218*** (0.696) | -1.665*** (0.195) | -1.644*** (0.246) | -1.663*** (0.321) |
| ln(Pop. Density) _{t-1} | 0.294*** (0.031) | 0.433*** (0.077) | 0.299*** (0.031) | 0.316*** (0.035) | 0.248*** (0.059) |
| Democracy _{t-1} | 1.325*** (0.132) | 0.983** (0.416) | 1.355*** (0.137) | 1.323*** (0.165) | 1.304*** (0.247) |
| OPECxDemocracy _{t-1} | -1.354*** (0.314) | 1.100 (0.966) | -1.486*** (0.308) | 0.413 (0.399) | -2.841*** (0.401) |
| Region FE | Yes | Yes | Yes | Yes | Yes |
| Pseudo-R2 | 0.327 | 0.396 | 0.321 | 0.327 | 0.308 |
| Obs | 4529 | 4529 | 4529 | 4529 | 4529 |

Standard errors in parentheses

* $p < .10$, ** $p < .05$, *** $p < .01$

Table 7: Poisson: Oil Revenues

| | Aggregates | | | Intrastate Conflicts | |
|-----------------------------------|----------------------|-------------------------|-------------------------|----------------------|----------------------|
| | All Conflict | All Interstate Conflict | All Intrastate Conflict | All Ethnic Conflict | All Civil Conflict |
| main | | | | | |
| $\ln(\text{Revenue})_{t-1}$ | 0.100** (0.048) | -0.188 (0.226) | 0.119** (0.046) | 0.036 (0.072) | 0.194*** (0.053) |
| $\ln(\text{Revenue})_{t-5}$ | 0.126*** (0.048) | 0.042 (0.114) | 0.131*** (0.048) | 0.147** (0.065) | 0.142** (0.063) |
| $\ln(\text{Revenue})_{t-10}$ | 0.125** (0.052) | 0.132 (0.126) | 0.112** (0.052) | 0.112* (0.058) | 0.145** (0.064) |
| $\ln(\text{Military Exp.})_{t-1}$ | 0.703*** (0.072) | 1.388*** (0.157) | 0.649*** (0.069) | 0.553*** (0.063) | 0.750*** (0.092) |
| $\ln(\text{GDPpc})_{t-1}$ | 0.009 (0.060) | 1.043*** (0.203) | -0.080 (0.052) | -0.143*** (0.055) | 0.034 (0.091) |
| $\ln(\text{Globalisation})_{t-1}$ | -2.158*** (0.206) | -3.234*** (0.601) | -2.008*** (0.205) | -1.760*** (0.268) | -2.449*** (0.313) |
| $\ln(\text{Pop. Density})_{t-1}$ | 0.211*** (0.032) | 0.177* (0.101) | 0.224*** (0.030) | 0.269*** (0.035) | 0.145** (0.058) |
| Democracy $_{t-1}$ | 1.099*** (0.135) | 1.550*** (0.396) | 1.071*** (0.140) | 1.449*** (0.172) | 0.477** (0.215) |
| Region FE | Yes | Yes | Yes | Yes | Yes |
| Pseudo-R2 | 0.306 | 0.416 | 0.300 | 0.301 | 0.309 |
| Obs | 3876 | 3876 | 3876 | 3876 | 3876 |

Standard errors in parentheses

* $p < .10$, ** $p < .05$, *** $p < .01$

Table 8: Poisson: Barrels of oil

| | Aggregates | | | Intrastate Conflicts | |
|-----------------------------------|----------------------|-------------------------|-------------------------|----------------------|----------------------|
| | All Conflict | All Interstate Conflict | All Intrastate Conflict | All Ethnic Conflict | All Civil Conflict |
| main | | | | | |
| $\ln(\text{Retrievable})_{t-1}$ | 0.054*** (0.016) | 0.009 (0.051) | 0.061*** (0.015) | 0.072*** (0.018) | 0.049* (0.026) |
| $\ln(\text{Retrievable})_{t-5}$ | 0.083*** (0.017) | 0.107** (0.046) | 0.080*** (0.017) | 0.096*** (0.019) | 0.061** (0.026) |
| $\ln(\text{Retrievable})_{t-10}$ | 0.082*** (0.018) | 0.125*** (0.048) | 0.074*** (0.017) | 0.086*** (0.018) | 0.062** (0.027) |
| $\ln(\text{Military Exp.})_{t-1}$ | 0.640*** (0.057) | 1.251*** (0.124) | 0.583*** (0.055) | 0.479*** (0.051) | 0.721*** (0.085) |
| $\ln(\text{GDPpc})_{t-1}$ | -0.111** (0.051) | 0.362* (0.186) | -0.174*** (0.045) | -0.270*** (0.048) | 0.011 (0.085) |
| $\ln(\text{Globalisation})_{t-1}$ | -1.975*** (0.189) | -3.433*** (0.685) | -1.810*** (0.189) | -1.798*** (0.243) | -1.819*** (0.307) |
| $\ln(\text{Pop. Density})_{t-1}$ | 0.252*** (0.028) | 0.420*** (0.086) | 0.251*** (0.028) | 0.298*** (0.030) | 0.143*** (0.052) |
| Democracy_{t-1} | 1.047*** (0.123) | 0.742** (0.376) | 1.065*** (0.127) | 1.307*** (0.158) | 0.741*** (0.209) |
| Region FE | Yes | Yes | Yes | Yes | Yes |
| Pseudo-R2 | 0.315 | 0.386 | 0.307 | 0.328 | 0.277 |
| Obs | 4527 | 4527 | 4527 | 4527 | 4527 |

Standard errors in parentheses

* $p < .10$, ** $p < .05$, *** $p < .01$

Table 9: Poisson: Exploratory Drilling

| | Aggregates | | | Intrastate Conflicts | |
|-----------------------------------|----------------------|-------------------------|-------------------------|----------------------|----------------------|
| | All Conflict | All Interstate Conflict | All Intrastate Conflict | All Ethnic Conflict | All Civil Conflict |
| main | | | | | |
| $\ln(\text{Wildcat})_{t-1}$ | 0.001 (0.075) | -0.564*** (0.181) | 0.097 (0.074) | 0.228* (0.120) | 0.016 (0.085) |
| $\ln(\text{Wildcat})_{t-5}$ | 0.279*** (0.077) | 0.422 (0.261) | 0.273*** (0.074) | 0.373*** (0.112) | 0.182* (0.099) |
| $\ln(\text{Wildcat})_{t-10}$ | 0.251*** (0.080) | -0.353 (0.235) | 0.244*** (0.071) | 0.037 (0.088) | 0.415*** (0.101) |
| $\ln(\text{Military Exp.})_{t-1}$ | 0.399*** (0.075) | 1.336*** (0.397) | 0.370*** (0.077) | -0.368*** (0.093) | 0.812*** (0.089) |
| $\ln(\text{GDPpc})_{t-1}$ | 0.220* (0.112) | 1.441*** (0.276) | 0.015 (0.110) | -0.273** (0.135) | 0.371** (0.167) |
| $\ln(\text{Globalisation})_{t-1}$ | -3.947*** (0.381) | -7.712*** (1.016) | -3.482*** (0.391) | -2.435*** (0.479) | -4.861*** (0.571) |
| $\ln(\text{Pop. Density})_{t-1}$ | 0.446*** (0.078) | 1.307*** (0.291) | 0.386*** (0.079) | 0.143 (0.102) | 0.456*** (0.119) |
| Democracy_{t-1} | 0.549** (0.223) | -0.411 (1.023) | 0.760*** (0.223) | 0.533 (0.403) | 0.848*** (0.252) |
| Region FE | Yes | Yes | Yes | Yes | Yes |
| Pseudo-R2 | 0.371 | 0.518 | 0.392 | 0.509 | 0.402 |
| Obs | 1407 | 1407 | 1407 | 1407 | 1407 |

Standard errors in parentheses

* $p < .10$, ** $p < .05$, *** $p < .01$

8 Appendix

In Tables A1, we report findings for ethnic and civil conflicts disaggregated by wars and violence, while in Table A2, we report our baseline results with country effects. Our findings in Table A1 remain robust across the further conflict disaggregations. However, once we remove regional effects in Table A2, oil discoveries lose significance implying that oil effects on conflicts are more regional than specific to country. Tables A3 and A4 report the variable statistics and definitions.

Table A1: Poisson: Ethnic and Civil disaggregated

| | Aggregates | | | Ethnic Conflict | | | Civil Conflict | | |
|----------------------------------|----------------------|-------------------------|-------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | All Conflict | All Interstate Conflict | All Intrastate Conflict | All Ethnic Conflict | Ethnic War | Ethnic Violence | All Civil Conflict | Civil War | Civil Violence |
| main | | | | | | | | | |
| Discovery _{t-1} | 0.384*** (0.114) | 0.042 (0.331) | 0.431*** (0.113) | 0.506*** (0.132) | 0.341** (0.161) | 0.743*** (0.204) | 0.346* (0.186) | 0.281 (0.254) | 0.392* (0.236) |
| Discovery _{t-5} | 0.587*** (0.122) | 0.803** (0.331) | 0.563*** (0.119) | 0.669*** (0.136) | 0.372** (0.165) | 1.200*** (0.207) | 0.434** (0.184) | 0.394* (0.233) | 0.401 (0.245) |
| Discovery _{t-10} | 0.582*** (0.126) | 0.946*** (0.345) | 0.518*** (0.125) | 0.614*** (0.132) | 0.444*** (0.160) | 0.894*** (0.189) | 0.405** (0.194) | 0.484** (0.228) | 0.150 (0.316) |
| ln(Military Exp.) _{t-1} | 0.639*** (0.057) | 1.249*** (0.124) | 0.582*** (0.055) | 0.479*** (0.051) | 0.547*** (0.061) | 0.346*** (0.078) | 0.720*** (0.085) | 0.767*** (0.087) | 0.649*** (0.134) |
| ln(GDPpc) _{t-1} | -0.100** (0.051) | 0.376** (0.182) | -0.164*** (0.045) | -0.258*** (0.047) | -0.142*** (0.054) | -0.548*** (0.073) | 0.019 (0.085) | -0.057 (0.105) | -0.030 (0.124) |
| ln(Globalisation) _{t-1} | -1.989*** (0.189) | -3.491*** (0.681) | -1.821*** (0.189) | -1.813*** (0.243) | -2.710*** (0.273) | 1.194*** (0.414) | -1.827*** (0.307) | -1.088*** (0.380) | -2.424*** (0.489) |
| ln(Pop. Density) _{t-1} | 0.246*** (0.028) | 0.416*** (0.083) | 0.245*** (0.028) | 0.290*** (0.030) | 0.263*** (0.037) | 0.317*** (0.043) | 0.139*** (0.052) | 0.013 (0.065) | 0.461*** (0.119) |
| Democracy _{t-1} | 1.033*** (0.123) | 0.741* (0.379) | 1.052*** (0.127) | 1.286*** (0.157) | 1.480*** (0.171) | 0.513* (0.299) | 0.735*** (0.209) | -0.584* (0.324) | 2.595*** (0.304) |
| Region FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Pseudo-R2 | 0.313 | 0.385 | 0.306 | 0.327 | 0.400 | 0.205 | 0.277 | 0.312 | 0.351 |
| Obs | 4527 | 4527 | 4527 | 4527 | 4527 | 4527 | 4527 | 4527 | 4527 |

Standard errors in parentheses

* $p < .10$, ** $p < .05$, *** $p < .01$

Table A2: Poisson: Country Fixed Effects

| | Aggregates | | | Intrastate Conflicts | |
|----------------------------------|---------------------|-------------------------|-------------------------|----------------------|----------------------|
| | All Conflict | All Interstate Conflict | All Intrastate Conflict | All Ethnic Conflict | All Civil Conflict |
| main | | | | | |
| Discovery _{t-1} | -0.149 (0.133) | -0.135 (0.464) | -0.111 (0.098) | -0.123 (0.131) | -0.064 (0.181) |
| Discovery _{t-5} | 0.035 (0.086) | 0.573* (0.302) | -0.019 (0.074) | 0.031 (0.123) | -0.097 (0.169) |
| Discovery _{t-10} | 0.035 (0.132) | 0.598 (0.462) | -0.054 (0.128) | 0.075 (0.141) | -0.204 (0.205) |
| ln(Military Exp.) _{t-1} | 0.700*** (0.131) | 1.417** (0.590) | 0.652*** (0.122) | 0.476** (0.204) | 0.738*** (0.133) |
| ln(GDPpc) _{t-1} | -0.534* (0.310) | 0.437 (0.640) | -0.606** (0.299) | -0.138 (0.352) | -1.156*** (0.438) |
| ln(Globalisation) _{t-1} | -1.442 (1.679) | -2.750 (1.742) | -1.470 (1.973) | -1.455 (1.755) | -1.393 (3.034) |
| ln(Pop. Density) _{t-1} | 1.274 (1.624) | 0.590** (0.289) | 1.422 (1.834) | 1.306 (1.647) | 0.992 (2.932) |
| Democracy _{t-1} | -0.336 (0.371) | -0.756 (1.620) | -0.377 (0.367) | -0.311 (0.327) | -0.313 (0.759) |
| Country FE | Yes | Yes | Yes | Yes | Yes |
| Pseudo-R2 | | | | | |
| Obs | 4587 | 4587 | 4587 | 4587 | 4587 |

Standard errors in parentheses

* $p < .10$, ** $p < .05$, *** $p < .01$

Table A3: Descriptive Statistics

| | Obs | Mean | Std.Dev. | Min. | Max. |
|-------------------------------------|-------|----------|----------|--------|-----------|
| All Conflict | 7515 | 0.77 | 1.84 | 0.00 | 14.00 |
| All Interstate Conflict | 7513 | 0.10 | 0.64 | 0.00 | 9.00 |
| All Intrastate Conflict | 7515 | 0.67 | 1.64 | 0.00 | 10.00 |
| All Ethnic Conflict | 7549 | 0.36 | 1.19 | 0.00 | 10.00 |
| All Civil Conflict | 7549 | 0.30 | 1.10 | 0.00 | 7.00 |
| Discovery | 10016 | 0.05 | 0.22 | 0.00 | 1.00 |
| Military Expenditure | 5855 | 2.94 | 3.72 | 0.00 | 117.39 |
| GDP per capita (constant 2010 US\$) | 7917 | 10505.69 | 15822.91 | 115.79 | 144246.37 |
| Globalisation | 7247 | 48.94 | 16.26 | 15.37 | 89.33 |
| Population density | 10902 | 317.66 | 1539.34 | 0.10 | 21398.95 |
| Democracy | 7440 | 0.70 | 7.45 | -10.00 | 10.00 |

Sources: [Horn \(2014\)](#), World Development Indicators, Center for Systemic Peace.

Table A4: List of Variables and Definitions

| Variable | Description | Source |
|---------------------|---|--|
| All conflict | interstate and intrastate conflicts | Major Episodes of Political Violence and Conflict Regions 2017 |
| Interstate conflict | international wars and violence between states | Major Episodes of Political Violence and Conflict Regions 2017 |
| Intrastate conflict | civil and ethnic conflicts within states | Major Episodes of Political Violence and Conflict Regions 2017 |
| Ethnic conflict | ethnic wars and violence between the state agent and a distinct ethnic group | Major Episodes of Political Violence and Conflict Regions 2017 |
| Civil conflict | civil wars and violence between rival political groups within a state | Major Episodes of Political Violence and Conflict Regions 2017 |
| Discovery | dummy variable=1 for oil discoveries in a specific year for a country, 0=otherwise | (Horn, 2014) |
| Military Exp | Military expenditure as a percentage of GDP | World Development Indicators |
| Real Gdpcap | income per capita at 2010 US\$ constant prices | World Development Indicators |
| Globalisation | KOF index of globalisation ranging from 0 (no globalisation) to 100 (highly globalised) | Dreher (2006) , Dreher et al. (2008) |
| Popden | Population density (people per square kilometre of land) | World Development Indicators |
| Democracy | Polity2 score for democracy ranging from -10 (autocratic) to 10 (democratic) | Polity IV Project 2017 |