Sharing the Wealth:
A Pathway to Peace or a Trail to Nowhere?

Abstract

This article critically examines the notion that wealth sharing in the aftermath of internal armed conflicts can bring about long-lasting peace. While wealth sharing is increasingly considered a crucial element of peacebuilding, the evidence concerning its success is inconclusive. Previous studies unfortunately suffer from weak theoretical and empirical definitions of wealth sharing and from examining only a subset of postconflict societies. This article improves the research by disaggregating the concept of wealth sharing to concrete policy relevant natural-resource management tools and by introducing new and better data on wealth sharing and including more postconflict peace periods than previous studies. This article examines the relationships between armed conflict, wealth sharing and peace by studying two independent but interlinked research questions: In which postconflict societies is wealth sharing most likely to be adopted? And can wealth sharing bring stable peace in postconflict societies? The analyses show that wealth sharing is more likely to be implemented after natural resource conflicts. Nonetheless, the article does not find that wealth sharing is successful in bringing postconflict peace after these conflicts. This can be partly explained by (1) other factors than wealth sharing explain the outcome better, and (2) the wealth sharing policies are poorly designed and implemented. The article concludes that wealth sharing can only be a suitable path for societies recovering from armed conflict if such policies are carefully designed to fit the specific context and take into account the caveats that can be met.

Keywords:
civil war, conflict resolution, peacebuilding, resource conflict, resource management, wealth sharing

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Sharing the Wealth:
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Introduction

Can wealth sharing help establish sustainable peace? Scholars, policy makers, NGOs and advocacy groups are increasingly focusing on how redistributing economic benefits can help strengthen peace in countries ravaged by armed conflict (Haysom and Kane, 2009; Lujala and Rustad 2012). Knowledge about the potentially devastating relationship between resource wealth and armed conflict draws attention to how natural resource management can sustain postconflict peace. Inspired by successful peace agreements terminating the long-lasting civil wars in Southern Sudan and in Aceh in Indonesia, researchers are investigating whether similar wealth sharing arrangements can ease tensions in other countries as well (Lujala and Rustad 2012)

Advocates of wealth sharing often reflect a clear normative perspective, arguing that wealth sharing addresses resource injustices that are considered to be drivers of war. From this angle, wealth sharing should be implemented because it provides a fairer distribution of resource wealth. Thus, it is viewed both as a morally correct policy and as a suitable tool to mitigate grievances and reduce the likelihood of violence. In this article we critically examine the assumption that wealth sharing can bring peace to postconflict societies.

Only a few systematic analyses of this relationship exist, none of them being able to confirm that wealth sharing reduces the risk of peace failure (Hartzell and Hoddie, 2007; Le Billon and Nicholls, 2007; Mason, Gröbli and Sguaitamattiet, forthcoming; Mattes and Savun, 2009). Unfortunately, these studies suffer from weak theoretical and empirical definitions of wealth sharing and from examining only a subset of postconflict societies. Our article improves the research on wealth sharing and postconflict peace in three ways by: (1) investigating all postconflict societies between 1946 and 2006; (2) disaggregating the concept of wealth sharing to concrete policy relevant natural resource management tools, and (3) providing new and better data on postconflict wealth sharing.

Wealth sharing can have many forms. In this article we define wealth sharing as a way of managing natural resources so that access and control over them are more evenly distributed among a population. In a postconflict context, this especially aims at including rebel groups, conflict regions, and victims of war, by creating a positive dividend. We disaggregate wealth sharing into three categories: (i) wealth redistribution: specific provisions designed to distribute natural resource revenues across a postconflict society; (ii) resource power allocation: guaranteeing rebel groups resource control in government; and (iii) land reform: nation-wide rearrangements of land ownership.

It is not unlikely that different wealth sharing arrangements are adopted in somewhat different contexts. We therefore use our new data on postconflict wealth sharing to study two independent but interlinked research questions: In which postconflict societies is wealth sharing most likely to be adopted? And can wealth sharing bring stable peace in postconflict societies? We find that wealth sharing is most often introduced after natural resource conflicts; however, even with new and better data we are not able to find strong support for the common held assumption that wealth sharing strengthens peace.

This article proceeds as follows: We first discuss and compare previous studies and elaborate on how our approach adds to this research. We further describe our theoretical and empirical understanding of the three types of wealth sharing before analyzing where postconflict wealth sharing is most likely and the effect of such wealth sharing on peace. We end by discussing why we find no effect of wealth sharing on peace duration, pointing to poorly implemented policies and the possibility that natural resource issues are less important in postconflict societies than popularly assumed.

Previous Studies

Wealth sharing can take many forms and may have different labels. Below we elaborate on four systematic studies of wealth sharing. Even if these studies use the concepts 'economic power sharing' (Hartzell and Hoddie, 2007; Mattes and Savun, 2009) and 'revenue sharing' (Le Billon and Nicholls, 2007; Mason, Gröbli and Sguaitamattiet, forthcoming) rather than 'wealth sharing', we maintain that the policies analyzed in these studies fall within our conceptualization of wealth sharing.

Hartzell and Hoddie (2007) argue that limiting access to funding sources for waging war is important in postconflict societies because warring groups fear that unequal distribution of economic power can be used to threaten and exclude them from power. Wealth sharing—economic power sharing—is one way to regulate economic resources such that these postwar security concerns are met. Hartzell and Hoddie (2007: 160) code civil war settlements as containing economic power sharing provisions if they specify a 'resource-distribution pattern by the state to disadvantaged groups' or specific policies used to direct assets to groups based on group membership or geographic location. However, in their analyses they use a composite 'settlement institutionalization' variable with values from 0 to 4 based on the number of power sharing provisions in peace agreements (economic, political, military and territorial power sharing).

Analyzing 38 negotiated settlements of civil wars (more than 1000 annual battle deaths) between 1945 and 1999, Hartzell and Hoddie (2007) find that highly institutionalized settlements are less likely to see conflict recurrence. Interestingly though, in additional tests where they disaggregate settlement institutionalization into its four components, there is no significant correlation between economic power sharing and peace (Hartzell and Hoddie, 2007: 170p).

Mattes and Savun (2009) follow Hartzell and Hoddie's (2007) coding criteria, adding 10 peace agreements signed after 1999. Contrary to Hartzell and Hoddie (2007), Mattes and Savun (2009) investigate the four power sharing measures separately, but they also fail to find any relationship between economic power sharing and durable peace.

Another systematic study of wealth sharing and postconflict peace is Le Billon and Nicholls (2007). They compare three resource-related conflict termination instruments in 26 resource-financed armed conflicts after the Cold War: revenue sharing, economic sanctions and military interventions. Le Billon and Nicholls (2007) find that revenue sharing is successful in terms of the actual implementation of resource-related instruments and short-term conflict settlement, but not in terms of durable peace. Their resource-related conflict termination data is, however, not exposed to multivariate statistical analyses, and Le Billon and Nicholls (2007) do not compare resource-related instruments to other conflict termination instruments.

Mason, Gröbli and Sguaitamattiet (forthcoming) examine 94 peace agreements and the resource-related content in these. They find that about half of the agreements include provisions on natural resources, while 12 agreements contain revenue sharing provisions. Mason, Gröbli and Sguaitamattiet (forthcoming) do, however, not investigate revenue sharing specifically. Rather, their task is to look more generally at the role of natural resources in conflicts and peace agreements. They claim that for natural resource provisions in peace agreements to be successful, such provisions should be tailor-made to the specific situation both in terms of management policies and implementation.

Whereas Hartzell and Hoddie (2007), Mattes and Savun (2009) and Le Billon and Nicholls (2007) examine the effect of wealth sharing policies on postconflict peace, Mason, Gröbli and Sguaitamattiet (forthcoming) are more concerned with the quality of such resource-related policies than their effect on peace. Still, the conceptualization of 'revenue sharing' is comparable to the other works' conceptualizations. Although these studies claim to cover all relevant cases of postconflict wealth sharing, Table 1 shows that they have quite different views on which societies that actually adopt such policies.[1]

[1] While Le Billon and Nicholls (2007) and Mason, Gröbli and Sguaitamattiet (forthcoming) code

[TABLE 1 HERE]

Surprisingly, the four studies only agree on two cases of postconflict wealth sharing: the Philippines and Sudan. Even with seemingly similar coding rules, the decisions differ. Le Billon and Nicholls (2007), for example, find that the 1995 Abuja agreement in Liberia contains provisions for revenue sharing in relation to timber, whereas Mason, Gröbli and Sguaitamattiet (forthcoming) find no such provisions in the same peace agreement. Hartzell and Hoddie (2007) and Mattes and Savun (2009) also differ, although the latter claims to use the former's data. Neither of the economic power sharing agreements in postconflict Mali (1990-95) nor Moldova (1991-92) is recorded in Mattes and Savun (2009) even if they are among Hartzell and Hoddie's (2007) cases.

A new look at postconflict wealth sharing

Our approach differs from the above studies in several important ways. One obvious difference is the broader sample in this article compared to the other works. Hartzell and Hoddie (2007), Mattes and Savun (2009) and Mason, Gröbli and Sguaitamattiet (forthcoming) all look at peace agreements only and do not consider wealth sharing policies pursued outside the realm of peace negotiations. While Le Billon and Nicholls (2007) go beyond this strict focus on peace agreements, they limit their sample to post-Cold War conflicts where at least one natural resource instrument was introduced.

Unfortunately, examining only peace agreements leads to ignoring a large number of internal armed conflicts.[2] Establishing systems to share a country's wealth may be an

implementation year of wealth sharing arrangements and do not report conflict years, Hartzell and Hoddie (2007) and Mattes and Savun (2009) only code conflict years and do not report when wealth sharing was implemented.

[2] Of 288 conflict episodes between 1946 and 2005 less than 14% were terminated by peace agreements, 35% by military victories, while in the remaining conflicts violence ceased in other ways (Kreutz, 2010).

important element of a peace agreement, but such provisions could also be initiated unilaterally by a government. We argue that to understand the effect of wealth sharing on peace we need to examine all postconflict societies, regardless of termination.[3]

Our study also differs from the above studies because we provide more detail on the specifics of wealth sharing. Hartzell and Hoddie (2007) conceal the potential presence of wealth sharing (economic power sharing) in their composite measure of settlement institutionalization, making it hard to draw policy recommendations on resource management from their study. Mattes and Savun (2009) improve this by disaggregating the composite measure, but it is still not clear from their study if different types of wealth sharing have different effects on postconflict peace. Both Le Billon and Nicholls (2007) and Mason, Gröbli and Sguaitamattiet (forthcoming) disaggregate postconflict natural resource management, but none of them disaggregate revenue sharing. In this article we disaggregate wealth sharing into three concrete policy management tools: (i) wealth redistribution, (ii) resource power allocation, and (iii) land reform. We anticipate that natural resource management policies differ according to conflict contexts and also may have different effects on postconflict peace.

Whereas Le Billon and Nicholls (2007) also focus on strategies to keep warring groups away from natural resources; we focus only on strategies that provide a positive peace dividend, such as increased revenue transfers and access to power. While punitive instruments can be very efficient, they can also hinder more positive developments. For example, economic sanctions may limit rebels' access to natural resources, but sanctions may also limit local livelihood opportunities. All three postconflict wealth sharing policies we examine may bring changes in the short-run, something we anticipate is important for the positive peace dividend to be relevant.

3 Our sample also differs by covering a longer time period and a lower annual battle deaths threshold.

Additionally, we focus on management tools that may be implemented by the national (or local) governments without external assistance. Even if external actors are important in many postconflict situations, we argue that domestically initiated wealth sharing policies are better at securing local ownership to peace processes, which is known to strengthen postconflict peace (Jarstad, 2008: 126-7).

Previous quantitative studies have failed to find the relationship between wealth sharing and peace which many NGOs and advocacy groups assume exists. In this article we take a new look at this relationship by disaggregating wealth sharing theoretically and empirically and examining all postconflict societies since the Second World War. In the following sections we describe characteristics of the three wealth sharing policies.

Wealth Redistribution

The first category, wealth redistribution, implies distributing wealth and resource revenues more evenly among the population in a country. By emphasizing wealth *re*-distribution we emphasize that wealth is distributed differently *post*-conflict, than before or during conflict. Civil wars can be motivated by grievances related to unfair distribution of revenues, or the distribution of resource wealth can change during war such that rebel groups get control over resource-rich areas. In both these instances, it is not unlikely that wealth redistribution is proposed as a means to end conflict. Redistribution of wealth seems a logical solution to mitigating resource-related causes of war, especially in cases where unfair distribution is well-documented and where governments are sensitive to legitimate claims.

To address distributional claims, peace agreements may include specific provisions for a more just distribution of wealth. For example, one of the main motivations for the Free Aceh Movement (GAM) in Indonesia was that people in the region felt they did not receive enough income from the resources extracted in the Aceh districts. During the Suharto New Order regime, most of the revenues were collected centrally and distributed equally to both producing and non-producing districts, as well as a large sum for the central government. While a new national decentralization policy was suggested after the fall of Suharto in 1998, the conflict did not end before a 2005 agreement rewarded Aceh with 70% of the resource rents produced in the region (Aceh Agreement, 2005: Article 1.3.4). The Aceh region got full control over these resource rents as well as a large degree of autonomy (Wennmann and Krause, 2009).

In other instances, redistribution of wealth is not related to peace agreements at all. Governments can use wealth redistribution to address resource-related grievances and through this weaken rebel support. The decision by the Angolan government in the mid-1990s to reinvest 10% of oil revenues from the Cabinda region in the region itself was not part of a peace agreement with the FLEC rebels (Front for the Liberation of the Enclave of Cabinda), but an attempt to address claims from Cabinda's population.

Redistribution of wealth is the wealth sharing policy that is most similar to Hartzell and Hoddie's (2007) economic power sharing and the more specific concept of 'revenue sharing' (Le Billon and Nicholls, 2007; Mason, Gröbli and Sguaitamattiet, forthcoming). The central point is that societies emerging from internal armed conflict redistribute revenues from natural resources to certain regions aiming at fairer allocation of the country's wealth.

Allocation of Decision-Making Power over Resources

The second postconflict wealth sharing strategy we investigate is allocating decision-making power over natural resources, such as a particular ministerial position, to representatives of rebel groups. Resource power allocation differs from wealth redistribution in that it gives control over resources to certain *groups* and not to certain *regions*.

While the aim of wealth redistribution is to reduce poverty and (perceptions of) inequality, resource power allocation 'buys peace' through increasing the decision-making powers of potential 'spoilers'. Access to powerful positions can give rebels the respect and recognition they crave, and hence meet their demands. On the other hand, it may create a better opportunity for rebel groups to exploit resources for their own benefit.

The Sierra Leone peace agreement from 1999 exemplifies this. The RUF leader, Foday Sankoh, was assigned the chairmanship of the Commission for the Management of Strategic Resources, National Reconstruction and Development, which in reality meant de facto control over diamond extraction and income. Diamond smuggling was a crucial source of income for the RUF during the conflict and with this concession rebels kept control over Sierra Leonean diamonds even after the war.

Resource power allocation can be seen as a specific type of political power sharing and may be suggested as a compromise during peace negotiations (Jarstad, 2008: 111).

Land Reform

The third category of wealth sharing we examine is land reform. We distinguish land reform from the other redistribution cases because it relates directly to natural resources (land) and not revenues extracted from that resource. Additionally, land reform most often includes individual ownership rights, not redistribution to a certain region.

Many conflicts are directly linked to contested land. Unequal distribution of land and rural landlessness were central grievances that motivated the civil wars in El Salvador and Guatemala (de Bremond, 2007; Gauster and Isakson, 2007). In both these cases land reforms were suggested to rectify the extreme inequities considered to be key causes of the wars. The Guatemalan Socio-economic Accord, signed 6 May 1996, emphasizes access to land ownership for tenant farmers through a market-oriented approach (Gauster and Isakson, 2007: 1522). In El Salvador, the 1992 land transfer program specifically pointed out that land should be redistributed to ex-combatants from both the Salvadoran military and the FMLN (Farabundo Martí National Liberation Front), in addition, FMLN supporters should also benefit from the program (de Bremond, 2007: 1538).

In a postwar context, land reform can be relevant for many reasons. For example, allocating land to former government and rebel soldiers may be part of Disarmament, Demobilization and Reintegration programmes. Providing land to returning refugees and internally displaced persons is also a crucial concern in postconflict societies.

Substantial land reform may be the most challenging of the wealth sharing arrangements we discuss in this article. In many poor war-torn countries a minority of landowners controls a majority of the land. Rearranging such ownership structures to an extent that satisfies those involved will meet a number of obstacles.

Data and Methods

We investigate 254 postconflict peace periods following internal armed conflicts taking place between 1946 and 2006. These periods relate to 160 different conflicts occurring in 98 countries. The basis for our dataset is the UCDP/PRIO Armed Conflict Dataset 1946–2006 Version 4-2007 (Gleditsch et al., 2002; Harbom, 2007). If a postconflict peace period is shorter than two years we merge the two accompanying conflict episodes (the one before and the one after the short peace period) into one episode followed by one single peace period.

We code the presence or absence of wealth sharing policies for all 254 postconflict peace periods. To our knowledge, this is the first cross-sectional dataset covering resource management in relation to peacebuilding for all internal armed conflicts since the Second World War. We code peace periods according to the presence or absence of the three types of wealth sharing outlined in the previous section: redistribution of wealth, resource power allocation, and land reform. The variables are dichotomous and not mutually exclusive. We also include a dummy variable with the value 1 if there was at least one postconflict wealth sharing policy initiated in the aftermath of armed conflict.

Coding of *wealth sharing* relies extensively on Keesing's World News Archive and relevant peace agreements. In addition we use the Uppsala Conflict Data Program Database and the United States Library of Congress Country Studies. Other sources were consulted for specific cases. We code peace processes to address resource management issues through wealth sharing only if such tools are included in peace agreements, or if governments adopt such tools specifically to address conflict-related claims. Thus, preconflict arrangements are not included. Additionally, we include only wealth sharing provisions adopted within the first five years of the peace period.

Regarding the more specific coding criteria for the different types of wealth sharing, we code postconflict societies to use *wealth redistribution* if either a peace agreement or a unilateral government policy prescribes that a certain amount of state funds is to be transferred to a specific region that has been affected by the internal armed conflict in question. We also code wealth redistribution if postconflict policies allow conflict-affected regions to collect taxes from natural resources.

If representatives of rebel groups are allowed to join the postwar government and are given positions with responsibility for natural resources, we code the postconflict peace period to have *allocation of decision-making power over natural resources*. Examples include a rebel representative as Minister of Geology and Mines (Angola) and rebel integration in the water and forestry administration (Mali).

The third type of wealth sharing, *land reform*, is coded as being present in postconflict societies if a peace agreement or the government in charge after conflict termination calls for extensive transfers of land ownership. Land reform could refer both to redistribution of land to poor farmers, but also to disbanding land ownership as such. Appendix 1 gives an overview of the 25 cases of postconflict wealth sharing in our dataset.[4]

[4] Appendix 1 also reports whether the armed conflict was a resource conflict, the conflict duration, and whether the postconflict peace broke down or not.

We use the data to study two independent but interlinked research questions: In which postconflict societies is wealth sharing most likely to be adopted? And can wealth sharing bring stable peace in postconflict societies?[5] To answer the first question we use logit regression with a dependent variable coded 1 if the postconflict peace period saw wealth sharing and 0 if not. We conduct similar analyses with the three types of wealth sharing as dependent variables.

For the second question, we use a Cox proportional hazards model to analyze how wealth sharing—in general and as specific types—influences the duration of postconflict peace. The peace duration variable is measured as number of days from the first day of peace to the first day when the conflict again crosses the 25 battle-related deaths threshold. A censoring variable indicates whether the conflict resumed or not, while peace periods that did not fail before the last day of observation in the dataset are right-censored.

Our dataset also includes control variables to reflect conditions expected to influence adoption of wealth sharing and postconflict peace duration. Most postconflict peace studies control for conflict intensity, duration and type. While the effects of these variables on implementation of peacebuilding policies (Hartzell and Hoddie, 2007) and durable peace (Fortna, 2004; Hartzell and Hoddie, 2007; Mukherjee, 2006) differ, we follow the convention by including all three measures. We use the best estimate of *battle deaths* from Lacina and Gleditsch (2005) to control for conflict intensity. The variable is transformed using the natural logarithm. *Conflict duration* is calculated based on start and end dates in the UCDP/PRIO dataset; this variable is also transformed. We also use a dummy variable to record whether the conflict was a *natural resource conflict* or not (Rustad & Binningsbø, 2012).

Although we argue that wealth sharing can be pursued regardless of type of

[5] This research design is similar to Fortna (2004) who studies both where peacekeeping operations take place and their likely consequence for postconflict peace.

termination, it is not unlikely that such policies occur more often in relation to peace agreements. Treaties, however, have little influence on durable peace (Fortna, 2004: Mukherjee, 2006). We use Kreutz' (2010) outcome variable to construct a dummy variable with the value 1 if conflict ended with a *peace agreement* and 0 if not, as well as two similar variables each coded 1 for termination by *government victory* or *opposition victory*, respectively.

Democratic countries are more likely to be responsive to redistributive claims and are also found to prevent conflict recurrence (Mukherjee, 2006). Thus, we include a *democracy* and an *autocracy* variable (Marshall and Jaggers, 2009) in our models.[6] As postconflict institution building is costly, we expect developed countries to be more likely to implement wealth sharing (Hartzell and Hoddie, 2007) and also more successful in stabilizing postwar peace (Fortna, 2004; Hartzell and Hoddie, 2007; Mukherjee, 2006). We use *GDP per capita* from Penn World Tables (Heston, Summers and Aten, 2006), supplemented by Gleditsch (2002), to control for this. The GDP variable is transformed using the natural logarithm. The *democracy*, *autocracy* and *GDP* variables measure the postconflict 5 year average (or fewer years if peace did not last for 5 years). International peacekeeping is found to increase the likelihood of settlement institutionalization (Hartzell and Hoddie, 2007) and to strengthen postconflict peace (Fortna, 2004). We thus control for the presence of *UN peacekeeping.* Finally, as the end of the Cold War may represent better chances of peaceful end to conflicts, we add a *Cold War* dummy too (Hartzell and Hoddie, 2007).[7]

Findings

[6]The polity variable from the Polity IV project is recoded so that all postconflict societies with values larger than 5 are democracies and those with values lower than -5 are autocracies (Jarstad and Nilsson, 2008). The reference category is anocracy (societies with polity values between -5 and 5).

[7]UN peacekeeping is coded based on online descriptions of United Nations peacekeeping operations (http://www.un.org/en/peacekeeping/). The last Cold War year is 1989.

Natural resource management tools, such as wealth sharing, are increasingly seen as important for stabilizing postconflict societies (Lujala and Rustad, 2012). Table 2 shows that few of the 254 peace periods following internal armed conflicts between 1946 and 2006 used any wealth sharing arrangements. Among the 25 that did, 12 peace periods failed.

[TABLE 2 HERE]

On the face of it, it seems like wealth sharing has no impact at all on postconflict stability. However, this needs further scrutiny. Wealth sharing is a way of organizing natural resource revenues and power so that economic benefits are more evenly distributed among a population. Such solutions may not be equally relevant across all armed conflicts. Thus, we investigate if wealth sharing is more likely to be adopted as a peacebuilding tool in some contexts more than others.

When is Wealth Sharing Adopted?

It seems reasonable to expect that wealth sharing policies are more likely after internal armed conflicts which in some way were related to natural resource issues. We assume wealth sharing can be used as a means to provide security through guaranteeing rebels access to and control over natural resources. When natural resources play a direct role as a cause of armed conflict, for example when conflicts have been fought over (perceived) unfair distribution of resource revenues, wealth sharing may be a tool to make this distribution more just.

Table 3 confirms this expectation as the strongest predictor of postconflict wealth sharing is a natural resource-related armed conflict (Model 1). Among the other variables, *peace agreement* has a positive and significant effect on wealth sharing bivariately, but this effect disappears when controlling for other factors. Interestingly, *opposition victory* significantly increases the likelihood of postconflict wealth sharing, while *government victory* has no effect. This may indicate that rebel groups try to keep promises they have made about natural resource distribution. Both *democracy* and *autocracy* reduce the likelihood of postconflict wealth sharing, but only *autocracy* is significant. *UN peacekeeping* operations increase the chances of wealth sharing, but the effect is never significant. In sum, wealth sharing is more likely after natural resource conflicts and when the opposition wins the conflict, but less likely in autocratic societies.

[TABLE 3 HERE]

If we investigate the occurrence of the three types of wealth sharing separately, the results change slightly (Models 2 to 4). Armed conflicts terminated during the Cold War are significantly less likely to have postconflict redistribution. No other variables have significant effects, but redistribution may seem to be more likely after long-lasting conflicts (the p-value is 0.118) and *natural resource conflict* has a strong and significant influence on redistribution bivariately. No variables significantly predict postconflict resource power allocation.[8] Land reform is more likely with higher levels of battle-related deaths, peace agreements and in richer countries. Land reform is less likely after long-lasting conflicts and in autocracies.[9]

We see that wealth sharing does not occur randomly across internal armed conflicts, accordingly, the relationship revealed in Table 2 may not be surprising as the table treats all internal armed conflicts equally. In the following section we investigate the relation between wealth sharing and peace statistically, controlling for factors influencing both wealth sharing and postconflict peace.

When Does Wealth Sharing Bring Peace?

Table 4 shows Cox proportional hazard models analyzing the influence of wealth sharing on postconflict peace duration. Policy makers, practitioners and scholars claim that wealth

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[8] Bivariately, *battle deaths*, *peace agreement* and *opposition victory* significantly increases the likelihood of postconflict resource power allocation, while *government victory* and *autocracy* decreases this likelihood.

[9] Additionally, we controlled for territorial and ethnic conflicts, and an interaction between battle deaths and conflict duration, but this did not alter our findings.

sharing can play an important role in stabilizing postconflict societies (Haysom and Kane 2009, Lujala and Rustad 2012). In Table 4 we test this assumption, but find no significant effect of wealth sharing on peace, neither in a bivariate analysis (Model 5) nor a multivariate (Model 9). Above we claim that aggregated measures such as 'economic power sharing' and 'revenue sharing' are of less value as policy guides because the concrete natural resource management tool is unspecified and different policies can have different effects. In model 10 we therefore investigate the three types of wealth sharing separately.[10] While none of the policy variables are significant, this disaggregation proves fruitful because it shows that the three policies may have dissimilar effects on peace. Policy-makers must recognize that there is no general empirical relationship between wealth sharing policies and post-conflict peace duration.

[TABLE 4 HERE]

The analyses in Table 3 revealed that wealth sharing is not initiated randomly across postconflict societies, but occur more often when internal armed conflicts are related to natural resources. Thus, Models 15 and 16 investigate peace duration after resource conflicts only. In this sample *land reform* has a significant decreasing effect on risk of peace failure, but neither of the other wealth sharing variables has significant effects on postconflict peace.[11]

Similar to much of the quantitative postconflict research (e.g. Fortna, 2004; Hartzell and Hoddie, 2007; Mukherjee, 2006), most of the expected relationships do not hold when subject to statistical examination.[12] Among the few significant variables *government victory* has the strongest peace-prolonging effect, while *opposition victory* significantly increases the risk of postconflict peace failure when examining only natural resource conflicts.

[10] Models 6-8 show the bivariate relationships between type of wealth sharing and peace duration.

[11] Models 11-13 show bivariate effects of type of wealth sharing for natural resource conflicts only.

[12] When looking only at post-resource conflict societies, long-lasting conflicts are more likely to recur, while UN peacekeeping operations prevent resumption.

We ran additional analyses to check the robustness of the findings in Table 4. We added territorial and ethnic conflicts as control variables, but none of them changed the results substantially. We also ran the model for different sub-samples of conflict (only civil wars, conflicts terminated in the post-Cold War period), but this had little effect. Finally, we applied various techniques to check if the Cox model was the most suitable for our purposes, however, none of the alternative models proved better.[13]

We do not find strong support for the assumption that wealth sharing brings peace, however, our results may indicate that even if wealth sharing is not a panacea for all types of conflicts, it may strengthen peace if designed to address specific resource-related conflict issues. In particular, land reform may mitigate rebels' and rebel supporters' grievances when these are expressed violently in resource conflicts.

Discussion

In this article we present a new dataset on wealth sharing as a postconflict strategy and use this to test the relationship between internal armed conflict, wealth sharing and peace duration. Our analyses are an improvement compared to previous studies of this relationship because we disaggregate wealth sharing both theoretically and empirically. We also investigate a larger sample of postconflict societies. Intuitively, we assume that giving in to rebel demands should ease grievances and reduce the risk of peace failure. We do find that land reforms prolong peace duration after natural resource conflicts, but overall our analyses do not support the assumption that wealth sharing strengthens postconflict peace.

We believe there are two main reasons for this: (1) other factors than wealth sharing explain the outcome better, and (2) the wealth sharing policies are poorly designed and implemented. Below we elaborate on these two explanations and use examples from our data to illustrate the complicated relationships between resources, conflict and peace.

[13] Results from these tests are available upon request.

Recent research shows a link between natural resources and conflict, even if resources seldom are the sole cause conflict (e.g. Collier, Hoeffler and Rohner, 2009; Humphreys, 2005; Lujala, 2010). However, in many cases natural resources could aggravate other grievances. In these cases wealth sharing may not address the real causes of the conflict. Thus, peace may break down not because the wealth sharing arrangements were not good, but because they were not relevant. The civil war in Chechnya in Russia illustrates this well. A 1997 deal ensured Chechnya income from a transportation tariff on oil running through pipelines in the region as well as other arrangements in relation to oil and gas transportation. However, the crucial disagreement over Chechnyan status vis-à-vis the Russian Federation was not addressed, and violence erupted again in 1999, more brutal than ever.

The Bougainville conflict (1989-1996) has a similar story, but with a different outcome. The conflict was driven both by grievances related to mining operations such as environmental degradation, disagreements over compensations and complaints about revenue sharing schemes, as well as a desire to secede from Papua New Guinea (Regan 2003). In 2001 a peace agreement granted Bougainville autonomy, including control over issues such as land, natural resources and mining. The agreement also called for revenue sharing between the island and the national government. After cessation of violence in 1996 the conflict has not resumed. However, the sustained peace cannot be explained by successful sharing of revenues from the Panguna mine—as the mine has been closed since 1989—but rather by the autonomy provisions which addressed long-standing demands for more self-determination.

In both the Chechen and Bougainville cases natural resources played a role in the conflicts and wealth sharing policies were adopted to address these roles. However, the outcome of the two conflicts cannot be explained by these policies, but rather by the peacebuilding processes' success in addressing other important issues in the conflicts.

A second explanation for the lack of statistical support for the assumption that wealth sharing may bring durable postconflict peace is poor design and implementation of wealth sharing policies. In Angola, the long-lasting civil war was closely linked to natural resources. The MPLA government received its revenues from oil production, while the UNITA rebels used diamond smuggling to accrue funding. A 1994 power sharing agreement secured UNITA a government position and in 1997 a UNITA representative was appointed as Minister of Geology and Mines. Nonetheless, UNITA leader Savimbi lost the presidential election and the war restarted in 1998, not least because '[D]iamonds had made UNITA so rich that nothing that donors could offer would matter, while renewed predation offered massive rewards' (Collier, 2000: 18). Thus, even if the peace agreement allowed for allocation of decision-making power over the diamond riches, this wealth sharing design was not good enough to convince the UNITA to disarm.

As the Angola example shows, capturing the rents from primary commodities can serve as a motivation and an opportunity for rebellion. This makes it easier to sustain, escalate and restart conflicts as the resources offer financial support. In these cases, looting is the resource-conflict link, and wealth sharing can probably do little to remove the incentive to loot. Natural resource management strategies that curtail rebels' access to resources (revenues), such as the Kimberley Process Certification Scheme and economic sanctions, might be more efficient in ending conflict than wealth sharing aimed at creating a positive peace dividend.

Even though the relationship between wealth sharing and peace is not statically significant, in some cases the relationship is important. The land reforms in El Salvador and Guatemala are valid examples of wealth sharing policies that address resource-related grievances and contribute to durable peace after long and devastating armed conflicts.

In this article we have shown that even if the deleterious relation between natural resources and conflict has attracted substantial research attention lately, and wealth sharing is portrayed as a necessary and normatively correct approach, wealth sharing is not a straight road to peace. Rather, wealth sharing has mainly been adopted in societies at high risk of conflict recurrence and where resource-related disagreements are only one of several that must be solved. Wealth sharing can be a suitable path for societies recovering from armed conflict, but only if such policies are carefully designed to fit the specific context and take into account the caveats that can be met.

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Tables in: Sharing the Wealth: A Pathway to Peace or a Trail to Nowhere?

Table 1. Presence of Postconflict Wealth Sharing in Four Overviews

	Year of agreement/law		Years of conflict	
	Le Billon and Nicholls (2007)	Mason et al (forthcoming)	Hartzell and Hoddie (2007)	Mattes and Savun (2009)
Angola	Cabinda 1996			
	UNITA 1994			
Burma	1989–97			
Burundi		2000		2000-02
Cambodia	1996–98			
Colombia	1998		1948-57	
Costa Rica			1948	
Dem. Rep. Congo		2003		
El Salvador			1979-92	1979-91
Guatemala		1991	1963-96	1968-96
India		1993		
Indonesia	1999			
Iraq			1961-70	1961-70
Kosovo				1999
Lebanon			1958-58	1958-58
Liberia	1995			
Malaysia			48-56	1948-56
Mali			1990-95	
Mexico		1996		
Moldova			1991-92	
Nicaragua			1981-89	1981-89
Niger		1995		
Papua New Guinea	2001	2001		
Philippines	1996	1996	1972-96	1972-96
Zimbabwe			1972-79	1972-79
Russia	1996		1994-96	
Rwanda			1990-93	1990-93
Sierra Leone	1999		1992-96	1992-96
			1998-99	1998-99
South Africa				1983-91
Sudan	1997	2004	1963-72	1963-72
	2004			2003-04
Yemen			1962-70	1962-70

Table 2. Wealth sharing and Peace, 1946–2006

	Peace		
	Stable peace	Peace failure	Total
No wealth sharing	123	106	229
Wealth redistribution	6	5	11
Resource power allocation	3	3	6
Land reform	4	4	8
Total	136	118	254

Table 3. Logit Analysis of Factors Influencing Postconflict Wealth Sharing, 1946-2004

	Wealth sharing	Redistribution	Resource power allocation[a]	Land reform
	(1)	(2)	(3)	(4)
Resource conflict	1.244**	1.008	0.674	1.978
	(0.510)	(0.775)	(0.773)	(1.429)
Battle deaths (ln)	0.107	-0.278	0.253	0.976***
	(0.128)	(0.214)	(0.241)	(0.306)
Conflict duration (ln)	0.0857	0.468	0.222	-0.576
	(0.193)	(0.309)	(0.738)	(0.402)
Peace agreement	0.778	-0.260	1.286	18.59***
	(0.751)	(1.542)	(1.737)	(5.210)
Government victory	0.144	1.150		18.75***
	(0.795)	(1.002)		(4.887)
Opposition victory	1.466*	0.968		20.34***
	(0.859)	(1.502)		(4.833)
GDP per capita (ln)	0.336	-0.157	0.389	1.389**
	(0.347)	(0.646)	(0.658)	(0.563)
Democracy	-0.506	-0.646	-0.836	-0.304
	(0.657)	(1.073)	(1.548)	(1.128)
Autocracy	-1.348**	-0.666		-2.520*
	(0.624)	(0.830)		(1.325)
UN peacekeeping	0.304	0.177	-0.960	1.989*
	(0.776)	(1.191)	(1.501)	(1.163)
Cold war	-0.165	-1.222**	-0.886	1.349
	(0.443)	(0.495)	(1.066)	(1.553)
Constant	-6.538*	-3.129	-9.362	-39.67
	(3.364)	(5.127)	(8.635)	(0)
Observations	234	234	91	234

[a]Government victory, rebel victory and autocracy perfectly predict no resource power allocation and 143 cases are dropped from the analysis.
Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. A positive coefficient indicates higher probability of (type of) wealth sharing, while a negative coefficient indicates lower probability of (type of) wealth sharing.

Table 4. Wealth Sharing and Peace Duration, 1946–2004

	All conflicts						Resource Conflicts					
	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Wealth sharing	0.254				0.181		-0.0612				-0.297	
	(0.318)				(0.343)		(0.400)				(0.499)	
Redistribution		0.145				-0.0507		0.0639				-0.0645
		(0.492)				(0.447)		(0.510)				(0.566)
Resource power allocation			0.388			0.159			0.107			-0.0299
			(0.697)			(0.791)			(0.781)			(0.761)
Land reform				0.249		0.714				-0.615		-1.492*
				(0.480)		(0.584)				(1.057)		(0.878)
Resource conflict					0.420*	0.415*						
					(0.239)	(0.241)						
Battle deaths (ln)					-0.0545	-0.0637					-0.0155	0.0204
					(0.0492)	(0.0503)					(0.0689)	(0.0778)
Conflict duration (ln)					0.0268	0.0359					0.211**	0.197**
					(0.0618)	(0.0633)					(0.100)	(0.0991)
Peace agreement					-0.0557	-0.106					0.692	0.860
					(0.392)	(0.435)					(0.740)	(0.684)
Government victory					-0.711***	-0.694***					-1.960***	-1.906***
					(0.264)	(0.266)					(0.672)	(0.678)
Opposition victory					-0.174	-0.173					1.546**	2.067**
					(0.409)	(0.400)					(0.734)	(0.924)
GDP per capita (ln)					-0.110	-0.121					0.215	0.205
					(0.110)	(0.112)					(0.182)	(0.175)
Democracy					0.193	0.189					-0.485	-0.430
					(0.267)	(0.268)					(0.553)	(0.541)
Autocracy					0.0492	0.0626					-0.366	-0.306
					(0.225)	(0.227)					(0.399)	(0.392)
UN peacekeeping					-0.430	-0.491					-1.813**	-1.945**
					(0.395)	(0.444)					(0.829)	(0.849)
Cold war					-0.231	-0.267					-0.682*	-0.574
					(0.225)	(0.229)					(0.402)	(0.404)
Subjects	254	254	254	254	234	234	98	98	98	98	85	85
Peace failure	118	118	118	118	116	116	49	49	49	49	47	47
Conflict clusters	160	160	160	160	154	154	64	64	64	64	60	60

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. A positive coefficient indicates an increased risk of peace failure, while a negative coefficient indicates a reduced risk of peace failure.