PEACE IMPACT OF PRIVATE INVESTMENTS

EVIDENCE FROM MULTINATIONALS INVESTMENTS IN AFRICA

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Finance for Peace Initiative

The Finance for Peace Initiative is part of Interpeace's five-year 2021-2026 strategy which calls for Interpeace to seek systemic change in how peacebuilding is financed and how private and public economic development supports peace.

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List of Abbreviations

ACLED	-	Armed Conflict Location & Event Data Project
ADB	-	Asian Development Bank
AfDB	-	African Development Bank
B4P	-	Business for Peace
COW	-	Correlates of War
CSR	-	Corporate Social Responsibility
DAC	-	Development Assistance Committee
DFi	-	Development Finance Institution
EIB	-	European Investment Bank
EITI	-	Extractive Industries Transparency Initiative
EPIP	-	Everyday Peace Indicators Project
ESG	-	Environmental, Social, and Governance
FDI	-	Foreign Direct Investment
FCS	-	Fragile and conflict-affected states
GDP	-	Gross Domestic Product
HQ	-	Head Quarters
IFC	-	International Finance Corporation
M23	-	March 23 Movement
MNE	-	Multi-National Enterprise
MSE	-	Micro & Small Enterprise
NGO	-	Non-governmental organization
OECD	-	Organisation for Economic Co-operation and Development
PPP	-	Public–private partnership
SDG	-	Sustainable Development Goals
UNCTAD	-	United Nations Conference on Trade and Development
UNGC	-	United Nations Global Compact

1 Executive Summary

In this report, we assess the peace impact of the private sector's investments in developing countries. Our analysis is divided into three blocs. In the first one, we will answer the following question: what do we know about the peace impact of private sector investments in fragile and conflict-prone countries? In addressing this question, we carry out a comprehensive literature review of different fields, from economics to political science. Then, we capitalize on this using existing granular and geolocalized data in an *ad-hoc* empirical analysis of multinational companies' peace outcomes. The final goal of this section is to construct a harmonized framework for peace impact. In the third part, we examine both the results from the literature and the insights from the empirical analysis to identify a future research agenda as well as a future policy agenda in the field.

The literature is severely divided on the peace impacts of private investments. When analysing the relationship between international trade and conflict, two main schools of thought exist. Liberals think that higher international trade, hence commercial multilateralism, should necessarily lead to a lower conflict incidence. On the other hand, Realists support the idea that this relationship is not so clear to start with. Specifically, they argue that the peace impact of international trade is mixed, and it depends on several factors. Examples of these are its consequences on inequality (both within and between countries), the cost-opportunity of conflicts, as well as other factors. The focus on private investments in fragile countries does not resolve the dispute. A large strand of the literature provides evidence about the positive peace impacts of these investments through their effects on the economy (better jobs, technological transfer, and, more in general, growth). According to these scholars, private investments have a positive peace impact by increasing the cost-opportunity of conflict. Another equally important part of the literature focuses on the negative peace outcomes generated by private investments through rent-seeking behaviours, rent-seeking activities, and general exploitation. The empirical analysis carried out in this report builds on this divergence and reconciles the literature providing a harmonized framework of peace impact.

Using granular and geolocalized data from Sonno, 2020 on the presence of Multinational Enterprises on the whole African continent, from 2007 to 2018, we study the impact of private investments on peace outcomes. First, we provide some description on the where, who and what of these investments. These companies tend to locate in relatively wealthier countries, characterized by a large presence of natural resources. Moreover, there is substantial heterogeneity in their nature. In particular, we do observe both small international companies and very large ones. Their headquarters tend to be located in developed countries with long historical relationships with this continent (such as France). However, newcomers, such as China, Russia, and India, are vastly increasing their presence in Africa. Finally, consistently with worldwide trends, these multinational companies tend to operate more in the Tertiary sector. Nevertheless, there is also a persistent part of them working in the Primary one.

We carry out a preliminary empirical analysis using a regression approach with fixed effects and several control variables. While potentially revealing interesting correlations, it must be noted that this has no strong causal claims on the relationship between private investments and peace outcomes. We find that, on average, private investments in Africa have a negative peace impact. In particular, they seem to increase the likelihood of riot events. However, there is substantial heterogeneity. We then propose our harmonized framework of peace impact consisting of a matrix with two dimensions: (1) the extent to which the investment subtracts or adds resources to the local capital stock; (2) the state capacity in the area. This matrix shows how private investments might be peace-negative when they subtract resources from the region. Nonetheless, this negative effect is mitigated in countries with higher state capacity. On the other hand, investments have a positive peace effect when it increases the local capital stock. This, in turn, can be amplified when done in countries with high rule of law. This framework poses firm decisions at the core of peace dynamics. As a result, **influencing firms to increase resource-additive investments may be an incredible cost-efficient strategy to improve stability**, and, ultimately, peace. Moreover, as shown in section 3.4, this can be also extremely beneficial for the firm itself.

We then turn to investigate a potential causal relationship using an Instrumental Variable approach, drawing on Sonno, 2020. A positive causal link between the activities of multinational enterprises and violent conflicts is documented. This applies particularly to sectors intense in scarce resources, especially land. As farming is the primary source of food and income for Africans, land-intensive activity on the part of the multinationals increases local grievances, escalating to violent actions. These effects are magnified in areas targeted for large-scale land acquisitions. In other words, consistently with the framework provided, it is shown that this **causal peace-negative relationship is driven by companies that work in resource subtractive sectors**. Finally, we present two case studies of two companies in the same industry, hence with similar production activities, that have potentially very different peace impacts. The first is a classic scenario of resource subtraction, with violent outcomes. The second is a company that expanding resources available for locals has both increased its profits while having a potential positive peace impact.

In the last section, we focus on future research and policy agenda. Capitalizing both on the limitations presented in the literature review and in the qualitative analysis, we make some proposals about where research could focus: (i) State capacity, which has been shown to be a key determinant in changing the peace-impact nature of investments; (ii) innovative finance for peace, which are increasingly used and might represent an important vehicle to increase peace; (iii) general equilibrium effects, which should be taken into consideration when assessing investments' impact; (iv) increase data availability, an essential ingredient to perform rigorous and granular analysis; (v) a deep, structured, and multidimensional reflection on the definition of peace, aiming at a quantifiable measure. Finally, we focus on policy proposals we construct on the basis of previous observations. First, we call for the **monitoring of investments and their subtractive/additive nature to understand their impact on individual incentives and potential (compensating) remedies**. Second, investments in State capacity, which through regulations and monitoring can offset potential subtractive behaviours and reduce peace negative events. Third, a set of alternative policies, grounded on cooperation, incentives, public image of private firms, and NGOs.

2 Literature Review

The involvement of the private sector in peacebuilding processes has been promoted and aided especially by multilateral agencies starting from the early 2000s. Evidence of this interest is traceable in official strategies and reports such as the recent UN Peacebuilding Fund 2020–24 Strategy: "increasing engagement with the private sector, for example by expanding pilots with social impact investment bonds, encouraging SMEs to invest and employ in higher risk areas [...] is a key goal for the next few years".[1] The explicit call for the involvement of the private sector in FCS makes it fundamental to capture its impact on conflict levels, but also its wider social, environmental, and contextual implications.

Following the burgeoning of this interest, this research addresses the impact of the Private Sector's intervention on conflict and post-conflict scenarios. We base our conceptualization of the "private sector" on the classic definition of "private business": this comprises different levels of action – national and international actors – and different sectors, such as financial services, infrastructure, retail, and mining. In our conceptualization, the private sector thus encompasses private businesses, multinational enterprises (MNEs), foreign direct investments (FDIs), but also novel instruments such as blended structures and investments made in partnership with developmental financial institutions (DFis). In particular, the research seeks to assess the impact that such interventions have on peacebuilding processes, post-war reconstruction, socio-economic development, and conflict dynamics – especially on levels of conflict intensity and the origination of organized violence. We also define negative and positive peace impacts as follows. A Positive Peace impact of private investments is defined as those investments which allow for the reduction of violence in a given region. Within this context, what is core are the attitudes, institutional structures and behaviours of businesses that create and sustain peaceful societies characterized by the absence of internal conflicts. The same factors that create lasting peace also lead to other positive outcomes that societies aspire to include: thriving economies, social development, the lack of exploiting

1. United Nations, UN Peacebuilding Fund Strategy 2020-24, 23 March 2020. Available here.

phenomena, functioning political institutions and rules, and better performance on labour and ecological measures. On the contrary, a Negative Peace impact is defined as those investments which result in an increase in violence. Here, intervening factors are the attitude, political structures and rules and those business behaviours that influence, or even sustain and amplify, exploiting phenomena (both in terms of resources and labour).

When reviewing the existing research in this field, one can note that, whilst quantitative research tends to focus on the latter aspect and adopts measurements employed by well-established databases such as the Armed Conflict Location Events Data (ACLED)[2] or the Correlates of War (COW)[3], most studies within the "business and peace" scholarship consist of qualitative research, in which a broader – and less quantifiable – definition of peace is adopted. Considering this gap, this report ultimately aims at providing a quantitative evaluation of the effects of the private sector, in particular of MNEs, on conflict levels, which remains the most reliable and reproducible measurement in the peace literature. However, taking inspiration from the wide-ranging qualitative research on business and peace, this document will also integrate its quantitative analysis with an evaluation of the causal mechanism linking these two concepts, drawing on two in-depth case studies in order to capture the heterogeneity of private actors' interventions in fragile and conflict-affected states (FCS).

Nonetheless, before delving into the actual analysis, it is fundamental to evaluate the existing research in the field. Specifically, we do so by having a look at the literature focusing on the following issues: (1) the impact of the private sector on conflict; (2) the impact of the private sector on socio-economic development. With the International Relation and the International Political Economy literature serving as a background, the review serves as a way to identify a future applied research agenda on Business and

2. Datasets available here; employed by, among others, Harari & La Ferrara, 2018; Manacorda & Tesei, 2020; Berman, Couttenier, & Soubeyran, 2021.

3. Datasets available here; employed by Collier & Rohner, 2008, among the others.

Peace, complementing and expanding the current Corporate Social Responsibility (CSR) and Environmental, Social, and Governance (ESG) guidelines; identify the policy responses needed to mitigate the potentially destabilizing effects of private sector activity in war-torn environments in order to foster sustainable peace, with a particular focus on DFis projects.

2.1 Private Sector and International Relations: an open debate yet to be concluded

There is a long history of interest in the impact of private business on peace. In particular, the liberal tradition has focused on the pathways through which trade could alleviate Great Powers' war. A widely accepted causal mechanism is that increasing the opportunity cost of war among countries engaging in bilateral trade would act as a powerful deterrent for the use of violence (Morelli & Sonno, 2017; Oneal & Russet, 1997; Russett & Oneal, 2001). One of the first conceptualisations of this mechanism was John Stuart Mill's optimistic view that commerce would render war obsolete (Mill, 1848). More recently Friedman developed the Golden Arches Theory of Conflict (Friedman, 2000), arguing that no conflict has ever originated between countries having McDonald's restaurants; the latter was then updated into the Dell Theory of Conflict Prevention, instead casting its focus on countries part of the same global supply chain (Friedman, 2005). Intuitions and arguments on how peace is fostered or hindered by trade and business have constituted the basis for more recent research, which instead focuses on intra-state conflict, as civil conflicts represent the majority of the instances of organized violence since WWII. These intuitions have been accepted, often in an "axiomatic" fashion, by recent work done by multilateral actors aimed at involving private business in peacebuilding (Ganson, 2019). An exemplary case is the UN Global Compact's Business for Peace Platform, which decisively argues for the view of business as an intentional actor for peace, stating that "effectively no contradiction [exists] between maximized long-term financial performance and positive contributions to peace and development".[4]

4. UNGC & PRI, United Nations Global Compact & Principles for Responsible Investing. "Guidance on responsible business in conflict-affected and high-risk areas: A resource for companies and investors." New York: UN Global Compact

On the other hand, Realists[5] – but especially Trade Expectations researchers (Copeland, 2014) – tend to analyse the nature of the trade relation among nations, examining the distribution of gains and costs, as interdependence is often found to be asymmetrical. As such, in both bilateral trade (Barbieri, 1996, Barbieri, 2002) and current global supply chain dynamics (Morelli & Sonno, 2017), the issues of symmetry and political salience of trade – which is particularly significant when a country relies on another for its primary energetic commodities – become central. More recently, this approach has been adopted by research focusing on business in FCS, as providing increased growth and novel economic opportunities, colloquially referred to as "enlarging the pie", can actually increase the motivation to fight for the control of newly found or better exploitable resources (Collier & Rohner, 2008). This dynamic is particularly relevant in states characterized by horizontal inequalities, where economic and social opportunities are appropriated by dominant groups, whose identities are often politically mobilized around ethnicity and/or religion (Cederman, Weidmann, & Gleditsch, 2011). Critical strands of research within the peace and business literature (Miklian & Schouten, 2019) highlight the importance of the distribution of costs and benefits within a society, focusing on the processes of inclusion of politically marginalized groups. Local business can either promote peace or foster conflict, according to the degree to which inter-group differences are reduced within its operating environment. An analysis of micro and small enterprises (MSEs) in North Lebanon, for example, underlines the different impacts of economic activity on the community, characterized by long-standing sectarian divisions and by a recent influx of Syrian refugees (Joseph, Katsos, & Daher, 2021). On the one hand, "in the absence of work opportunities, resorting to religious leaders for support will create a work advantage, hence (will be) the source of feeding religious bias at work";[6] however, when mechanisms such as social development, the rule of law, and training, are coupled with the meeting of economic needs, businesses will have more incentives to conduct economic

and PRI. p. 6. (2010).

5. Among the others, Barbieri, 1996, and Barbieri, 2002.

6. Joseph et al., 2021, p. 846.

activities across sectarian divides, promoting the socialization of workers into practices of coexistence.[7]

Whilst these two academic traditions have long dominated the debate on foreign investments in developing and conflict-prone countries, contemporary literature has attempted to nuance the debate by overcoming the hubristic theoretical assumptions characterizing such traditions. These assumptions, indeed, do not necessarily make the case for FDIs. Rather, more recent research and grey literature[8] show how FDIs are not inherently good or bad, but can be either beneficial or have a negative impact depending on the way they are done and on the context they are embedded – e.g., resource-rich regions tend to attract companies having an exploiting characterization. Similarly, conflict studies in this field have developed along the lines of assessing the actual relation between investments and conflicts, and even critical research has started to differentiate the "bad" and the "good" actors, rather than assuming an a priori negative impact. Not to leave it out, there is an increasing trend given by the finance literature to discuss and identify financial instruments that can support peace. Overall, these accounts proved to be more relevant to business engagement, as about understanding the lines and the limits of profit vis-à-vis a country's stability and recovery. In particular, the challenge is to construct both discourse and political-economic instruments that entail a preference for stability and development while assuring revenues and market shares to investing companies.

In the following paragraphs, we analyze and review such accounts.

2.2 Private Sector and Conflict Studies

In the last couple of decades, an increased involvement of private actors in peacebuilding activities and conflict management has been observed (Ford, 2015b). This phenomenon has been driven both by the need of funding the expanding multilateral agenda (for instance, the financing gap of the Sustainable De-

7. Joseph et al., 2021, p. 844.

8. CDA. "Corporate Impacts and the Role of Business in the Global Peace Agenda". (2020). Available here.

velopment Goals agenda has been estimated at between $2.5,Nicolescu, 2017, and $3.6 trillion, Hoek, 2018) and by the expansion of FCS. Indeed, fragile and conflict-affected states represent a critical development challenge which threatens the efforts to end extreme poverty in both low- and middle-income countries. According to World Bank data, by 2030, up to two-thirds of the world's extreme poor could live in FCS settings, with conflicts driving 80% of all humanitarian needs.[9] In this context, the recurrence of conflict has also become a crucial challenge, as about half of all conflict episodes between 1989 and 2018 have recurred at least once (Jarland, Nygård, Gates, Hermansen, & Larsen, 2020). As a consequence, private business operating in these expanding areas has come to play a substantial role in those social dynamics sustaining either peace or conflict. Thus, this section offers a review of the research linking business and peace dynamics, while providing an overview of the positive and negative mechanisms identified by the literature, with the aid of several case studies.

As businesses both influence and become part of the environment in which they operate, a company operating in a conflict-prone country becomes embedded in a complex system, with multiple and intricate relationships with its workforce, the supply chain, but also political or cultural institutions (Ganson, 2013). Thus, evaluating the impact of private agencies is not straightforward, and isolating variables within these complex systems has proven to be an arduous task (Miklian, 2019). This is evident if one looks at the fashion the "business and peace" literature has proceeded thus far: that is, focusing on practice by developing recommendations to businesses, relying on the CSR and ESG frameworks, and expanding on the UN work related to the Global Compact. The practice has effectively "jumped ahead" of theory, which in turn tends to be exploratory, relying on case studies and qualitative methodologies, focusing on defining basic concepts. If a limited number of studies have relied on conflict levels to measure the impact of businesses, many more develop attempts to evaluate the impact on peace dynamics. In that case, the starting point has been the distinction between positive and negative peace, widely accepted

9. World Bank. "Fragility, Conflict Violence". (2022). Available here.

in the scholarly peacebuilding community. Negative peace is an approach aimed at "stopping violence and destructive conflict [by] ending cycles of violence"; positive peace, instead, is a long-term endeavour whereby a "just and sustainable peace" is built, by focusing on "supporting social change [and] addressing political, economic, and social grievances that may be driving conflict" (Anderson, Olson, & Doughty, 2003). Nevertheless, even operationalising negative peace – that is, the absence of organised violence in a community – is not simple, as levels of political, social, and intra-personal conflict exist in every society, and are inserted into dynamics of power, economic growth, inequality, and discrimination. Furthermore, as positive peace is regarded, businesses tend to prefer stability over social change: they interact with the immediate social context but do not act in concerted ways to change the wider societal outcomes – this is exemplified by the widely accepted "do not harm" approach (Ganson, 2017). As such, whilst these concepts represent an intriguing analytical framework, useful for understanding the context within which businesses operate, private sector practices in FCS have been loosely inspired by conceptions of peace and social change, which tend to be balanced with business' profit-generating nature and by a preference for stability.

Since the early 2000s, academic research began to investigate the mechanisms whereby business-generated prosperity conducts greater peace. Within this field of research, it is worth mentioning one of the most throughout reviews, by Oetzel, Westermann-Behaylo, Koerber, Fort, & Rivera, 2009, which identifies five ways through which business affects peace. Among these, the foremost mechanism is how a business promotes economic development: that is, by providing local jobs (Fort & Schipani, 2004), attracting technological transfer (Spencer, 2008) and investment (Buckley & Ghauri, 2004, Fort, 2008). Indeed, by building on their credibility, businesses can contribute to establishing better social practices, insofar the right type of competition (oriented towards a conception of democracy and inclusion) encourages productivity and leads to innovation (Abebe, McMillan, & Serafinelli, 2022), which in turn diminishes corruption and relies on productive forces to alleviate the risk of conflict recurrence (Collier, 2009). Furthermore, businesses may adopt international standards, which allows for a form of external evaluation, thus advancing the rule of law (Forrer & Katsos, 2015). Strong interest has burgeoned around the exploration of this mechanism, according to which "ethical business behaviour" leads to peace rather than to conflict (Fort, 2008). This has been demonstrated by the flourishing of "standards of conduct": from the CSR to the ESG, to sector-specific guidelines such as the Extractive Industries Transparency Initiative (EITI) for activities concerning mining.

Second, research focusing on the negative impact of business and its criticalities tends to focus on certain specific sectors. It has been argued that relying on aggregate or general guidelines developed by agencies such as the UN Global Compact or the World Bank's International Finance Corporation (IFC) might overlook local dynamics of conflict, bypassing the compiling of a contextual analysis of the impact (Ganson, He, & Henisz, 2022). Critical research, for example, has underlined the need to distinguish among different types of entrepreneurship, as this can be channelled into productive, unproductive (e.g., rent-seeking), or even destructive (e.g., illegal) activities (Baumol, 1996, Naudé, 2007). Moreover, quantitative studies on the impacts of MNE activity on conflict level have established that there are differential effects according to the sector of operation. In particular, land-intensive industries in the primary sector (such as agriculture and forestry, but also precious ore industries) increase conflict levels (Sonno, 2020). What is more, the extraction of minerals which are characterised by a higher rent is correlated with higher conflict, as rebel groups often fight for their control, and foreign mining companies might focus solely on extracting wealth, with little regard for wider social and environmental long-term consequences (Berman, Couttenier, Rohner, & Thoenig, 2017). On the other hand, others argue that extractives-led development can actually fund inclusive state infrastructure and services through tax collection, especially when CSR guidelines are adopted across all productive activities (Ford, 2016, Bailey, Bradley, Brown, & Ford, 2015).

In this context, the issue of taxation becomes crucial: the impact of businesses paying informal taxes to rebel groups in conflict areas has been particularly negative, allowing such groups to finance their operations by taxing companies at informal checkpoints (Berman et al., 2017). One example is Miklian's analysis of Heineken's impact in the Democratic Republic of Congo, where the MNE bought the local beer brand Bralima (Miklian, 2019). The company decided to operate in the Eastern area of the country, which is controlled by the armed group "M23". The reasons given for this choice are unrelated to the "business and peace" agenda. On the contrary, first mover advantages, considerable reputational capital, and the "chance to buy into a market before the country booms" have been cited as the main motivations for operating in such an unstable environment.[10] Moreover, analyses which computed the magnitude of Bralima's checkpoint payments, and crucially, their share within the rebel groups' finances, led the author to conclude that "this funding can sustain a war in perpetuity"[11]. In addition, another in-depth analysis of the private sector's incentives for operating in a conflict environment highlights how the end of the Angolan Civil War in 2002 caused a sudden drop in the value of stocks (Guidolin & La Ferrara, 2007). In their evaluation of the diamond mining sector dynamics, the authors conclude that the lower transparency standards and the very limited competition policy in place during the conflict were actually favouring incumbent companies, which despite being foreign had considerable links with formal and informal institutions.[12] As such, these case studies call for a careful analysis of companies' incentives and for an assessment of the type of entrepreneurship adopted by MNEs abroad: when the nature of business is extractive, gains will most likely be restricted to the local elites, fuelling conflicts by depleting natural resources and increasing dynamics of unequal access. These papers raise the issue of regulation as well, since foreign companies are often able to insulate themselves from laws intended to stop payments to insurgents or other illegal practices by employing local subcontractors or intermediaries.

Particularly, while one of the purported mechanisms through which business advances peace is by

10. Miklian, 2019, p. 578.

11. Miklian, 2019, p. 579: "Through these checkpoints, Bralima distributors are likely paying at least $1 million a year to rebel groups. Even a single checkpoint can bring in over $700,000 per year, according to a 2008 report by the UN Group of Experts".

12. Guidolin & La Ferrara, 2007

importing international standards of conduct (Oetzel et al., 2009), MNEs' considerable economic and human capital makes it quite simple for them to work around these non-binding guidelines. Furthermore, the influence that companies might come to exert on the local environment amounts to a form of "regulatory activity" (Ford, 2015a), which should be analysed carefully and contextually. Research on the regulatory influence of MNEs, indeed, underlines the extent to which the latter often have a higher organisational capacity than the states they operate in (Simons & Macklin, 2014), leading them to exert a considerable influence over weak post-conflict formal and informal institutions. In this regard, an analysis of Fiat's investment in Serbia illustrates how the creation of local jobs and the influx of foreign capital profoundly impacted local socio-political dynamics, granting the factory's management considerable influence (Martin & Bojicic-Dzelilovic, 2017). For instance, the need for skilled labourers led to a change in the public school's curriculum, and the outsourcing of healthcare services led simultaneously to a further underfunding of the local hospital and to an added incentive to have at least one family member working at the plant.[13] Hence, it becomes crucial to thoroughly analyse the type of influence companies come to exert on local politics to prevent the fuelling of (existing) conflictual social dynamics, and to properly coordinate with political institutions so as not to undermine their difficult quest for legitimacy in fragile countries.

2.3 Private Sector and Human Rights

The existing literature on conflict finds no agreement on the correlation between FDIs and Human Rights violations. More optimist views are to be found mostly in (neo)liberal approaches. These show how MNEs could advance the cause of human rights through technology, financial investment, and management techniques. Scholars focusing on business ethics and critical theorists, *au contraire*, are far more critical regarding the effect of MNEs in emerging countries. Here, we analyse different theoretical orientations to assess how these compare *vis-à-vis* empirical evidence.

13. Martin & Bojicic-Dzelilovic, 2017, pp. 17-20.

As one can ascertain from existing studies, evaluations of the overall impact of MNEs on human rights and conflict are not univocal. Theoretical approaches based on (neo)liberal views propose that actors such as MNEs could significantly contribute to improving GDP-per-capita levels, which in turn can ameliorate situations of human rights violations (Harrelson-Stephens & Callaway, 2003). The assumption is that MNEs consider respect for human rights as an essential feature for positive economic performance and to attract more foreign investments (Spar, 1999). In a similar vein, it has been noted that the increasing awareness of human rights in fragile settings creates incentives for MNEs to be as accountable as possible to local communities. Such a phenomenon has been highlighted by a study carried out by Blanton and Blanton, which aims to assess the existence of a potential correlation between FDIs and human rights violations (Blanton & Blanton, 2007). The authors note how, although some kind of relation can be found between FDIs and human rights abuses, FDIs have an overall positive effect on the reduction of human rights violations. In a later study, Blanton and Blanton note that, as labour exploitation tends to negatively affect overall productivity, contexts characterized by such forms of human rights violations tend to deter foreign investments (Blanton & Blanton, 2009). Nevertheless, it must be noted how such studies are based on datasets that tend to include statistics coming from "less conflictual" and more developed countries, thus suffering from an evident selection bias. On the contrary, when analysing more comprehensive datasets, it becomes evident that it is still very difficult to ascertain a generalized correlation between FDIs and the improvement of human rights conditions (DiCaprio, 2013).

Contrariwise, more critical approaches stress a positive correlation between private interventions and human rights violations – with a particular focus on labour exploitation. Such studies tend to analyse situations in which private actors are attracted by cheap labour in least-developed and post-conflict countries, thus deciding to invest there to cut production costs (Burmester, Michailova, & Stringer, 2019). An interesting line of argument, in this context, is the transaction and dependency theories, which illustrate how profit maximization and cost reduction is the only objective of the MNEs, which tend to ignore any kind of normative issues (Muskat-Gorska, 2017). Whilst there is strong evidence in favour of this reasoning, here too would be erroneous to universalize and label all private actors as having this kind of behaviour. For this reason, it is crucial that one carefully considers the wide range of "different kinds of private intervention's impact", promptly made in the following paragraph, and which serves as a basis to construct our dataset.

2.4 Private Sector and Socio-Economic Development

Along with the more conventional interest surrounding the political implications of private intervention in conflict zones, increasing attention is also being paid to the involvement and the relative influence of private sector actors on the political economy of FCS. In particular, socio-economic development has often been the object of the study of business and economic activity's impact on violent conflict. Socio-economic development is considered here as a mix of economic growth, occupation, investment attraction and export, and infrastructures – both "tangible" (e.g. roads, buildings) and "virtual" (e.g. financial infrastructures), as well as the creation of sustainable economic practices.

Existing research has highlighted how the impact of FDIs in post-conflict and developing regions is quite heterogeneous. Whilst FDIs may stimulate economic growth and facilitate economic and political liberalization, there are cases in which the former contribute to the pathologies of conflict and post-conflict regions, hence to the outbreak and/or continuation of socio-economic unrest and conflicts. Many extractive sector companies, for instance, have been accused of fuelling conflict or of incrementing the intensity of wars, contributing to environmental degradation, the displacement of the local population, and social unrest. In addition to this, some private actors investing in conflict-prone contexts, through their support of particular groups or elites and patronage networks, have often had direct involvement in negatively impacting community relations (and relations of power). Not to leave out, poor working conditions, lacking security arrangements and human rights violations within the portion of the supply chain based in such fragile contexts have arguably fed (civil) conflicts even further (Ferguson, 2005, Ross, 2012). Most of this literature, nonetheless, seems to have only partially understood *when* and *how* FDIs – and private interventions more broadly – have positive or negative impacts, or create positive or negative externalities and spill-over effects. This gap is certainly also due to a lack of corporate transparency and reliable data to measure impact. In fact, such research has hitherto based its approach on hubristic theoretical assumptions, failing to understand the rather heterogeneous nature of these processes (Sonno, 2020) – which rather calls for an approach based on diversification.

As a consequence, some scholars have stressed the necessity for a more precise classification of the private sector's impact on conflict and peace. Rieper (Rieper, 2013), for example, distinguishes four types of relationship: (1) proactive engagement towards peace and security; (2) business as usual; (3) withdrawal (of resources and revenues – i.e. not creating positive socio-economic impact); (4) taking advantage of public regulation gaps. Nelson (Nelson, 2000), in a more hierarchical vein, conceptualizes a different kind of engagement that companies should have, defining a common denominator onto which he builds all the other necessary behaviours for a proactive engagement with local socio-economic communities. The author thinks of the private intervention in conflict and fragile settings as a pyramidal structure: at the bottom, there is compliance with relevant legal frameworks – what businesses should do at the very minimum; the second tier is formed by all those mechanisms of risk minimization, meaning an awareness of the actions to minimize damage; at the top, we find value creations, which is when companies create positive socio-economic value "by optimizing the external multipliers of their own business operations and engage in innovative social investment, stakeholder consultation, policy dialogue, advocacy and civic institution building, including collective action with other companies".[14] Finally, a fundamental study by Dube & Vargas, 2013 takes into consideration the effects of price shocks within a particular country, namely Colombia. While such investigation focuses on sectorial-wide influences that commodity prices

14. Nelson, 2000, p. 7

have on conflict, the usage of municipal-level data allows the authors to initiate an interesting study of the mechanisms which link the economy to political conflict. In particular, they find that both negative and positive price shocks, respectively of coffee and oil, can lead to increased levels of organised violence. In the first case, the hypothesised causal mechanism is the lowering of the cost-opportunity of rebellion, a pathway also explored by Collier's research, as mentioned in previous sections. In the second case, instead, the sudden increase of oil prices leads to violence due to the rapacity of institutions, which causes a run to appropriate the now higher rents, a mechanism which we commonly find in the extractive industries.

In broader terms, when reviewing existing studies, we virtually identified a common general categorization of the private sector's impact on conflict and post-conflict scenarios. That is: (1) a private activity's complicity in contributing to contextual pathologies – *implicit*; (2) those actors who deliberately seek profit from conflicts – *direct*; (3) those who intend to have legitimate activities but have unintended effects – due to context-related / cultural / political reasons – *indirect*; (4) mixed impacts. We then identified two broader types of approaches in terms of promoting positive impact by private actors. The first is the one based on incentives; the other is the one more focused on legal coercion and the need for stringent frameworks to regulate the activity of these agents. However, especially when assessing these approaches critically – either by looking at critical literature or when testing them *vis-à-vis* the evidence – we argue that no one model is likely to work better than another *tout court*. That is because the variety of actors and contexts involved in this discussion makes it particularly difficult to universalize a framework or an approach. Sure enough, better coordination of national and international regulatory bodies, more effective multilateral regimes, and the creation of novel financial instruments aimed specifically at peacebuilding processes and post-conflict socio-economic development might help in constraining negatively impacting actors and in incentivizing sustainable practices.

2.5 CSR, ESG, and B4P: a new discourse on norms and standards

Within the context of the expanded interest of private actors in intervening in conflict and post-conflict scenarios, new debates have been raging regarding the social and political responsibilities of such actors, as well as regarding the latter's corporate strategies. In addressing such debates, we feel that there is a necessity for more careful consideration of the CSR and ESG agenda and its usefulness for peace-building processes. By CSR we mean broadly those self-regulating business models that (should) help a company be socially and environmentally accountable to itself, its stakeholders, and the public, as well as to pursue responsible actions in the context in which it operates. ESG, on the other hand, is that set of criteria used to screen private investments on the basis of corporate policies, encouraging companies to act responsibly.

The literature on CSR and ESG has generally revolved around the voluntary commitment of private actors in fields such as environment, health, education, and human rights. Nevertheless, in recent years an increasing interest has been experienced in regard to expanding the CSR and ESG agenda to issues of conflict-prevention, peace-building, and post-conflict reconstruction. This somewhat represents a logical extension, as the CSR and ESG discourse invites private actors to embrace voluntary commitments that reflect specific societal norms and expectations (Switzer & Ward, 2004). Jamali, Zanhour, and Keshishian (2009) argue, indeed, in conflict-prone societal environments, social norms and expectations require more active involvement of business in conflict mitigation and prevention; as such, this constitutes a logical contextually tailored adaptation of the agenda. However, key concepts of business engagement in development, such as the 'social license to operate', usually imply relatively well-organised communities and civil society organisations. These concerns pertain to companies' activities in transitional societies too; post-conflict societies, on the other hand, must deal with more unstable and fragile contexts. Hence, social peace processes involve social transformation that goes beyond the scope of political settlements and the ending of violence. They include policies that will encourage civil society and benefit the victims of human rights. But they also encompass efforts at truth recovery and memorialisation, citizenship education, economic restructuring, and restorative justice (Brewer, 2010). In this context of the evolution of the CSR and ESG agenda, an emerging "business and peace" discourse has burgeoned in the policy arena. A clear example is the UNGC, which, in 2010, started to identify the four areas in which private actors can contribute to addressing conflict and post-conflict scenarios: namely, running operations lawfully; alliances with host governments; local stakeholder engagement; strategic social investment. This calls for companies to comply with existing due diligence rules, commit to addressing grievances in post-conflict settlements and closely monitor their business transactions. The same UNGC, in 2013, launched the Business for Peace (B4P) initiative, with the aim to help private actors implement socially responsible practices in conflict-affected areas. B4P signatories are required to comply with the UNGC's principles and standards. This goes beyond the "do not harm" doctrine and urges a direct involvement of private actors in peace-building processes. It should be no surprise, therefore, that some scholars have defined the B4P agenda as the "new normative ideal" within the IR policy arena (Miklian & Schouten, 2014).

Following such a shift in the institutional agenda, a flourishing strand of academic literature has started to analyze the social responsibilities of private actors in conflict-prone environments. One of the main concerns raised by these studies is the absence of mechanisms for comparative measurement of private actors' impact in different contexts, and – more broadly – a lack of reliable information on corporate decision-making in conflict settings. In fact, most of the studies rely on assessments based on internal auditing, which does not allow them to have strong credibility nor to be considered scientifically rigorous. For instance, Boiral's paper shows how, in his firm-level data, 90% of the respondents omitted or distorted the information discussed (Boiral, 2013). The rationale behind this cherry-picking behaviour has been comprehensively explained in a paper by Hahn and Luls (Hahn & Lülfs, 2014). They identify four strategies purportedly employed – singularly or together – by companies which provide reporting services and data analyses on private actors: (1) marginalization, that is undermining the rigorousness of data by omitting negative events; (2) abstraction, that is justifying a negative event saying that it is due to the systemic-structural context in which it is embedded; (3) rationalization, meaning the way they legitimize negative impacts for economic purposes; (4) authorization – shifting the blame onto regulatory bodies; (5) corrective action – creating a preventive mechanism to avoid incurring into negative data or events. Not to leave out, as Sherman and DiGiulio note (Sherman, DiGuilio, et al., 2010), matters of human rights violations and other societal matters are either reported in a biased way or purposefully left unquantified.

Another critical issue highlighted by the existing literature is the absence of local, sub-national, datasets: most of them are limited to national levels, thus leaving it impossible to ascertain and assess phenomena related to socially responsible actions by private actors operating at the local level. This is also critical as studies of conflict-prone regions could use micro-level assessments to understand the specific structural contingencies in which actors operate – and this may differ from one city to another, especially in a process of recovery and state-building. Nevertheless, attempts to gather micro-level data have been often neglected over time (Oetzel & Miklian, 2017, Donais & Knorr, 2013). Aimed at addressing this issue, the Everyday Peace Indicators Project (EPIP) has recently started to gather micro-level data on post-conflict peacebuilding processes. This integrates traditional negative peace indicators with more unconventional so-called "anecdotal" indicators (usually security and infrastructural matters in relation to the individual citizens' experience) which are meant to contextualize the local experience of security and peace, and the way these are perceived by local citizens. Yet, it must be noted how this is still overall insufficient to assess private actors' actions within such local contexts.

The implementation of the CSR and ESG corporate programs is the other core focus of the literature. Many have proposed innovative methods for effective implementation. Among the most intriguing, we find cross-sectoral cooperation and innovative financial instruments to incentivize companies to have socially responsible behaviours (Kolk & Lenfant, 2015, Kolk & Lenfant, 2013). As for the former, the rationale is to build a strong and diversified corporate partnership to: (1) diversify the risks; (2) legitimize in adverse environments (e.g., culturally adverse to Western action); (3) have a credible and transparent process of peer-review of corporate practices, as to avoid unilateral actions that might deteriorate fragile socio-political situations, or even foster old-new conflictual scenarios (Idemudia, 2011, Idemudia, 2010). Nonetheless, some scholars have raised concerns on whether one could trust cooperation that are not supervised by neutral and external bodies. Such critical approaches – mainly focused on business ethics – also raise fundamental concerns about the necessity to build more localized frameworks, basing them on the specific contextual contingencies of the territories in which private actors operate, rather than continuing to pursue standardized international paths (Jamali et al., 2009).

2.6 Finance Literature

The potential contribution of the private sector to post-conflict recovery and peacebuilding has long been contentious. Discussion of the role of economic incentives has often centred on the ways they prolong conflict, obstruct peacemaking and lead to the exploitation of natural resources to the detriment of peace, development and social progress. This has been the argument both in respect of aid flows, but also the role of the private sector, and even more so where it involves multinational companies involved in the extractive industries. While there has been some acknowledgement of the ability of economic instruments to provide incentives for peace, the prevailing interpretation among both scholars and development actors and donors, at least with regard to the foreign private sector, has been one of suspicion and disapproval (Emmanuel & Rothchild, 2007)

Two sharply differing viewpoints, each with powerful ideological over-tones, have to an unhelpful degree framed the public debate. At one extreme (Kay, 2004), 'market fundamentalists' have proceeded from the 'belief that there is a market solution to any question about the nature of society'. In the 1990s, the so-called Washington Consensus was widely seen to embody that belief – a consensus, as Joseph Stiglitz put it, 'about the "right" policies for the developing world' built around three key pillars: fiscal discipline; privatisation; and liberalisation of trade, capital and financial markets. He associated this 'new orthodoxy' above all with the policies of the International Monetary Fund (IMF) and highlighted their politically destabilising and socially disruptive effects in fragile and conflict-strewn societies (Stiglitz, 2003). While Stiglitz's critique of the IMF was sometimes very direct and applied with a broad brush, there is no doubt that one-size-fits-all neo-liberal prescriptions powerfully shaped IMF policies, especially in the 1990s.

With nearly three decades of peacebuilding experience to draw upon, there are now few practitioners who contend that the fundamentalist position, including the exclusive role it envisages for the private sector, is appropriate to fragile and complex post-conflict environments. None of these suggests that the new wave of macro-finance is without its problems or pitfalls, or that commercial transactions free of the complications of donor politics do not carry their own substantial risks, both politically and economically. The overall issue that one can draw upon this literature is that private investments have failed to influence peace insofar as in very specific contexts, while they could prove to have a positive impact on others. For this reason, the following of our analysis will assess the contexts and the ways in which private investments have proved negative and those where these have proved positive.

2.7 Conclusive Evaluations

This section has highlighted how existing research presents consistent criticalities due to various factors. First, there is limited research on how standards and frameworks should evolve to adapt to post-conflict environments in a way that has both positive impacts in terms of socio-economic development and that is socially responsible. Nor have we found consistent (and coherent) proposals on how such frameworks and standards can be transformed to possess that flexibility post-conflict environments require. Moreover, few alternatives have been explored by existing research on how multi-sectoral cooperation by private and public actors can be pursued to achieve the aforementioned goals. Second, there is a generalized lack of reliable datasets. This is particularly critical if one considers how volatile are conflict-prone countries, and how even the (mostly partial) kind of datasets that one can access are to be considered outdated. Furthermore, we have encountered a generalized lack of contextual micro-level data, as highlighted by some of the articles we have cited throughout the section. Such a gap raises serious concerns over the credibility of certain assessments where conflict phenomena are extremely localized, whereas data is only gathered at the national level. This leads us to the third point: there is an excessive preponderance of qualitative research *vis-à-vis* quantitative works. Such a gap has emphasized what we thought already is of utmost necessity, that is some sort of quantitative meta-analysis to classify mechanisms through which private actors affect conflicts and peace. Specifically, this should be done in regard to “negative” impact, where is *de facto* lacking. This categorization could proceed by distributing existent case studies both temporally (e.g. 1-3; 5-9; 10+ years), by the level of intensity of the conflict (high/low/post-conflict), and by the type of private actors intervening in a specific context. Fourth, the last paragraph has stressed the fact that the transposition of CSR and ESG onto conflict and post-conflict scenarios is still preliminary and (purportedly) inefficient. The study of this phenomenon should proceed toward a clearer definition of the necessities each context has, and how such principles of conduct can be implemented efficiently within the latter. On the other hand, the grey and policy literature should define more stringent requirements for companies to comply with. Lastly, and most importantly, in order to conduct an assessment of the private sector’s impact on peace - which allows for a meaningful comparison to precedent literature - it is crucial to conceptualise and possibly operationalize the definition of "peace". However, as explained in the previous section, such a definition still lacks in the literature, making it complex to systematise current research concerning business and peace.

3 Peace Impact of Private Investments: quantitative results

In this section, we present a quantitative analysis of the impacts of private sector activity on peace and conflict dynamics. First, we describe general trends in multinational companies' presence in Africa, making reference to conflict events. Then, we link them to an empirical analysis aimed at describing the correlation between these two phenomena. Given the imperfect nature of this regional analysis, we turn to an attempt to investigate a potential *causal* relationship using an Instrumental Variable approach in the following section. Finally, we provide some descriptive examples of firms, projects, and policies from our analysis to help readers understand the more general causal relationships identified. In particular, we describe two cases, one with positive and the other with negative peace impact. The ultimate goal of this section is to quantify the effects of private investments and explore potential heterogeneity according to practice, sector of activity, and policies. To do so, this section will provide a systematization of the existing evidence on this issue and will capitalize on it to make the results and implications accessible to a broader audience. In particular, the analysis will focus on the presence of multinational companies (MNE) in the whole African continent.[15]

Before delving into such an analysis, it is important to understand why we focus on private investments in Africa, and, in particular, on multinational companies. The main reason for this report to focus on the private sector is that there is a changing equilibrium in investments aimed at fostering peace or reducing the negative effects on violence. Indeed, private investment – especially in the form of public-private partnerships and other blended finance instruments – is being supported and encouraged by the international intergovernmental organizations, and this novel dynamic calls for scientific analysis to assess its impacts on a phenomenon as complex as that of peace and violence. Moreover, empirical studies focused on Sub-Saharan Africa show its relative importance in the economy. As an example, in 2015,

15. The main reference paper for this section is "Globalization and conflicts: the good, the bad and the ugly of corporations in Africa" (Sonno, 2020). The overall regional analysis is based on the author's data and on a simplified version of the empirical approach presented in his work. In the causal analysis, instead, we draw directly from the author's work.

private investment contributed 12.5% of the overall GDP of the area, with respect to 6.9% of public ones (Ouédraogo, Sawadogo, & Sawadogo, 2019). Thus, understanding the impact of private investment on peace dynamics is of crucial importance, especially on the African continent. Instead, the reason to focus on multinational companies is threefold. First, it is relatively simpler to study a few large firms than a continuum of very small ones. Second, the marginal peace impact of these firms is clearly larger. Third, these are very important features of the African economy. In 2021, FDI in Africa reached the record value of $ 83 billion (Giroud & Ivarsson, 2020). Furthermore, it is important to clarify that a large proportion of these companies are actually African ones with subsidiaries in several countries.

3.1 Data Description

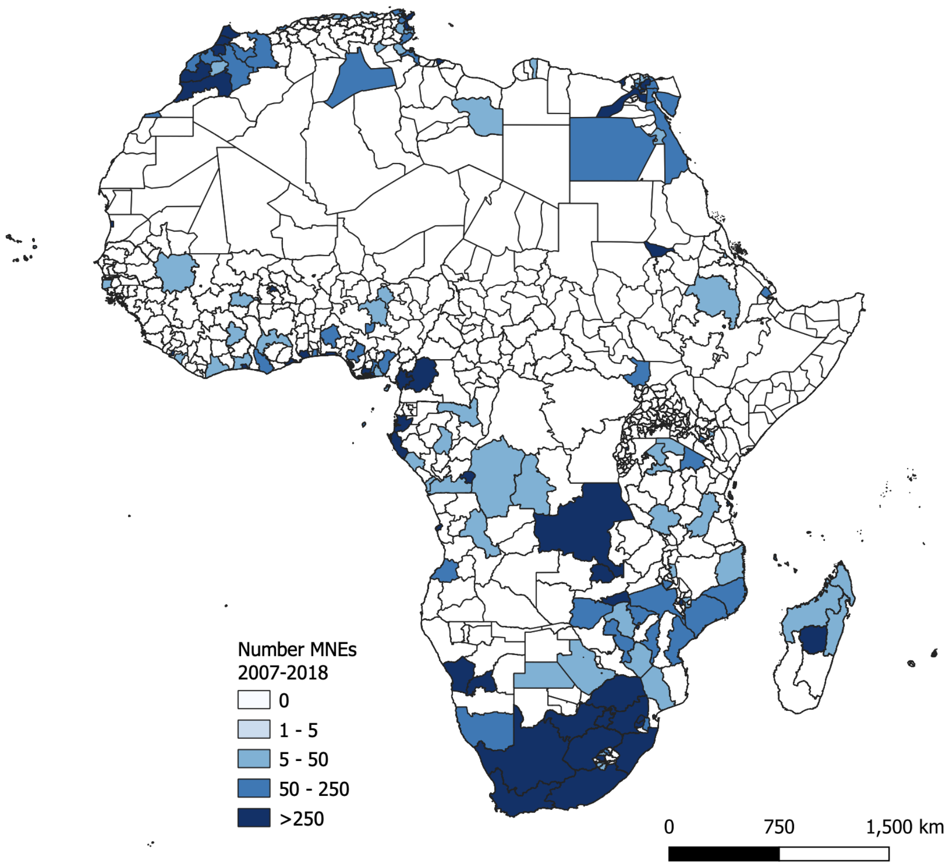
3.1.1 Data on Multinational Companies

Data on the Multinational Enterprises (MNEs) is obtained from Sonno (2020). The main source of data is the Historical Ownership Database of Bureau Van Djik, which provides, for each company, information regarding all shareholders. Starting from this data, the author elaborates an algorithm that retrieves the network of ownership for each business group, relying on the definition of direct or indirect majority ($\geq$ 50.01%) of the voting rights provided by Bureau Van Djik. This definition of control follows the international standards for multinational corporations (OECD, 2005; Eurostat, 2007; UNCTAD, 2009). The author thus elaborates a novel algorithm, based on the ownership links, which provides the hierarchical structure of business groups, by ascending the ownership structure. With this approach, the paper constructs a network of more than 6.3 million business groups, with 12.8 million affiliates in more than 200 countries, from 2007 to 2018, and then geolocates them using zip codes. In Appendix A of the paper, the author validates these data with the very rare datasets available in the literature, confining it to specific years or sub-groups of countries. We focus on the subset of affiliates located in Africa and their relative headquarters around the world. The final sample covers the full continent and the MNE affiliates operating within it, with information on location and sector of activity. In the final version of the database, we observe the number of multinational companies' subsidiaries in each region in Africa over the period 2007-2018, as well as their sector of activity and the country of their headquarters.

Figure 1 describes the geographical variation of MNEs' presence over the continent in the whole period. This shows how, although these companies tend to be clustered in wealthy countries (e.g. South Africa, Morocco, and Egypt), there is substantial geographical variation. In particular, there is a large number of companies both in North Africa and in Sub-Saharan Africa. This is extremely relevant since, if these companies were clustered all in the same location, an empirical analysis would be impossible. In fact, distinguishing between location effects from companies would be very difficult if they were all present in the same location. Yet, this is not the case; so, where do MNEs tend to be?

The country with the largest number of companies is, by a large margin, South Africa. Besides that, there are a couple of countries characterized by high levels of internationalization such as Morocco, Mauritius, Algeria, and Egypt. However, this picture would change if we consider how the number of subsidiaries has changed over time, as shown in figure A1 in the Appendix. Here we plot the number of multinationals' subsidiaries over time with respect to 2007, normalized to 1. As a general trend, the number of multinational companies in Africa is increasing over time. Nevertheless, this average increase hides substantial heterogeneity. In particular, there is no substantial increase in those countries mentioned before, such as South Africa. In other words, the number of multinational companies' subsidiaries has not increased significantly in those countries which had an already high presence in 2007. On the other hand, this growth is spurred by countries which, during the considered period, were expanding largely their economic production, such as Kenya and Ghana. The economic expansion of this subset of countries was often driven by large exploitation of their abundant natural resources. One major example of this is Liberia. With the end of the country's second civil war (1999-2003), Liberia turned to its natural resource endowments to galvanize the economy. In 2012, the IMF estimated returns from palm oil and iron ore concessions in Liberia as high as US$ 2 billion dollars in the period up to 2020, with ad-

Figure 1: Map MNE 2007-2018



Notes: This figure represents the number of multinationals' subsidiaries over the period 2007-2018. Data on the Multinational Enterprises (MNEs) is obtained from Sonno (2020). These companies tend to be clustered close to wealthy countries (e.g. South Africa, Morocco, and Egypt). However, there is substantial geographical variation. In particular, there is a large number of companies both in North Africa and in Sub-Saharan Africa.

ditional payments to follow.[16] As a result, in 2012, Liberian's resource rent was 30%, one of the highest in the whole continent.[17] Hence, this other piece of evidence highlights a correlation between MNEs' presence, GDP growth, and the abundance of natural resources. Yet, these results have to be taken "with a grain of salt". That is because we are just plotting raw data without relying on any empirical strategy.

16. Source: Smell-NoTaste.

17. Total natural resources rents is an estimate of the natural resources' contribution to GDP made by the World Bank. Source: World Bank.

For this reason, no *causal* relationship can be inferred from this. It might be possible that the presence of these companies directly spurred GDP growth in these countries, for example. Nevertheless, it is equally likely that these companies decide to locate their subsidiaries in countries there were growing during the considered period. In both scenarios, we observe a correlation between GDP growth and MNEs presence. However, only in the first one, there is an actual causal relationship between the two. Albeit these pieces of evidence have their limitations, it is useful to look at them in order to evaluate these phenomena.

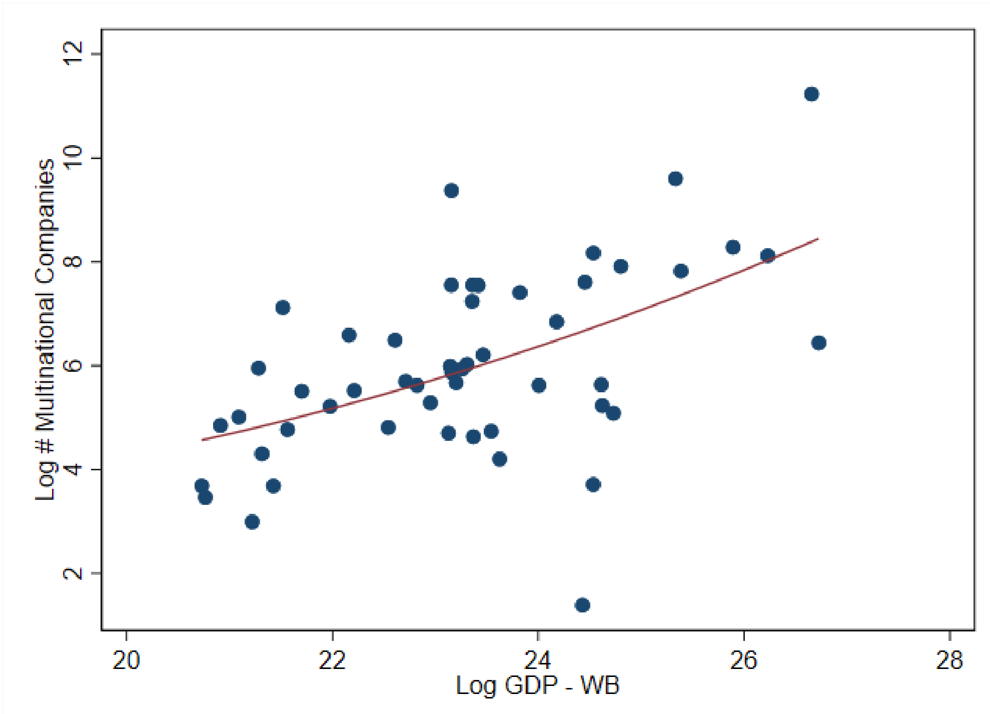
In the previous paragraphs, we mentioned two potential important determinants of Multinational Companies' location decisions: wealth (measured as GDP) and the presence of resources. Hence, we turn to directly assessing their relative importance using data from the World Bank. Figure 2 plots the natural logarithm of the number of multinationals' subsidiaries against the logarithm of GDP in the considered African country in the relevant year. Evidently, there is a strong positive correlation between the two variables. In other words, we observe a higher number of subsidiaries in richer countries. Moreover, this correlation is not driven by a singular country (such as South Africa) but, instead, it seems to be a relevant feature throughout the continent.

We then turn to the investigation of the role played by resources. It is fairly intuitive that companies would like to locate their activity close to resources they could use for production. Specifically, we focus here on two different types of production factors: (1) natural resources (e.g. oil, coal, ores, and trees); (2) labour. To investigate the role of natural resources, we compute – for each country, for each year – the rents extracted from them. Particularly, we combine the index of natural resources extraction of the World Bank[18] with the GDP data in the following way:

$$\text{Rent from natural resources (US dollars)} = \frac{\text{Index of resource extraction} \times \text{GDP}}{100} \tag{1}$$

18. Total natural resources rents is an estimate of the natural resources' contribution to GDP made by the World Bank. Source: World Bank.

Figure 2: MNEs presence and GDP

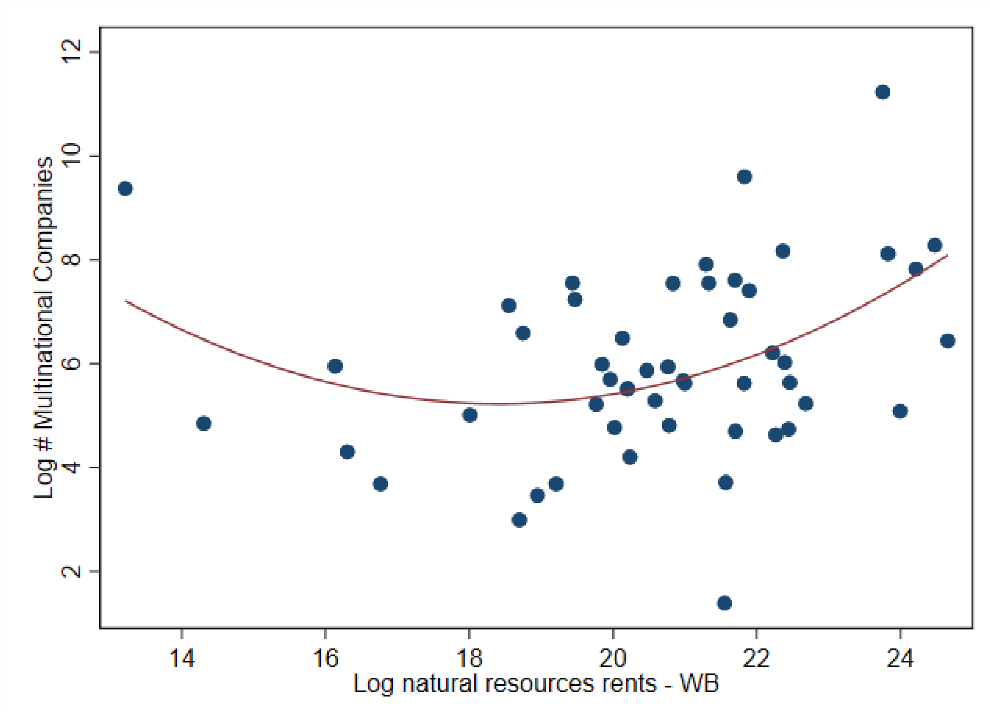


Notes: This figure represents the number of multinationals' subsidiaries against the GDP of a given African country in a given year. Data on the Multinational Enterprises (MNEs) is obtained from Sonno (2020). The graph shows a strong positive correlation between the two variables: the richer the country, the higher the number of subsidiaries. This seems to be a feature for the whole continent.

Through this back-of-the-envelope calculation, we retrieve the amount of rent (in US dollars) extracted in a year from natural resources in a given country. Finally, we take the logarithm of this measure and we plot it against the logarithm of the number of multinationals' subsidiaries. Results are summarized in figure 3.

By looking at them, there seems to be a U relationship between the two variables; yet, this feature is driven by a very high presence of subsidiaries in one country with very low natural resources presence: Mauritius (the observation in the hypothetical second quadrant of the Cartesian plane drawn at an average measure on the axes). Crucially, this country has a very particular taxation system that is very attractive to such companies. Hence, we should exclude it from the location analysis of MNEs. By doing so, the

Figure 3: MNEs presence and Natural Resources



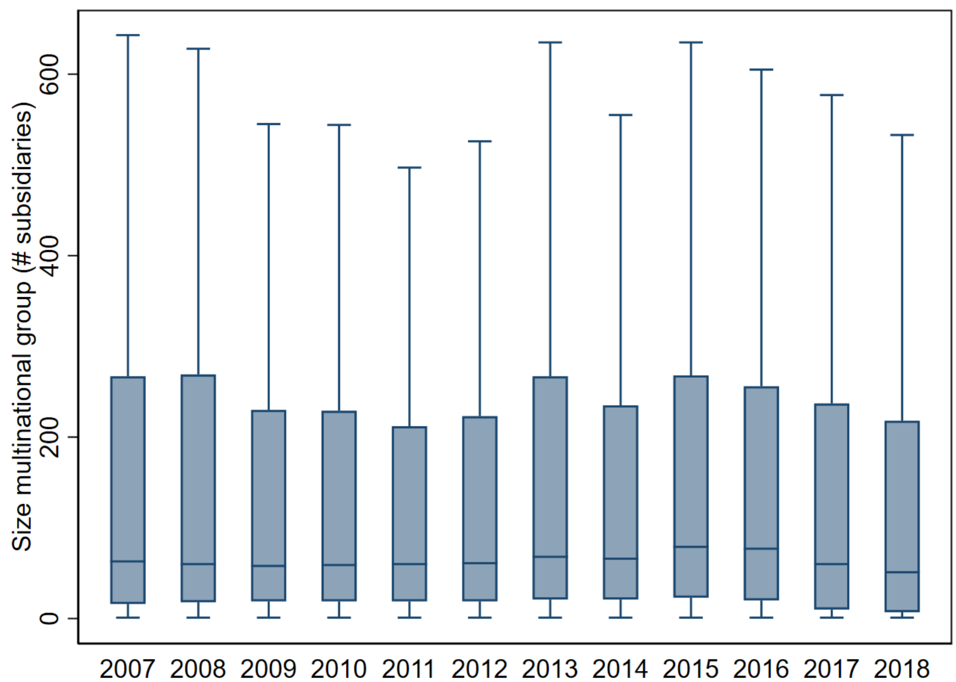
Notes: This figure plots the amount of rent (in US dollars) extracted in a year, in a given country, from natural resources against the number of multinationals' subsidiaries. Data on the Multinational Enterprises (MNEs) is obtained from Sonno (2020). The graph highlights a U-relationship between the variables; however, when excluding Mauritius (which has a very favourable taxation system for companies) from the location analysis, the correlation becomes positive and very steep.

correlation becomes positive and very steep. This gives us other evidence of how multinational companies tend to locate in countries characterized by abundant natural resources. Moving on to labour, in order to investigate the relationship between labour abundance and companies' location choices we plot the unemployment rate against their presence. Results are summarized in figure A2 in the Appendix. The idea is that countries characterized by a large unemployment rate have a relative abundance of cheap (maybe unskilled) labour. Here we find a positive relationship. Nevertheless, this is quite weak. Hence, even though probably labor is a relevant determinant in the location choices of Multinational Companies, it does not seem to be a very important one. Overall, Multinationals' subsidiaries tend to **locate** in **relatively wealthier countries** characterized by **abundant natural resources**. This is consistent with the idea that here they can benefit from the presence of these resources for production, on the one hand, and from a larger internal market, on the other.

So far we have examined the "where" of private investments in Africa. Now, we will look at the "who" and "what". Who is investing in Africa? What are the characteristics of these actors? In order words, who are these multinational companies? To answer these questions, we first look at the size of the multinational groups investing in Africa. Figure 4 shows the distribution of the size of these groups, measured as the number of subsidiaries, over time. Three things are worth mentioning. First, groups with affiliates in Africa are fairly large, with an average of 230 subsidiaries per group and a median of 64. Second, as the previous figures suggest, the distribution of group size is significantly asymmetrical, with a large mass of groups at the left of the distribution, and a heavy long tail at the right. This means that there is substantial heterogeneity between multinational groups investing in Africa. While there is a large proportion of them that has a limited amount of subsidiaries, very large multinational groups are also investing in this continent. Second, these groups tend to also invest in other continents (i.e. they have subsidiaries outside Africa as well). Nevertheless, the small groups tend only to invest in Africa, while the large ones have subsidiaries throughout the world. The totality of these smaller groups is ultimately owned by industrial companies. Although a large proportion of the large ones are also owned by industrial companies, many of these are also owned by banks, insurance, and financial companies. Hence, there is substantial heterogeneity in who is investing in Africa. In particular, one can distinguish between two, very different, types of business groups: (1) relatively small ones with few subsidiaries owned by foreign industrial companies; (2) very large multinational groups with subsidiaries on the whole planet, owned by a variety of different actors (including industrial companies).

Third, neither the size nor the composition of these groups investing in Africa has changed significantly over time. Hence, although "where" these private investments take place has changed dramatically over time, as said above, the nature of the actors doing these investments has not. Let's now move on to "who" is investing in Africa, and, specifically, from where these investments come from. To do so,

Figure 4: MNEs size over time



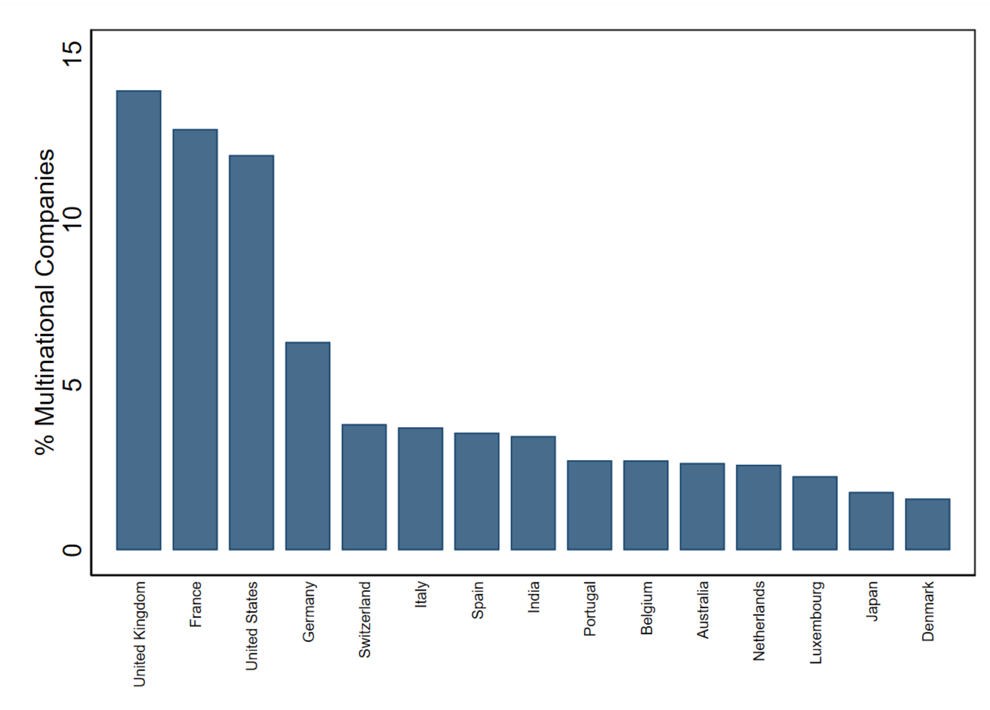
Notes: This figure shows the distribution of the size of the multinational groups. Data on the Multinational Enterprises' (MNEs) is obtained from Sonno (2020). The graph shows that (1) groups with affiliates in Africa are fairly large; (2) the distribution of group size is asymmetrical; (3) neither the size nor the composition of these groups has changed dramatically over time.

we explore the headquarters (HQ) countries of the groups with at least one subsidiary in this continent. Results over the entire period are summarized in Figure 5. Almost half of the groups are owned by HQ residing in the United Kingdom (14%), France (13%), and the United States (12%). If one thinks about the history of this continent, this makes perfect sense. The first two countries, indeed, were the largest colonizer of the continent, with English and French still official languages in several African countries. As a result, it comes as no surprise that these countries still play a big role in the economic structure of their former colonies. Immediately after the "big three", there is a large group of countries with a much more modest presence in Africa, such as Germany (6,3%), Switzerland (3,8%), Italy (3,7%), and Spain (3,5%). Thus, the vast majority of private international investments in Africa ultimately come from developed countries and, in particular, former colonizers. However, the picture changes dramatically when we look at how this configuration has changed over time (Figure A3 in the Appendix). In this graph, we show the percentage change in the number of groups with HQ in a certain country over the period from 2007 to 2018. Here, in a nutshell, rather than answering the question "Which are the nations with the highest number of business groups in Africa?", we look at a slightly different one: "Which country has been investing in Africa more recently?" Not surprisingly, the answer is China. Over the period from 2007 to 2018, the number of business groups with HQ in China and at least one subsidiary in Africa increased by a factor higher than 72. The Chinese interests in Africa are well known and are so important that a new term has been coined to describe their relationship: "The ChinAfrique". Similarly, Russia (factor 24), and India (factor 1.8) are massively increasing their presence in this continent. Along with these "developing" countries, we also see an increase in business groups with HQ in Greece, Malta, and Canada.

To sum up, there is a substantial **heterogeneity** when it comes to "who" is investing in Africa, both in size and HQ country. We both observe relatively small business groups, mainly owned by industrial companies, and gigantic ones. The vast majority of these groups have HQ in relatively wealthy countries, with a special mention of the former principal colonizer of the continent. Nevertheless, a growing number of groups come from very important "new" actors of our times: China, Russia, and India.

Let's now look at the "what" of private investments in Africa: in what are these business groups investing? To answer this question, we look at the sectoral composition of the subsidiaries population in Africa. As shown in Figure 6, the majority of multinationals' subsidiaries are in the Tertiary sector. This figure is increasing over time, reaching the maximum of approximately 72% of all subsidiaries in 2018. The proportion of subsidiaries in the Primary sector, on the other hand, remains quite stable over time at approximately 6%. As a result, the proportion of subsidiaries in the Secondary sector is shrinking over time from 27% to approximately 21%. These figures seem to justify the view that the Primary sector, as in the rest of the world, is "less" important than the others. Nevertheless, this is not correct. It is crucial to put these numbers in context. In 2007, when the contribution of the Primary sector to the world GDP

Figure 5: HQs countries

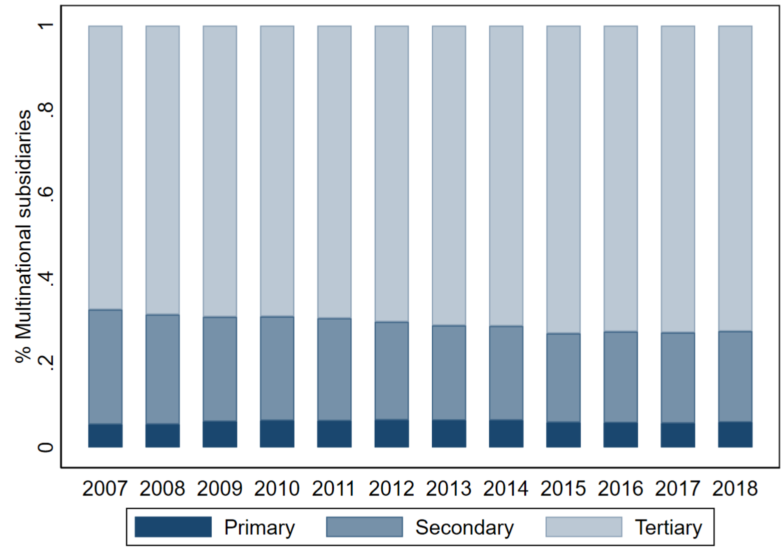


Notes: This figure shows who is investing in Africa, meaning where these investments come from. Data on the Multinational Enterprises (MNEs) is obtained from Sonno (2020). Almost half of the groups are owned by HQ residing in the UK, France, and the USA. Other significant investments come from Germany, Switzerland and Italy. When looking at recent times, however, we observe a predominance of Chinese investments, and an increase in Russian investments (not significant in this graph, due to the chosen metric and time frame).

was 3,4%,[19] the proportion of subsidiaries in the same sector in Africa was double. Therefore, the relative importance of this sector in these types of investments is very high compared to the rest of the world. Furthermore, while the worldwide trend is a decrease in investments in this sector, in Africa the proportion of subsidiaries in the Primary sector has remained stable over time. This is perfectly consistent with the MNEs' location decision discussed at the beginning of this section and, specifically, with the positive correlation between MNEs' presence and abundance of natural resources.

19. Source:World Bank data.

Figure 6: Trend in sectoral composition



Notes: This figure shows the sectoral composition of the subsidiaries population in Africa. Data on the Multinational Enterprises (MNEs) is obtained from Sonno (2020). The graph shows a predominance of the subsidiaries in the Tertiary sector, with the figure increasing over time (over 72 percent in 2018). Here we can also observe the stability of the proportion of the subsidiaries in the Primary sector, and a shrinking of those in the Secondary sector.

In summary, it is possible to ascertain the following takeaways about private investments in Africa:

- **Where:** Multinationals' subsidiaries tend to locate in relatively wealthier countries, characterized by abundant natural resources;

- **Who:** There is a substantial heterogeneity regarding investors in Africa, both in size and HQ country. Some are relatively small business groups, mainly owned by industrial companies, as well as some very large groups. The vast majority of these groups have HQ in wealthy countries. Nevertheless, a growing number of groups comes from the new global actors: China, Russia, and India;

- **What:** The majority of subsidiaries in Africa are in the Tertiary sector. However, the relative importance of the Primary sector is doubled with respect to the world averages. Moreover, we find that this proportion is very persistent over time and in contrast with global trends. In this context, the Secondary sector is shrinking over time.

3.1.2 Data on Conflict Events

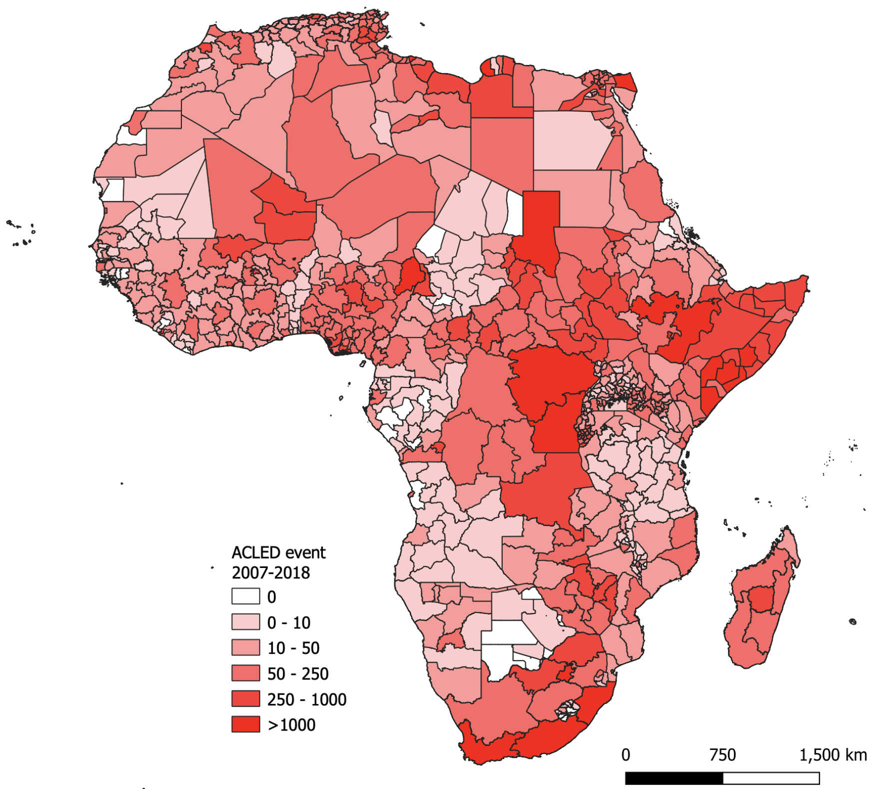
As a tool to measure peace and conflict, we use the Armed Conflict Location and Event Dataset (ACLED). Its main feature is the gathering of information on geo-located conflicts with and without fatalities for all African countries. In other words, it records – from conventional media – all political violence, whether part of a civil conflict or not – and with no threshold of battle-related deaths. This data has been widely used in recent conflict literature (among others, Harari & La Ferrara, 2018; Manacorda & Tesei, 2020; Berman et al., 2021). It comprises the latitude, longitude and date of conflict events, the actors involved, and their intensity, i.e. the number of fatalities. Each event is classified under 6 different categories:

1. **Battles**: violent clashes between at least two armed groups;
2. **Remote violence**: events where an explosion, bomb or other explosive device was used;
3. **Violence against civilians**: violent attacks on unarmed civilians;
4. **Riots**: violent demonstrations, often involving a spontaneous action by unorganized, unaffiliated members of society;
5. **Protests**: non-violent demonstrations, involving typically unorganized action by members of society;
6. **Strategic development**: "non violent" activities, such as looting, peace-talks, high profile arrests, non-violent transfers of territory, recruitment into non-state groups etc.

We restrict our analysis to 4 out of these categories (Battles, Remote violence, Riots, and Violence against civilians). The reason for this choice is our necessity to focus only on "conflict" events as such, being them a measure of a negative peace outcome. Hence, we exclude protests which are events categorized as non-violent. Moreover, protests might include strikes, indirectly creating an alternative endogenous channel between the presence of multinationals and instability. In a similar vein, we decide to exclude Strategic development, being it an ensemble of several non-violent activities.[20] We then compute the number of events, for each remaining category, in each region, in all years between 2007 and 2018.

The geographic distribution of all ACLED events is summarized in Figure 7. As observable in the figure, conflict events are quite spread over the whole continent, with peaks in specific places (East Democratic Republic of Congo, the part of South Africa close to the sea, and the Horn of Africa).

Figure 7: Map ACLED 2007-2018



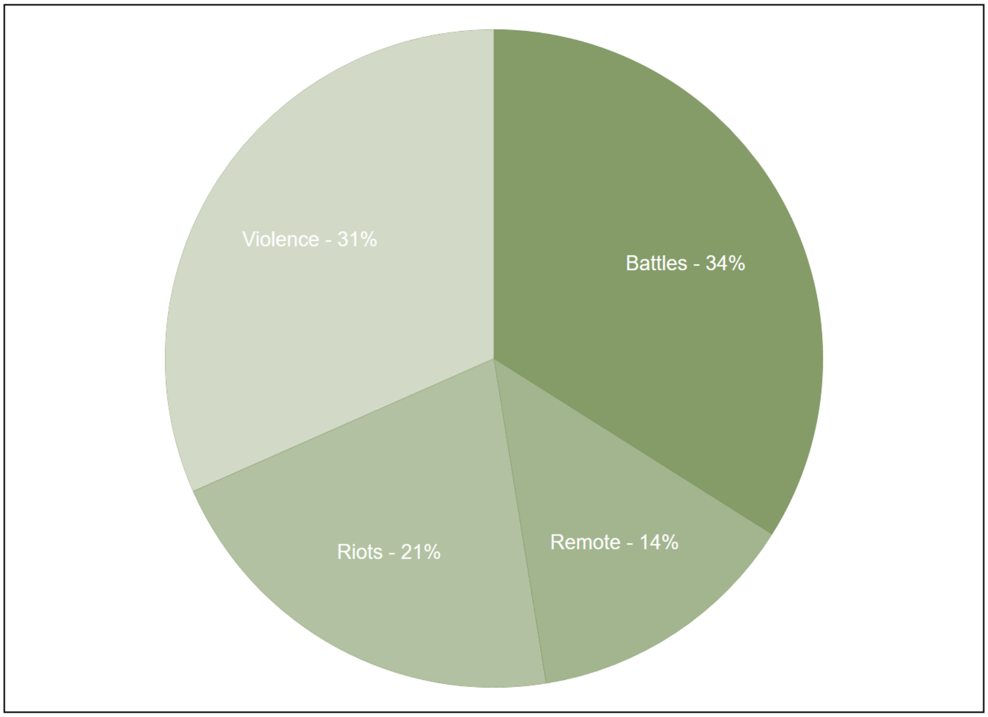
Notes: This image shows the geographic distribution of all armed conflicts. Data on peace and conflict are drawn from the Armed Conflict Location and Event Dataset (ACLED). Conflicts are quite spread over the whole continent, with peaks in specific places such as Congo and the Horn of Africa.

When assessing the type of conflict events, Figure 8 shows that approximately 34% of conflict events in the data are battles, followed by violence against civilians (31%), and riots (21%). This highlights a large

20. Results for protest events are summarized in Appendix 4.3.

heterogeneity in the type of conflict in Africa. Clashes between armed groups (governmental or not), and events involving civilians (both as victims and in riots), are present with approximately the same frequency.

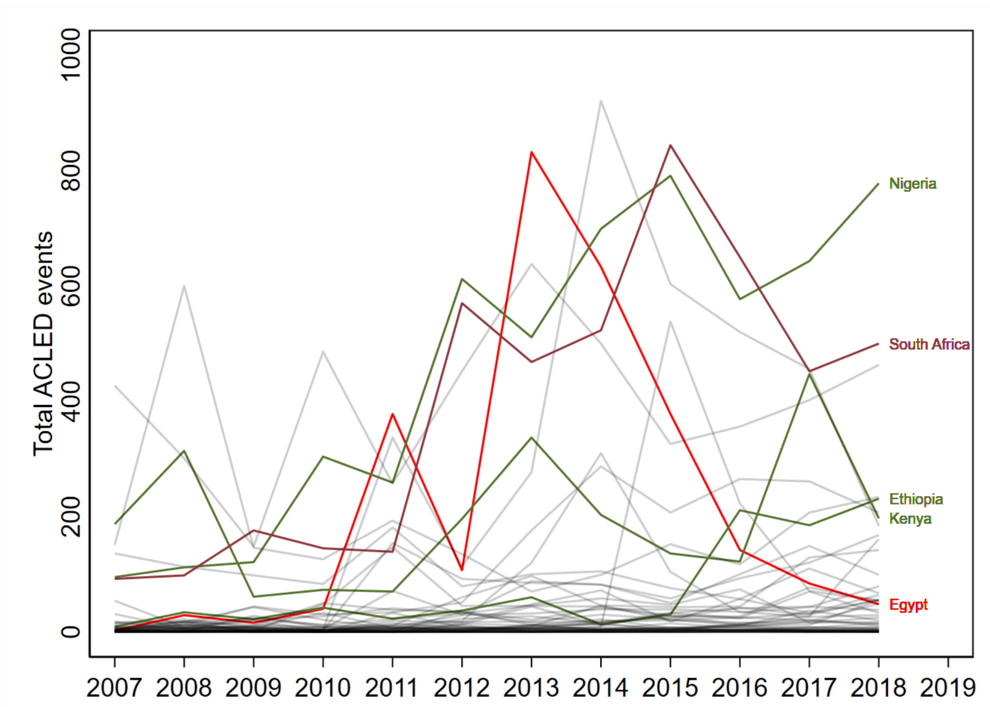
Figure 8: Event types



Notes: This image shows the type of armed conflicts. Data on peace and conflict are drawn from the Armed Conflict Location and Event Dataset (ACLED). The pie is mainly taken by violent and battle conflict (taking together 65 percent), though we see a significant figure for riots (21 percent).

Figure A4 in the Appendix shows the time trend of these conflict events. The trend is overall positive, meaning that over time we observe an **increase** in conflict events in the continent. However, we need to be cautious in stressing this point. In fact, it is equally possible that more media sources have been included in the data collection process or, alternatively, that media have become more efficient in reporting conflict events. This would mechanically raise the number of conflict events observed in the data. Yet, this only partially explain the steep rise in conflict incidence. Furthermore, it is possible to compare different types of events over time. As such, even though data collection may compromise our ability to say something about general trends, as long as this expansion in the collection does not affect the different types of data – which is unlikely – we can retrieve some useful information from comparing trends of different types of events. That is, over time, we observe a large increase in violence and riots as the main types of conflict on the continent. This happens at the expense of battles, which experience lower growth. Hence, it is possible to ascertain that the types of conflict in Africa are changing over time, with more civilian-based violence happening vis-à-vis the armed groups ones.

Figure 9: Trends ACLED - Countries

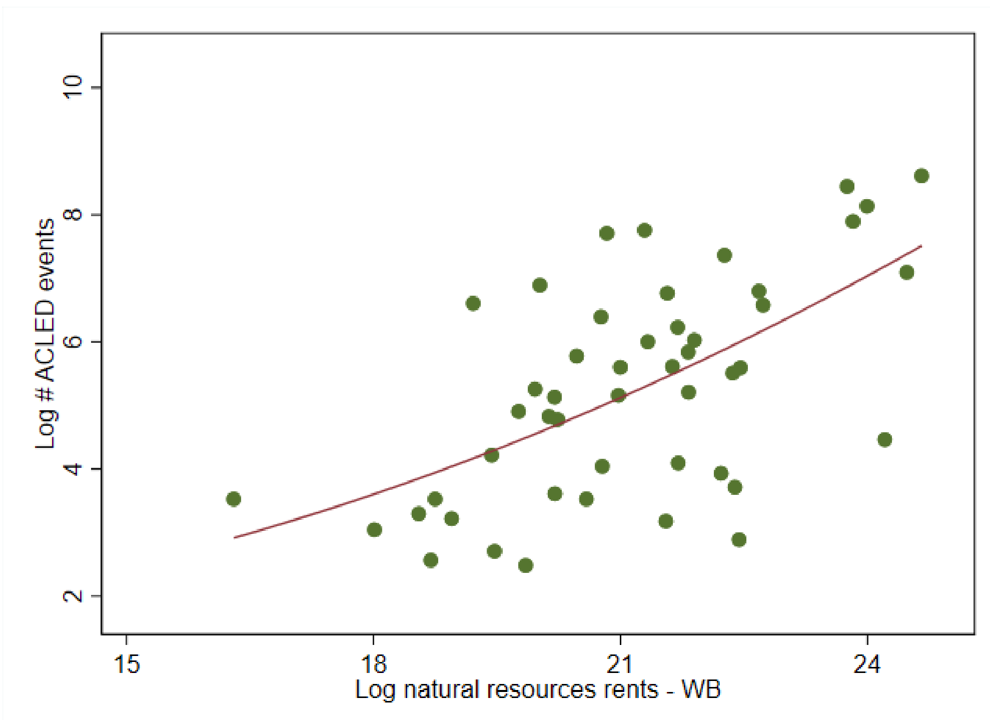


Notes: This image shows the trends of armed conflicts in countries over time (2007-2019). Data on peace and conflict are drawn from the Armed Conflict Location and Event Dataset (ACLED). The graph shows a very large increase in violent events in Nigeria and South Africa (the two richest countries in the continent) in this time frame.

If decomposing this growth in violence over countries, as done in Figure 9, some interesting features can be found. First, two countries experienced a very large increase in violent events over the considered period: (1) Nigeria, and (2) South Africa. Interestingly enough, these are also the two richest countries on the continent. If one decomposes this violence growth in the two countries, the majority of it comes exactly from a large increase in violence and riots. This is consistent with the steep trend in these categories over time. Other countries, such as Kenya, experienced a moderate increase in violent events, which is highly discontinuous over time. Finally, it is worth mentioning the Egypt case. While generally not a particularly violent country, we observe two large spikes in violent events in 2011 and 2013. This, however, is not unexpected. That is because Egypt was the centre of the Arab Spring in 2011, while also experiencing a Coup d'Etat in 2013. Hence, taking such contingencies into account, one could be reassured about the validity and consistency of the data.

To better understand the nature of these conflict events, we study the ways their presence and amount correlate using the same basic economic explanatory variable used before. First, as summarized in Figure A5, we observe a strong, increasing, positive correlation between the number of conflict events in a certain country and its GDP. This, to a certain extent, may seem puzzling. One could be tempted to think that in richer countries people are happier, and we should observe lower conflict incidence. Nevertheless, other factors, such as inequality, may drive this result. Moreover, this is consistent with the country-specific trends described above. Also, the correlation between the rents extracted by natural resources and conflict incidence is positive and particularly strong as well, as shown in Figure 10. This relationship is not new to the literature, as it is one of the main characteristics of the economic concept called "The Resource Curse". This is a line of reasoning, widely confirmed by empirical evidence, stating that, contrary to the common opinion, the large presence of natural resources may be deleterious to the development of the country, especially in the case of weak institutions. One of the reasons behind these phenomena is, indeed, the higher presence of conflict events. In the existing literature, this correlation has been explained in different ways. First, the presence of large natural resources increases the "revenues" from initiating a conflict event. With large mineral deposits, for example, armed groups have more incentive in invading the territory to extract the minerals. Moreover, resource subtraction is a relatively easy activity that can be performed in a limited amount of time. This makes it the perfect activity for short-run exploitation. Second, given the characteristics of this activity, the presence of natural resources may contribute to financing armed groups, prolonging conflict over time. Third, and consistent with our previous reasoning, growth based on the exploitation of natural resources tends to be very unequal, which can spur conflict, and, in particular, riots. As shown in Figure A6 in the Appendix, there is no substantial correlation between unemployment and the presence of violent events.

Figure 10: ACLED events and Natural Resources



Notes: This figure shows the correlation between the rents extracted by natural resources and conflict incidence. Data on peace and conflict are drawn from the Armed Conflict Location and Event Dataset (ACLED). A strong positive correlation is identified here: the richer the country in terms of resources, the higher the incidence of conflicts.

Conclusively, it is possible to argue that: (1) there is substantial geographical variation in the incidence of conflict events over the entire continent; (2) battles, violence against civilians, and riots are the most common type of violent events in Africa, (3) the last two are growing in importance over time; (4) consistently with the previous statement, we observe a positive correlation between GDP and conflict incidence, as well as with the rent extracted from natural resources. It is worth mentioning that, from these correlations, one can already ascertain a potential relationship between Multinationals' presence and conflict events. That is because, over time, we observe an increase in subsidiaries' presence, as well as riot events – these, are more pronounced in richer countries and where there is a higher rent extraction from natural resources. In the following subsection, we investigate these insights in more detail.

3.2 Preliminary Empirical Analysis

In this section, we combine the two sources of data explored earlier as a way to investigate the relationship between Multinational Companies' presence and negative peace outcomes, with the latter being measured as the incidence and the numerosity of conflict events. This is done through an empirical analysis at the regional level. Particularly, we investigate whether in regions with a higher number of affiliates (or subsidiaries) we can observe a higher amount of conflict events. It is important to mention that, as far as this preliminary analysis is concerned, no causal claim will or can be drawn based on the results. Indeed, there is a chance – yet to be validated – that this potential correlation may be spurious. The discussion about the causality problem is postponed to subsection 3.3, where, based on Sonno (2020), we will make causal statements on the relationship between Multinationals' presence and peace outcomes.

In exploring the correlation between the presence of multinationals' affiliates and negative peace outcomes, we compute the number of subsidiaries in each region over time, 12 years, as well as the number of conflict events; then, we investigate the relationship between these two variables. Results of this simple exercise are summarized in Table 1. This table presents 3 columns with the same result but an increasing level of sophistication. Let's start with column 1. Here we observe a positive correlation between the number of affiliates and the incidence of conflict events (meaning the sum of the four categories of events described above). Thus, regions with a higher number of affiliates, in a certain year, experience more conflict events. One standard deviation increase in the presence of affiliates corresponds to a 14% increase in standard deviations in the number of conflicts. Broadly speaking, this is the increase we have when we go from a peaceful region to one with approximately 5 conflict events in a year: a substantial change.

However, there is a chance that this correlation is driven by the contingencies of certain regions in which, for several reasons, we observe both a high number of affiliates and negative peace outcomes.

Table 1: Peace impact MNE

Dep. Variable	(1) Conflict	(2) Conflict	(3) Conflict
Affiliates	0.0230***	0.0216***	0.0217***
	(0.00164)	(0.00270)	(0.00280)
Observations	10,260	10,260	4,376
Region FE	No	Yes	Yes
Year FE	No	Yes	Yes
Controls	No	No	Yes

Notes: OLS estimation with high dimensional fixed effects. Standard error in parenthesis. ***,**,* = indicate significance at the 1, 5, and 10% level, respectively. Affiliates indicates the number of MNE affiliates in the region. Dependent variable: Conflict is the number of conflict events in the region. Controls are GDP, Rule of Law, rent extracted from natural resources, unemployment, the corruption perception index, and population density. Region and Year Fixed effects are included in all models. We observe a positive and robust correlation between the number of affiliates and conflict, statistically different from 0 at 1 percent confidence level. This is also true when we include region and year FE in the model, and also controlling for the variables explained above.

Suppose, for example, that we have a strongly urbanized city with a very high number of multinational subsidiaries. Let's also suppose that in this city there is a dictatorship and there are riots. In this case, we would observe a positive correlation between the two variables, without any real relationship between the two. The same reasoning can be applied to a special year (e.g. war), in which, for unrelated motives, there are both a high number of affiliates and conflict events. To rule out these special circumstances, we include Region Fixed Effects and Year Fixed Effects in column 2 of the same table. But what does this exactly mean? By including these "Fixed Effects", we are considering only the variation coming from the same region, in the same year. In other words, we rule out the two scenarios explained above. This is done by including a constant variable for each region and for each year. These constant variables remove the average effect of being in a certain region and in a certain year. By doing so, we are "controlling" whether everything is stable over time within a certain region and each year. The overall correlation between the number of affiliates and negative peace outcomes is still positive and very robust – and precisely estimated (statistically different from 0 at 1% confidence level).

In column 3, we test this correlation further. The reason for this is that, even though we included the Region and Year Fixed Effects, it is still possible that we have some trend in some relevant variable that makes it spurious. For example, we know that there is a strong positive correlation between GDP and both negative peace outcomes and the number of affiliates. Suppose that, for a random reason, there is a large increase in GDP in a certain region. If we believe the relationship between GDP and our variables to be causal, then we would expect an increase in both the number of affiliates and conflict incidence. Hence, we would observe a positive correlation between our variables in the data. Nevertheless, this correlation is not the outcome of a causality process, but of a more complex causal system where our variables have both a causal link with wealth. If this was the case, we would claim that affiliates were directly causing negative peace outcomes. And, in line with our belief, we would expect a reduction in conflict if we decrease the number of subsidiaries. However, since our correlation was spurious, we would probably see no effect of such a reduction on peace. This type of reasoning is connected to the "omitted variable bias". In a nutshell, we omit from the regression an important variable. By doing so, we are comparing very different areas leading to a biased estimate. In our case, for instance, we are comparing regions-year with high GDP growth with those with lower growth in wealth. Yet, there is a solution to this endogeneity problem, and that is to "control" for these variables (include them in the analysis). Consequently, in column 3 we include a measure of the Rule of Law of the country, the number of natural resources subtracted, unemployment, the corruption perception index, and population density in the regression model GDP. Such control variables serve to make our correlation robust enough.[21]

It must be noted, nevertheless, that even with this last test, we can not be sure of a causal relationship between the two variables. It is possible, for example, that we are failing to control the variables for a generic and unobserved determinant of both affiliates and conflict. As such, we would still be estimating a spurious correlation. In light of this, in subsection 3.3, we turn to a more robust *identification strategy*

21. The number of observations in this column decrease substantially due to missing values in control variables.

called instrumental variable, in an additional effort to show consistent empirical findings about the relationship between our variables.

Does this mean that what is said so far is wrong/useless? No. Even though the approach followed in this preliminary analysis cannot be considered analytically consistent to ascertain causal relations, it has shown how it is possible to identify correlation dynamics in the existing data. Thus, we believe it is worth going further and trying to understand the broad features of this correlation.

A first interesting exercise may be to understand which type of conflict is correlated with a higher number of affiliates. We did this in Table 2, where we replicate column 3 of Table 1, differentiating our outcome variable by the type of conflict. As shown in the table, there is a 0 correlation between the number of affiliates and the numerosity of battles, remote violence, and violence against civilians events in a certain region. Rather, the correlation with the number of riots is positive and statistically different from 0. This allows us to claim that the results in the total number of conflict events were mainly "driven" by riots ones. Such a claim is consistent with the story presented at the end of subsection 3.1. In addition, this is also consistent with the large increase in riot events during the analysed period, during which we also observe an increase in the number of multinational subsidiaries. This result is also suggesting us the type of actors involved in this relationship. Armed groups, governmental or not, are unlikely to be the primary actors involved in this correlation. If this was the case, we would have a positive correlation with battle events, or, alternatively, violence against civilians, based on the opponent of this armed band; but this is not the case. Hence, we can claim that the primary actor behind this relationship are civilians only, or, better, rioters. [22]

However, this does not say much about the other actors: companies. For this reason, we replicate

22. Results for protests and strategic developments are not shown for reasons explained in section 3.1.2. However, they are summarized in Appendix 4.3.

Table 2: Peace impact MNE - Type of violent event

Dep. Variable	(1) Battle	(2) Remote	(3) Riot	(4) Violence
Affiliates	-0.000905	-0.000377	0.0228***	0.000148
	(0.00103)	(0.000704)	(0.00108)	(0.00107)
Observations	4,376	4,376	4,376	4,376
Region FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes

Notes: OLS estimation with high dimensional fixed effects. Standard error in parenthesis. ***,**,* = indicate significance at the 1, 5, and 10% level, respectively. Affiliates indicates the number of MNE affiliates in the region. The dependent variable is the number of conflict events for different types in the region. Model (1) of battle events, (2) of remote violent events, (3) of riot events, (4) of violence against civilians events. Controls are GDP, Rule of Law, rent extracted from natural resources, unemployment, the corruption perception index, and population density. Region and Year Fixed effects are included in all models. The table shows that the positive correlation between the number of affiliates and conflict is mainly driven by riot events.

Table 2 and make a differentiation by type of affiliates in the region. In particular, we divide the number of subsidiaries into three groups depending on their macro-sector: (1) Affiliates in the Primary sector (agriculture, mining, forestry, etc.); (2) Affiliates in the Secondary sector (manufacturing, construction, etc.); (3) Affiliates in the Tertiary sector (education, health, retail services, etc.). Results are summarized in table A2 in the Appendix. Evidently, the result is completely driven by the first category. In other words, the number of affiliates in the Primary sector is strongly associated with a higher number of riot events. When we turn to the other sectors, instead, the coefficients are very small, sometimes even negative, and virtually all of them are not statistically different from 0. Moreover, the size of the correlation between this category of subsidiaries and riot incidence is even larger than the one described before. Indeed, a standard deviation increase in the number of subsidiaries in this sector is associated with a 69% (with respect to 14%) standard deviation increase in the number of riot events.

Let's summarize what we have learned so far: (1) there seems to exist a positive strong correlation between the presence of multinationals' affiliates and conflict events; (2) this correlation is entirely driven by riots, and (3) by affiliates in the Primary sector. These small pieces of evidence, taken together, suggest a "story" of resource subtraction. Such a finding is in line with the “resource curse”, mentioned in section 3.1. On the one hand, the Primary sector is the one reliant the most on the exploitation of natural resources (minerals, land, forests, etc.). On the other hand, this type of activity is the one more likely to generate riots in the population. Thus, the resource exploitation story is consistent with both riots being the relevant type of violent event, and affiliates in the Primary sector being the driver of these correlations.

Define the local capital stock being the sum of all types of local capital, including physical capital, natural capital, human capital, and organisational capital, among others. We can then define two types of investments: **additive investments** and **subtractive investments**. An investment is additive if it has a positive balance on the local capital stock. In other words, the investments increase resources for the locals. It does not matter whether this also subtracts some resources. The relevant aspect is that it has a positive **total** effect. On the other hand, an investment is subtractive if it subtracts resources. Hence, if its total effect on the local capital stock is negative.

This rationale is also consistent with a wider theoretical framework about the relationships between private investments and conflict events. In the wide economic literature on civil conflicts, the probability of having a conflict event is determined by two important objects: (1) the potential rent from conflict, and (2) the opportunity cost of conflict (Dube & Vargas, 2013 and Berman et al., 2021, among others). These are the benefits and the costs of a conflict event, respectively. The benefits are the potential economic rents one can subtract from the resources won in the conflict event (times the probability of winning). The costs are the direct costs of the conflict event and the opportunity costs of it. This opportunity cost derives from the fact that resources have to be spent in the conflict. These, in absence of conflict, could generate other forms of rent (e.g. labour). With this in mind, how may private investments relate to peace outcomes? If a private investment subtracts resources from the environment, it will lower the opportunity-cost of conflict, since locals can not benefit any more from them. On the other hand, if the investment expands the local capital stock, it will increase the opportunity cost, lowering the probability of observing a conflict event.[23] On the benefits side, subtractive investments tend to be very place-specific. Therefore, the potential gains from a conflict event are higher with more subtractive activities. However, the same can be said for additive activities. Therefore, it would be theoretically motivated that resource subtractive activities promote negative peace outcomes, since they increase benefits and lower costs of conflict. Yet, it is a *priori* uncertain whether additive investments increase or decrease peace. Indeed, they both increase the benefits and costs of it. Given the more "civilian" type of conflict we have in Africa – see section 3.1 – costs are likely to be more important than benefits. Hence, we can say that, with this rationale, in this context, additive investments may reduce peace negative outcomes. Consistently with this rationale, we observe that the correlation between negative peace outcomes and the number of affiliates is stronger with firms in the Primary sector (the one with the highest resource subtraction), and it is driven by riot events (costs more important than benefits of conflict).

To test more in detail this resource-based rationale of the impact of private investments on peace, we divide the affiliates' sectors into two broad categories: (1) Resource additive, and (2) Resource subtractive. The idea is that sectors in the first category are more likely to subtract resources from a given region rather than bring them there, helping the socio-economic development. A few examples of the sectors we have included here are agriculture, forestry, and mining, but also low-skill manufacturing, and retail distributors. In the second category, we have also included those activities that are more likely to increase the amount of resources in a given area, for example by increasing human capital (e.g. education, health services), providing high-skill jobs (e.g. information and communication), or provide general services to the area (e.g. electricity, gas, water supply). Clearly, we are not claiming that all activities in the first category actually subtract resources, neither the contrary. The goal here is to have an **approximation of the likelihood of being in an subtractive activity or not**. And, like in all approximations, it may contain imprecision. Once creating this categorization, we compute the number of affiliates in each category, re-

23. However, the positive effect of increasing the local capital stock depends on how this is distributed. Indeed, if benefits from the expansions are leapt by few individuals, one could in theory also have the contrary outcome.

gion and year, and we replicate the results before differentiating between the two. Results are summarized in Table 3.

Table 3: Peace impact MNE - Type of violent event and resource balance

Dep. Variable	(1) Conflict	(2) Battle	(3) Remote	(4) Riot	(5) Violence
Affiliates - Resource subtractive	0.163***	0.00701	0.0103	0.125***	0.0199
	(0.0326)	(0.0121)	(0.00821)	(0.0125)	(0.0124)
Affiliates - Resource additive	-0.253***	-0.0207	-0.0252	-0.162***	-0.0446
	(0.0733)	(0.0272)	(0.0185)	(0.0281)	(0.0280)
Observations	4,376	4,376	4,376	4,376	4,376
Region FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes

Notes: OLS estimation with high dimensional fixed effects. Standard error in parenthesis. ***,**,* = indicate significance at the 1, 5, and 10% level, respectively. Affiliates indicates the number of MNE affiliates in the region. In all models, 2 different versions of Affiliates are used: (1) Affiliates in subtractive sectors, (2) Affiliates in additive sectors. The dependent variable is the number of conflict events for different types in the region. Model (1) of all conflict events, (2) of battle events, (3) of remote violent events, (4) of riot events, (5) of violence against civilians events. Controls are GDP, Rule of Law, rent extracted from natural resources, unemployment, the corruption perception index, and population density. Region and Year Fixed effects are included in all models. The table highlights that the presence of affiliates in the primary sector (resource subtractive) are most conducive to violent events, and in particular, to riots, while their presence in resource additive sectors has the contrary effect.

In column 1, the dependent variable is the total number of conflict events in the region. As expected, we find a positive correlation with the number of affiliates in the subtractive sectors. This is also in line with previous results. However, we also find a negative correlation with the number of affiliates in the additive ones. Both coefficients are statistically different from zero and relevant in magnitude. In columns 2 to 5, we replicate this analysis differentiating for the type of conflict. Again, we find a positive correlation between the number of riot events and the number of affiliates in the subtractive sectors. Moreover, all the coefficients are positive, though very small and statistically insignificant. When we turn to affiliates in additive sectors, however, the situation is significantly different. All coefficients are negative – which is consistent with the rationale described above – and the one for riot events is very large and statistically different from 0. Hence, these results confirm the idea that the impact of private investments on peace depends on the **type of investment**, and, in particular, on whether this investment increases or decreases the local capital stock. Moreover, they also confirm that riot events seem to be the most relevant peace negative outcomes determined by private investments.

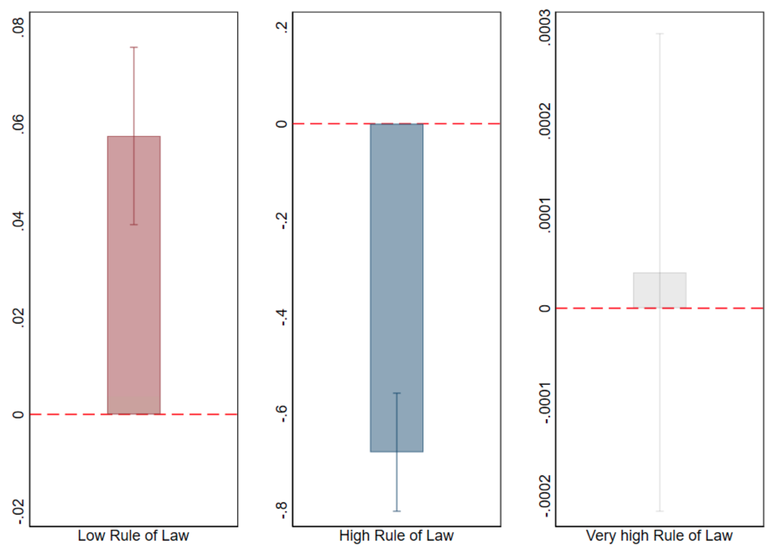
Let's continue to build on this line of reasoning. The peace impact of private investments depends on whether this adds resources to the region or, on the contrary, it subtracts them. The ability to subtract/add resources, in turn, depends also on the **state capacity** in the area. In other words, firms' ability to subtract resources indiscriminately depends on how it is more or less constrained by a functioning law structure. It is clear that a firm can benefit more from, let's say, natural resources subtraction if its behaviour is not restricted by law, or, equivalently, if the existing law is not binding due to state capacity issues. On the other hand, a well-functioning state with a proper law structure, is inherently able to mitigate resource subtraction, though not preventing any potential positive impact on the other economic/peace relevant dimensions. However, we must note that when the investment enhances resources in the region, it is still possible that this investment increases benefits from conflict, directly increasing the extractable rents from the region. This would decrease its positive peace impact on a country with low state capacity. Nevertheless, this would not be true in a place with a high rule of law. As such, peace benefits from an additive investment would be higher in a country with high state capacity. Given the heterogeneity of peace impact depending on the balance of resources, state capacity may play a big role in determining the consequences of private investments.

To investigate this hypothesis, we employ an index on the state of the Rule of Law from the World Bank.[24] This index aggregates six dimensions of governance: (1) voice and accountability, (2) political stability, (3) government effectiveness, (4) regulatory quality, (5) rule of law, and (6) control of corruption. Thus, a country with a higher Rule of Law index has a higher state capacity. Higher state capacity, in turn, given our hypothesis, should reduce/reverse the negative peace impact of private investments seen above. To explore this, we use the same regression model as in Table 1, column 3, investigating the peace impact of affiliates on riots in three different scenarios: (1) low rule of law, (2) high rule of law, (3) very high rule

24. Source: World Bank.

of law. The idea is that countries with very high rule of law may be insensitive to private investments, given their ability to maintain peace. Hence, we expect a zero correlation for this category of countries. Results are summarized in Figure 11. These are consistent with our hypothesis. The correlation between the number of affiliates and riots is positive and statistically different from 0 in countries with low state capacity, negative and statistically meaningful in countries with high rule of law, and null in countries with a very high index.

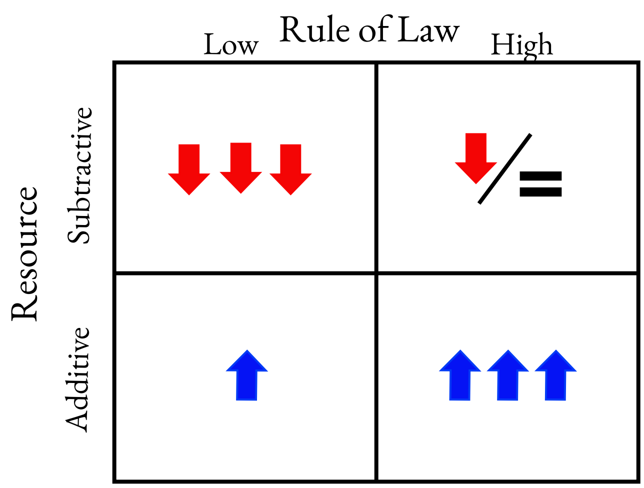
Figure 11: Peace impact MNE - Rule of Law



Notes: This figure shows the peace impact of affiliates on riots when the Rule of Law in the country is Low (1), High (2), or Very High (3). The Data is obtained from the index on the state of the Rule of Law compiled by the World Bank. The correlation between the number of affiliates and riots is positive and significant for countries with a Low rule of law, negative for countries with a High rule of law, and null for countries with Very High rule of law. As such, in countries with Low rule of law, a higher number of MNE affiliates is correlated with a higher number of riots.

Overall, in this section, we do a preliminary empirical analysis of the peace impact of private investments in Africa. Specifically, we study how different negative peace outcomes react to changes in the number of multinational affiliates in different regions over the period from 2007-2018. This analysis has highlighted five elements: (1) private investments have, on average, a **negative peace impact**; (2) in particular, they seem to increase the likelihood of **riot** events; (3) these results are driven by affiliates in the **primary sector**; (4) consistently with these results, the peace impact of private investments depends on whether this **subtracts resources** or, instead, **adds resources** to the region; (5) in addition, the ability of international firms to add/subtracts resources depends on the **state capacity** of the country, therefore implying a positive correlation between the peace impact of private investments and rule of law. These results are summarized in Figure 12. It must be noted, however, that these conclusions are the result of preliminary empirical analysis and they have to be taken as such.

Figure 12: Peace impact MNE - Matrix



The matrix shows how private investment might be peace negative when it subtracts resources from the region. However, this negative effect is mitigated in countries with higher state capacity. On the other hand, investments might have a positive peace effect when it expands the resources available to the locals. This, in turn, can be amplified when done in countries with high rule of law.

This framework poses **firm decisions at the core of its peace impact**. Indeed, the type of investment the firm *decides* to make in a certain country is tightly linked with its impact on stability. In other words, the presence of companies in a certain area is not good, nor bad per se. It is the type of investment they make, and, in particular, its resource balance, that makes the difference. For this reason, **influencing firms' decisions may be a very important policy instrument**.

One last thing is worth mentioning. In this report we look at **simultaneous** effects of multinationals' presence on **local** peace and stability. The long-run aggregate effects can be very difficult to predict. It is indeed possible that sustained and diffused instability and riots may lead to political consequences at the national level. Rioters can, in theory, then organise politically, or led to a shift in the political framework. Nevertheless, this is unpredictable. Moreover, multinationals' presence may also influence indirectly other determinants of the political equilibrium. In other words, although the localized and simultaneous instability we look at in this report is an important determinant of the national conflict equilibrium, it is not a sufficient condition, and neither a necessary one, for a paradigm shift.

3.3 Causal Evidence

This sub-section builds upon Sonno, 2020, presenting the author's results about MNEs' impact on conflicts and peace in a more widely accessible and less technical way. Contrary to previous spurious analyses, this study uses a more robust method, allowing us to make a series of causal statements. The data used in this paper is the one presented in the previous section. However, the geographical unit of analysis is a more disaggregated square cell (0.5×0.5 degrees latitude and longitude), instead of regions. Using this data, the paper highlights a quantitatively substantial impact of multinationals' activity on conflict intensity. Further sensitivity tests confirm that the result is robust to a variety of alternative specifications and additional controls at the cell level (population, GDP, weather, etc.). This disaggregated study of the causal impact of multinational corporations' activities on conflict also sheds light on the mechanism through which these activities might lead to an escalation of violence, that is land expropriation. Particularly, it shows that the increase in conflict intensity due to multinationals' activity is magnified in areas targeted for large-scale land acquisitions. Furthermore, industries increasing conflict likelihood marginally more are, specifically, land-intensive ones. Putting the primary local sources of food and income at risk and increasing local grievances often leads to an escalation of localized violent events.

To begin with, the paper starts off by describing preliminary features. We see this in Table 4, which assesses more than 10 thousand cells. Here he identifies a few interesting features, albeit purely descriptive and preliminary to the actual analysis. First, the unconditional number of conflict events in a specific cell and specific year is low – around 0.46. The chance to observe there also one MNE affiliate is very low, 2 percent, and an average number of affiliates of 0.39 over the full sample. Second, he identifies spatial clusters for affiliates: when observing at least one affiliate in a cell, the average number of affiliates is 16.42. Lastly, the chance of conflict is substantially higher in cells with at least one MNE affiliate – we are talking around 49 percent, almost 5 times the average sample mean. Yet, it must be noted that these descriptive statistics do not consider key variables such as population at the cell-year level. This will nonetheless be done in the following empirical analysis.

Table 4: Descriptive statistics - cell data

		Obs	Mean	S.D.	Median
Conflict					
	# conflict, all cells	125,076	0.46	2.97	0
	# conflict, if affiliates = 0	122,114	0.37	2.52	0
	# conflict, if affiliates > 0	2,962	4.27	9.79	0
	Prob. conflict > 0, all cells	125,076	0.10	0.30	0
	Prob. conflict > 0, if affiliates = 0	122,114	0.09	0.29	0
	Prob. conflict > 0, if affiliates > 0	2,962	0.49	0.50	0
MNE					
	# affiliates, all cells	125,076	0.39	8.16	0
	# affiliates, if affiliate > 0	2,962	16.42	50.47	2
	Prob. affiliates>0, all cells	125,076	0.02	0.15	0

Source: Sonno, 2020.
Notes: Author's computation from ACLED and the multinational enterprises (MNE) dataset showing preliminary descriptive data regarding the number of conflict and MNE affiliates per identified cell. The final dataset is composed of a panel of 10,423 cells from 2007 to 2018. Interestingly, while the data shows that the unconditional number of conflict events in a specific cell and specific year is low, the chance of conflict becomes substantially higher in cells with at least one MNE affiliate (five time larger with respect to the overall sample mean).

Table 5 shows the first test the author takes to prove the causal validity of his novel econometric model and to causally assess the impact of MNEs on conflicts. Without delving into the explanation of the econometric model, it is worth mentioning and commenting on the results of such a test.[25] What is important to specify is that the dependent variable is the number of violent events at cell-year level, and the main explanatory variable is the number of MNE affiliates in the cell-year. Here great importance is given to the spatial correlation as both conflicts and affiliates are clustered in space. For this reason, the author applies Conley, 1999 estimator for the variance-covariance matrix of OLS and 2SLS (additional information can be found in the paper). Looking at the results in column 2, we see that one additional affiliate increases the number of conflicts by 34 percent of the sample mean and by 4 percent in cells with a few affiliates. At the bottom of the table, it can be seen how higher credit available to multinationals leads to the latter's increase in activity (the channel through which the author can infer an *exogenous* - therefore causal - link). Column 3 deals with the robustness of the model and proves the link between an increase in MNEs' activities and an increase in conflicts, taking into account potential local time-varying differential effects, substituting country $\times$ year fixed effects with region $\times$ year fixed effects. Here, the test also includes the lagged value of nightlights, climate and population conditions at the cell level. Results, nevertheless, show that the coefficient maintains its significance at the 1 percent level; hence making population and nightlights – albeit being substantial controls – not particularly relevant (and potentially endogenous, as far as nightlights and population are concerned). For this reason, the specification of column 2 is preferred.

The paper then specifically moves on the evaluation of the evidence in favour of the relation between

25. The results are based on an identification strategy which uses an instrumental variable approach. In a few words, considering the potential reverse causality issue that not only MNEs can have an impact on conflicts, but conflicts can also have an impact on the propensity of MNEs to operate in a specific area (a cell, in this case), the authors use a mix of (i) historical dependence on external credit of headquarters, together with (ii) worldwide credit availability to multinationals, and (iii) the initial distribution of affiliates in 2007 to obtain an *exogenous* measure of MNEs' activity (i.e. a proxy which "explains" the independent variable *Affiliates* but is completely uncorrelated with the dependent variable *Conflict*). For further details, please refer directly to the author's paper.

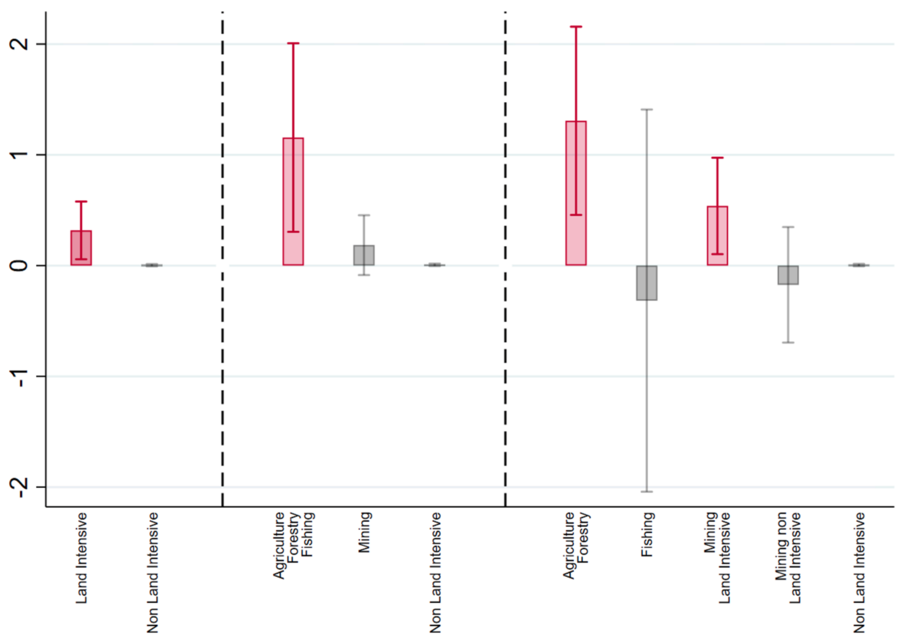
Table 5: Peace impact MNE - causal estimates

	(1)	(2)	(3)
Estimator	OLS	2SLS	
Dep. Var.	Conflict	Conflict	
Affiliates	0.0932***	0.161***	0.178***
	(0.0183)	(0.0375)	(0.0415)
Observations	125,076	125,076	125,076
Cell FE	Yes	Yes	Yes
Country × Year FE	Yes	Yes	No
Region × Year FE	No	No	Yes
Population, nightlights, weather, cell trends	No	No	Yes
KP F		30.09	17.59
Fist Stage		0.0730***	0.0567***
		(0.0132)	(0.0124)

Source: Sonno, 2020.
Notes:OLS estimation in column 1, 2SLS estimation in columns 2 and 3. Dependent variable: number of violent conflict (ACLED). ***,**,* = indicate significance at the 1, 5, and 10% level, respectively. Controlling for: cell FE in columns 1-3, country×year FE in columns 1 and 2, region×year FE together with (log of 1-period lag of) population, (log of 1-period lag of) nightlights, weather conditions (log of temperature, log of rainfall, and water balance, i.e. the difference between evapotranspiration and precipitation) and cell-specific trends in column 3. Conley, 1999 standard errors in parenthesis, allowing for spatial correlation within a 200km radius and for infinite serial correlation. *Affiliates* indicates the number of MNE affiliates in the cell. In columns 2 and 3 the latter variable is instrumented. The section *First stage* reports the coefficients of the first stage estimations. Kleibergen-Paap F-statistic is reported for columns 2 and 3. In particular, column 2 shows that the presence of one additional MNE affiliate increases the number of conflicts by 34% of the sample mean. This result is robust to the inclusion of different combinations of fixed effects (Cell and Country × Year in column 2, and Region × Year in column 3). Moreover, controlling for population, nightlights (as a proxy of wealth), weather, and cell trends does not change significantly the coefficient. It is important to mention that going from OLS (column 1) to 2SLS (columns 2,3), we have an increase in the magnitude of the coefficients, implying a down-ward bias of the estimate in the first method.

the land-intensive activities by MNEs and the increase in conflict, showing the overall heterogeneous effects of different MNEs industries. In order to do so, the aggregate variable of the number of affiliates is unpacked in a set of variables counting the number of affiliates in different industries. In the first specification, the study splits the variable affiliates into land intensive – including primary industries – and non-land-intensive affiliates – including secondary and tertiary industries. This allows dividing companies depending on their use of land. The author finds that only affiliates in the land-intensive industries have a positive and significant coefficient when regressed on the number of conflicts. However, to make the best of this mechanism and render it even more robust, the study unpacks the land-intensive and non-land-intensive groups even further, to show that, however, data is manipulated, the land-intensive group always drives the results and always presents a positive coefficient, Figure 13. We can even identify the sectors that most impact conflict scenarios: land-intensive affiliates (in particular, agriculture and forestry).

Figure 13: Peace impact MNE - heterogeneity sectors



Source: Sonno, 2020.
Notes: The figure reports the coefficients of three OLS estimations. The three different specifications are divided by vertical dashed lines. Dependent variable in all specifications: number of violent conflicts (ACLED). ***,**,* = indicate significance at the 1, 5, and 10% level, respectively. Controlling for: cell and country×year FE. Conley, 1999 standard errors in parenthesis, allowing for spatial correlation within a 200km radius and for infinite serial correlation. Each group of affiliates indicated below represents the number of affiliates belonging to that specific group in a cell-year (e.g. *Land intensive* represents the number of affiliates belonging to land-intensive industries). In each specification cell and country×year fixed effects are included. The data shows that land-intensive industries have a positive and significant coefficient with respect to the number of conflicts. This means that land-intensive affiliates activities are correlated with a higher number of conflicts.

To further corroborate the hypothesis that the negative peace outcome of MNEs' presence is due to land extraction, the author investigates whether this negative impact of affiliates is larger in areas characterized by large land deals (Table 6)[26]. Column 1 shows that this is the case. The coefficient of affiliates

26. Large land deals data come from *LandMatrix*. This provides information about large-scale land acquisitions. These deals have to satisfy several conditions: (i) cover a significant area of land (200 hectares or more), and (ii) imply the potential conversion of land from smallholder production, local community use, or important ecosystem service provision to commercial use. Information about these deals is collected through several methods. First, experts, NGOs, and coordinators

is still positive and statistically different from zero (still positive effect on conflict incidence), however, when affiliates are interacted with the presence of large land deals, this last one is positive, statistically different from zero, and larger in magnitude than the one before. To further explore the heterogeneity of this effect, the author replicates the same analysis on the four different types of conflict events seen above. Consistently with the preliminary evidence, he finds larger effects for riots.

Table 6: Peace impact MNE - land deals

	(1)	(2)	(3)	(4)	(5)
Estimator	2SLS		2SLS		
Dep. Var.	Conflict	Battles	Remote	Riots	Violence
Affiliates	0.160***	-0.00175	0.00816	0.143***	0.0152
	(0.0375)	(0.00841)	(0.00957)	(0.0246)	(0.00956)
Affiliates × Land Deals	0.352***	0.0894**	0.0315***	0.315***	0.0328
	(0.0573)	(0.0364)	(0.0120)	(0.0318)	(0.0352)
Land Deals	-0.601***	-0.258*	-0.150***	-0.116	-0.456***
	(0.188)	(0.140)	(0.0338)	(0.0826)	(0.130)
Observations	125,076	125,076	125,076	125,076	125,076
Cell FE	Yes	Yes	Yes	Yes	Yes
Country × Year FE	Yes	Yes	Yes	Yes	Yes
KP F	15.03	15.33	15.33	15.33	15.33

Source: Sonno, 2020.
Notes: 2SLS estimation. Dependent variables: number of violent conflict (column 1), number of battles (column 2), explosions and remote violence (column 3), riots (column 4), and violence against civilians (column 5). ***,**,* = indicate significance at the 1, 5, and 10% level, respectively. Controlling for: cell and country×year FE. Conley, 1999 standard errors in parenthesis, allowing for spatial correlation within a 200km radius and for infinite serial correlation. *Affiliates* indicates the number of MNE affiliates in the cell. The latter variable is instrumented. *Land Deals* indicates the percentage of the cell covered by large-scale land acquisition. Kleibergen-Paap F-statistic is reported for each specification. The data shows that larger land deals are correlated with a higher incidence of conflict, with this being driven mostly by the riot category.

Finally, the author turns to individual-level data (Afrobarometer survey) to further test the role of land extraction in driving these results (Table 7). In particular, he analyzes the perception of locals when Multinational Companies are active close to them. Consistently with the proposed mechanism, he finds that locals lament significantly more land management and farming and agriculture as key problems to be

are contacted to provide some information. Then, *LandMatrix* team turns to public, private, and civil society stakeholders. Finally, additional information is acquired from publicly available reports, research papers, official government records, company websites, and policy reports.

addressed by their political institutions when they live close to active MNEs. Moreover, these results are driven by the presence of land-intensive MNEs, in particular. While these results should be treated with caution due to the lack of the nonrandom deals allocation of coverage across areas, they are perfectly consistent with the others presented in this subsection. Hence, they provide additional supportive evidence in favour of land extraction as the mechanism through which the presence of Multinational Companies in Africa has a negative peace outcome.

Table 7: Peace impact MNE - individual level data

	(1)	(2)	(3)	(4)
Estimator	2SLS		OLS	
Dep. Var.	Issue: Land	Issue: Farm./Agric.	Issue: Land	Issue: Farm./Agric.
Affiliates	0.0398*	0.0703**		
	(0.0219)	(0.0334)		
Land intensive affiliates			0.123*	0.140*
			(0.0712)	(0.0804)
Non land intensive affiliates			-0.00599	-0.00606
			(0.00410)	(0.00441)
Cell FE	Yes	Yes	Yes	Yes
Country×year FE	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
FP F	23.52	23.52		
Obs	127,794	127,794	127,794	127,794

Source: Sonno, 2020.
Notes: 2SLS estimation in columns 1 and 2. OLS estimation in columns 3 and 4. Dependent variables: number of violent conflict. ***,**,* = indicate significance at the 1, 5, and 10% level, respectively. Controlling for: cell, country×year FE, and a set of individual-level variables (age, age squared, educational dummies, dummy for urban residence, dummies for religion, number of adults in the household). Conley, 1999 standard errors in parenthesis, allowing for spatial correlation within a 200km radius and for infinite serial correlation. *Affiliates* indicates the number of MNE affiliates in the cell. The latter variable is instrumented in columns 1 and 2. *Land intensive affiliates* and *Non-land intensive affiliates* indicates the number of MNE affiliates in land intensive (primarily industries) and non-land intensive industries (secondary and tertiary industries), respectively. Kleibergen-Paap F-statistic is reported for specifications 1 and 2. The data shows that the individual perceptions of local residents are also affected by the presence of MNE affiliates and, in particular, those conducting land-intensive activities. Indeed, Afrobarometer data indicates that residents living close to MNEs lament more land management, farming, and agriculture issues to their political institutions.

In this subsection, drawing from Sonno, 2020, we have presented causal evidence about the negative peace impact of MNEs' presence in Africa. The mechanism presented is consistent with the harmonized framework presented in this report: land extraction. Hence, this more robust evidence seems to support the idea that resource subtraction/addition is the fundamental dimension to look at when evaluating the peace impact of private investments in fragile countries.

3.4 Descriptive Examples

In the previous sections, we explored the heterogeneity of peace impact on the basis of the sector of activity of the different firms. However, as we mentioned, this is clearly a second best. Particularly, when we divided multinational firms into resource subtractive and resource additive (in section 3.2), we based our analysis on an approximation due to data limitations. We were not implying that all firms from a specific industry are resource subtractive or not. A firm is part of a certain category if, **on average**, the sector adds or subtracts more resources from the local capital stock. For this reason, in this subsection, we present two examples of firms – one resource additive and one resource subtractive – from the exact same industry, that is the food industry. Our goal is to demonstrate that very similar firms, with similar products and industry, can have very different peace impacts, depending on their specific behaviour.

Resource subtractive

The first example comes from the production of a very popular food ingredient in Liberia.[27] The activity of this firm required land acquisitions. Due to bureaucratic procedures determined at the national level, after a negotiation with the central government (and the allocation of a large piece of land), the company should have signed specific agreements with locals to enter the land and start production. From their side, locals should have received, in exchange for their land, stable jobs, infrastructure, and investments in local human capital. Promises were not kept but, due to low state capacity, both the central and the local governments were unable to force the company to honour the promises made. In this context, NGOs became involved in this process, limiting the company's signing activity. However, their efforts were distorted by the Ebola outbreak which has helped spur land grabbing by the company, and, ultimately, its production. This example contains everything that can go wrong when we consider private investments in developing countries. The firm activity was highly resource subtractive (land grabbing), and all the potential benefits from investments were muted. In turn, this was allowed by a classic case of a weak state.

27. We will not mention the specific product, nor the name of the company involved, for privacy and legal reasons. For more information about this case, see Sonno & Zufacchi, 2022.

This is completely consistent with our reasoning above about the interaction between resource subtraction and state capacity. Although the regulation preventing extraction existed, the Liberian government was unable to enforce it.

Resource additive

The complementary example comes from a food company in Kenya.[28] This company, in order to sell its products in the country, developed a route-to-market distribution program using self-employed micro-distributors. The latter buy products from the company through small warehouses distributed around the country. Then, they sell them directly to customers – often on foot. Like many "gig-workers", these were not directly employed by the firm, and hence they enjoyed a considerable amount of flexibility. Given the importance of this program to distribute its products, the company wanted to improve the situation of these street-level vendors. So, it teamed up with a research team and a microfinance institute. Together, they provided vendors with microfinance contracts to buy bicycles for their activity. This is a very important asset in Africa, and they are often prohibitively expensive, costing approximately $100 for a mid-market model. The consequence of this choice was, first and foremost, an increase in profits. Distributors were faster on bicycles, and they were able to reach new markets. This resulted in an increase in revenues for them and, in turn, for the company. This example shows us that resource-additive activities are not necessarily made for charity. It is possible, and likely, that endowing locals with more resources leads, ultimately, to higher profits for the private investment. In particular, this very program led to an increase in the food monthly expenditure, household clothing, and to a big improvement in distributors' health. The result was a very positive peace outcome, with an increase in the cost opportunity of conflict and a general improvement of locals' condition, while boosting profits for the private company.

28. For more information about this company and its activities, please refer to Cordaro et al., 2021.

4 Future Applied Research Agenda and Policy Agenda

The aim of this section will be to identify a future applied research agenda, while proposing a set of policy recommendations to mitigate the potentially destabilizing effects of private sector activity in developing countries. The idea is to identify effective tools to be used as a springboard for developing long-lasting peace.

The section will be structured along the following lines. First, a summary of the insights collected along the course of this report will be presented, drawing a distinction among the key limitations found in the review of the existing literature, established findings outlined in the qualitative literature, and finally, conclusions drawn after our causal analysis was performed. Secondly, this section will present several proposals concerning the development of a future agenda of research. In particular, we will outline the possibility of expanding current analyses of business and peace dynamics along the lines of: state capacity, innovative finance, general equilibrium, background research to increase data availability, and the definition of peace. Finally, we will provide some recommendations on the direction the future policy agenda should take. Here we will call policy-makers to move away from standardized and universal policy approaches, and instead analyse specific local contingencies before thinking and implementing policy instruments and regulations. Hence, we will call for an ad-hoc approach, rethinking international standards. We will also propose to structure a two-fold approach based on incentives and normative compliance.

4.1 Insights on the Impact of Private Activity on Conflict

In the previous sections, we first presented the different theories and empirical tests presented by both the qualitative and quantitative literature on the link between private investments and peace. Subsequently, we presented qualitative analyses to shed light on this complex link. Here we summarize the main points of these two core parts of the report, trying to draw some broad conclusions.

The careful analysis of the existing literature led us to highlight some key limitations which characterize the research published to this point. Below, we present a summary of the main areas to be improved on:

- There is very limited analysis of the standards and frameworks applicable in post-conflict environments. In particular, we find that there are sporadic studies focusing on innovative and multifaceted instances of cooperation between the private and the public sector.
- Reliable datasets are scarce. This is particularly true for micro-level datasets, in particular, it is rare to find regional and local data on conflict and business. This represents a grave limitation, as conflicts are becoming increasingly localised and often low-intensity, whereas the past decades were characterised by a higher number of country-wide conflicts.
- There is a predominance of qualitative studies, often analysing a particular case study. This is likely to be a result of the scarcity of reliable micro-level geolocalized data. Nevertheless, such a hindrance severely limits the possibility of both performing granular studies, and analyses concerning the heterogeneity of private investments' effects on conflict from a time-horizon point of view (e.g. studying the short/medium/long-term effects of these phenomena).
- The efficacy of CSR and ESG guidelines for conflict and post-conflict environments is still quite limited, due to scarce and under-defined broad frameworks lacking sufficient elements to guide decision-making in these fragile areas. Moreover, the requirements which private companies have to follow in FCS are still excessively permissive, when present, leaving crucial implementation decisions to the management.
- The quantitative literature focuses almost entirely on peace negative effects, mainly due to the lack of standardised definitions of peace. This dimension is of key importance for this field of research,

as a common understanding of peace (and credible parameters for its operationalisation) are crucial when evaluating how to promote peace positive in private and public initiatives in post-conflict settings.

As far as the qualitative analysis, also thanks to more than a decade of careful studies of African countries, we can outline a series of established findings:

- On average, the effect of private investments in fragile contexts is peace negative (i.e., they increase the number of violent conflicts).
- The most common instances of violence are riots.
- Among the various industries, activities in the primary sector are the ones driving the increase in the number of conflicts.
- The correlation between business and conflict is heterogeneous; that is, it depends on whether the activity subtracts or increases the local capital stock. In the first case, private activity increases conflict, whereas in the second case private investments are negatively correlated with conflict intensity.
- The impact of private investments is also correlated with the state capacity of the countries where they operate. In particular, we observe a positive correlation between the rule of law and the peace impact of private investments.

From the preliminary quantitative analysis, we conclude that:

- Private investments have, on average, a negative peace impact; in particular, they seem to increase the likelihood of riot events.
- However, this impact depends on whether the investment subtracts resources or, instead, adds resources to the region.

- In addition, the ability of international firms to add/subtract resources depends on the state capacity of the country.
- The interplay of these two dimensions gives us a harmonized framework to evaluate the potential peace impact of private investments, summarized in Figure 12.

Finally, in the causal analysis presented in this report, we have results consistent with this framework:

- The general effect of private investments in developing countries is peace negative, and its magnitude is significant.
- Among private activities, sectors which increase conflict the most are the land-intensive ones.
- The peace negative effects of private investments are amplified in areas targeted for large-scale land acquisitions, which are characterised by the onset of local riots.
- People living close to private investments lament higher problems with land management. This latter result is completely driven by the activity of land-intensive investments.

It could be argued that the present analysis paints a very bleak picture regarding the effects of private investment in fragile countries, especially those characterised by a lowly institutionalised regulatory environment. However, this data also highlights that it is a specific sector, that of land-intensive large-scale operations which drags the overall impact towards negative effects on peace. To sum up, heterogeneous effects of private activity on conflict are driven, on the one hand, by the approach the company adopts towards resource management, which can be subtractive or additive; on the other hand, by the extent of rule of law's sophistication and implementation in the country of operations. Finally, due to a lack of independent data and the limitations of the current CSR and ESG frameworks for conflict environments, the operating country's regulatory framework seems to have a higher influence on conflict than the voluntary adoption of such guidelines.

4.2 Future Research Agenda

This section outlines potential areas of improvement in peace-relevant research and policy debates. These proposals could allow a significant enrichment of the analyses, on top of unlocking specific exercises still unfeasible due to several limitations that we list below.

State Capacity. The government's ability to accomplish its intended policy goals has been found to be a key determinant of peace; however, there is still weak granular and policy-oriented evidence on how to capitalize on past experiences. In particular, analyses which focus on the interaction between a private actor and its surroundings highlight the inherent risk of an unbalanced partnership, especially one in which a weak state interacts with a powerful foreign firm. More specifically, during interactions between MNEs and weak public actors, there is a high risk of corruption and law-bending, due to the higher organisational capacity and human capital of the former, and due to the fact that private investors come to exercise certain regulatory functions in the local sphere. Nevertheless, research on this topic is often anecdotal. Having regional and sub-regional data on rule of law systems and their implementation dynamics instead would allow punctual analyses which could better capture the behaviour of private and public actors. Those data would also allow evaluating of the elements which ensure a constructive partnership for sustainable peace. Not to leave out, another strand of research could be to study which particular public functions MNEs tend to appropriate, which would represent a more solid ground on which to dispense policy recommendations. For instance: what type of independent bodies should a state focus on in order to curb undesirable side-effects of foreign investment? Is an antitrust law system sufficient? How to ensure the proper implementation of laws? Which domain is the most vulnerable to private extractive action: labour rights, environmental protection, or socio-economic rights of minorities?

Innovative Finance for Peace: Blended Finance and Public-Private Partnerships (PPPs). This research has cast its focus on bankable finance, evaluating the effectiveness and implications of private sector activities; however, in the field of peacebuilding and post-conflict reconstruction, we have seen a flourishing of innovative instruments in the last decade. In particular, peace and social-impact bonds, PPPs, blended finance, and peace-oriented investment funds represent novel approaches which often strive to conjugate the private and public sphere of action, in order to better coordinate their action and exploit their relative advantage. In line with our overarching approach, we argue that future research needs to better understand blended finance instruments' contextual impact on development, as well as its costs. Whilst it is argued that these can be useful tools for (re)building state capacity and infrastructures, blended finance has to avoid fallacious misallocation of aids. In order to do so, development finance institutions are required to adopt a more distinct and tailored approach, also instructed by reports such as this one: understanding what contexts and sectors, and when it is possible to apply blended finance. Unfortunately, we have found an almost complete lack of credible research concerning these instruments. This issue stems in part from the novelty of such approaches (especially in their application towards promoting peace positive outcomes), and in part from the difficulties in accessing reliable data. This lack of data is particularly acute when dealing with public aid finance disbursed to third countries: there are considerable differences in the level of transparency and the accuracy of reporting among donors, with emerging donors, not part of the OECD Development Assistance Committee (DAC) being the hardest to collect data on. As such, evaluating the impact on peace in a rigorous and scientific manner remains arduous for the time being without the necessary data. Thus, we can only suggest that future research advocates for having access to reliable data, and developing consistent datasets and reports in order to analyse the short and long-term impact on peace of initiatives such as the first humanitarian peace bond launched by the International Committee of the Red Cross, the Cadmos Peace Investment Fund, as well as emerging country-wide insurance approaches, such as the African Risk Capacity.

General equilibrium. Moving from a partial equilibrium to a general equilibrium analysis would be key to understanding the macro-implications that bankable, blended, and not bankable activities might have on developing countries and, even more importantly, the impact that peace-positive policy recommendations would have on the target countries. Nevertheless, most economic models relating to conflict are of partial equilibrium; that is, they study a particular relation at a particular point in time (e.g., the impact of primary sector MNEs on conflict). Developing a general equilibrium analysis would allow, instead, to capture the aggregate effects on the whole economy of a particular phenomenon. Such analysis would require a more comprehensive theoretical framework, as well as localised and reliable data, which would allow for precise recalibration and careful statistical analysis. In this regard, an interesting approach is the one adopted by Couttenier, Monnet, & Piemontese, 2022, "The economic costs of conflict: A production network approach". In their paper, they quantify the “input-output network” of the Indian economy by relying on data capturing firms’ output and input bundle, in order to estimate the effect that the Maoist insurgency of 2000-2009, a localised conflict, had on the Indian production network. Apart from computing the overall aggregate loss, the model allows the authors to simulate certain policy interventions. In particular, they find that while distortions produced by conflict spread throughout the economy (affecting firms which operate in peaceful areas), would be sufficient to protect the 4% of most central firms in order to halve the output loss. Thus, approaches based on a computation of the general equilibrium allow for insightful theoretical analysis, and have important impacts on future policy choices as well.

Data. As mentioned already throughout this report, we find a problematic lack of micro level, firm level and geolocalised data with high levels of precision, such as complete balance sheet information would be needed for further research (e.g. to study the differential costs of investing in different regions, for which an enriching approach would be to use security expenses as a proxy for risk). We also noticed a lack of geolocalised data on not bankable investments and blended investments, which again represents an obstacle for future research, and especially for the usage of quantitative approaches, in answering important questions of impact on peace and related indicators.

Peace. As the concept of peace remains under-defined, it becomes extremely difficult to compile a list of indicators, proxies, or instrumental variables in order to credibly measure this concept at a local level. In particular, the only reliable existing measures are those regarding levels of conflict (most notably the ACLED database). As such, while quantitative research can focus on conflict origination, the type of conflicts, and their intensity, we still lack instruments to measure the positive aspect of peace and, in particular, how to measure sustainable peace. This issue is particularly acute at the local level, as most studies tend to analyse the country-system, also due to the lack of geolocalised data. Consequently, the understanding of peace positive mechanisms generated by private action remains sketched and anecdotal at best. Thus, we encourage future research to conduct a rigorous study of the matter, by developing a theoretical and academic discussion on the definition of peace, later complemented by an attempt to operationalise certain features of it, in order to allow for the precise measurement of this complex notion.

4.3 Future Policy Agenda

When moving to the future policy agenda that policy-makers should structure, in lieu of our previous analyses, we stress the importance of focusing on resource balancing mechanisms and State capacity building, while also suggesting other actions public and private actors should undertake to foster peace. Here we provide a set of recommendations that follow these directions.

Resource Balance. Previous analyses have shown a direct link between MNEs' resource subtraction and the increase in conflictual phenomena. In light of this, we suggest an overarching policy approach that allows forms of compensation mechanisms and avoids deregulated resource exploitation. This means that new *ad-hoc* regulations should be thought and implemented to ensure that companies subtracting resources in post-conflict countries are required to give back to those countries other resources – be it a growth in the jobs supply, developing infrastructures, helping urban development, increasing the level of social capital – so to re-pay the resources they have been extracting. The approach is based on 4 steps. First, with this being particularly true for countries in the early transitioning stage from conflict to post-conflict scenarios, we urge peacekeeping actors to curtail access to resource revenues monitoring. By this, we mean that such actors should make sure that transitional authorities or fragile political-institutional contexts do not allow for long-term contracts in subtractive sectors. Second, penalties should be considered for companies that knowingly traded resources in a conflict situation. To ensure this, donors – both State and non-State actors – should provide technical assistance in training public officials in the implementation, on the one hand, and in the monitoring, on the other hand – while obviously offering financial support for this. Third, we call for policies directed at the balancing of resources. For balancing of resources we mean "benefit sharing" rather than "revenues sharing". This difference is crucial. Indeed, the other compensation mechanism, composed of direct transfers to the locals, may stimulate grievances, especially if directed to a specific ethnic group, thus having unexpected consequences of the likelihood of conflict. On the other hand, "benefit sharing" embeds the intention to reach a balance in the type of investments done by the firm. If some resource-subtractive investment is made, then a proportional resource-additive one should be done by the same firm. By doing so, a resource balance is achieved without direct transfers to a portion of the population. To implement this effectively, one can match subtractive MNE investments with resource-additive (even better if they expand resources linked to state capacity) co-financed by donors and the firm itself. Of course, this cannot happen without active external monitoring of donors, international organizations, and third countries. Indeed, for this to happen, they should ensure effective implementation of laws establishing allocation mechanisms, such as annual fund withdrawal thresholds and/or prescribed ratios of resource allocation across sectors that should be reconstructed (institutional capacity and infrastructures inter alia). NGOs, in particular, can play a big role in this process. Given their knowledge, experience, and capillarity, they are the perfect candidate to monitor the resource balance of private investments (please refer to Sonno & Zufacchi, 2022 for a practical example), on the one hand, and influence/redirect firm decisions towards more resource additive investments. As a result, even though NGOs are not formally part of the framework depicted in this report, they still remain a fundamental peace actor. Fourth, and lastly, we call for the creation of intra-sectoral and legally binding public-private sectors agreements to reduce the economic and political risks that such fragile regions face. Such agreements should be ad-hoc and not standardized, and should be based on the specific contingencies characterizing the region. They should set clear norms and reporting procedures regarding revenues created in post-conflict countries, identifying both punitive measures – to avoid unregulated resource subtraction – and incentives – to incentivize sustainable practices – for companies willing to operate in these scenarios. Agreements should also identify contractual benchmarks and make access to instruments to reduce revenue volatility in order to create a risk-sharing mechanism between the public and private sectors.

State Capacity and Rule of Law. As it has been made clear throughout our analysis, effective state institutions are necessary to enable an atmosphere that is conducive to civil society activities, hence to peace. The government's ability to accomplish its intended policy goals, indeed, has been found to be a key determinant of peace. In this sense, the overarching policy recommendation is to revise peace-building practices through the inclusion of policies directed at State capacity building. We recognise the potential role that private investment which follows ESG and CSR guidelines can play in fostering development, especially when delivered through public-private partnerships. However, the research carried out so far also underlines several limitations which emerge when fostering local regulatory capacity is overlooked as a long-term goal. As such, we call for projects and investment programs to take into consideration this long-term goal, while working for delivering their necessary intermediate, or short-term endeavours. Peace agreements and post-conflict reconstruction policies, while they should continue to structure their approach on the conventional "rights-based" agenda, should also take into account specific methods to ensure a transparent and accountable functioning of political institutions – fundamental to implement ad-hoc regulations – and infrastructural reconstruction. This is the basis and should be followed by a provision of basic services such as education, health and collective security. This process, as we have seen in the previous set of proposals, can be supported by resource-balancing mechanisms.

We identify different ways to make sure this happens. One is to create formal fora for public officials' training, as well as best-practices sharing between developed countries and post-conflict ones. This issue, however, should be monitored through multilateral engagement, to avoid "colonial"-like behaviours by specific states. We have already seen attempts going in this direction when we think of initiatives and bodies such as TAIEX, SIGMA and the Twinning Projects the EU has with neighbourhood countries. In this vein, we argue for the creation of new – or the reinforcement of existing – bodies operating in this context in post-conflict regions.

Once "practical" support is provided, efforts should be addressed towards working on a constitutional moment, whereby post-conflict states identify clear governing principles, institutional forms and rules wherein laws and regulations can be implemented. This is core to a functioning State based on the rule of law. For a transparent process, peace-building actors should ensure no interference from external private actors, or any other form of potentially disruptive interference. Donors should support such processes and make sure local political and civil society actors are involved in them. Financial support in the form of peace bonds could be an instrument to support the ex-post reconstruction of the institutional capacity. These should be seen as a form of incentive for structuring functioning political apparatus; they should also require specific public and private sectors reforms – in lieu of the previous proposals – and the reconstruction of basic services to enhance social capital and collective security. With specific regard to the latter, one way that is worth stressing is the necessity to invest in educational programs with the long-term goal to have a local community of professionals able to effectively operate in the economy and in the political affairs of their states. Moreover, policies addressed at the inclusion of local economic actors should also be considered. Building this capacity, whilst not strictly related to the conventional definition of State capacity, is essential to ensure an effective (informal) monitoring of foreign actors and a proficuous engagement between the latter and local private actors.

Other recommendations. Here we delineate a set of suggestions that could support the previous proposals. Specifically, we delineate ways through which normative appeals and cooperation on peace could be fostered, and through which normative compliance by companies could be ensured.

Normative Appeals and Cooperation. Another suggestion is to formulate a template clause, delineating firm responsibilities in conflict countries, to be included in international contracts, with both local governments and other private sector actors. The precise scope of these obligations could be developed on a sector-by-sector or firm-by-firm basis – hence moving from a standardised approach to a tailored one. To begin with, these might include: fiscal transparency, injunctions against using prison labour and other forms of labour exploitation, or explicit guidelines on private firms' use of security services. These undertakings would be legally binding. We suggest that integrating these sorts of obligations into standard contracting practices would not necessitate the creation of whole new mechanisms. That is because existing institutions could be easily adapted. The International Chamber of Commerce (ICC) can be a potential mechanism, as it already makes standard contract models available to its many members, which then can use and tailor them to the region in which they are operating. The gradual adoption of such a practice by an increasing number of corporations might eventually make it possible to transform voluntary undertakings into a universal legal obligation. This, crucially, should be supervised by neutral and external actors. The structuring of intra-sectoral consortia of private and public actors may help facilitate this process.

Incentives. Securing the commitment of private sector actors to ensure that their activities resonate with sustainable peace is an important objective. In many cases, nonetheless, normative appeals may not be enough to ensure sustained improvement; measures intended to shift corporate behaviour towards peace positive practices will also need to engage corporate self-interest. Incentives and normative pressure must go together. Getting the right incentives and the right balance is crucial. One starting point is to decrease the economic and political cost of engaging in socially responsible behaviour. This requires developing solutions for legitimate private sector concerns about security and competition. One way to do so, as we have briefly mentioned in our previous proposals, is to use instruments of blended finance and peace bonds as a form of financial incentives. These should be strictly joined to the compliance of the regulations tailored for the specific region, particularly those addressing resource subtraction issues and labour exploitation. Given the variety of actors and contexts involved, no one model of instruments is likely to work. In this case, too, such financial instruments should be *ad-hoc* and possess a strong degree of differentiation to allow the donors to construct the best tool possible depending on the case.

Public Narratives and Support of NGOs. Another way to ensure compliance with peace-focused regulations, apart from linking it to incentives, is through the support – economically and through media – of NGOs, with their very efficient "naming and shaming" campaigns. These seek to expose corporate behaviour deemed contrary to accepted international norms. Notable examples include Global Witness's exposure of "conflict diamonds" in Africa and the extensive corruption and environmental destructive practices of logging companies in Cambodia. This strategy can be extremely effective. In many cases, advocacy campaigns have provided the crucial impetus for private sector reform. As such, NGOs should be supported by both international organizations and developed countries. However, the success of advocacy campaigns greatly depends upon the extent to which targeted actors are susceptible to external pressure. Nevertheless, as effective as naming and shaming campaigns may be in getting corporations to acknowledge problem areas, their ability to ensure that corporations actually take steps to rectify their conduct is considerably more limited. This is where States and international organizations should come in, and make sure ad-hoc regulations are implemented and companies comply with them.

High-level Takeaways. Peace Impact is the key analytical category for a foreign policy aimed at fostering sustainable peace or, at least, at avoiding an increase in violence and tensions. Even though there has been some re-conceptualisation of Foreign Policy, which tends to enlarge this concept, it fundamentally remains focused on peace security, especially given the renewed attention to geopolitics of the last decade.

However, the analysis carried out in this report further highlights the need for a rethink across foreign policy instruments. In particular, given that private investment does not automatically guarantee peace, the manner in which states act in third countries should be more carefully planned. Firms can be seen as peace agents since their presence may influence stability in a certain country. However, this impact may vary according to the type of investments they do (resource additive vs resource subtractive). For this reason, influencing firms to increase resource additive investments may be an extraordinary cost-effective strategy to improve stability, and, ultimately, peace. This insight complement and expand a series of similar findings, which critical literature has been recently shedding a light on. For instance, development aid, humanitarian aid, military aid and sanctions do not lead to univocal outcomes regarding peace. As such, we call for the need to assess the peace impact systematically before signing off international aid or investments. Furthermore, we should also conceive of other impact categories such as development impact, human rights impact, humanitarian impact, and security impact, which are linked with peace and conflict dynamics.

Overall, we urge policy-makers to focus on influencing firms to perform resource-additive investments, and, when not possible, to call for the necessity of resource-balancing mechanisms and State capacity-building when addressing post-conflict reconstructions. The proposals we have made in this subsection offer a springboard onto which building specific and tailored policies for the regions within which policy-makers intend to operate.

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Appendix

Protests

At the beginning of section 3.1.2 we excluded protests from the analysis for two main reasons. First, they are not violent, and in the paper, we would like to focus on violent events. Second, because of their relationship with strikes, they could endogenously create a correlation between the presence of affiliates and violent outcomes. However, looking at protests is interesting too. For this reason, in this section of the appendix, we replicate the analysis done in section 3.2 for this alternative event type.

Results are summarized in table A1. In column 1 we replicate Table 2; in column 2 Table A2, and in column 3 Table 3. As one can see, results are in line with those presented above for riots. In particular, there is a positive correlation between the presence of multinationals' affiliates and protests (column 1). This comes with no surprise given, on the one hand, the relationship between protests and strikes, and, on the other, the reasoning presented in section 3.2. This correlation is entirely driven by affiliates in the primary sector. Again, this comes with no surprise given results summarized in Table A2. Finally, column 3 shows that there is a positive correlation between affiliates in resource subtractive sectors and protests, but this becomes negative when we turn to resource additive ones.

To conclude, we do not find different results when turning from riot events to protest ones. The framework provided in section 3.2 is valid also for these non-violent events.

Table A1: Peace impact MNE - Protests

Dep. Variable	(1) Protests	(2) Protests	(3) Protests
Affiliates	0.0289***		
	(0.00226)		
Affiliates - Primary sector		0.658***	
		(0.136)	
Affiliates - Secondary sector		0.062	
		(0.0441)	
Affiliates - Tertiary sector		-0.0122	
		(0.0108)	
Affiliates - Resource subtractive			0.205***
			(0.0263)
Affiliates - Resource additive			-0.308***
			(0.0591)
Observations	4,292	4,292	4,292
Region FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Controls	Yes	Yes	Yes

Notes: OLS estimation with high dimensional fixed effects. Standard error in parenthesis. ***,**,* = indicate significance at the 1, 5, and 10% level, respectively. Affiliates indicates the number of MNE affiliates in the region. In model 2, 3 different versions of Affiliates are used: (1) Affiliates in the primary sector, (2) Affiliates in the secondary sector, (3) Affiliates in the tertiary sector. In model 3, 2 different versions of Affiliates are used: (1) Affiliates in subtractive sectors, (2) Affiliates in additive sectors. Dependent variable is the number of protest events in the region. Controls are GDP, Rule of Law, rent extracted from natural resources, unemployment, the corruption perception index, and population density. Region and Year Fixed effects are included in all models. The table replicates the analysis exposed in section 3.2 for a different type of event: protests. Results are similar to the ones for riots. In particular, there is a positive correlation between the presence of multinationals and protests overall (column 1). In column 2, one can see that this is entirely driven by affiliates in the primary sector. Finally, column 3 shows that, on the one hand, there is a positive correlation between affiliates in resource subtractive sectors and protests, but this becomes negative when we turn to resource additive ones. These results are in line with the framework provided in section 3.2 for violent events.

Additional graphs and tables

Figure A1: Trend MNEs

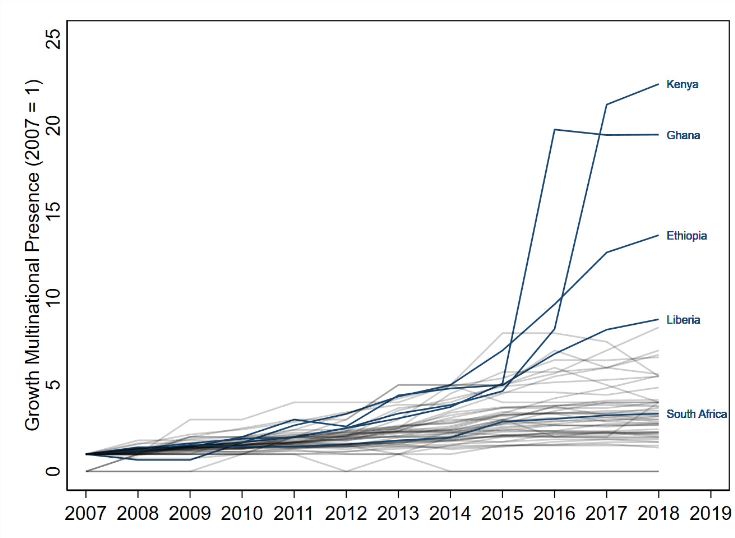

Figure A2: MNEs presence and Unemployment

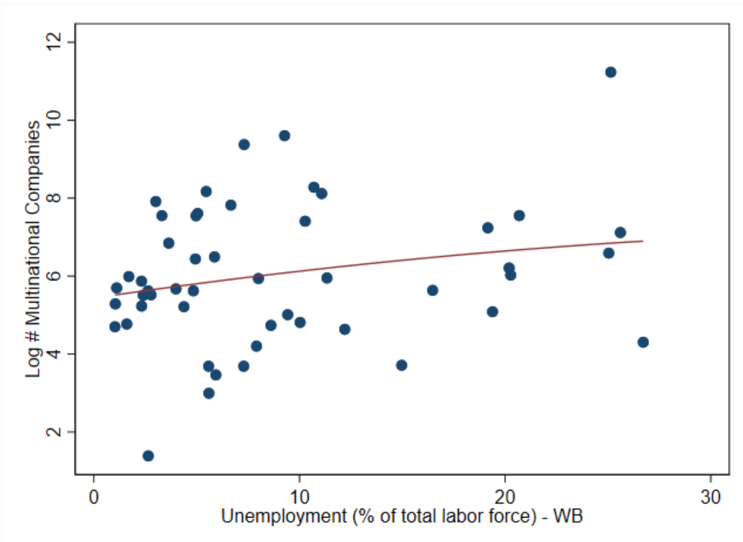

Figure A3: HQs countries - change over period

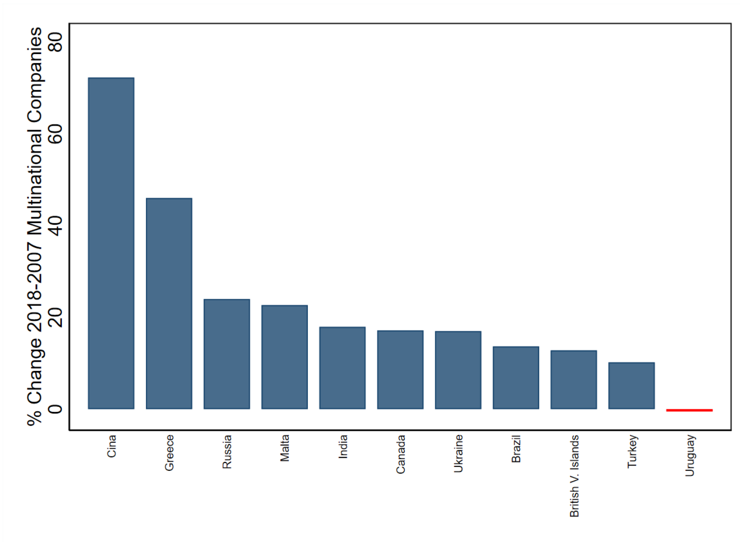

Figure A4: Trends ACLED

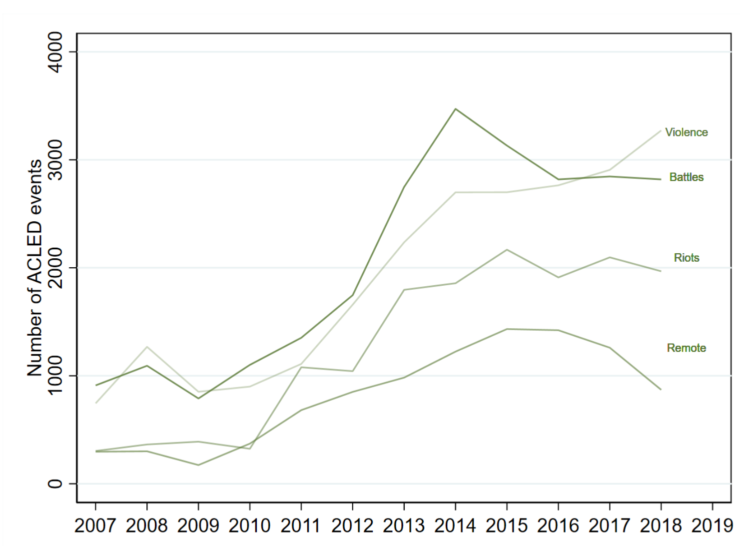

Figure A5: ACLED events and GDP

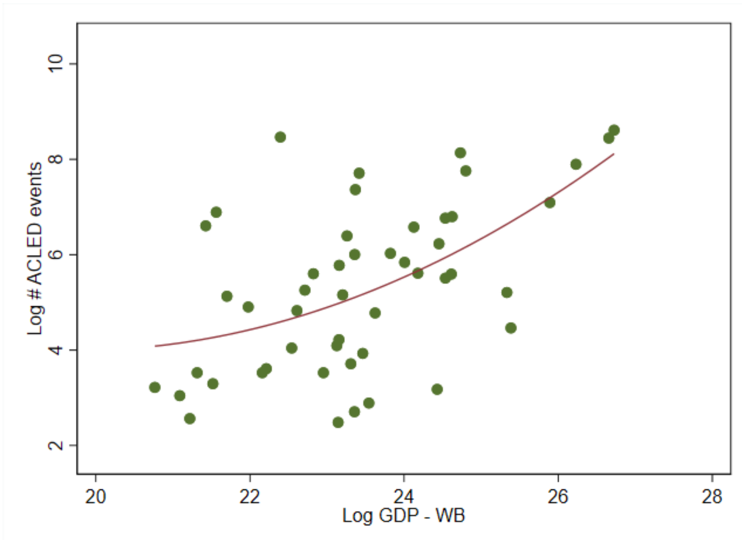

Figure A6: ACLED events and Unemployment

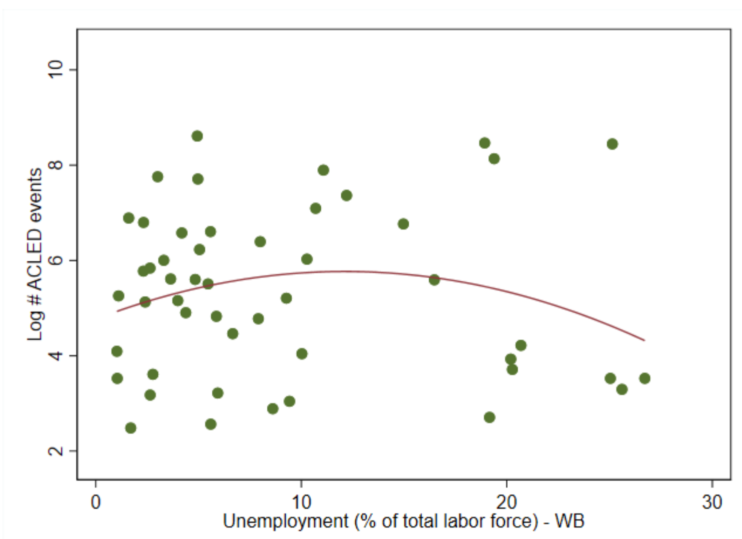

Table A2: Peace impact MNE - Type of violent event and sector

Dep. Variable	(1) Battle	(2) Remote	(3) Riot	(4) Violence
Affiliates - Primary sector	0.0331	0.0189	0.562***	0.0534
	(0.0617)	(0.0420)	(0.0636)	(0.0639)
Affiliates - Secondary sector	-0.00303	0.00254	-0.0376*	0.00760
	(0.0200)	(0.0136)	(0.0206)	(0.0208)
Affiliates - Tertiary sector	-0.00240	-0.00209	0.00524	-0.00446
	(0.00491)	(0.00335)	(0.00506)	(0.00509)
Observations	4,376	4,376	4,376	4,376
Region FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes

Notes: MWFE estimator. HDFE local linear regression. Standard error in parenthesis. ***,**,* = indicate significance at the 1, 5, and 10% level, respectively. Affiliates indicates the number of MNE affiliates in the region. In all models, 3 different versions of Affiliates are used: (1) Affiliates in the primary sector, (2) Affiliates in the secondary sector, (3) Affiliates in the tertiary sector. Dependent variable is the number of conflict events for different types in the region. Model (1) of battle events, (2) of remote violent events, (3) of riot events, (4) of violence against civilians events. Controls are GDP, Rule of Law, rent extracted from natural resources, and unemployment. Region and Year Fixed effects included in all models.