Mediation, Military and Money: The Promises and Pitfalls of Outside Interventions to End Armed Conflicts

Dominic Rohner[1]

Department of Economics, University of Lausanne, E4S and CEPR

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Abstract: Wars impose tremendous costs on societies and the question of how to end them is of foremost importance. Several hundred books and scientific articles have been written on peace agreements and third-party interventions. In this review article I provide a critical literature survey on what battery of policies foreign countries have at their disposal if they wish to foster peace abroad. Ranging from pure (non-militarized) mediation, over a range of military options to economic policies, the promises and pitfalls of these types of interventions are critically assessed in the light of the cutting-edge theoretical and empirical literature. A series of take-home messages emerge: i) establishing a causal effect of *mediation* has proven difficult, ii) *military* peace keeping operations can play a key role, to the extent that security guarantees, the sharing of political and military power and trust-building measures are well coordinated, iii) *money* matters – fostering human capital and economic opportunities contributes to fertile ground for lasting peace.

Keywords: Conflict, civil war, mediation, peace agreement, negotiation, peace treaty, third party intervention.

JEL Classification: D74, H56, N40.

1. Introduction: Overview and Motivation

Wars are costly, both in terms of human fatalities, in terms of economic costs of destruction, as well as in terms of damage to the social structures of society. In terms of human lives lost, narrowly defined battle-related deaths from 1946 to 2019 amount to about 11 million fatalities (Lacina and Gleditsch, 2005; updated with current numbers from the UCDP, 2021). Applying broader definitions, much larger casualty numbers are found.[2] In the current survey we shall to a large extent focus on civil conflicts in the post-World War II period, but will also touch upon other forms of violence.

While wars may be a lucrative business for some companies,[3] overall fighting leads to large economic costs for the countries affected. According to recent estimates by Mueller and Tobias (2016), there is an average drop in GDP of 18 percent after a civil war, and only a very slow economic recovery.[4] Importantly, in addition to costs in terms of human lives and economic performance, wars also entail psychological damage and costs in terms of social and human capital. In particular, conflict hurts physical and mental health (see e.g. Edwards, 2015) and harms schooling attendance and long-run educational outcomes (Chamarbagwala and Moran, 2011). Wars have also been found to drive down inter-ethnic trust (see e.g. Rohner et al., 2013b)[5], and lead to more hawkish political attitudes (Grossman et al., 2015) and a higher propensity for future domestic violence and other crimes (Cesur and Sabia, 2016; Couttenier et al., 2019).

Last but not least, it is important to keep in mind that conflicts also have an impact on an international scale, with war having in particular been found to disrupt trade (see Glick and Taylor, 2010). Further, as shown by Murdoch and Sandler (2002), economic slowdown caused by conflict tends to spillover to neighboring countries, hence harming economic growth also outside the conflict country.

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[2] According to the broader definitions of Fearon and Laitin (2003), between 1945 and 1999 an estimated 3.3 million fatalities occurred in 25 interstate wars, and 16.2 million people got killed in 127 civil wars (where of course some civil wars were also fueled by cold war politics). Worse still, this death toll is more than doubled when taking into account indirect effects of wars such as on the spread of diseases (Ghobarah et al., 2003). While the aforementioned casualty counts refer to two-sided conflict, one may want to add to these numbers the human lives lost in one-sided conflict, where armed troops turn their weapons against defenseless civilians. Anderton and Brauer (2021) estimate 100 million mass atrocity-related deaths since 1900.

[3] One way of estimating how particular firms can benefit (or are expected to benefit) from conflict is to focus on abnormal stock market returns (see Guidolin and La Ferrara, 2007, 2010).

[4] Cost estimates of particular episodes of political violence include Abadie and Gardeazabal (2003) and Stiglitz and Bilmes (2008).

[5] There are also papers finding that conflict stimulates local collective action (see e.g. the survey article of Bauer et al., 2016).

As becomes clear from this evidence, war is a global problem, and as such it may require global solutions and pacification efforts. Overall, the worldwide human, economic and social costs of conflict tend to heavily outweigh the private benefits to a subgroup of specific actors. Hence, unsurprisingly, ending current conflicts and achieving lasting peace has become a major priority for the international community.

Unfortunately, it is not easy to get external interventions right, and wanting to induce regime or policy change from the outside can be perilous. Transforming a place plagued by decades of recurring armed violence into a peaceful and prosperous democracy is harder than some leaders may expect. This is well illustrated by the US president George W. Bush's speech in 2003 when he declared on the flight deck of the USS Lincoln that "major combat operations in Iraq have ended. In the battle of Iraq, the United States and our allies have prevailed. (…) The war on terror is not over, yet it is not endless. We do not know the day of final victory, but we have seen the turning of the tide." Now almost twenty years later, both the previously occupied Afghanistan and Iraq are in a dire state of shockingly high violence and economic and social crisis -- for illustration, Afghanistan is ranked 169th, and Iraq 123d out of 189 countries in the 2020 Human Development Index, and since Summer 2021 Afghanistan is again ruled by the Taliban.[6] Beyond bombs and boots on the ground, also recent UN mediation efforts in Libya, Syria and Yemen can hardly be described as a success (Asseburg et al., 2018), and further examples of countries that have suffered from large levels of violence and continue to do so --despite repeated mediation attempts-- include the Democratic Republic of Congo (DRC) or Myanmar. Last but not least, economic poverty-relief measures such as US food aid can –at least in some contexts—backfire spectacularly (Nunn and Qian, 2014).

This contrasts with a set of examples where military peacekeeping has managed to prevent the recurrence of violence (such as e.g. in Bosnia), mediation and peace talks have achieved lasting peace (see e.g. the Good Friday Agreement on Northern Ireland), and well-designed economic aid has favored the emergence of a peaceful and prosperous democracy (such as in the context of the Marshall plan in post-war Germany). Given the aforementioned tremendous costs of warfare, it is of key importance to explain why some interventions have failed while others have succeeded.

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[6] For the 2003 speech of president Bush see https://edition.cnn.com/2003/US/05/01/bush.transcript/, for the 2020 Human Development Index see http://hdr.undp.org/en/content/latest-human-development-index-ranking.

So far, the above cases represent only individual examples, and when having at our disposal the wealth of human history, it is often possible to find an example for about any claim. Hence, it is crucial to gain a *systematic* overview of what works how, when and why. For this purpose, we shall in what follows study the existing literature and evidence on a whole range of outside interventions that can be classified into broadly three categories: *mediation*, *military* and *money*. Obviously, often peace and post-war reconstruction initiatives combine elements of two or even all three of these approaches.

The literature on various types of third-party interventions is particularly voluminous and characterized by a large heterogeneity of methods, approaches and findings. Hence, it is crucial to provide a critical synthesis, which is exactly what the current survey aims to achieve. There already exist a number of literature reviews and surveys, but they typically focus on specific aspects and restrict the attention to findings of one single discipline. In particular, in the political science literature there exist surveys on mediation (including Wall et al. (2001), Greig and Diehl (2012), Wall and Dunne (2012), Duursma (2014), Wallensteen and Svensson (2014), Beardsley and Dannemann (2015), Druckman and Wall (2017)), and on military intervention in conflict and peacekeeping (see Regan (2010), Sandler (2017), Clayton et al. (2017), and Walter et al. (2021)). But these typically focus on very specific aspects / intervention types and do not cover in depth neither the literature in economics nor particular economic policies. Similarly, literature reviews by economists either already date by several years (e.g. Blattman and Miguel, 2010) or focus on very specific aspects of the economics literature on conflict (see e.g. Konrad, 2009, on contest models, Rohner, 2018, 2018b, on the resource curse and the foreign aid community, respectively, Anderton and Brauer, 2021, on mass atrocities, and Rohner and Thoenig, 2021, on war traps). In a nutshell, the current contribution is the only recent paper that i) integrates both the literatures in economics *and* in political science, and that ii) spans over the whole variety of possible political or economic types of third-party interventions (labelled *mediation*, *military* and *money*).

We start section 2 by laying out a theoretical conflict framework, based on a model of bargaining, and study how particular intervention types can address reasons for bargaining failure. We then discuss in section 3 two key methodological issues faced by this literature – endogeneity bias and measurement. The sections 4 to 6 are devoted to a critical discussion of the evidence on how our three aggregate categories of third-party interventions, mediation, military and money, affect the prospects for achieving
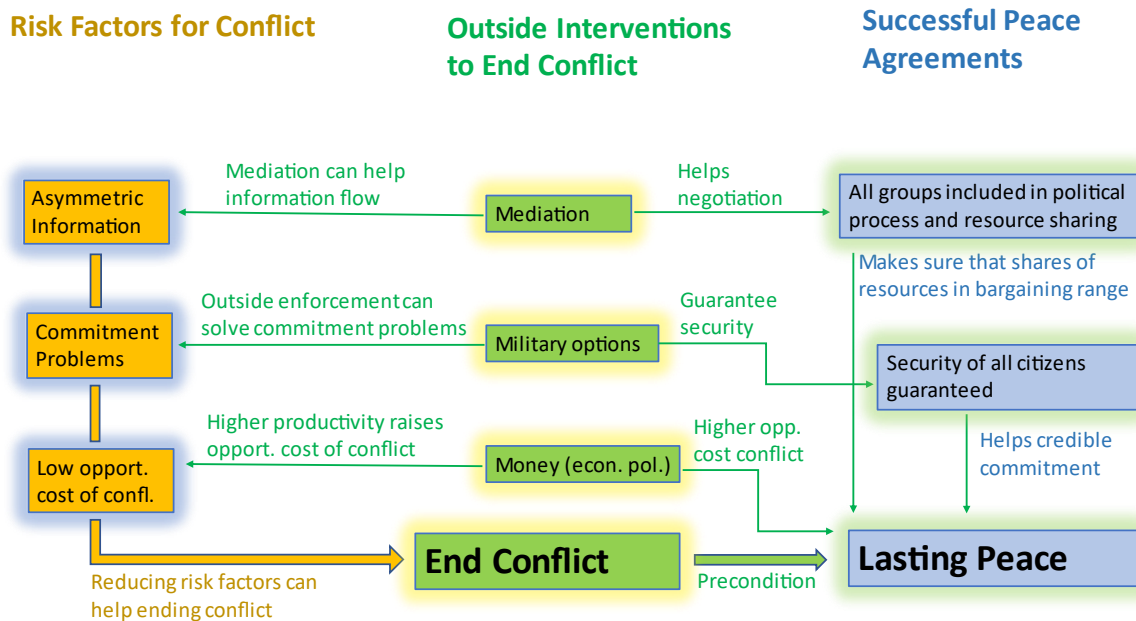
peace. In section 7 the discussion is extended to the specific, more technical question of what clauses and ingredients contribute to the success of peace agreements. This issue is of some importance, as the long-term impact of third-party interventions depends also on the content of the peace agreements signed once a stop of combat operations has been achieved. Section 8 summarizes all key policy implications, and Section 9 concludes. The Data Appendix briefly lists and discusses key datasets on conflict, mediation, peacekeeping and peace agreements.

2. Theory: What Outside Interventions Can Foster Peace and How

2.1. Conceptual Overview

Before setting up a simple formal model, we shall in the current subsection discuss the "big picture" conceptual overview of the research question at hands, as represented graphically in Figure 1. Note that all policies will correspond to particular parameters in the formal model below.

Let us start with the root causes (i.e. the economic and strategic causes) of conflict. Here we focus on three of them: Asymmetric information, commitment problems and a low opportunity cost of conflict. Put simply, asymmetric information can fuel the risk of bargaining failure if there is a wedge between different groups' assessments of the winning chances, whereas commitment problems can lead to first attacker advantage which also threatens the success of peaceful bargaining. Last but not least, in countries with low productivity the opportunity costs of giving up work for enrolling in rebellion are lower. As discussed in more detail below, the three key outside interventions studied here aim to address the three root causes of conflict. "Mediation" has the goal to facilitate information flows, "military" options can guarantee the security of weaker parties and hence enable credible commitment, and "money" (i.e. economic policies for raising productivity) increases the attractiveness of remaining in the economy and renouncing to rebellion. Importantly, these three root policies are complementary. For example, maybe security guarantees can reduce first attacker advantages, but not enough on their own when conflict is cheap. Yet, when economic policies have successfully driven up the opportunity cost of conflict, this may suffice together with the security guarantees to make sure that peace is more attractive than conflict for all parties involved.

Risk Factors for Conflict

- Asymmetric Information
- Commitment Problems
- Low opport. cost of confl.

Outside Interventions to End Conflict

- Mediation
- Military options
- Money (econ. pol.)

End Conflict

Successful Peace Agreements

- All groups included in political process and resource sharing
- Security of all citizens guaranteed

Lasting Peace

Mediation can help information flow

Helps negotiation

Outside enforcement can solve commitment problems

Guarantee security

Higher productivity raises opport. cost of conflict

Higher opp. cost conflict

Reducing risk factors can help ending conflict

Precondition

Makes sure that shares of resources in bargaining range

Helps credible commitment

Figure 1: Conceptual Overview of Key Policies

Once a mix of these three types of outside interventions manages to stop the shooting (i.e. "End Conflict" in Figure 1), the precondition is met for building a stable and long-lasting peace (i.e. "Lasting Peace" in Figure 1). For this "second" step of peace building, the three key outside interventions still matter, as mediation can help achieving a peace agreement (e.g. by using "carrots" that can extend the bargaining space) and UN peacekeeping troops can provide security guarantees that can be needed to make the implementation of a given peace agreement credible. Finally, economic policies that raise the productivity also in this phase contribute to peace stabilization by making work more attractive than fighting.

Beyond these three policies there are also specific technical features of peace agreements and institutional aspects that can matter for successful post-war reconstruction. The access to power and resources of all groups stipulated in such agreements need to lie within the bargaining space (i.e. each group needs to be better off under peace relative to the costly lottery of war). In addition, carefully thinking about how to organize security guarantees in the mid- and long-term is also of great importance.

After this verbal, conceptual discussion of the main key policies examined, we will turn in the next subsection to fit these dimensions in a very simple unified bargaining framework.

2.2. A Very Simple Canonical Framework of Bargaining and Conflict

We shall start with a very simple workhorse bargaining framework allowing us to study why conflicts can erupt and how potential interventions can increase the scope for a peaceful bargaining solution. This setting draws heavily on the canonical framework of Fearon (1995) and highlights how key insights from the rent-seeking models can be accounted for in such a setting.[7]

There are two factions A and B who compete for capturing the (material and non-material) rents of being in power R. Assume without loss of generality that B is initially in power and offers a share α of the rents R to A, who either accepts the rent-sharing (resulting in peace) or rejects the offer (resulting in conflict). Hence, the only choice variable of B is the level of α, and the sole choice for A is to accept or reject the offer. The payoffs under peace for A and B are, respectively,

$$\pi_A^P = \alpha R,$$
$$\pi_B^P = (1 - \alpha)R.$$

In the event of conflict, A and B suffer from conflict costs c_A and c_B, respectively. Let us label the winning probability of A by p, and assume that the winner gains the entirety of R and the loser is left with nothing. Thus, the expected payoffs of conflict are

$$\pi_A^C = pR - c_A,$$
$$\pi_B^C = (1 - p)R - c_B.$$

As a tie-breaking rule in the case of indifference, country A selects peace. In this setting of take-it-or-leave-it bargaining, with perfect information and in the absence of bargaining frictions, in equilibrium B offers

$$\underline{\alpha} = p - \frac{c_A}{R},$$

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[7] For bargaining models of conflict see also e.g. Morgan (1994), Powell (2006), Jackson and Morelli (2007), and Baliga and Sjöström (2013).

which is the lowest possible offer that secures peace (by keeping A indifferent between accepting it and fighting). Note that the highest possible offer that B would have been willing to make would have been

$$\bar{\alpha} = p + \frac{c_B}{R}.$$

The differences between $\bar{\alpha}$ and $\underline{\alpha}$ is the bargaining range corresponding to the "peace dividend" of

$$\bar{\alpha} - \underline{\alpha} = \frac{c_A + c_B}{R} > 0.$$

This is positive, due to the fact that conflict is costly. Note that also under other bargaining protocols the bargaining range is unchanged, and peace will be secured with perfect information and in the absence of bargaining friction.

So why do then wars regularly occur around the world? This question is the focal point of the literature on the "war inefficiency puzzle": As conflict is costly, preventing it would be win-win for all parties and hence the natural question arises of why costly conflict cannot be prevented through bargaining – while in contrast in many contexts and domains of life bargaining can be used to find compromises that can prevent costs. As explained in the classic contribution of Fearon (1995), one major reason for which in some situations such peaceful bargaining may fail is *asymmetric information*. This is the case when each group knows its military capacities but does not observe the strength of the adversary (and one can typically not easily "prove" its strength without revealing sensitive military information to the opponent). In this case it can occur that both parties over-estimate their winning chances and there exists no more a zone of peaceful splits acceptable for both parties.[8]

In terms of the above notation, this can be expressed by A's prior of her winning probability being p_A, while B's prior of the opponent winning being p_B. If $p_A \gg p_B$, it can be that the (peaceful) bargaining range fully disappears. Namely:

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[8] For more recent models of conflict featuring asymmetric information, see Brito and Intriligator (1985), Bester and Wärneryd (2006), Rohner et al. (2013), Baliga and Sjöström (2020) and Laurent-Lucchetti et al. (2021). The model of Laurent-Lucchetti et al. (2021) predicts that democracy reduces the scope for conflict by improving the flow of information.

$$\underline{\alpha} > \bar{\alpha},$$

$$p_A - \frac{c_A}{R} > p_B + \frac{c_B}{R},$$

$$p_A - p_B > \frac{c_A + c_B}{R}.$$

Intuitively, if the difference between the priors $(p_A - p_B)$ is larger than the peace dividend $((c_A + c_B)/R)$, bargaining fails to prevent conflict.

The second major category of bargaining failure emphasized in Fearon (1995) and in the literature at large are *commitment problems*. These take place when parties could benefit a lot from breaking a treaty and each fighting group rationally expects the other one not to honor its commitments. In the presence of such commitment problems, rational distrust can make the conclusion of a peace agreement with ensuing disarmament impossible. This corresponds for example to situations with a first mover advantage (i.e. if A's winning probability as first mover is p_{FM}, while as second mover it is p_{SM}, and $p_{FM} \gg p_{SM}$), and where groups cannot credibly commit to honor the peace agreement. It is easy to see that if e.g. the winning likelihood after a surprise attack, p_{FM}, is close to one and the conflict costs c_A and c_B are relatively small, bargaining may fail in the absence of credible commitment.[9]

There are also a number of additional reasons invoked in the literature for bargaining failure, such as e.g. *indivisibilities* or *risk-loving preferences*, but these have in the literature typically been argued to be subcategories of the two major categories detailed above (see for example, Powell, 2006). Another bargaining friction that has been identified in the literature is *political bias*, i.e. when politicians have personal gains from maintaining the conflict while the country at large loses out (Jackson and Morelli, 2007).

How can the insights of the rent-seeking literature on contests (see the survey book by Konrad, 2009) be integrated in this setting?[10] These formal models typically feature contest success functions and emphasize the trade-off between productive activities and appropriation. They usually explain to a lesser extent the actual onset or not of

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[9] It is important to stress that as long as c_A and c_B are positive (even if small), in the absence of bargaining frictions there always exist peaceful divisions that are Pareto superior to conflict. Still, for small c_A and c_B already mild bargaining frictions (i.e. small gaps between p_A and p_B, or between p_{FM} and p_{SM}, respectively) may be enough for triggering bargaining failure, while for large c_A and c_B even with substantial bargaining frictions conflict may be deterred.

[10] For a full-blown model featuring contest success functions in a bargaining model see e.g. Baliga and Sjöström (2013).

conflict, but rather focus on the level of fighting effort exerted, i.e. the intensity of conflict. The gist of the analysis is the trade-off between a higher fighting effort leading to a larger winning probability and hence a higher likelihood of appropriating some "prize", while the cost of more fighting effort is a loss of productive activities (i.e. the opportunity cost of foregone production) or consumption. This literature studies among others the importance of the economic production structure, of the presence of natural resources, and of the ethnic composition of the population (see e.g. Skaperdas, 1992; Grossman and Kim, 1995; Hirshleifer, 1995; Yared, 2010; Esteban and Ray, 2008, 2011; Bevia and Corchon, 2010; Besley and Persson, 2011; Dal Bo and Dal Bo, 2011; Esteban et al., 2015).

An extremely simplified, "black box" way of integrating key lessons of the rent-seeking literature in the above canonical bargaining model is to make the costs of conflict increasing functions of wages w_A and w_B, i.e.

$$\frac{\partial c_A}{\partial w_A} > 0, \frac{\partial c_B}{\partial w_B} > 0$$

This assumption is in line with the fact that in many contest models the total equilibrium deadweight loss of conflict is increasing in wages. It implies that affluence boosts the bargaining range and a priori makes it more likely to find a peaceful bargaining solution, which is consistent with a large empirical literature finding that averse income shocks (e.g. due to drought) fuel conflict (Miguel et al. (2004), Dell et al. (2014), König et al. (2017), Eberle et al. (2021)).[11]

Another key prediction of many rent-seeking models is that higher rents R boost the motivation for fighting and hence the scope for conflict. This insight is also present in the simple workhorse model above, as the bargaining range $(\bar{\alpha} - \underline{\alpha})$ is decreasing in R.[12]

The above canonical bargaining model can also account for a well-known conceptual distinction on the *motivation to fight*. Collier and Hoeffler (2004) have championed the

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[11] The costs of conflict for a given faction can also depend on foreign alliances and military aid. If foreign powers supply free arms to conflict contestants, these lowered costs of conflict reduce the space of peaceful bargaining (see the work on proxy wars by Berman and Lake (eds.), 2019).
[12] Note that in many contest models, a higher R not only increases the incentives for appropriation but also leads to higher conflict costs by increasing costly fighting effort, yet not one to one, i.e. $0 < \frac{\partial c_A}{\partial R} < 1$, $0 < \frac{\partial c_B}{\partial R} < 1$. Hence, overall, the bargaining range typically remains a decreasing function of R.

terms "greed" versus "grievance". This distinction has sparked vigorous debate, with scholars such as Collier and Hoeffler (2004) and Fearon and Laitin (2003) highlighting the role of mostly greed-related factors such as oil, while Cederman et al. (2013) stress rather the role of ethno-religious grievances.[13] In terms of the canonical model, both greed and grievance can be thought of as motivational factors that increase the stakes R of the strategic interaction (where R may represent both oil cash, as well as material and non-material (e.g. religious or ideological) rewards of having access to political power). The fact that higher rents R reduce the bargaining space in our simple workhorse model is in line with empirical stylized facts. In particular, both natural resource wealth (see e.g. Fearon and Laitin, 2003, Collier and Hoeffler, 2004, Ross, 2012, and Berman et al., 2017) and ethnic polarization (see e.g. Esteban et al., 2012) can increase the incentives R for controlling the government and have been found to be associated with a greater risk of conflict.

Let us wrap up this subsection by stressing to what extent features of this very simple theoretical framework are specific or not to armed conflict as opposed to (non-violent) inter-personal conflicts in other situations (e.g. in organizations). The model in this section starts from a standard bargaining model (Fearon, 1995) and draws also on insights from contest theories (see the survey book of Konrad, 2009), namely that higher wages increase the opportunity costs of fighting. As shown in Konrad (2009), the applicability of contests is not limited to armed fighting, but can also occur in other settings, such as e.g. in organizations (firms, administrations). There exist also principal-agent models of conflict in organizations (for a recent contribution see MacLeod et al., 2020, and the literature review therein). Also bargaining problems obviously occur in a variety of situations beyond armed fighting (see e.g. Muthoo, 1999). This being said, one striking feature of civil wars with respect to other situations of contests and bargaining failures is that commitment problems are particularly severe for armed civil violence. While national sovereignty puts some limits to outside enforcement (at least in the short run), enforcement in organizations is typically rapidly provided by higher levels of the hierarchy (e.g. the CEO has the power to swiftly lay off

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[13] In practice, motivations can of course be intermashed. Take the example of an ethnic minority group with oil-rich homelands and receiving a dismal revenue share (see Morelli and Rohner, 2015) – if it rebels, this may be either qualified as "greed" (it rebels as it wants more rents) or alternatively as "grievance" (it rebels as the status quo is perceived as unfair). Hence, Collier et al. (2009) urge to move beyond this motivational debate and focus instead on the *feasibility of conflict*. The idea is that given the non-negligible number of people in every society who either seek to grab political rents or feel treated in an unfair way, there will always be a supply of potential rebel leaders and potential causes for rebellion. The reason, however, for which such "rebel entrepreneurs" fail in countries such as, say, Canada or Switzerland, is that rebellion would be prohibitively expensive and difficult, given high wages and state capacity. This reasoning is in line with the above discussion of higher productivity increasing conflict costs and hence enlarging the bargaining range.

people involved in within-firm conflicts). In addition, asymmetric information problems are also typically particularly severe in contexts of civil wars as opposed to conflicts arising within organizations (as military secrecy naturally limits information flows, while (well-run) organizations keep a paper trail of key activities). Armed with these insights, we now zoom in on how the key policies surveyed in this contribution matter in this theoretical framework.

2.3. How Mediation, Military and Money Can Help to End Conflict in This Theoretical Framework

2.3.1. Mediation Can Reduce Asymmetric Information

One key rationale for mediation is that it may favor the flow of information, which can *reduce asymmetric information.* Formally, it is possible to apply to conflict settings the standard mechanisms identified by Myerson's (1979) revelation principle (for a non-technical discussion of this result and its limits see Myerson, 2008). Put in simple words, in communication problems (such as conflict in the presence of asymmetric information), a large number of possible messages could be sent from one actor to another. Finding an equilibrium allocation of such a game-theoretic model may well prove intractable. Here is where the revelation principle comes in. As put by Myerson (2008: 1), "the revelation principle is a technical insight that allows us, in any given economic situation, to make general statements about all possible communication mechanisms." Thus, "for many economic purposes, it is sufficient for us to consider only a special class of mechanisms, called 'incentive-compatible direct-revelation mechanisms'. (…) The mechanism is incentive compatible if honesty and obedience is an equilibrium of the resulting communication game" (Myerson, 2008: 2). Importantly, in these equilibria nobody has incentives to deviate and not tell the truth. In the words of Hörner et al. (2015: 1484), "attention can be restricted to equilibria in which the disputants' reports to the mediator are truthful", without renouncing to obtain general equilibria for a wide set of coordination mechanisms.

The result that mediation may allow to increase — by reducing information asymmetry— the set of acceptable bargains has been found by Mitusch and Strausz, 2005; Goltsman et al., 2009; Fey and Ramsay, 2010; and Hörner et al., 2015. Indeed, mediation can relax enforceability constraints, and simple protocols of unmediated communication cannot achieve the same level of *ex ante* welfare as mediation using

confidentiality.[14] Fey and Ramsey (2010: 533) also conclude that the "mediator's actions can affect crisis outcomes only if the mediator has an exogenous source of information regarding the disputants' types". This is an important point for practitioners and in line with Nathan's (2014) conclusion that access to intelligence is often a requirement for successful mediation.

In a nutshell, in all forms of mediation, the mediator typically creates a flow of information, allowing to increase the set of acceptable bargains. Expressed in terms of the above inequality condition for bargaining failure, $p_A - p_B > \frac{c_A + c_B}{R}$, the difference between priors on winning probabilities $(p_A - p_B)$ gets reduced, and this inequality is less likely to hold.[15]

2.3.2. Military Interventions Can Address Commitment problems

If bargaining failure is due to commitment problems, security guarantees can foster peace. In particular, assume that the peaceful bargaining range has vanished due to a very sizeable first mover advantage $p_{FM} \gg p_{SM}$ in the absence of credible commitment. What peacekeeping interventions and security guarantees can do is to make sure that the winning chances of aggressive parties are curtailed.[16] To the extent that successful surprise strikes can be completely prevented, such security guarantees may be able to make sure that there is no first mover advantage, i.e. that $p_{FM} = p_{SM}$.[17] In the extreme, if aggressive behavior gets punished, there can even be a first striker disadvantage, i.e. $p_{FM} < p_{SM}$. The absence of a first mover advantage and other commitment problems may restore a positive bargaining range $(\bar{\alpha} - \underline{\alpha}) > 0$. This is in line with a substantial literature stressing that third-party security guarantees and

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[14] See also the non-technical survey of Ayres and Brown (1994) on such economic rationales for mediation.

[15] On a side note, in terms of the timing of mediation, the concept of "mutually hurting stalemate" has received a great deal of attention (see e.g. Touval and Zartman, 1985; Wall and Lynn, 1993, Hellman, 2012). When prolonging the dispute becomes very costly (e.g., when both parties face heavy losses on the battlefield) the conflict is considered to be more likely to be "ripe" for mediation, as all contestants would typically see it more in their interest to accept a third-party mediation. Through the lens of our simple bargaining model, higher costs $(c_A + c_B)$ make it easier to achieve a peaceful settlement.

[16] Beyond addressing commitment problems, military interventions may also reduce information asymmetries (e.g. peacekeeping troops can monitor and convey information on force sizes or demobilization efforts).

[17] By first mover advantage we mean a higher winning chance when starting an attack at any stage of a conflict. This does not only apply to the beginning of a confrontation, but also applies to each stage of a conflict. Put differently, if e.g. a faction A has started a conflict with B in period *t* and then there is an armistice with peace negotiations in period *t+1*, then having peacekeeping can deter a renewed attack with first mover advantage by either of the two factions in this period *t+1*.

peacekeeping troops can alleviate commitment problems and relax mutual distrust (see Walter, 1997).[18]

2.3.3. Money: Impact of human capital investments and productivity increases

As seen above in the workhorse bargaining model, higher wages increase the costs of conflict, $\frac{\partial c_A}{\partial w_A} > 0, \frac{\partial c_B}{\partial w_B} > 0$, and thereby enlarge the bargaining range. But how can productivity and wages be promoted, without flooding the economy with cash that could constitute an attractive "prize" to appropriate (increasing R)?

One natural idea is to invest in human capital. As argued in De la Brière et al. (2017), transforming physical capital into human capital has the double virtue of i) increasing productivity and wages w_A, w_B and thereby boosting the (opportunity) costs of fighting c_A, c_B, ii) curtailing the appropriable wealth R (as human capital is not appropriable like physical capital). Beyond fostering human capital, also overall productive investments in infrastructure and innovation may play crucial roles, by fostering productivity and hence increasing the opportunity costs of conflict and the range for peaceful bargaining.[19]

Finally, between-group or between-region trade and business promotion can be part of economic policies that increase the opportunity costs of conflict. The traditional liberal argument of international trade driving down the scope for interstate wars (see De Montesquieu, 1989; Angell, 2010; Gartzke, 2007) can also apply to domestic business between rival factions. As found in the game-theoretic model of Rohner et al. (2013), greater inter-group economic interdependence increases the opportunity cost of foregone business in the case of conflict. In terms of the above canonical bargaining

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[18] Note that outside military powers may have themselves commitment problems and/or stakes in the negotiations. In an augmented bargaining setting, outside military powers can become a third player. Maekawa (2019) studies both theoretically and empirically the impact of external supporters (who send troops or help logistically) in negotiated agreements, finding that a peace agreement is more likely to emerge in situations where external supporters of the government side are dissatisfied with the current political status quo of the supported state, e.g. when democratic outside powers are interested in stability and the survival of the current regime, but aim for democratic political reforms. The setting predicts that if a democratic supporter supports a government, the likelihood of a peace agreement that guarantees political reforms increases.

[19] One important question is which groups in society benefit most from productivity increases. Given that "spoilers" may sabotage peace efforts, productivity gains may be a particularly potent peace promotor if widely benefitting the population at large rather than being confined to sub-groups. Further, if the wealth of decision makers hinges on human capital intensive, complex production sectors (that may be hit particularly hard in war), pro-war political bias may be smaller than when the decision makers' wealth stems mostly for natural resource exploitation (as resource windfalls may continue even in the midst of turmoil).

setting, this again boils down to higher losses from conflict, c_A, c_B, extending the range of peaceful bargaining.

2.4. Post-Conflict Peace Stabilization in This Framework

The three aforementioned factors also matter in similar ways for post-conflict stabilization. In particular, *mediation* still matters to prevent asymmetric information from making future bargaining fail (i.e. by reducing the difference between priors on winning probabilities ($p_A - p_B$)). However, beyond attenuating information asymmetries, mediation has the potential to enlarge the bargaining space by *providing "carrots"* to the negotiating factions. The pioneering work of Fey and Ramsay (2009) studies under what conditions there exist consistent and ex post efficient peaceful mechanisms to avoid conflict. They find that this is only the case when the costs of war are large enough. It becomes also clear from such settings that "subsidized" peace agreements (where the total resources to distribute are larger after agreement) may be easier to sustain. This is an important result for practitioners, suggesting that in at least some situations the use of carrots (like e.g. promises for increased foreign aid) can make peace more likely. In terms of our canonical bargaining setting, this amounts to augmenting the peace payoffs by some transfers $t_A + t_B$ received from the mediator: $\pi_A^P = \alpha R + t_A$, $\pi_B^P = (1 - \alpha)R + t_B$. This leads to a larger range of peaceful bargaining,

$$\bar{\alpha} - \underline{\alpha} = \frac{c_A + c_B + t_A + t_B}{R} > 0.$$

As far as *money* (i.e. economic support) is concerned, its effect remains similar in the post-conflict reconstruction phase: Higher wages raise the costs of conflict, $\frac{\partial c_A}{\partial w_A} > 0$, $\frac{\partial c_B}{\partial w_B} > 0$, and thereby enlarge the bargaining range.

Beyond this, there are specific aspects to keep in mind for putting in place a promising peace agreement and institutional features. One first aspect is that it needs to guarantee that all groups have access to political power and resources. Put in terms of our workhorse model, the specific features of a peace deal need to make sure that the rent share α lies indeed in the bargaining range, i.e. $\underline{\alpha} < \alpha < \bar{\alpha}$.[20]

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[20] Beyond (narrowly-defined) power-sharing, also democratic institutions more broadly matter in the post-conflict political system. While democratic checks and balances help to make sure that $\underline{\alpha} < \alpha < \bar{\alpha}$, democracy has also been shown in the literature to address commitment problems (Acemoglu and Robinson, 2006) and problems of asymmetric information (Laurent-Lucchetti et al., 2021).

A second key aspect of peace agreements is that security guarantees are provided also over the mid- and long-term, allowing at all stages of the peace consolidation process to counter commitment problems and make it unattractive to launch any surprise first strike attacks on other groups. In terms of the model, this amounts to having a third party enforcer (e.g. UN peacekeeping troops) which makes sure that no first mover advantage persists, i.e. that now $p_{FM} = p_{SM}$. Setting this up successfully both requires the availability of an outside *military* enforcer, as well as carefully thinking about how to organize this and potentially phase it out after some years.

2.5. Complementarities

Last but not least, it is important to keep in mind that the aforementioned types of interventions are not mutually exclusive but can very well be complementary and mutually reinforce each other. Imagine a situation where both asymmetric information and commitment problems lead to bargaining failure. Military intervention with peacekeeping troops can tackle commitment problems, mediation can favor the spread of information, and rebuilding the economy can extend the "peace dividend" of favoring bargaining over fighting. It can be that neither of the measures on its own suffices but that together they manage to guarantee that a range of peaceful bargaining exists. For example, mediation may reduce asymmetric information and prevent groups from overestimating their winning chances, peacekeeper presence may reduce the gap $(p_{FM} - p_{SM})$ but maybe not enough on its own, yet economic reconstruction may increase opportunity costs of war, c_A, c_B, by so much that together with mediation and peacekeeping, a ceasefire becomes possible. Once the shooting has stopped with the help of these interventions, it is important to set up a peace agreement and institutional reform that makes sure that the rent share α is indeed in the bargaining range, i.e. $\underline{\alpha} < 0 < \bar{\alpha}$. This may be achieved e.g. by an explicit power-sharing agreement (like e.g. in Northern Ireland), or by inclusive political institutions guaranteeing political representation to all groups in society.

For an illustration of such complementarities, consider the successful post-conflict reconstruction of post-World War II Germany. It required at the same time security guarantees (e.g. American boots on the ground at Rammstein), as well as economic reconstruction (e.g. through the "Marshall plan") to make peace sustainable and persistent. The German "Wirtschaftswunder" was surely a key driving force helping to avoid that the sorry tale of the interwar period repeated itself.

With these underlying conceptual considerations in mind, we can now turn to the main focus of this survey piece, namely the empirical evidence on the impact of different types of third-party interventions in the realms of mediation, military or money. Before providing a critical synthesis of the evidence, we need to discuss key methodological issues and challenges.

3. Methodological Issues: Endogeneity and Measurement

3.1. Endogeneity and Selection Bias

It is a difficult challenge to move beyond correlational evidence and to identify a causal effect of some given type of third-party intervention. Of course, other empirical literatures experience similar difficulties linked to endogeneity, but what makes the task at hand particularly hard in the current context is that virtually all explanatory variables are political choice variables and the typical kind of exogenous variation used in other literatures, for example related to geographical features, meteorological factors, reglementary thresholds, historical path-dependency etc, are particularly hard to find.

To illustrate typical methodological challenges, consider for example the difficulty to estimate a causal effect of mediation. Regressing simply the likelihood of conflict termination on the presence of mediation could lead to seriously flawed conclusions, as mediation efforts are typically endogenous. Svensson and Onken (2015: 78) describe well the potentially skewed distribution of mediation efforts: "Mediation is quite skewed in its geographic distribution. Hence, there is a need to pay more attention to conflicts that are currently left unmediated. Importantly, several of these conflicts are jihadist and/or religious conflicts. (…) Overall, the international community, including organizations such as the United Nations, needs to develop their instruments of, and approaches to, conflict resolution – in terms of how to identify potential moderates that can be negotiated with, to identify underlying interests as basis for negotiations, and to develop methods that combine pressure to end conflict with dialogue about solutions – in order to among others meet the contemporary jihadist challenge, and to engage more actively in other conflicts that are currently not in focus of our attention."

Indeed, both the offer made to become a mediator of a given conflict as well as the potential acceptance of that offer are far from random (see e.g. Maundi et al., 2006; Greig and Regan, 2008; Beardsley, 2011; Crescenzi et al., 2011). In terms of quantitative evidence on when mediation occurs, existing research has found that

there is a higher likelihood of a given conflict to be mediated in the face of high-intensity international events such as a crisis (Dixon 1996; Bercovitch and Jackson 2001; DeRouen and Bercovitch, 2012). DeRouen and Bercovitch (2012) for example find that internationalized civil wars, civil wars with territory at stake, as well as post Cold War conflicts are more likely to be mediated. Also domestic politics of potential mediators matter: Touval (2003) stresses the domestic and international influences on mediation strategy, giving the following example: "Consider the mediation efforts to end the wars in the former Yugoslavia. Domestic and international concerns inhibited the United States from engaging in preventive diplomacy. The timing of the Europen mediators' intervention was determined not by their estimation of the "ripeness" of the conflict, but by the mediators' own domestic and foreign policy concerns" (2003: 94). Related to this, Wohlforth et al. (2018) emphasize the potential benefits in terms of prestige, moral authority and social status for successful mediator countries, discussing the case of Norway. This implies that potential mediator countries are on average often particularly keen to mediate conflicts where successful peace agreements are actually achievable (Greig, 2005).

Also the likelihood of mediation being accepted is non-random. In particular, Melin and Svensson (2009) conclude that mediation is on average only accepted in the most intense civil wars.[21] The presence of natural resource rents (facilitating rebel funding), the territorial control of rebels in the periphery of a country, as well as the involvement of a larger number of actors make it harder to stop the shooting and make all conflict parties join the negotiation table (see Fearon, 2004; Collier et al., 2004; Cunningham, 2006; Cunningham et al., 2009; Cunningham, 2013; Berman et al., 2017).

In essence, this systematic selection bias into mediation makes it very hard to provide unbiased and reliable statistical estimates of the causal effect of mediation on outcomes. If for example more acute crises are more often mediated, a finding of mediation leading to more fragile peace could be spurious, as it may not be mediation, but the underlying omitted variable of conflict intensity that would drive any correlation between mediation and peace fragility. Consider for illustration a hypothetical situation where mediation has no effect at all but where mediators are only called in when conflict is escalating. If one performs a naïve comparison of conflict onset risks in the presence and absence of mediation, one would find more intense fighting for the cases

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[21] This is in line with the concept of the "mutually hurting stalemate" (see e.g. Touval and Zartman, 1985; Wall and Lynn, 1993, Hellman, 2012), making the point that the current conflict situation being very costly is a push-factor for making contestants accept to join the negotiation table.

that were mediated. However, this would in our example not have anything to do with mediation, but simply be due to sample selection, i.e. only the escalating situations get mediated. Hence, mistaking correlation for causality could in this example result in the erroneous conclusion that mediation has harmful effects. One could also think of biases going in the other direction: If more cooperative group leaders are more likely to accept mediators, then any mediation success could be wrongly attributed to mediation while it may have been driven by the confounding, unobserved propensity for cooperation by the group leaders (see e.g. the discussion in Dixon, 1996).

The identities of mediators and their mediation style are also endogenous. As found by Beardsley (2009), disputes involving mediators without leverage are systematically different from other disputes. One common reason identified for "weak" mediators handling a peace negotiation is simply that "strong" mediators with leverage are not interested. This can bias results: If on average mediators without leverage more often handle situations with uncertain success perspectives, this negative selection bias may of course lead to a severe underestimation of the effectiveness of mediation without leverage (as compared to mediation with leverage).

Such methodological challenges linked to selection and endogeneity bias and potential confounders do not only apply to third-party interventions such as mediation. The study of the effects of peace agreements suffers for instance from similar challenges. Take, for example, Licklider (1995)'s famous finding that peace deals correlate with more fragile peace than decisive victories. This finding could be either due to a causal impact of peace deals on the peace duration, or alternatively, be driven by underlying confounding factors / omitted variables that make peace settlements more or less likely.[22] Imagine for example that in countries with higher ethnic polarization decisive victories are more rare than in countries with a very dominant ethnic group. In this case the correlation between peace by settlement and peace fragility could be entirely spurious, i.e. fully driven by the fact that the sample with peace settlements may be more ethnically polarized, and it could well be the underlying omitted variable of ethnic polarization and not peace deals that accounts for the fragility. Another related example is offered by the article of Joshi and Quinn (2017) that shows a correlation between peace agreement implementation and peace. Again, a causal interpretation

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[22] Note that the robustness of this result has been questioned. Badran (2014) finds that ideally designed peace agreements (with a large number of provisions) lead on average to more stable peace than peace by military victory.

may be misleading, as one could for example think of biases from reversed causation, as more peaceful relations make the implementation of a peace agreement easier.

By the same token, also when it comes to actual provisions in a peace agreement, any correlational evidence needs to be interpreted with much caution, as of course the content of peace agreements is also far from random and may reflect underlying conditions that directly affect the scope for lasting peace (e.g., attitudes and personalities of the leaders of the groups involved, the relative strength of the conflict parties etc). Spirling (2012), for example, finds that fading relative economic and military strength of American Indians has led to peace treaties containing less and less favorable terms for American Indians. Consider now the following correlation: Over time contracts became "harsher" and there was less fighting. If one were to naively mistake correlation for causality, this could lead to the erroneous conclusion that "harsh" treaties buy peace, while of course both the fighting operations and the content of treaties are endogenous variables driven by the fading relative strength of American Indians, which makes in this context any correlation between treaty "harshness" and peace likely to be completely spurious.

To sum up, the difficulty of finding exogenous variation for studying the questions at hand calls for much caution in the interpretation of correlational evidence. In our critical synthesis of the existing evidence, we will carefully discuss to what extend any key results can be interpreted causally or not, and it turns out that several ingenious studies have managed to find innovative ways of addressing challenges to causal identification. In what follows, when referring to studies providing correlational evidence that should not be interpreted causally, we will talk about "correlations" or "associations", while when a given paper manages to achieve a plausible causal identification, we will explain in more detail the methodology used.

3.2. Measuring the Success of Third-Party Interventions

Another important methodological issue is the one of measurement, which again is not unique to the current literature. While many of our main explanatory variables can be measured in a quite straightforward way, the measurement of the dependent variable of interest (i.e. lasting peace) has attracted some attention in the literature. Below we discuss three dimensions for measuring success of third-party intervention and peace

agreements that have been distinguished by the existing literature: Fatalities prevented, peace duration, and economic recovery.[23]

3.2.1. Fatalities

First, in terms of humanitarian criteria, saving human lives is a major, very natural criterion. Curbing fatalities is sometimes—implicitly or explicitly—used as criterion in academic research. The criterion of fatalties, resp. intensity of fighting to assess peace agreements has been used in some scholarly articles on the topic, among others by Licklider (1995), but has only received quite limited attention. One of the reasons may be that the existing civil war data is rather precise on starting and end dates of war, but less precise and reliable when it comes to the numbers of fatalities created by fighting. For example, using this casualties criterion, Joshi (2015) finds that the implementation of provisions of comprehensive peace agreements is associated with reduced neonatal, infant and under-5 mortality rates in post-conflict societies.

3.2.2. Peace duration

Second, preventing the onset of renewed hostilities in the future is another standard criterion. The criterion of peace duration, resp. likelihood of no renewed fighting after x years is *the* dominant criterion for judging intervention used in the existing scientific literature. It has among others been applied in Licklider (1995), Hartzell and Hoddie (2003), Quinn et al. (2007), Fortna (2004, 2008), Gurses et al. (2008), DeRouen et al. (2009), Kreutz (2010), Mattes and Savun (2010), Badran (2014), Cederman et al. (2015), Joshi and Quinn (2015), Joshi et al. (2015), Joshi et al. (2017), and Joshi and Quinn (2017).

3.2.3. Economic recovery

A third criterion for measuring the success of an outside intervention or peace agreement is the extent and rapidity of economic recovery (e.g. how fast PPP adjusted GDP per capita reaches again pre-war levels). This criterion has only been very rarely applied in the existing literature (see e.g. Collier et al., 2008). One of the reasons for this scarcity of attention and evidence may be that there are of course a large variety of factors affecting economic recovery, and obviously policy makers also care about peace for a variety of reasons beyond economic recovery.

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[23] Note that a fourth dimension applies when fighting is still raging, namely conflict termination, i.e. the transition from conflict to peace (see Kim et al., 2020).

3.2.4. Relationship between the three criteria

While in some cases the first two success criteria (saving lives, resp. making peace last longer) correlate positively (i.e. fewer future conflict years may well mean fewer fatalities), there are situations where there is a trade-off. Licklider (1995) finds that while peace settlements lead on average for identity conflicts to a more fragile peace than peace following full-blown military victory, he concludes that negotiated peace with power-sharing can often prevent the worst instances of mass killings. The underlying idea is that under negotiated settlements the likelihood is larger that all groups keep their military capability, which according to Licklider (1995) may at the same time foster protection for minority groups but also fuel the feasibility of starting anew a rebellion. A counter-argument that can be made is that even in negotiated settlements complete demobilization can be agreed upon (hence reducing the risk of fighting breaking out again) and the protection of civilians can be entrusted to international peacekeeping troops (hence reducing the risk of the government abusing civilians) (see e.g. Hartzell and Hoddie, 2003).[24]

Importantly, also the third criterion is obviously linked to the other two criteria for successful peace, preventing war renewal and fatalities. The most immediate connection is—as stressed by Collier et al. (2003)—that faltering economic recovery may contain the seeds for the next armed conflict. This is well illustrated not just by the two World Wars, but also by repeated conflicts in countries such as e.g. Sudan or the Democratic Republic of Congo. Put differently, the better a country does in terms of economic recovery, the lower on average the risk of conflict renewal.

Drawing on these criteria for "success", in the following three sections 4, 5 and 6 we will synthesize the literature on the role of *mediation*, *military*, and *money* on fostering peace. These categories reflect different degrees of third-party involvement, spanning from interventions like (pure) mediation taking place on voluntary basis and being characterized mostly by information provision and possibly by the presence of "carrots" to non-voluntary third-party interventions that may also feature the use of "sticks" and not only "carrots", such as mediated military intervention or pure military intervention. We start with the arguably "mildest" form of political intervention (*mediation*), before

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[24] Driving further the empirical study of the relationships and (inter-temporal) trade-offs between different peace criteria may be a fruitful area for future research.

moving to more "invasive" forms of third-party intervention (*military*) and to economic policies (*money*).

4.   The Impact of Mediation on Fostering Peace

4.1. Definition of mediation

Before starting, it is key to exactly specify what we mean by mediation. This is particularly important, given that the term is sometimes used for a variety of phenomena. Much of the academic literature draws on definitions similar to the one of Bercovitch et al. (1991: 8) which defines mediation as "a process of conflict management where disputants seek the assistance of, or accept an offer of help from, an individual, group, state, or organization to settle their conflict or resolve their differences without resorting to physical force or invoking the authority of the law."[25] Following the approach applied by Wallensteen and Svensson (2014), we restrict the cases of mediation assessed to (1) in the context of armed conflicts, (2) between representatives of the main conflicting actors and (3) dealing with the conflicting issues (incompatibilities) or violent behavior.

In terms of defining particular types of mediation, a widely used classification of mediation styles is described in Beardsley et al. (2006): *facilitative* (mediator mostly helps to make sure that all parties have information), *formulative* (mediator gets more involved in negotiation, conceiving and proposing new solutions), and *manipulative* (mediator uses its position and leverage to influence bargaining, shifting reservation points by using "sticks" and "carrots").[26] We shall discuss the impact of these mediation styles further below.

It is important to understand that the use of terms varies considerably, and while some scholars consider manipulative mediation to be a sub-division of manipulation, others see it as a form of mediated military intervention, especially when a great use of leverage and "sticks" takes place. Thus, while we discuss below means of intervention that become increasingly invasive –moving from pure facilitative mediation to full-flown military intervention, there are many grey zones and quite some overlap between different categories of intervention.

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[25] There is a lively debate in the literature on the appropriate definition of mediation. In contrast to the definition we apply here, the use of the term mediation among practitioners varies and follows e.g. the United Nations Guidance for Effective Mediation (2012).

[26] See the detailed discussion of these three mediation styles in Beardsley et al. (2006).

4.2. Does mediation help to reach a peace agreement and post-conflict stability?

In terms of the policy implications of mediation, there are two related questions that are at the forefront: First, does mediation actually increase the likelihood of reaching an agreement, and second, related to this, if mediation has been instrumental in promoting an agreement, does it impact the kind of agreement that has been concluded, and its potential for long-run success?

We shall start with investigating the first question. The pioneering contribution of Walter (1997) concludes that mediation is only weakly positively associated with the likelihood of a conclusion of a successful peace agreement in civil wars, missing narrowly statistical significance. Follow-up work by Regan and Aydin (2006) and Möller et al. (2007) stresses that mediation is associated with a greater likelihood of reaching an agreement and stopping the fighting.

When it comes to long-run outcomes, Regan et al. (2009) conclude that externally driven diplomacy can be positively correlated to post-conflict stability. In contrast, Gurses et al. (2008) finds that while the presence of mediation correlates with longer peace, mediated agreements tend to be less stable. None of the aforementioned studies addresses the endogeneity of mediation bias outlined in Section 2, and hence may be rather interpreted as correlational than causal evidence.

As far as international disputes are concerned, Dixon (1996) finds that the presence of mediation correlates with a higher likelihood of settlements and lower likelihood of dispute escalation. These findings are confirmed by follow-up studies that keep focusing on correlational evidence, but use more recent data (Wilkenfeld et al., 2003; Frazier and Dixon, 2006). In contrast to this previous work, Beardsley (2008) aims to go beyond correlational evidence, and performs bivariate probit estimations that account for the endogenous choice of mediation. He finds that mediation has a positive short-run impact on reaching a peace agreement, but its effectiveness erodes in the long-run. In his words, "mediation has a strong short-term impact but can often inhibit long-term peace" (2008: 737).

These findings are in line with the theoretical prediction in Section 2 that mediation can reduce information asymmetries and thereby attenuate the risks of bargaining failure.

The fact that the evidence on mediation in international disputes appears more compelling than for civil wars could be due to information asymmetries being more important for the former than for the latter. Further, the result that mediation's effectiveness wanes over time is consistent with the notion that under a peace agreement over time the amount of asymmetric information declines (as intensified interaction reveals information to all parties involved).

4.3. Importance of mediation style and the identity of the mediator

Applying the classic distinction of mediation styles discussed above, Beardsley et al. (2006) find that facilitative mediation is associated with the strongest tension-reduction, while manipulative mediation is most strongly positively correlated to securing agreements and achieving overall crisis abatement.

The role of leverage has given rise to controversy. Nathan (1999) concludes –based on qualitative case-study evidence– that punitive measures and too much pressure from the mediator is counterproductive and precludes favorable outcomes, and Werner and Yuen (2005) find that "unnatural" ceasefires achieved under third-party pressure are associated with a higher risk of renewed warfare. Drawing on new measures of official versus inofficial diplomacy, Böhmelt (2010) concludes that the presence of "Track One Diplomacy" by official actors is associated with greatest intervention effectiveness due to greater leverage, and the more so the more resources are invested. Further, this study stresses that the combined mediation through both unofficial and official tracks may be more promising than independent track actions.

Another dimension of mediation is its biased versus unbiased nature. While historically unbiasedness has been seen as a necessary attribute of any mediator (see e.g. Ott, 1972), in recent years this view has been challenged. The formal work of Kydd (2003, 2006) shows that an unbiased mediator wanting to maximize the likelihood of peace may have incentives to exaggerate peaceful intentions of conflict factions, resulting in a credibility problem, which can be circumvented when mediators are biased. In line with this, Gelpi (1999), Savun (2008) and Svensson (2009) all find that biasedness of mediators is positively correlated with effectiveness and peace duration.[27]

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[27] Further nuances to these findings are provided by Rauchhaus (2006) who finds that both the presence of biased and impartial mediators is associated with the effectiveness of reaching an agreement, but that the latter outperform the former. Moreover, Svensson (2007) finds that pro-government bias of mediators is positively correlated with negotiated settlements, while the coefficients for mediators biased towards rebels are not statistically significant.

Several other interesting associations have been highlighted in the literature: Bercovitch and Gartner (2006) conclude that directive strategies and international mediators are an effective tool for resolving very intense conflict, while procedural strategy and regional mediators are best suited for addressing low-intensity conflicts. Moreover, focusing on low-intensity conflicts and short-run outcomes, DeRouen and Möller (2013) find that direct mediation with all parties meeting face-to-face are the most likely to achieve short-term success.[28] Finally, it has also been found that the sequencing of actions matters. According to Heldt (2009: 144), "the optimal approach is then to combine sequencing with nonsequencing: start by carrying out a couple of mediation attempts as quickly as possible, then switch towards moderated direct talks to create an additional large boost of 700% in the likelihood of a negotiated end."[29]

All of the aforementioned papers in this subsection correlate variables of mediation style or mediator identity with indicators of mediation success. They do not draw on exogenous variation in these variables and hence –as discussed in depth in Section 3– it would be dangerous to interpret these results in a causal way. Below in the conclusions we shall discuss some potential ideas for moving towards causal identification.

5. The Impact of Military Intervention on Fostering Peace

5.1. Peacekeeping and security guarantees

Moving from purest forms of mediation with focus on information transmission towards forms of intervention with a role for the military, the first step is the involvement of military forces as pure means of support and security guarantee, which still remains in the realm of voluntary measures. Thus, in this subsection we shall discuss the possible impact of third-party peace enforcement, peacekeeping, security guaranties and

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[28] Note that this result contrasts with the theoretical predictions surveyed above in section 2 where indirect mediated communication may be able to achieve in some cases better outcomes than direct communication. One potential confounder affecting the findings of DeRouen and Möller (2013) could be that face-to-face meetings are often only possible when relations have already started to become less hostile.

[29] In addition to this academic literature, it is of course also crucial to keep in mind the concrete advice of practitioners. Brahimi and Ahmed (2008) have in their personal experience identified the following major categories of common mistakes of mediators that can have heavy consequences: "ignorance; arrogance; partiality; impotence; haste; inflexibility; and false promises." Through the lens of the theory in section 2 these (personality) flaws undermine efficient information flows (thereby failing to reduce asymmetric information) and hamper credibility of promises (thereby failing to solve commitment problems).

monitoring. According to accounts by practitioners such as Urquhart (1987) and Egeland (2008), this is particularly key, and providing security for the local population is an often-overlooked crucial dimension for addressing humanitarian emergencies and fostering lasting peace.

A substantial number of papers have shown that the presence of security guarantees and third-party enforcers correlate with longer peace duration (see for example Walter (1997), Fortna (2004, 2008), Hartzell et al. (2001), Hartzell and Hoddie (2003), Mattes and Savun (2010) and DeRouen et al. (2010)).[30]

An important dimension to consider is whether peacekeeping efforts enjoy multilateral support. There is a substantial literature on UN peacekeeping operations, which overall finds compelling evidence on its effectiveness over a variety of dimensions. The influential pioneering contribution by Doyle and Sambanis (2000) finds that UN peace operations and substantial financial assistance are associated positively with democratic post-conflict pacification.[31] The non-randomness of UN interventions means that their findings cannot be interpreted causally. In Doyle and Sambanis (2006) they show however that that the positive effect of UN Peace Operations continues to hold when addressing endogeneity bias with matching estimators.

In recent years a vibrant literature has emerged that builds on this work and puts emphasis on addressing endogeneity. In particular, Gilligan and Sergenti (2008) rely on matching techniques and show that UN interventions are indeed effective in post-civil conflict interventions, while they do not detect effects for interventions during ongoing wars. Hultman et al. (2013) find with newer data that having larger UN peacekeeping troops are also associated with fewer battlefield deaths *during* (and not just after the end of) civil wars.[32]

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[30] Fortna (2008) combines a statistical analysis with qualitative interviews of key stakeholders in Sierra Leone, Mozambique and Bangladesh. Their practical experiences with peacekeeping highlight the roles of incentives, trust, escalation risks and political procedures.

[31] Consistent correlational evidence on UN peacekeeping has been found by Collier et al. (2008). The above results contrast with previous correlational evidence restricted to the Cold War period, for which UN Interventions were *not* associated with a reduction in the risk of recurring conflict (Diehl et al., 1996). As far as the role of financial assistance is concerned, we shall present in the next Section 6 evidence in line with the notion that financial assistance is a double-edged knife, as on the one hand it may boost productivity and hence raise the opportunity cost of conflict, while on the other hand it may constitute greater appropriable resources which may boost incentives for conflict.

[32] Correlational evidence by Hultman (2010, 2013) finds that the UN's mandate to protect civilians is key: UN interventions are deployed more often in situations where there has been targeting of civilians (Hultman, 2013), and UN peacekeeping with an explicit mandate of protecting civilians is associated with lower levels of violence against civilians down the road (Hultman, 2010).

The seminal paper of Hultman et al. (2014) puts in place a more refined empirical design that combines matching techniques and fixed effects and draws on more recent data. They find that greater UN military troop strength significantly reduces battlefield deaths during civil wars, while UN police and observers do not have this effect. This is in line with Kathman and Wood's (2016) correlational evidence and with Haass and Ansorg's (2018) finding that –when implementing matching techniques and controlling for fixed effects—the *composition* of UN troops matters: The pacifying impact is much more substantial for UN peacekeeping troops containing large factions from countries with high-quality armies.

The recent work of Ruggeri et al. (2017) and Fjelde et al. (2019) takes the next step forward in terms of method. Both papers draw on novel subnational data and combine matching techniques with an instrumental variable approach (instrumenting local peacekeeping troops with the interaction of the total number of peacekeepers in Africa and distance to capital). Ruggeri et al. (2017) find that local UN peacekeeping troops shorten conflict episodes. Namely, with local deployment of peacekeepers, the likelihood of a given conflict lasting for another year in a given grid cell is reduced by 14 percent. Further, Fjelde et al. (2019) find that local UN peacekeeping protects civilians against rebel but not government abuse.[33] As well the effects uncovered by Fjelde et al. (2019) are quantitatively substantial: Increasing peacekeeping troops from 0 to 3000 at the level of a cell of 0.5 x 0.5 degrees (roughly 55 km x 55 km at the equator) reduces the risk of a one-sided violence incident by half.

Let us finish this subsection with a word of caution from Fearon (2017) who argues that overall peacekeeping is fairly effective, but that conflicts in the Middle East and North Africa (MENA) are harder to tackle with the help of international peacekeeping forces, due to the role of state collapse, transnational jihadism, and major and regional power proxy conflicts in this region. To express this argument in terms of our simple model of Section 2, the presence of abundant natural resources (oil in MENA) and of large religious / ideological cleavages (grievances and rivalries between Sunni and Shia groups in MENA) are factors that increase the value of holding power (the rents R in the model), which in turn reduces the bargaining space. Further, to the extent that in some MENA countries people and groups are excluded from political decision making, the rent share α may lie outside the feasible bargaining range, i.e. $\alpha < \underline{\alpha} < \bar{\alpha}$. The take-home message of this is that peacekeeping on its own may not suffice in such

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[33] Related to this, Kim and Sandler (2021) also find –performing a matching analysis– that also non-UN peacekeeping displays effectiveness in preventing violence against civilians, but not in ending conflict.

contexts but needs to be combined with economic policies (that can reduce the weight of rents R relative to wages w), and democratic institution building (moving α inside the bargaining range when it exists, i.e. $\underline{\alpha} < \alpha < \bar{\alpha}$), as discussed below in Sections 6 and 7, respectively.

5.2. Mediated (military) intervention

A question still left open is whether mediation to broker a peace deal and boots on the ground to foster security are substitutes or complements. An example of the mixing of military pressure and coercive mediation for pushing parties to sign a peace deal is the Dayton agreement of 1995 for stopping hostilities in Bosnia and Herzegovina. Beardsley et al. (2006: 64) discusses a further example: "A prime example of a mediator attempting to expand the zone of agreement by changing the immediate costs and benefits of violent conflict occurred during a 1972 crisis between North and South Yemen. The mediator—Colonel Qaddhafi of Libya— reportedly threatened to hold captive the delegation leaders of both sides if they did not reach an agreement. He also offered both sides close to $50 million in annual aid if they did reach an agreement. Qaddhafi clearly attempted to use both carrots and sticks as a cost maximization mediation strategy."

There is a body of correlational evidence suggesting that mediation and peacekeeping are complements. Walter (2002) and Frazier and Dixon (2006) find that a combination of mediation and peacekeeping is associated with successful pacification, especially under the leadership of an international organization. In line with this, Wilkenfeld et al. (2003) and Sisk (2009) find that a manipulative mediation and powerful peacemaking using pressure on average more often correlates with favorable crisis management outcomes than is the case for a more restrictive facilitative mediation style. This is related to Gelpi's (1999) finding that great powers (who typically have the largest potential for using "sticks and carrots") are associated with mediation success.

5.3. Military intervention

Military third-party interventions in conflict include for example UN resolutions, no flight zones and direct intervention (such as for example in Libya to oust Muammar Gaddafi).[34] Through the lens of the theory discussion of Section 2 military intervention

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[34] For a formal model of military third-party interventions in conflict see e.g. Chang et al. (2007).

may have a variety of goals or purposes: For example, in some cases the aim can be to restrain first mover advantages (i.e. by reducing the gap between the winning probability as first mover p_{FM} and the winning probability as second mover p_{SM}, the range of peaceful bargaining becomes larger), or to punish aggressiveness (by increasing conflict costs c_A and c_B again the range of peaceful bargaining increases).

Typically, given the limited number of cases and the difficulty to have a reliable counterfactual, a quantitative analysis is notoriously hard – e.g. Gent (2008) and Bove et al. (2016) highlight that the decision to intervene is non-random. In terms of the existing correlational evidence, Regan (2002) has found that military interventions are associated with conflicts lasting longer, and more so for neutral than for biased interventions. When disaggregating the types of potential outcomes, military interventions during wars have been found —at least under some conditions— to be correlated with hastening military victory (Balch-Lindsay et al., 2008) but delaying negotiated settlement (Balch-Lindsay et al., 2008, Cunningham, 2010). It is also important to keep in mind that a military intervention by one power may well trigger further interventions by other powers that either want to bandwagon or balance the intervention (e.g. think for example of US and Soviet interventions mutually triggering each other in the Cold War) (Findlay and Teo, 2006). To link these findings to theory, one feature of contest models is that the scope for fighting efforts is in many settings increasing in symmetry (see Konrad, 2009), hence military interventions supporting the weaker party may indeed make wars last longer.

In terms of the achievement of the intervener's goals, Sullivan and Koch (2009) study the impact of all military interventions of the 5 major powers (USA; UK, France, Russia, China) in the second half of the 20th century, drawing on novel data. They produce descriptive statistics highlighting that British interventions have the highest likelihood of reaching the projected goal, and that interventions usually achieve the goal of removing a given regime (in 92% of cases) while the success rate is much more dismal when it comes to achieving policy change (25% success rate).

While the aforementioned research has focused on two-sided fighting in civil wars, such forms of violence need to be distinguished from one-sided violence against civilians perpetrated by a powerful militarized actor (often the government, but sometimes also rebel forces). Krain (2005) finds that interventions challenging the perpetrator or supporting the victims are associated with a reduction of the scope for violence, while impartial interventions have no effect, and, unsurprisingly, interventions

on the side of the perpetrator correlate with aggravated mass killings. The correlational evidence of Wood et al. (2012) stresses a somewhat mixed pattern of the impact of intervention on violence against civilians, pointing out "that the entrance of foreign troops on the side of an actor's adversary leads the opposed group to escalate its anti-civilian violence. By contrast, when a group receives foreign military support, it is more likely to reduce its violence levels." (2012: 657).

Importantly, not all military intervention is direct and involves "boots on the ground". An indirect way of intervening in a conflict is the provision of military aid. An article that is able to go beyond correlations is the contribution of Dube and Naidu (2015) that exploits exogenous variations in the United States' military aid budget to study the impact of US military aid on the conflict in Colombia. The conclusions reached are gloomy: US military assistance is found to result in a rise in attacks by paramilitaries, as well as paramilitary homicides during election years, especially in politically competitive municipalities. In contrast, guerilla violence is not affected. One potential mechanism highlighted is the undermining of domestic political institutions. Related to this, also Dimant et al. (2020) conclude that US military aid can backfire. This study uses "shift-share" instruments of exogenous time variation in global U.S. military aid programs interacted with variation in the relative importance of various military programs for recipient countries. They find that higher levels of military aid led to an increased likelihood of the recipient country to produce anti-American terrorism (with the channel of transmission being spikes in corruption and exclusionary policies in the recipient countries). Bapat's (2011) game-theoretic analysis provides an interesting argument of why US military aid is continuously provided despite the lack of success in eliminating terrorist groups. It is found that US military aid creates a moral hazard problem, where recipient countries do not see it in their interest to eliminate the terrorist threat (after which aid would cease). However, the incentives are such that negotiated settlements offering terrorists access to power are also discouraged, which allows to reach the US aim of keeping terrorists out of power.

In settings of complex warfare with a large number of groups, also the network structure of conflict participants needs to be taken into account when studying intervention. A recent article (König et al., 2017) builds a theory of conflict taking into account networks and structurally estimates the resulting game-theory model using data for the Second Congo War. Fine-grained meteorological variation is used to instrument for fighting efforts. This setting highlights which actors have directly and indirectly the most detrimental impact on peace and the pacification of which bilateral

rivalries may imply the largest potential for peace. It is found that taking out "key players" or bilateral pacification can be more successful than embargoes. Note that removing "key players" does not necessarily require military means, but may also be achieved by "carrots", such as offering government jobs to rebels willing to put down their weapons.

6. The Impact of Money (i.e. Economic Factors) on Fostering Peace

6.1. Economic and trade sanctions, arms embargoes, transparency initiatives and international jurisdiction

General economic and trade sanctions have been associated to a reduced civil war duration, but can substantially hurt the civilian population (e.g., Hufbauer et al., 1990; Dashti-Gibson et al., 1997; Escribà-Folch, 2010).[35] For example, Bundervoet and Verwimp (2005) use individual data on the height of children, and find for Burundi that the civil war and the economic embargo had a particularly detrimental impact on the nutritional status of rural populations, due to the direct effect of the civil war and to the soaring of food prices during the embargo. Relatedly, Hultman and Peksen (2017) study the impact of the threat and imposing of sanctions during a given conflict, when controlling for conflict fixed effects. They find that imposed economic sanctions may contribute to the escalation of conflict intensity, hence hurting the civilian population.

Targeted arms trade embargoes during civil wars have been judged in the existing literature as a potentially less costly alternative to general sanctions, but are typically hard to enforce (Brzoska, 2008; Moore, 2010; Kopel et al., 2010; Drezner, 2011; Hultman and Peksen, 2017).[36] Brzoska (2008) finds limited effects of arms embargoes, and concludes that they are most successful when embedded in a package of other policies, while Hultman and Peksen (2017) show that imposed arms embargoes are likely to reduce conflict violence.

Taking stock of the above discussion, the recent work on sanctions and embargoes by Hultman and Peksen (2017) may be the best able to address omitted variable concerns. It filters out unobserved conflict characteristics, yet the endogenous timing of sanctions

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[35] In contrast, Regan (2002) finds that economic intervention—if anything—correlates with an increased conflict duration.
[36] A methodology for detecting illegal arms trading using stock market returns has been developed by DellaVigna and La Ferrara (2010).

and embargoes may still confound findings. The results draw a somewhat bleak picture on the potential downsides of general sanctions, while highlighting some potential for the use of targeted arms embargoes.

A further set of international economic policies that can play a role in curbing conflict incentives are transparency and traceability initiatives such as e.g. the Kimberley Process Certification Scheme for diamonds (see also the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (https://www.oecd.org/corporate/mne/mining.htm)). In terms of our simple model of Section 2, limiting the scope for "blood" diamonds / minerals, the rents R of appropriation fall, which *ceteris paribus* enlarges the bargaining range. Exploiting exogenous variation in mineral price shocks, Berman et al. (2017) find that high corporate social responsibility and traceability limit the conflict-fueling potential of mineral price spikes.

Last but not least, another form of international intervention is the "International Criminal Court", mandated to persecute perpetrators of atrocities, such as crimes against humanity (Vinjamuri and Snyder, 2004, 2015). This international reaction to a given civil conflict or episodes of mass killings typically takes place some years after the events. It has in the existing qualitative literature been found to be somewhat of a double-edged knife: On the one hand it may be harder to convince dictators with a bad track record to step down if they face prosecution after leaving office (Snyder and Vinjamuri, 2004). However, on the other hand the International Criminal Court can give powerful incentives to new leaders to not become "criminal dictators" (Akhavan, 2001).

6.2. Economic Support

Finally, the somewhat distinct dimension of "economic support" merits some discussion. In particular, it has been argued that the prospects of future economic growth play an important role for peace and stability (Collier et al., 2003). Think for example of the "Wirtschaftswunder" in Germany after World War II, which may well have contributed to the survival of the nascent democracy, and contrast it with the dire economic conditions after World War I that may have contributed to the fall of party politics and paved the way for the rise of Hitler's nazi regime (King et al, 2008). This basic intuition is in line with the statistical evidence by Quinn et al. (2007) and Collier et al. (2008) finding that indeed rapid economic recovery and strong economic growth correlates with a reduced risk of conflict recurrence. In terms of policy implications this

means that indeed supporting economic recovery financially from the outside may at least in some contexts be potentially promising.

Beyond post-conflict reconstruction, prosperity matters already before or during conflicts, as attractive economic perspectives may reduce the risk of escalation of social tensions in fragile environments. Remember the theoretical prediction and empirical evidence presented in Section 2, showing that adverse productivity shocks fuel the scope for conflict (as deprivation lowers the economic opportunity cost of engaging in fighting). Given that the focus of the current contribution lies on the scope for outside intervention, a natural question to ask is if (foreign) aid can contribute to pacification by tackling poverty and low productivity.[37] Its impact is theoretically ambiguous in the light of the simple model of Section 2: Pure cash hand-outs increase the incentives for appropriation, while in contrast productive investments raise the opportunity cost of fighting.

One of the pioneering works in this literature has been written by Collier and Hoeffler (2002) whose pooled panel regressions do not reveal any correlation between aid and conflict. The follow-up study by de Ree and Nillesen (2009) has still focused on the country-year level as unit of observation but has addressed endogeneity bias by instrumenting foreign aid by changes in donor GDP. They find that a surge in foreign aid flows leads to an abbreviation of the conflict duration.

Motivated by concerns about unobserved heterogeneity, in recent years most articles in the literature have exploited within-country variation. One strand of work investigates the impact of unconditional cash transfers and aid (see the survey of Findley (2018)): Nunn and Qian (2014) use a shift-share instrument for US food aid that exploits time variation in US wheat production and cross-sectional variation in a recipient's propensity to obtain US food aid. They find that –if anything—receiving US food aid increases the risk of conflict.[38] Several recent papers find results that are consistent with this. In particular, Crost et al. (2014) draw on a regression discontinuity design for the Philippines' KALAHI-CIDSS development program, which was implemented by the Philippine government and funded through World Bank loans, showing that it has incited rebel groups to attempt to sabotage the program, which has resulted in a surge of violence. Most recently, Premand and Rohner (2022) have provided randomized

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[37] A related literature focuses on the nexus between foreign direct investment and transnational terrorism (see e.g. Bandyopadhyay et al., 2011).

[38] See also the literature on potential backlashes to foreign aid (e.g. Tokdemir, 2017).

control trial (RCT) evidence from Niger, finding that the cash transfers have led to a short-run surge in violence perpetrated from outside groups (and most notably Boko Haram). Taken together, these findings are in line with the predictions of the simple theoretical framework of Section 2, as a sudden surge in lootable resources (due to cash transfers or natural resource discoveries) triggers an increase in incentives for appropriative activities.

Hence, it is useful to turn to alternative aid programs that have a greater focus on boosting productivity. Crost et al. (2016) assess the randomized Pantawid Pamilya conditional cash transfer (CCT) program in the Philippines, where cash transfers are conditional on child vaccination and/or school attendance. They show that this program has resulted in a drop in violence. However, the specific context matters substantially, as the difference-in-difference analysis of Weintraub (2016) has uncovered, in contrast, an increase in conflict following the CCT program Familias en Acción in Colombia. Interestingly, the conditionality rules are based on household actions for the program in the Philippines (where conflict dropped), while inclusion conditions are defined at the municipality level for the Colombian program (where conflict surged). Studying the impact of further CCT across a variety of contexts would be very useful to shed further light on this.

Beyond unconditional or conditional cash transfers, several other (economic) public policies have been scrutinized. Drawing on difference-in-difference techniques, Berman et al. (2011) show that better service provision in Iraq has attenuated the insurgency risk, specifically when public safety is warranted (see Berman et al., 2013). This key importance of security guarantees has also been found by Sexton (2016). Drawing on fine-grained violence data for Afghanistan and exploiting random variation in counter-insurgency aid, this study finds that aid only manages to tackle insurgency when disbursed in areas already under pro-government control.

As far as studies are concerned that more specifically investigate the scope for raising productivity in fragile environments, the nascent literature on labor market interventions is particularly relevant. Blattman and Annan (2016) find in a randomized experiment in Liberia that the scope for illegal activities gets curbed by an employment program, and Fetzer (2020) shows that the Indian National Rural Employment Guarantee Act has managed to uncouple the nexus between productivity shocks and conflict, thereby reducing violence overall. Further, Lyall et al. (2020) have set up a two-legged RCT

featuring vocational training and cash transfers. They find that –conditional on training– the cash treatment has raised support for the Afghan government.

Finally, there is recent evidence on the role of policies boosting human capital. In particular, Rohner and Saia (2020) draw on a quasi-natural experiment of school construction in Indonesia, and conclude that an exogenous increase in the number of schooling places reduces the scope for conflict. Relatedly, Berlanda et al. (2022) instrument the access to antiviral treatments against HIV in Africa using cross-sectional variation in historic infection rates and over-time evolution in medical production costs, and find that better health provision drives down social violence.

7. Main ingredients of successful peace agreements

Not only the success of peace settlements can be measured using several criteria (see Section 3 above), also the relevant features and provisions of such agreements are manifold.[39] The careful design of peace agreements and the right composition in terms of clauses and provisions may have a strong impact on whether an agreement actually achieves peace (Badran, 2014). In particular, below we discuss how the design of peace agreements in the post-conflict reconstruction phase may affect the odds of lasting peace. Our synthesis will focus on factors that have been highlighted in the theoretical discussion of Section 2. We start with an examination of provisions putting in place a peace-compatible sharing of power and resources.

7.1. A peace-compatible distribution of power and resources

As discussed in Section 2, the three key policies labelled mediation, military and money also matter for the post-conflict stage when the goal is to avoid conflict recurrence. Beyond these three generic policies, in Section 2 we have also stressed the role of further specific factors, the first of which being a peace-compatible distribution of power and resources. From the theoretical standpoint this first main feature that peace agreements need to fulfill is that they provide each group with some sufficient share of political power and resources / rents, which formally amounts to $\underline{\alpha} < \alpha < \bar{\alpha}$.

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[39] The database "Peace Accords Matrix (PAM)" (Joshi et al., 2015) includes comprehensive accords and identifies 51 different types of ingredients (provisions). Joshi et al. (2014) find that provisions linked to a traditionally liberal mindset are frequently included as provisions (e.g. promotion of democracy, rule of law, emphasis on human rights, security sector reform, governance reform). Another classification of peace agreements has been provided by the UCDP Peace Agreement Dataset (see Wallensteen and Sollenberg, 1997; Harbom et al., 2006; Högbladh, 2012).

Before studying more specifically the (narrowly-defined) role of power-sharing,[40] we engage in a broader discussion of the role of democratic institutions. As discussed above in Section 2.4, democratic checks and balances can help to make sure that each group is politically represented and hence that $\underline{\alpha} < \alpha < \bar{\alpha}$. A series of theoretical frameworks have also stressed that democracy can address commitment problems (see Acemoglu and Robinson, 2006) and problems of asymmetric information (see Laurent-Lucchetti et al., 2021).

Empirically, the general impact of democracy on political stability has been found to be subtle. The qualitative evidence assembled by Lijphart (1999) points out that many successful and peaceful ethnically and religiously divided countries selected the "Consensus Model of Democracy" characterized by power-sharing and the decentralization of power on all levels. Statistical studies have reached a more qualified conclusion, which is unsurprising, as democracy may at the same time curb the reasons for rebellion but also increase the means to revolt (i.e. free assembly and freedom of expression make it easier to put in place a political opposition).[41] Consistent with these countervailing forces, in pooled panel regressions full democracy has been associated with lower conflict risks (Hegre et al., 2001), yet intermediate democracy levels have been found to correlate with a heightened risk (Hegre et al., 2001; Fearon and Laitin, 2003). Such an inverted U-shaped relationship between democracy and political violence has also been found in a recent study on terrorism by Gaibulloev et al. (2017) that instruments democracy levels exploiting regional changes in democracy.

A similarly qualified effect of democracy has been found by Collier and Rohner (2008) who conclude that in poor countries the conflict-fueling effects of democracy dominate, while in rich countries the peace-promoting channels are larger. Related to this, Wright (2008) stresses that the initial political competition in a democracy fosters its stability and drives down the conflict risk. Neither of the above studies on the impact of democracy could draw on exogenous variation in democracy and their focus was on exploiting cross-country variation. More recent work has instead focused on exploiting within-country variation over time. In particular, the fixed effects regressions of Sunde

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[40] The term "power-sharing" is used here very broadly, encompassing all situations where different groups benefit from a part of power. The term "power-sharing" is sometimes used more narrowly in the literature, distinguishing for example "power-sharing" and "power dividing" (see e.g. Roeder, 2005).

[41] Free elections may well in some situations fuel violence, and indeed political tensions in democracy often peak around elections (see e.g. Straus and Taylor, 2009; Collier, 2011). Esteban et al. (2015) also show that under some conditions, nascent democratization can go along with a substantial risk of mass killings of civilians.

and Cervellati (2014) and Laurent-Lucchetti et al. (2021) find that full democratization reduces the risk of conflicts over the control of government.

As far as particular aspects of democratic institutions are concerned, the rule of law, proportional representation and federalism correlate with a lower likelihood of conflict (Easterly, 2001; Reynal-Querol, 2002; Saideman et al, 2002).[42] Finally, Besley and Persson (2010, 2011) have emphasized the role of institutional constraints for peace by dealing with economic shocks. In particular, they exploit exogenous natural disaster shocks and find that these adverse shocks entail less of a conflict risk in the presence of high levels of executive constraints.

Zooming in on post-conflict reconstruction, democratization has been argued to be in principle a promising part of post-conflict policies –as long as democratization takes place slowly and gradually, starting with the building of solid domestic institutions before running open elections (see the qualitative case study evidence of Paris, 2004, and Diamond, 2006). This is in line with the findings from the pooled panel regressions of Flores and Nooruddin (2012) that early elections in nascent democracies are associated to conflict recurrence and that delaying elections by one or two years correlates with reduced risks. The analysis of Brancati and Snyder (2013) uses a range of matching techniques to address unobserved heterogeneity concerns. They find as well that holding elections soon after a civil war ends generally increases the likelihood of renewed fighting, but that favorable conditions, including decisive victories, demobilization, peacekeeping, power sharing, and strong political, administrative and judicial institutions, can mitigate this risk. Similarly, Walter (2015) stresses the crucial importance of strong institutions in post-conflict reconstruction. Both in a pooled panel, as well as in settings with country fixed effects, she finds that the rule of law and executive constraints significantly reduce the risk of civil war recurrence.

As far as the sharing of political power (in a more narrow sense) is concerned, there is a growing interest in understanding it better (see Francois et al. (2015) for a recent overview of this literature). One may indeed expect power-sharing to curb conflict incentives for opposition groups. The logic is straightforward: In the absence of power-sharing, an opposition group trades off the potential gains of conquering power with the dismal payoff of being excluded from political power. In contrast, in the presence of power-sharing, even groups not reaching an electoral majority at the polls will obtain

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[42] The peace promoting impact of proportional representation may come at the cost of greater and less targeted public spending and larger budgetary deficits, as stressed by Persson and Tabellini (2005).

some share of power, reducing hence the additional rents that could potentially be grabbed after a coup overturning democracy. Or put in terms of the formal model of Section 2, power-sharing can guarantee that each group receives a share of the "pie" that lies within the bargaining range, i.e. $\underline{\alpha} < \alpha < \bar{\alpha}$.

With respect to the general likelihood of conflict incidence as well as conflict intensity, power-sharing has been found to correlate with peace. Gurr (2000) makes the point— drawing on a global sample of minority groups at risk—that democratization and the move from assimilation and control to pluralism and accommodation of minority groups has been associated with a shift in ethnopolitical actions from rebellion to democratic protests. Further, it has been found that groups included in government show less propensity to engage in insurgency (Cederman and Girardin, 2007; Cederman et al., 2013).[43] Using the same data, Michalopoulos and Papaioannou (2016) show that groups which are split by a national boundary are much more likely to be politically discriminated by the central state. They also argue that political discrimination could form part of the link between partitioned groups and violence. Finally, the more recent article of Mueller and Rohner (2018) aims to address endogeneity concerns by exploiting arguably random variation in power-sharing related to whether the biggest group narrowly achieves or misses an absolute majority in local elections. They find that local-level power-sharing has significantly curbed the number of fatalities for Northern Irish districts.

After this brief overview of the impact of power-sharing on conflict incidence and duration, we shall in what follows address the more specific question of whether sharing of power provisions *in peace agreements* are a factor of success or not. While to the best of my knowledge there does not exist a study that has been able to exploit exogenous / random variation in the presence or absence of power-sharing in peace agreements, there is substantial correlational evidence that power-sharing provisions in peace agreements --especially before the first elections, and when combined with security guarantees-- are associated with a lower risk of conflict recurrence (Walter, 1997, Hartzell and Hoddie, 2003, Mattes and Savun, 2010, Joshi et al., 2017).

Beyond the distribution of political power, also the distribution of claims on resource rents matters. This is just another aspect of the condition that each group needs to

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[43] These findings are nuanced by the within-country fixed effects regressions of Roessler (2011) who stresses that power-sharing tends to reduce rebellion but at the cost of increasing the risk that included groups may attempt a coup from within.

benefit from a sufficient share of political power and resources / rents, which in terms of the model of Section 2 boils down to $\underline{\alpha} < \alpha < \bar{\alpha}$. Put differently, a group receiving less than its fair share of resources may have powerful incentives to seek secession. Hence, the sharing of natural resource rents has been shown in recent research to matter for political stability (see e.g. Morelli and Rohner, 2015, who find in a setting with ethnic group fixed effects that increases in an ethnic group's relative oil abundance fuel conflict). One telling study is by Albertus and Kaplan (2013) who draw on micro-data on land reforms in Colombia and address endogeneity bias using propensity-score matching and instrumental variable approaches. They find that an inequality-reducing land reform in Colombia –if on a large enough scale– has curbed fighting.

Concerning the impact of peace agreement provisions on resource and surplus sharing, there is correlational pooled panel evidence from earlier studies that economic and territorial power-sharing and territorial autonomy are associated with longer-lasting peace (Hartzell et al., 2001, Hartzell and Hoddie, 2003, DeRouen et al., 2009). The more recent study by Cederman et al. (2015) highlights a salient policy mix: Instrumenting autonomy with the interaction of British colonial past and group size, they show that decentralization and territorial autonomy in combination with national-level power-sharing is a powerful blend in post-conflict contexts to curb conflict recurrence.

7.2. Security guarantees for all groups and citizens

As discussed in the theory Section 2, commitment problems do not only arise during wars, but are equally salient in the post-conflict reconstruction phase. For groups to accept the rent sharing α, it is not only important that α lies in the bargaining range $\underline{\alpha} < \alpha < \bar{\alpha}$ (as discussed in the previous subsection), but equally that the government can credibly commit to the announced level of α and to the absence of a surprise first strike. Formally, this means to eliminate any first mover advantage, i.e. $p_{FM} = p_{SM}$. For this purpose, security guarantees are key. Given that we have already above in Section 5 discussed the general impact of security guarantees for fostering peace, in what follows we shall limit ourselves to specifically focus on their role in the context of peace agreements in a post-conflict setting.

In particular, the association between (third-party) security guarantees (e.g. by UN peacekeepers) and the longer "survival" of peace agreements has been documented

by pooled panel evidence from Hartzell et al., 2001, Fortna, 2004, 2008, Quinn et al., 2007, Kreutz, 2010, Matanock, 2017, 2020.

Beyond outside security guarantees, there is also a role for monitoring the group composition and governance within the national army. The findings of Hartzell and Hoddie (2003), DeRouen et al. (2009), and Joshi et al. (2015) show that security sector reforms and power-sharing in the military correlates with longer peace duration. In particular, it has been argued that ethnic balancing in the army is one way to reduce inter-ethnic tensions in ethnically divided countries (Wilkinson, 2015). Further, Samii (2013) has studied the impact of ethnic integration in Burundi's army, drawing on a natural experiment that exploits quasi-random variation in military retirement age. He finds that the extensive quota-based integration has resulted in a decrease in prejudicial behavior and has globally attenuated ethnic salience within the armed forces.

7.3. Other Factors: Reducing Asymmetric Information, Building Trust and Amnesties

As discussed in Section 2, reducing asymmetric information is not only key to stop the shooting, but equally during post-conflict reconstruction and peace stabilization. Specifically, the inclusion of mechanisms of monitoring and *sharing of military intelligence* has been found to correlate with longer lasting peace agreements. Mattes and Savun (2010: 511) stress that "provisions such as requiring belligerents to report their military information to third parties and stipulating that third parties verify the accuracy of such information through the introduction of verification sites or based on their own intelligence gathering significantly reduce the risk of renewed civil war."

Another salient issue for lasting peace pinpointed in the recent literature is the building up of *inter-group trust and national identity* as basic ingredients for long-run inter-group peace. This aspect is not present in the simple static model of Section 2, but it can be easily included in a dynamic conflict setting (see e.g. the framework of Rohner et al., 2013). [44] Recent work shows that one way to construct national identities and to reconcile former foes may be the organization of reconciliation ceremonies, as studied by Cilliers et al. (2016). They have set up a randomized field experiment in Sierra

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[44] Beyond the impact of identity on civil conflict, there is also a large literature explaining the drivers of national identity and its effects on outcomes such as public good provision (see e.g. Miguel, 2004; Akerlof and Kranton, 2010; Alesina et al., 2020).

Leone across 200 villages with community-level forums in which victims provide detailed accounts of war atrocities, and perpetrators confess to war crimes. They found that reconciliation on the one hand has led to greater forgiveness of perpetrators and strengthened social capital, while on the other hand the reconciliation treatment also worsened psychological health, increasing depression, anxiety, and posttraumatic stress disorder in these same villages.

Amnesties are another salient dimension of peace agreements which may result in a trade-off between "peace versus justice".[45] While the issue of amnesties is not covered in our simple model of Section 2, one could easily extend the setting to account for these issues. In particular, relaxing the simplifying assumptions of unitary groups, one could account for principal-agent issues, where amnesties could help to get the incentives right for agents to not sabotage peace deals. Taking into account the inter-temporal trade-offs implied by amnesties (i.e., easing peace today but providing bad incentives for future would-be despots) would typically also require a dynamic framework. In terms of empirical evidence, Joshi et al. (2017) find that amnesties and prisoner release before the first elections are associated with a reduced risk of peace breaking down. More recently, Dancy (2018) carries out an in-depth empirical analysis of the impact of amnesty provisions on peace duration. Addressing endogeneity concerns with a matching approach, he finds that i) only amnesties put in place after conflict termination help to resolve civil wars, ii) amnesties have a more beneficial impact when embedded in peace agreements, and iii) amnesties providing immunity for even the most serious rights violations do not foster the prospects of peace.

8. Main Policy Lessons

In what follows we shall summarize concisely the key take-home messages for policy makers arising from our survey of the literature.

Mediation: As shown in Section 2, there is a convincing theoretical argument for why and how mediation can help to reduce asymmetric information and hence attenuate risks of bargaining failure. When it comes to the empirical evidence (see Section 4), there is a substantial body of work finding a positive correlation between mediation and the likelihood of reaching a peace agreement. However, given the challenges to causal identification, this result should not be interpreted causally.

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[45] On the legal nature and status of peace agreements see Bell (2006).

Military intervention: There is a compelling theoretical case for security guarantees by an external enforcer to address commitment problems and foster successful bargaining (see Section 2). The vibrant recent empirical literature on this (surveyed in Section 5) draws on a series of approaches such as matching estimators or instrumental variables to estimate a causal effect. This body of work has found that UN peacekeeping forces significantly shorten conflict duration and substantially contribute to protecting civilian lives. Beyond such multilateral pacification efforts, recent work has studied the causal impact of exogenous variation in bilateral military aid from the United States to specific regimes, finding --if anything-- that this policy tends to backfire.

Money (i.e. economic policies): As shown in the theory Section 2, policies boosting productivity result in a higher opportunity cost of conflict, hence extending the peaceful bargaining range. When it comes to the empirical literature, there is substantial correlational evidence that general economic sanctions tend to backfire and hurt the civilian population, while targeted weapon embargoes can reduce violence. Concerning empirical studies on economic support, foreign aid and productivity enhancing policies in fragile countries, there is a vibrant recent literature exploiting natural experiments, instrumental variable approaches and randomized control trials (see Section 6). In a nutshell, unconditional cash transfers have been found to --if anything-- result in larger levels of violence, at least in the short run. This is consistent with the notion in our formal model of Section 2 that this corresponds to an increase in the appropriable rents. In contrast, conditional cash transfers have been found to have a pacifying effect in at least some contexts (in particular, when inclusion criteria were defined at the household level). Moreover, several recent studies have found that productivity-boosting policies such as employment programs, vocational training, school construction or health-promotion programs have led to a drop in fighting.

Post-Conflict Peace Agreement Design I (Power and Resource Sharing): There is a strong theoretical case for peace agreement provisions and / or institutional reform to make sure that each group of society benefits from some share of power and resources (or to put it in terms of the theory of Section 2, to make sure that the rent shares of all groups fall into the bargaining range). As surveyed in Section 7.1, recent research has aimed at causally identifying the impact of power-sharing, as well as of the sharing of resources and land, finding that power and resource access for all groups, together with autonomy provisions, are key ingredients for the stability of peace.

Post-Conflict Peace Agreement Design II (Security Guarantees, Reduction of Asymmetric Information and Trust): As shown in Section 2, also at the post-conflict stage security guarantees and the reduction of asymmetric information are key factors to prevent bargaining failure. There is much correlational evidence on the association of security guarantees and the sharing of military power and information with longer-lasting peace (see Sections 7.1 and 7.2). There is also recent empirical evidence on a causal effect of ethnically balanced armies, and on trust building measures including reconciliation ceremonies and the selective use of amnesties.

9. Conclusions and Scope for Future Research

As summarized in the previous section, the present survey has shown that there exist solid theoretical arguments and empirical evidence for a wide range of policies by outside parties that can contribute to pacification and successful post-conflict reconstruction. Yet there are several questions of interest for which the empirical literature suffers from gaps, especially as far as causal evidence is concerned.

In particular, addressing the gaps and shortcomings of the current literature on mediation and peace agreements represents a fruitful area for future work. First, and most importantly, the results on mediation discussed above cannot generally be interpreted in terms of causal identification of factor A *causing* factor B, making it hence hard to rule out confounders or spurious correlations. A great priority for future research on this topic is hence to find ways to achieve a causal identification, may it be by exploiting for example natural experiments or finding suitable instrumental variables or regression discontinuity designs. Exogenous variation in e.g. security council membership of historically allied states, retirement from national politics of high-profile politicians (using for instance narrow electoral defeats versus victories), summer holiday patterns of potential mediators (see Beber, 2009) or some combination of these sources of variation may be exploited.

Another grey zone with only scarce evidence persists concerning monetary transfers involved in mediation: Do leaders and their junta get "golden handshakes" when they decide to step down and open up for peace? Does "buying peace" in such ways "work" or does it backfire? In the simple theoretical model of Section 2 we have seen that the use of "carrots" (i.e. transfers) to mediation participants can extend the bargaining range, yet one could imagine that perceived injustices make it harder to build trust and

achieve lasting peace in a dynamic setting (see for example the model of Rohner et al., 2013). Studying the short- and long-run effects of such transfers could both be interesting in terms of theory and empirics.

Further, as shown by Bell (2018), women have been severely under-represented at negotiation tables (i.e. only 4 percent of peace agreement signatories were women and less than 3 percent of mediators). Hence, another dimension of mediation and peace agreements that deserves further statistical investigation is the causal impact of the level of diversity among mediators and negotiation factions, as well as the causal impact of peace agreement clauses and provisions regarding diversity questions.

Moreover, we also lack causal evidence on the optimal timing for starting mediation. While we know that a peace agreement started at some given time and its outcome, we don't know the counterfactual of what would have happened if it had started at some other moment in time (earlier or later). Related to this, we also lack good proxies for how "ripe" a conflict is for mediation, which again makes it hard to give policy recommendations on the optimal timing of mediation for real-work conflicts taking place currently. One potentially feasible and promising avenue would be to use predictions of the funding availability for rebel groups to gauge for their willingness to participate to the negotiation table. For example, mining or oil discoveries or price shocks could be exploited as exogenous sources of variation in rebel funding.

Last but not least, the (potentially context-dependent) effects of power-sharing arrangements and particular political institutions (like e.g. the use of direct democracy instruments such as referenda and initiatives) are still understudied. Exogenous variation in power-sharing can be provided for example by close elections, such as in Mueller and Rohner (2018), and applied widely for several countries. For studying the impact of direct democratic decision making on reducing inter-group tensions, village-level randomized control trials (RCTs) could be put in place.

References

Abadie, Alberto, and Javier Gardeazabal, 2003, "The Economic Costs of Conflict: A Case Study of the Basque Country", *American Economic Review* 93: 113-132.

Acemoglu, Daron, and James A. Robinson, 2006, *Economic origins of dictatorship and democracy*, Cambridge: Cambridge University Press.

Albertus, Michael, and Oliver Kaplan, 2013, "Land Reform as a Counterinsurgency Policy: Evidence from Colombia." *Journal of Conflict Resolution* 57: 198-231.

Alesina, Alberto, Bryony Reich, and Alessandro Riboni, 2020, "Nation-Building, Nationalism, and Wars", *Journal of Economic Growth* 25: 381-430.

Anderton, Charles, and Jurgen Brauer, 2021, "Mass Atrocities and Their Prevention", *Journal of Economic Literature* 59: 1240-92.

Akerlof, George, and Rachel Kranton, 2010, "Identity economics", *The Economists' Voice*, number 2.

Akhavan, Payam, 2001, "Beyond Impunity: Can International Criminal Justice Prevent Future Atrocities?", *American Journal of International Law* 95: 7-31.

Angell, Norman, 2010, *The great illusion*, New York: Cosimo.

Asseburg, Muriel, Wolfram Lacher, and Mareike Transfeld, 2018, "Mission impossible? UN mediation in Libya, Syria and Yemen," SWP Research Paper 2018/RP 08.

Ayres, Ian and Jennifer Gerarda Brown, 1994, "Economic rationales for mediation," *Virginia Law Review* 80: 323-402.

Badran, Ramzi, 2014, "Intrastate peace agreements and the durability of peace", *Conflict Management and Peace Science* 31: 193-217.

Balch-Lindsay, Dylan, Andrew J. Enterline, and Kyle A. Joyce, 2008, "Third-party intervention and the civil war process," *Journal of Peace Research* 45: 345-363.

Baliga, Sandeep, and Tomas Sjöström, 2013, "Bargaining and war: A review of some formal models." *Korean Economic Review* 29: 235-266.

Baliga, Sandeep, and Tomas Sjöström, 2020, "The Strategy and Technology of Conflict", *Journal of Political Economy* 128: 3186-3219.

Bandyopadhyay, Subhayu, Todd Sandler, and Javed Younas, 2011, "Foreign aid as counterterrorism policy", *Oxford Economic Papers* 63: 423-447.

Bapat, Navin, 2011, "Transnational terrorism, US military aid, and the incentive to misrepresent", *Journal of Peace Research* 48: 303-318.

Bauer, Michal, Christopher Blattman, Julie Chytilová, Joseph Henrich, Edward Miguel, and Tamar Mitts, 2016, "Can War Foster Cooperation?", *Journal of Economic Perspectives* 30: 249-274.

Beardsley, Kyle, 2008, "Agreement without peace? International mediation and time inconsistency problems", *American Journal of Political Science* 52: 723–740.

Beardsley, Kyle, 2009, "Intervention without leverage: Explaining the prevalence of weak mediators," *International Interactions* 35: 272-297.

Beardsley, Kyle, 2011, *The Mediation Dilemma*, New York: Cornell University Press.

Beardsley, Kyle, David M Quinn, Bidisha Biswas and Jonathan Wilkenfeld, 2006, "Mediation style and crisis outcomes", *Journal of Conflict Resolution* 50: 58–86.

Beardsley, Kyle, and Nathan Dannemann, 2015, "Mediation in International Conflicts", in Robert Scott and Stephen Kosslyn (eds.), *Emerging Trends in the Social and Behavioral Sciences*. Edited by Robert Scott and Kosslyn, Hoboken NJ: Wiley.

Beber, Bernd, 2009, "Summer Holidays and Conflict Resolution: Event Timing as an Instrument for the International Mediation of Wars", Working Paper.

Bell, Christine, 2006, "Peace Agreements: Their Nature and Legal Status", *American Journal of International Law* 100: 373-412.

Bell, Christine, 2018, "Women, Peace Negotiations, and Peace Agreements: Opportunities and Challenges", in Fionnuala Ni Aolain, Naomi Cahn, Dina Francesca Haynes, and Nahla Valji (eds.), *Oxford Handbook of Gender and Conflict*, Oxford: Oxford University Press.

Bercovitch, Jacob, J. Theodore Anagnoson, and Donnette L. Wille, 1991, "Some conceptual issues and empirical trends in the study of successful mediation in international relations", *Journal of Peace Research* 28: 7-17.

Bercovitch, Jacob, and Richard Jackson, 2001, "Negotiation or mediation? An exploration of factors affecting the choice of conflict management in international conflict", *Negotiation Journal* 17: 59-77.

Bercovitch, Jacob and Scott Sigmund Gartner, 2006, "Is there method in the madness of mediation? Some lessons for mediators from quantitative studies of mediation", *International Interactions* 32: 329–354.

Berlanda, Andrea, Matteo Cervellati, Elena Esposito, Dominic Rohner, Uwe Sunde, 2022, "Medication Against Conflict", Working Paper.

Berman, Eli, and David Lake (eds.), 2019*, Proxy Wars: Suppressing Violence through Local Agents*, Ithaca NY: Cornell University Press.

Berman, Eli, Jacob N. Shapiro and Joseph H. Felter, 2011, "Can Hearts and Minds Be Bought? The Economics of Counterinsurgency in Iraq", *Journal of Political Economy* 119: 766-819.

Berman, Eli, Joseph H. Felter, Jacob N. Shapiro, and Erin Troland, 2013, "Modest, secure, and informed: Successful development in conflict zones," *American Economic Review* 103: 512-17.

Berman, Nicolas, Mathieu Couttenier, Dominic Rohner and Mathias Thoenig, 2017, "This Mine is Mine! How Minerals Fuel Conflicts in Africa", *American Economic Review* 107: 1564-1610.

Besley, Timothy, and Torsten Persson, 2010, "State Capacity, Conflict and Development", *Econometrica* 78: 1-34.

Besley, Timothy, and Torsten Persson, 2011, "The Logic of Political Violence", *Quarterly Journal of Economics* 126: 1411-1445.

Bester, Helmut, and Karl Wärneryd, 2006, "Conflict and the social contract", *Scandinavian Journal of Economics* 108: 231-249.

Bevia, Carmen, and Luis Corchon, 2010, "Peace agreements without commitment", *Games and Economic Behavior* 68: 469-487.

Blattman, Christopher, and Jeannie Annan, 2016, "Can employment reduce lawlessness and rebellion? A field experiment with high-risk men in a fragile state", *American Political Science Review* 110: 1-17.

Blattman, Christopher, and Edward Miguel, 2010, "Civil war", *Journal of Economic Literature* 48: 3-57.

Böhmelt, Tobias, 2010, "The effectiveness of tracks of diplomacy strategies in third-party interventions", *Journal of Peace Research* 47: 167–178.

Bove, Vincenzo, Kristian Skrede Gleditsch, and Petros G. Sekeris, 2016, ""Oil above Water" Economic Interdependence and Third-party Intervention," *Journal of Conflict Resolution* 60: 1251-1277.

Brahimi, Lakhdar, and Salman Ahmed, 2008, "In pursuit of sustainable peace: the seven deadly sins of mediation," *Center on International Cooperation, Annual Review of Global Peace Operations*: 11.

Brancati, Dawn, and Jack Snyder, 2013, "Time to Kill: The Impact of Election Timing on Postconflict Stability", *Journal of Conflict Resolution* 57: 822-53.

Brito, Dagobert L., and Michael D. Intriligator, 1985, "Conflict, war, and redistribution", *American Political Science Review* 79: 943-957.

Brzoska, Michael, 2008, "Measuring the Effectiveness of Arms Embargoes", *Peace Economics, Peace Science and Public Policy* 14: Article 2.

Bundervoet, Tom and Philip Verwimp, 2005, "Civil War and Economic Sanctions: Analysis of Anthropometric Outcomes in Burundi," HiCN Working Papers 11, Households in Conflict Network.

Cederman, Lars Erik and Luc Girardin, 2007, "Beyond Fractionalization: Mapping Ethnicity onto Nationalist Insurgencies", *American Political Science Review* 101: 173-85.

Cederman, Lars-Erik, Kristian Skrede Gleditsch and Halvard Buhaug, 2013, *Inequality, Grievances and Civil War*, Cambridge: Cambridge University Press.

Cederman, Lars-Erik, Simon Hug, Andreas Schadel, and Julian Wucherpfennig, 2015, "Territorial Autonomy in the Shadow of Conflict: Too Little, Too Late?", *American Political Science Review* 109: 354-70.

Cesur, Resul, and Joseph J. Sabia, 2016, "When war comes home: The effect of combat service on domestic violence," *Review of Economics and Statistics* 98: 209-225.

Chamarbagwala, Rubiana, and Hilcías E. Morán, 2011, "The human capital consequences of civil war: Evidence from Guatemala", *Journal of Development Economics* 94: 41-61.

Chang, Yang-Ming, Joel Potter, and Shane Sanders, 2007, "War and peace: third-party intervention in conflict", *European Journal of Political Economy* 23: 954-974.

Cilliers, Jacobus, Oeindrila Dube, and Bilal Siddiqi, 2016, "Reconciling after civil conflict increases social capital but decreases individual well-being", *Science* 352: 787-794.

Clayton, G., Kathman, J., Beardsley, K., Gizelis, T.I., Olsson, L., Bove, V., Ruggeri, A., Zwetsloot, R., van der Lijn, J., Smit, T. and Hultman, L., 2017, "The known knowns and known unknowns of peacekeeping data", *International Peacekeeping 24*:1-62.

Collier, Paul, 2011, Wars, guns and votes: Democracy in dangerous places. New York: Random House.

Collier, Paul, V. L. Elliott, Havard Hegre, Anke Hoeffler, Marta Reynal-Querol, and Nicholas Sambanis, 2003, *Breaking the Conflict Trap: Civil War and Development Policy*, Washington, DC: The World Bank and Oxford University Press.

Collier, Paul, and Anke Hoeffler, 2002, "Aid, policy and peace: Reducing the risks of civil conflict", *Defence and Peace Economics* 13: 435-450.

Collier, Paul, and Anke Hoeffler, 2004, "Greed and grievance in civil war", *Oxford Economic Papers* 56: 563-595.

Collier, Paul, Anke Hoeffler, and Mans Soderbom. 2004. "On the Duration of Civil War", *Journal of Peace Research* 41: 253-73.

Collier, Paul, Anke Hoeffler, and Mans Soderbom, 2008, "Post-Conflict Risks", *Journal of Peace Research* 45: 461-478.

Collier, Paul, Anke Hoeffler, and Dominic Rohner, 2009, "Beyond greed and grievance: feasibility and civil war", *Oxford Economic Papers* 61: 1-27.

Collier, Paul, and Dominic Rohner, 2008, "Democracy, Development, and Conflict", *Journal of the European Economic Association* 6: 531-40.

Couttenier, Mathieu, Veronica Petrencu, Dominic Rohner, and Mathias Thoenig, 2019, "The violent legacy of conflict: Evidence on asylum seekers, crime, and public policy in Switzerland", *American Economic Review* 109: 4378-4425.

Crescenzi, Mark, Kelly M. Kadera, Sara McLaughlin Mitchell, Clayton L. Thyne, 2011, "A Supply Side Theory of Mediation", *International Studies Quarterly* 55: 1069–1094.

Crost, Benjamin, Joseph Felter, and Patrick Johnston, 2014, "Aid under fire: Development projects and civil conflict", *American Economic Review* 104: 1833-56.

Crost, Benjamin, Joseph Felter, and Patrick Johnston, 2016, "Conditional cash transfers, civil conflict and insurgent influence: Experimental evidence from the Philippines", *Journal of Development Economics* 118: 171-182.

Cunningham, David E., 2006, "Veto Players and Civil War Duration", *American Journal of Political Science* 50: 875-92.

Cunningham, David E., 2010, "Blocking resolution: How external states can prolong civil wars." *Journal of Peace Research* 47: 115-127.

Cunningham, David E., Kristian S. Gleditsch, and Idean Salehyan, 2009, "It Takes Two: A Dyadic Analysis of Civil War Duration and Outcome", *Journal of Conflict Resolution* 53: 570-97.

Cunningham, Kathleen Gallagher. 2013. "Actor Fragmentation and Civil War Bargaining: How Internal Divisions Generate Civil Conflict", *American Journal of Political Science* 57: 659-72.

Dal Bó, Ernesto and Pedro Dal Bó, 2011, "Workers, Warriors, and Criminals: Social Conflict in General Equilibrium", *Journal of the European Economic Association* 9: 646-677.

Dancy, Geoff, 2018, "Deals with the Devil? Conflict Amnesties, Civil War and Sustainable Peace", *International Organization* 72: 387-421.

Dashti-Gibson, Jaleh, Patricia Davis and Benjamin Radcliff, 1997, "On the Determinants of the Success of Economic Sanctions: An Empirical Analysis", *American Journal of Political Science* 41: 608-618.

De la Briére, Bénédicte, Deon Filmer, Dena Ringold, Dominic Rohner, and Anastasiya Denisova, 2017, *From Mines and Wells to Well-Built Minds: Turning Sub-Saharan Africa's Natural Resource Wealth Into Human Capital.* Washington DC: World Bank Publications.

De Montesquieu, Charles, 1989, *The spirit of the laws*, Cambridge: Cambridge University Press.

Dell, Melissa, Benjamin F. Jones, and Benjamin A. Olken, 2014, "What do we learn from the weather? The new climate-economy literature," *Journal of Economic Literature* 52: 740-98.

DellaVigna, Stefano, and Eliana La Ferrara, 2010, "Detecting Illegal Arms Trade", *American Economic Journal: Economic Policy* 2: 26-57.

De Ree, Joppe, and Eleonora Nillesen, 2009, "Aiding violence or peace? The impact of foreign aid on the risk of civil conflict in sub-Saharan Africa", *Journal of Development Economics* 88: 301-313.

DeRouen, Karl Jr., Jenna Lea, and Peter Wallensteen, 2009, "The Duration of Civil War Peace Agreements", *Conflict Management and Peace Science* 26: 367-387.

DeRouen, Karl Jr., Mark J Ferguson, Samuel Norton, Young Hwan Park, Jenna Lea and Ashley Streat-Bartlett, 2010, "Civil war peace agreement implementation and state capacity", *Journal of Peace Research* 47: 333-346

DeRouen, Karl, and Jacob Bercovitch, 2012, "Trends in civil war mediation", in: Joseph J Hewitt, Jonathan Wilkenfeld and Ted Robert Gurr (eds.) *Peace and Conflict 2012*. Boulder, CO: Paradigm.

DeRouen, Karl, and Frida Möller, 2013, "The Short-Term Effects of Mediation on Low-Intensity Civil Wars*", Negotiation Journal* October: 413-438.

Diamond, Larry, 2006, "Promoting Democracy in Post-conflict and Failed States: Lessons and Challenges", *Taiwan Journal of Democracy* 2: 93-116.

Diehl, Paul, Jennifer Reifschneider, and Paul Hensel, 1996, "United Nations Intervention and Recurring Conflict", *International Organization* 50: 683-700.

Dimant, Eugen, Tim Krieger, and Daniel Meierrieks, 2020, "Paying Them to Hate US: The Effect of U.S. Military Aid on Anti-American Terrorism, 1968-2014", working paper.

Dixon, William, 1996, "Third-party techniques for preventing conflict escalation and promoting peaceful settlement" *International Organization* 50: 653-81.

Doyle, Michael, and Nicholas Sambanis, 2000, "International Peacebuilding: A Theoretical and Quantitative Analysis", *American Political Science Review* 94: 779-801.

Doyle, Michael, and Nicholas Sambanis, 2006, *Making War and Building Peace*, Princeton NJ: Princeton University Press.

Drezner, Daniel, 2011, "Sanctions Sometimes Smart: Targeted Sanctions in Theory and Practice", *International Studies Review* 13: 96-108.

Druckman, Daniel, and James Wall, 2017, "A Treasure Trove of Insights: Sixty Years of JCR Research on Negotiation and Mediation", *Journal of Conflict Resolution* 6: 1898-1924.

Dube, Oeindrila, and Suresh Naidu, 2015, "Bases, bullets, and ballots: The effect of US military aid on political conflict in Colombia", *The Journal of Politics* 77: 249-267.

Duursma, Allard, 2014, "A current literature review of international mediation", *International Journal of Conflict Management* 25: 81-98.

Easterly, William, 2001, "Can Institutions Resolve Ethnic Conflict?", *Economic Development and Cultural Change* 49: 687-706.

Eberle, Ulrich J., Dominic Rohner, and Mathias Thoenig, 2021, "Heat and Hate: Climate Security and Farmer-Herder Conflicts in Africa", working paper.

Edwards, Ryan D., 2015, "Overseas deployment, combat exposure, and well-being in the 2010 National Survey of Veterans", *Journal of Human Capital* 9: 64-93.

Egeland, Jan, 2008, *A Billion Lives: An Eyewitness Report from the Frontlines of Humanity*, New York: Simon and Schuster.

Escribà-Folch, Abel, 2010, "Economic sanctions and the duration of civil conflicts", *Journal of Peace Research* 47: 129-141.

Esteban, Joan, Laura Mayoral, and Debraj Ray, 2012, "Ethnicity and conflict: An empirical study", *American Economic Review* 102: 1310-42.

Esteban, Joan, Massimo Morelli, and Dominic Rohner, 2015, "Strategic Mass Killings", *Journal of Political Economy* 123: 1087-1132.

Esteban, Joan and Debraj Ray, 2008, "On the Salience of Ethnic Conflict," *American Economic Review* 98: 2185-202.

Esteban, Joan and Debraj Ray, 2011, "A Model of Ethnic Conflict", *Journal of the European Economic Association* 9: 496-521.

Fearon, James, 1995, "Rationalist Explanations for War", *International Organization* 49: 379-414.

Fearon, James, 2017, "Civil War and the Current International System", *Daedalus* 146: 18-32.

Fearon, James D, 2004, "Why Do Some Civil Wars Last So Much Longer than Others?", *Journal of Peace Research* 41: 275-301.

Fearon, James and David Laitin, 2003, "Ethnicity, Insurgency, and Civil War", *American Political Science Review* 97: 75-90.

Fetzer, Thiemo, 2020, "Can workfare programs moderate conflict? Evidence from India", *Journal of the European Economic Association* 18: 3337-3375.

Fey, Mark, and Kristopher W. Ramsay, 2009, "Mechanism design goes to war: peaceful outcomes with interdependent and correlated types", *Review of Economic Design* 13: 233.

Fey, Mark, and Kristopher W. Ramsay, 2010, "When is shuttle diplomacy worth the commute? Information sharing through mediation", *World Politics* 62: 529-560.

Findley, Michael G., 2018, "Does foreign aid build peace?", *Annual Review of Political Science* 21: 359-384.

Findley, Michael G., and Tze Kwang Teo, 2006, "Rethinking third-party interventions into civil wars: An actor-centric approach", *The Journal of Politics* 68: 828-837.

Fjelde, Hanne, Lisa Hultman, and Desirée Nilsson, 2019, "Protection Through Presence: UN Peacekeeping and the Costs of Targeting Civilians", *International Organization* 73: 103-31.

Flores, Thomas, and Irfan Nooruddin, 2012, "The Effect of Elections on Postconflict Peace and Reconstruction", *Journal of Politics* 74: 558-570.

Fortna, Virginia Page, 2004, "Does Peacekeeping Keep Peace? International Intervention and the Duration of Peace After Civil War", *International Studies Quarterly* 48: 269-292.

Fortna, Virginia Page, 2008, *Does peacekeeping work?*, Princeton NJ: Princeton University Press.

Francois, Patrick, Illia Rainer and Francesco Trebbi, 2015, "How is Power Shared in Africa?", *Econometrica* 83: 465-503.

Frazier, Derrick, and William J. Dixon, 2006, "Third-Party Intermediaries and Negotiated Settlements, 1946–2000", *International Interactions* 32: 385-408.

Gaibulloev, Khusrav, James A. Piazza, and Todd Sandler, 2017, "Regime types and terrorism", *International Organization* 71: 491-522.

Gartzke, Erik, 2007, "The Capitalist Peace", *American Journal of Political Science* 51: 166-191.

Gelpi, Christopher, 1999, "Alliances as instruments of intra-allied control", in Helga Haftendorn, Robert O Keohane and Celeste A Wallander (eds.) *Imperfect Unions: Security Institutions over Time and Space*, Oxford: Oxford University Press.

Gent, Stephen E., 2008, "Going in when it counts: Military intervention and the outcome of civil conflicts", *International Studies Quarterly* 52: 713-735.

Ghobarah, Hazen, Paul Huth and Bruce Russett, 2003, "Civil Wars Kill and Maim People—Long After the Shooting Stops", *American Political Science Review* 97: 189-202.

Gilligan, Michael J., and Ernest J. Sergenti, 2008, "Do UN interventions cause peace? Using matching to improve causal inference", *Quarterly Journal of Political Science* 3: 89-122.

Glick, Reuven, and Alan Taylor, 2010, "Collateral Damage: Trade Disruption and the Economic Impact of War", *Review of Economics and Statistics* 92: 102–127.

Goltsman, Maria, Johannes Hörner, Gregory Pavlov, and Francesco Squintani, 2009, "Mediation, arbitration and negotiation," *Journal of Economic Theory* 144: 1397-1420.

Greig, J. Michael, 2005, "Stepping into the Fray: When Do Mediators Mediate?", *American Journal of Political Science* 49: 249–266.

Greig, Michael and Paul Diehl, 2012, *International Mediation*. Cambridge: Polity.

Greig, Michael, and Patrick Regan, 2008, "When do they say yes? An analysis of the willingness to offer and accept mediation in civil wars", *International Studies Quarterly* 52: 759-781.

Grossman, Herschel and Minseong Kim, 1995, "Swords or Plowshares? A Theory of the Security of Claims to Property", *Journal of Political Economy* 103: 1275-88.

Grossman, Guy, Devorah Manekin, and Dan Miodownik, 2015, "The Political Legacies of Combat: Attitudes toward War and Peace among Israeli Ex-combatants", *International Organization* 69: 981-1009.

Guidolin, Massimo, and Eliana La Ferrara, 2007, "Diamonds are forever, wars are not: Is conflict bad for private firms?", *American Economic Review* 97: 1978-1993.

Guidolin, Massimo, and Eliana La Ferrara, 2010, "The economic effects of violent conflict: Evidence from asset market reactions", *Journal of Peace Research* 47: 671-684.

Gurr, Ted, 2000, *Peoples Versus States: Minorities at Risk in the New Century*, Washington: United States Institute of Peace Press.

Gurses, Mehmet, Nicolas Rost, and Patrick McLeod, 2008, "Mediating Civil War Settlements and the Duration of Peace", *International Interactions* 34: 129-155.

Haass, Felix, and Nadine Ansorg, 2018, "Better peacekeepers, better protection? Troop quality of United Nations peace operations and violence against civilians", *Journal of Peace Research* 55: 742-758.

Harbom, Lotta, Stina Högbladh, and Peter Wallensteen, 2006, "Armed Conflict and Peace Agreements", *Journal of Peace Research* 43: 617-631.

Hartzell, Caroline, and Matthew Hoddie, 2003, "Institutionalizing Peace: Power Sharing and Post-Civil War Conflict Management", *American Journal of Political Science* 47: 318-332.

Hartzell, Caroline, Matthew Hoddie, and Donald Rothchild, 2001, "Stabilizing the Peace after Civil War: An Investigation of Some Key Variables", *International Organization* 55: 183-208.

Hegre, Havard, Tanja Ellingsen, Scott Gates and Nils Petter Gleditsch, 2001, "Toward a Democratic Civil Peace? Democracy, Political Change, and Civil War, 1816-1992", *American Political Science Review* 95: 33-48.

Heldt, Birger, 2009, "Sequencing of peacemaking in emerging intrastate conflicts", in Karin Aggestam and Annika Björkdahl (eds.), *War and Peace in Transition*. Lund: Nordic Academic.

Hellman, Johan, 2012, "The occurrence of mediation: A critical evaluation of the current debate," *International Studies Review* 14: 591-603.

Hirshleifer, Jack, 1995, "Anarchy and Its Breakdown", *Journal of Political Economy* 103: 26-52.

Högbladh, Stina, 2012, "Peace Agreements 1975-2011 – Updating the UCDP Peace Agreement Dataset" in Thérése Pettersson & Lotta Themnér (eds.), *States in Armed Conflict 2011*, Uppsala University: Department of Peace and Conflict Research Report 99

Hörner, Johannes, Massimo Morelli and Francesco Squintani, 2015, "Mediation and Peace", *Review of Economic Studies* 82: 1483-1501.

Hufbauer, Gary Clide, Jeffrey Schott, and Kimberly Ann Elliott, 1990, *Economic Sanctions Reconsidered: History and Current Policy*, Washington DC: Institute for International Economics.

Hultman, Lisa, 2010, "Keeping Peace or Spurring Violence? Unintended Effects of Peace Operations on Violence against Civilians", *Civil Wars* 12: 29-46.

Hultman, Lisa, 2013, "UN peace operations and protection of civilians: Cheap talk or norm implementation?", *Journal of Peace Research* 50: 59-73.

Hultman, Lisa, Jacob Kathman, Megan Shannon, 2013, "United Nations Peacekeeping and Civilian Protection in Civil War", *American Journal of Political Science* 57: 875-891.

Hultman, Lisa, Jacob Kathman, Megan Shannon, 2014, "Beyond Keeping Peace: United Nations Effectiveness in the Midst of Fighting", *American Political Science Review* 108: 737-753.

Hultman, Lisa, and Dursun Peksen, 2017, "Successful or Counterproductive Coercion? The Effect of International Sanctions on Conflict Intensity", *Journal of Conflict Resolution* 61: 1315-1339.

Jackson, Matthew and Massimo Morelli, 2007, "Political Bias and War", *American Economic Review* 97: 1353-73.

Joshi, Madhav, 2015, "Comprehensive peace agreement implementation and reduction in neonatal infant and under-5 mortality rates in post-armed conflict states, 1989-2012", *BMC International Health and Human Rights* 2015: 15-27.

Joshi, Madhav, Sung Yong Lee and Roger Mac Ginty, 2014, Just How Liberal Is the Liberal Peace?, *International Peacekeeping* 21: 364-389.

Joshi, Madhav, and Jason Michael Quinn, 2015, "Is the Sum Greater than the Parts? The Terms of Civil War Peace Agreements and the Commitment Problem Revisited", *Negotiation Journal* 31: 7-30.

Joshi, Madhav, and Jason Michael Quinn, 2017, "Implementing the Peace: The Aggregate Implementation of Comprehensive Peace Agreements and Peace Duration after Intrastate Armed Conflict", *British Journal of Political Science* 47: 869-892.

Joshi, Madhav, Jason Michael Quinn and Patrick Regan, 2015, "Annualized implementation data on comprehensive intrastate peace accords, 1989–2012", *Journal of Peace Research* 52: 551–562.

Joshi, Madhav, Erik Melander, and Jason Michael Quinn, 2017, "Sequencing the Peace: How the Order of Peace Agreement Implementation Can Reduce the Destabilizing Effects of Post-accord Elections", *Journal of Conflict Resolution* 61: 4-28.

Kathman, Jacob, and Reed Wood, 2016, "Stopping the Killing During the "Peace": Peacekeeping and the Severity of Postconflict Civilian Victimization", *Foreign Policy Analysis* 12: 149-169.

Kim, Wukki, and Todd Sandler, 2021, "Non-UN Peacekeeping Effectiveness: Further Analysis", *Defence and Peace Economics*, forthcoming.

Kim, Wukki, Todd Sandler, and Hirofumi Shimizu, 2020, "A Multi-Transition Approach to Evaluating Peacekeeping Effectiveness", *Kyklos* 73: 543-567.

King, Gary, Ori Rosen, Martin Tanner and Alexander Wagner, 2008, "Ordinary Economic Voting Behavior in the Extraordinary Election of Adolf Hitler", *Journal of Economic History* 68: 951-996.

König, Michael, Dominic Rohner, Mathias Thoenig, 2017, "Networks in Conflict: Theory and Evidence from the Great War of Africa", *Econometrica* 85: 1093–1132.

Konrad, Kai A., 2009, *Strategy and dynamics in contests*, Oxford: Oxford University Press.

Kopel, David, Paul Gallant and Joanne Eisen, 2010, "The Arms Trade Treaty: Zimbabwe, the Democratic Republic of the Congo, and the Prospects for Arms Embargoes on Human Rights Violators", *Penn State Law Review* 114: 891-953.

Krain, Matthew, 2005, "International intervention and the severity of genocides and politicides." *International Studies Quarterly* 49: 363-387.

Kreutz, Joakim, 2010, "How and when armed conflicts end: Introducing the UCDP Conflict Termination dataset", *Journal of Peace Research* 47: 243-250.

Kydd, Andrew, 2003, "Which side are you on? Bias, credibility, and mediation", *American Journal of Political Science* 47: 597–611.

Kydd, Andrew, 2006, "When can mediators build trust?", *American Political Science Review* 100: 449-462.

Lacina, Bethany, and Nils Petter Gleditsch, 2005, "Monitoring trends in global combat: A new dataset of battle deaths", *European Journal of Population* 21: 145-166.

Laurent-Lucchetti, Jérémy, Dominic Rohner and Mathias Thoenig, 2021, "Ethnic Conflicts and the Informational Dividend of Democracy", Working Paper.

Licklider, Roy, 1995, "The Consequences of Negotiated Settlements in Civil Wars, 1945-1993", *American Political Science Review* 89: 681-690.

Lijphart, Arend, 1999, *Patterns of democracy*, New Haven: Yale University.

Lyall, Jason, Yang-Yang Zhou, and Kosuke Imai, 2020, "Can economic assistance shape combatant support in wartime? Experimental evidence from Afghanistan", *American Political Science Review* 114: 126-143.

MacLeod, Bentley, Victoria Valle Lara, and Christian Zehnder, 2020, "Worker Empowerment and Subjective Evaluation: On Building an Effective Conflict Culture", NBER Working Paper 27857.

Maekawa, Wakako, 2019, "External Supporters and Negotiated Settlement: Political Bargaining in Solving Governmental Incompatibility," *Journal of Conflict Resolution* 63: 672-699.

Matanock, Aila, 2017, *Electing Peace: From Civil Conflict to Political Participation*, Cambridge: Cambridge University Press.

Matanock, Aila, 2020, "How International Actors Help Enforce Domestic Deals", *Annual Review of Political Science* 23: 357-383.

Mattes, Michaela, and Burcu Savun. 2010. "Information, Agreement Design, and the Durability of Civil War Settlement", *American Journal of Political Science* 54: 511-24.

Maundi, Mohammed, William Zartman, Gilbert Khadiagala and Kwaku Nuamah, 2006, *Getting in: Mediators' Entry into the Settlement of African Conflicts*, Washington DC: United States Institute of Peace Press.

Melin, Molly and Isak Svensson, 2009, "Incentives for talking: Accepting mediation in international and civil wars", *International Interactions* 35: 249–271.

Michalopoulos, Stelios and Elias Papaioannou, 2016, "The long-run effects of the scramble for Africa," *American Economic Review* 106: 1802-48.

Miguel, Edward, 2004, "Tribe or nation? Nation building and public goods in Kenya versus Tanzania", *World Politics* 56: 327-362.

Miguel, Edward, Shanker Satyanath, and Ernest Sergenti, 2004, "Economic shocks and civil conflict: An instrumental variables approach", *Journal of Political Economy* 112: 725-753.

Mitusch, Kay and Roland. Strausz, 2005, "Mediation in situations of conflict and limited commitment", *Journal of Law, Economics, and Organization* 21: 467-500.

Möller, Frida; Karl DeRouen Jr., Jacob Bercovitch and Peter Wallensteen, 2007, "The limits of peace: Third parties in civil wars in Southeast Asia, 1993–2004", *Negotiation Journal* October: 373-391.

Moore, Matthew, 2010, "Arming the Embargoed: A Supply-Side Understanding of Arms Embargo", *Journal of Conflict Resolution* 54: 593-615.

Morelli, Massimo, and Dominic Rohner, 2015, "Resource Concentration and Civil Wars", *Journal of Development Economics* 117: 32-47.

Morgan, T. Clifton. 1994. *Untying the knot of war: A bargaining theory of international crises*. Ann Arbor: University of Michigan Press.

Mueller, Hannes, and Dominic Rohner, 2018, "Can Power-sharing Foster Peace? Evidence From Northern Ireland", *Economic Policy* 33: 447-484.

Mueller, Hannes, and Julia Tobias, 2016, *The Cost of Violence: Estimating the Economic Impact of Conflict,* International Growth Centre (IGC).

Murdoch, James C., and Todd Sandler, 2002, "Economic Growth, Civil Wars, and Spatial Spillovers", *Journal of Conflict Resolution* 46: 91-110.

Muthoo, Abhinay, 1999, *Bargaining theory with applications*, Cambridge UK: Cambridge University Press.

Myerson, Roger, 1979, "Incentive Compatibility and the Bargaining Problem", *Econometrica* 47: 61-73.

Myerson, Roger, 2008, "Revelation Principle" in Steven Durlauf and Lawrence Blume (eds.), *The New Palgrave Dictionary of Economics*, Basingstoke UK: Palgrave Macmillan.

Nathan, Laurie, 1999, "When push comes to shove: The failure of international mediation in African civil wars*", Track Two* 8: 1–23.

Nathan, Laurie, 2014, "The Intelligence Requirement for International Mediation", *Intelligence and National Security* 29: 208-226.

Nunn, Nathan, and Nancy Qian, 2014, "US Food Aid and Civil Conflict", *American Economic Review* 104: 1630-66.

Ott, Marvin, 1972, "Mediation as a method of conflict resolution: Two cases", *International Organization* 26: 595–618.

Paris, Roland, 2004, *At War's End: Building Peace after Civil Conflict*. Cambridge UK: Cambridge University Press.

Persson, Torsten, and Guido Tabellini, 2005, *The Economic Effects of Constitutions*, Cambridge MA: MIT Press.

Powell, Robert, 2006, "War as a Commitment Problem", *International Organization* 60: 169-203.

Premand, Patrick, and Dominic Rohner, 2022, "Victims of Success? Experimental Evidence on Cash Transfers and Conflict in Niger", Working Paper.

Quinn, Michael, T. David Mason and Mehmet Gurses, 2007, "Sustaining the Peace: Determinants of Civil War Recurrence*", International Interactions* 33: 167-193.

Rauchhaus, Robert, 2006, "Asymmetric information, mediation, and conflict management", *World Politics* 58: 207–241.

Regan, Patrick, 2002, "Third-party interventions and the duration of intrastate conflicts." *Journal of Conflict Resolution* 46: 55-73.

Regan, Patrick, 2010, "Interventions into civil wars: A retrospective survey with prospective ideas", *Civil Wars* 12: 456-476.

Regan, Patrick, Richard W. Frank and Aysegul Aydin, 2009, "Diplomatic Interventions and Civil War: A New Dataset", *Journal of Peace Research* 46: 135-146.

Regan; Patrick, and Aysegul Aydin, 2006, "Diplomacy and Other Forms of Intervention in Civil Wars", *Journal of Conflict Resolution* 50: 736-756.

Reynal-Querol, Marta, 2002, "Ethnicity, Political Systems, and Civil Wars", *Journal of Conflict Resolution* 46: 29-54.

Roeder, Philip, 2005, "Power dividing as an alternative to ethnic power sharing", in Philip Roeder and Donald Rothchild (Eds.), *Sustainable Peace: Power and Democracy after Civil Wars*, Ithaca: Cornell University Press.

Roessler, Philip, 2011, "The Enemy Within: Personal Rule, Coups, and Civil War in Africa." *World Politics* 63: 300-346.

Ross, Michael L, 2012, *The oil curse*, Princeton NJ: Princeton University Press.

Rohner, Dominic, 2018, "Natural Resources and Conflict", *The New Palgrave Dictionary of Economics*: 1-8.

Rohner, Dominic, 2018b, "The economics of conflict: A literature review and practitioner's guide for the foreign aid community", *Revue d'économie du développement* 26: 5-25.

Rohner, Dominic, and Mathias Thoenig, 2021, "The elusive peace dividend of development policy: From war traps to macro-complementarities," *Annual Review of Economics* 13: 111-31.

Rohner, Dominic, Mathias Thoenig, and Fabrizio Zilibotti, 2013, "War Signals: A Theory of Trade, Trust and Conflict", *Review of Economic Studies* 80: 1114-1147.

Rohner, Dominic, Mathias Thoenig, and Fabrizio Zilibotti, 2013b, "Seeds of Distrust: Conflict in Uganda", *Journal of Economic Growth* 18: 217-252.

Rohner, Dominic, and Alessandro Saia, 2020, "Education and Conflict: Evidence from a Policy Experiment in Indonesia", Working Paper, University of Lausanne.

Ruggeri, Andrea, Han Dorussen, and Theodora-Ismene Gizelis, 2017, "Winning the Peace Locally: UN Peacekeeping and Local Conflict", *International Organization* 71: 163-185.

Saideman, Stephen, David Lanoue, Michael Campenni and Samuel Stanton, 2002, "Democratization, Political Institutions, and Ethnic Conflict: A Pooled Time-Series Analysis, 1985-1998", *Comparative Political Studies* 35: 103-29.

Samii, Cyrus, 2013, "Perils or Promise of Ethnic Integration? Evidence from a Hard Case in Burundi", *American Political Science Review* 107: 558-73.

Sandler, Todd, 2017, "International Peacekeeping Operations: Burden Sharing and Effectiveness", *Journal of Conflict Resolution* 61: 1875-1897.

Savun, Burcu, 2008, "Information, bias, and mediation success", *International Studies Quarterly* 52: 25–47.

Sexton, Renard, 2016, "Aid as a tool against insurgency: Evidence from contested and controlled territory in Afghanistan", *American Political Science Review* 110: 731-749.

Sisk, Timothy, 2009, *International Mediation in Civil Wars: Bargaining with Bullets*. London: Routledge.

Skaperdas, Stergios, 1992, "Cooperation, Conflict, and Power in the Absence of Property Rights", *American Economic Review* 82: 720-39.

Snyder, Jack, and Leslie Vinjamuri, 2004, "Trials and Errors: Principle and Pragmatism in Strategies of International Justice", *International Security* 28: 5-44.

Spirling, Arthur, 2012, "U.S. Treaty Making with American Indians: Institutional Change and Relative Power, 1784-1911", *American Journal of Political Science* 56: 84-97.

Stiglitz, Joseph and Linda Bilmes, 2008, *The Three Trillion Dollar War: The True Cost of the Iraq Conflict*, New York: W. W. Norton.

Straus, Scott, and Charlie Taylor, 2009, "Democratization and electoral violence in sub-saharan Africa, 1990-2007," working paper, University of Wisconsin, Madison.

Sullivan, Patricia L., and Michael T. Koch, 2009, "Military Intervention by Powerful States, 1945—2003", *Journal of Peace Research* 46: 707-718.

Sunde, Uwe, and Matteo Cervellati, 2014, "Democratizing for peace? The effect of democratization on civil conflicts", *Oxford Economic Papers* 66: 774-797.

Svensson, Isak, and Monika Onken, 2015, "Global Trends of Peace Negotiations and Conflict Mediation" in Michèle Roth, Cornelia Ulbert, and Tobias Debiel (eds.), *Global Trends 2015: Prospects for World Society*, Bonn/Duisburg: Development and Peace Foundation, Institute for Development and Peace/Käte Hamburger Kolleg - Centre for Global Cooperation Research.

Svensson, Isak, 2007, "Bargaining, bias and peace brokers: How rebels commit to peace", *Journal of Peace Research* 44: 177–194.

Svensson, Isak, 2009, "Who brings which peace? Biased versus neutral mediation and institutional peace arrangements in civil wars", *Journal of Conflict Resolution* 53: 446–469.

Tokdemir, Efe, 2017, "Winning hearts & minds (!) The dilemma of foreign aid in anti-Americanism", *Journal of Peace Research* 54: 819-832.

Touval, Saadia, 2003, "Mediation and foreign policy," *International Studies Review* 5: 91-95.

Touval, Saadia, and I. William Zartman, 1985, "Introduction: Mediation in Theory". *In International Mediation in Theory and Practice*, edited by Saadia Touval and I. William Zartman. London: Westview Press.

UCDP, 2021, "Uppsala Conflict Data Program", http://ucdp.uu.se/.

United Nations Guidance for Effective Mediation, 2012, https://peacemaker.un.org/

Urquhart, Brian, 1987, *A Life in Peace and War*, London: Weidenfeld and Nicolson.

Vinjamuri, Leslie, and Jack Snyder, 2004, "Advocacy and Scholarship in the Study of International War Crime Tribunals and Transitional Justice", *Annual Review of Political Science* 7: 345-362.

Vinjamuri, Leslie, and Jack Snyder, 2015, "Law and Politics in Transitional Justice", *Annual Review of Political Science* 18: 303-327.

Wall, James, and Ann Lynn, 1993, "Mediation: A Current Review", *Journal of Conflict Resolution* 37: 160–194.

Wall, James and Timothy Dunne, 2012, "Mediation research: A current review", *Negotiation Journal* 28: 217–244.

Wall, James, John Stark, and Rhetta Standifer, 2001, "Mediation: a current review and theory development", *Journal of Conflict Resolution* 45: 370-391.

Wallensteen, Peter and Margareta Sollenberg, 1997, "Armed Conflicts, Conflict Termination and Peace Agreements, 1989-96", *Journal of Peace Research* 34: 339-358.

Wallensteen, Peter, and Isak Svensson, 2014, "Talking peace: International mediation in armed conflicts", *Journal of Peace Research* 51: 315–327.

Walter, Barbara, 1997, "The Critical Barrier to Civil War Settlement," *International Organization* 51: 335-64.

Walter, Barbara, 2002, *Committing to Peace: The Successful Settlement of Civil Wars*, Princeton NJ: Princeton University Press.

Walter, Barbara, 2015, "Why Bad Governance Leads to Repeat Civil War", *Journal of Conflict Resolution* 59: 1242-72.

Walter, Barbara, Lise Morje Howard, and V. Page Fortna, 2021, "The extraordinary relationship between peacekeeping and peace", *British Journal of Political Science* 51: 1705-1722.

Weintraub, Michael, 2016, "Do all good things go together? Development assistance and insurgent violence in civil war," *The Journal of Politics* 78: 989-1002.

Werner, Suzanne and Amy Yuen, 2005, "Making and keeping peace", *International Organization* 59: 261-292.

Wilkenfeld, Jonathan, Kathleen Young, Victor Asal, and David Quinn, 2003, "Mediating international crises: Cross-national and experimental perspectives", *Journal of Conflict Resolution* 47: 279-301.

Wilkinson, Steven, 2015, *Army and Nation: The Military and Indian Democracy since Independence*, Cambridge MA: Harvard University Press.

Wohlforth, William, Benjamin de Carvalho; Halvard Leira; Iver B. Neumann, 2018, "Moral Authority and Status in International Relations: Good States and the Social Dimension of Status-Seeking", *Review of International Studies* 44: 526-46.

Wood, Reed M., Jacob D. Kathman, and Stephen E. Gent, 2012, "Armed intervention and civilian victimization in intrastate conflicts", *Journal of Peace Research* 49: 647-660.

Wright, Joseph, 2008, "Political Competition and Democratic Stability in New Democracies", *British Journal of Poltical Science* 38: 221-245.

Yared, Pierre, 2010, "A Dynamic Theory of War and Peace", *Journal of Economic Theory* 145: 1921-1950.

Appendix – List of Relevant Data Sources

Data on Conflict Incidence and Fatalities

High quality annual data on conflict incidence, onsets and fatalities is provided by the *"UCDP/PRIO Armed Conflict Dataset"* and *"UCDP Battle-Related Deaths Dataset"* which can both be accessed on https://ucdp.uu.se/ (see UCDP, 2021). An alternative data source at the country-year level is provided by the *"Correlates of War (COW) War Data"* available on https://correlatesofwar.org/data-sets (see Sarkees and Wayman, 2010)*.*

There are also various sources providing disaggregate conflict events data at the precise longitude-latitude and day level. These include *"UCDP Georeferenced Event Dataset (GED)"* available on https://ucdp.uu.se/ (see UCDP, 2021), "*Armed Conflict Location and Event Data (ACLED)"* available on acleddata.com (see Raleigh et al., 2010), *"Social Conflict Analysis Database (SCAD)"* available on https://www.strausscenter.org/ccaps-research-areas/social-conflict/database/ (see Salehyan et al., 2012), and the *"GDELT Project"* available on https://www.gdeltproject.org/ (see Leetaru and Schrodt, 2013).

Data on Mediation

Data on mediation is included e.g. in the *"Civil Wars Mediation (CWM)"* dataset available under https://www.canterbury.ac.nz/arts/research/bercovitch-data-centre/ (see DeRouen et al., 2011). See also the dataset *on "Diplomatic interventions and civil war"* available under https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/24822 (see Regan et al., 2009).

Data on Peacekeeping

Country-year level data on peacekeeping operations is provided e.g. by the *"United Nations Peacekeeping Personnel Data Project"* available under https://kathmanundata.weebly.com/ (see Kathman, 2013).

There exist also data at the subnational level. In particular, the *"Geocoded Peacekeeping Operations (Geo-PKO)"* dataset is available on https://www.pcr.uu.se/data/geo-pko/ (see Cil et al., 2020).

Data on the Content of Peace Agreements

There exist several datasets on the content of peace agreements, such as e.g. the *"Peace Accords Matrix (PAM)"* on https://peaceaccords.nd.edu/ (see Joshi et al., 2015), the *"UCDP Peace Agreement Dataset"* on https://ucdp.uu.se/ (see Högbladh, 2012), or the *"Peace Agreements Database (PA-X)"* available on www.peaceagreements.org (see Bell et al., 2021).

References:

Bell, Christine, Sanja Badanjak, Juline Beaujouan, Tim Epple, Robert Forster, Astrid Jamar, Sean Molloy, Kevin McNicholl, Kathryn Nash, Jan Pospisil, Robert Wilson, and Laura Wise, 2021, PA-X Peace Agreements Database and Dataset, Version 5.

Cil, Deniz, Hanne Fjelde, Lisa Hultman, and Desirée Nilsson, 2020, "Mapping blue helmets: introducing the geocoded peacekeeping operations (Geo-PKO) dataset", *Journal of Peace Research* 57: 360-370.

DeRouen Jr, Karl, Jacob Bercovitch, and Paulina Pospieszna, 2011, "Introducing the civil wars mediation (CWM) dataset", *Journal of Peace Research* 48: 663-672.

Högbladh, Stina, 2012, "Peace Agreements 1975-2011 – Updating the UCDP Peace Agreement Dataset" in Therése Pettersson & Lotta Themnér (eds.), *States in Armed Conflict 2011*, Uppsala University: Department of Peace and Conflict Research Report 99.

Joshi, Madhav, Jason Michael Quinn and Patrick Regan, 2015, "Annualized implementation data on comprehensive intrastate peace accords, 1989–2012", *Journal of Peace Research* 52: 551–562.

Kathman, Jacob D., 2013, "United Nations peacekeeping personnel commitments, 1990–2011", *Conflict Management and Peace Science* 30: 532-549.

Leetaru, Kalev, and Philip A. Schrodt, 2013, "Gdelt: Global data on events, location, and tone, 1979–2012", *ISA annual convention* 2: 1-49.

Raleigh, Clionadh, Andrew Linke, Håvard Hegre and Joakim Karlsen, 2010, "Introducing ACLED-Armed Conflict Location and Event Data", *Journal of Peace Research* 47: 651-660.

Regan, Patrick M., Richard W. Frank, and Aysegul Aydin, 2009, "Diplomatic interventions and civil war: A new dataset", *Journal of Peace Research* 46: 135-146.

Salehyan, Idean, Cullen S. Hendrix, Jesse Hamner, Christina Case, Christopher Linebarger, Emily Stull, and Jennifer Williams, 2012, "Social conflict in Africa: A new database", *International Interactions* 38: 503-511.

Sarkees, Meredith Reid and Frank Wayman, 2010, *Resort to War: 1816 - 2007*, Washington DC: CQ Press.

UCDP, 2021, "Uppsala Conflict Data Program", http://ucdp.uu.se/.