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THE NEW ERA OF TURBULENCE: Peacemaking Trends in Post-Carbon Times

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ABSTRACT

Based on an empirical comparison of peace processes in carbon-dependent economies over time, this article investigates the impact of decarbonisation and the related decline of political finance in respective political marketplaces on peacemaking. It argues that, while the period of high oil prices in the mid-2000s was characterised several significant peace deals that attempted comprehensive settlements, the decline of oil prices in the years from 2013 to 2021 has led to a new era of turbulence. The reasons for these patterns are the availability and subsequent decline of political finance that enabled elite buy in at a large scale in “big tent” politics, as well as the rise and decline of strategic interest in geopolitical stability by international powers.

ABOUT

Carbon Compacts, Decarbonization, and Peace in Fragile States in Africa and the Middle East Project

[The Carbon Compacts, Decarbonization, and Peace in Fragile States in Africa and the Middle East](https://sites.tufts.edu/wpf/carbon-compact-decarbonization-and-peace-in-fragile-states-in-africa-and-the-middle-east/) project was a 21-month research project led by the World Peace Foundation at Tufts University and funded by the United States Institute for Peace. Our goal within the project was to analyze how traumatic decarbonization—a rapid loss of oil rents—would affect peace processes and political settlements in fragile oil-producing states in Africa and the Middle East. Under this project, a series of cross-cutting analyses and case studies (Iraq, Nigeria, South Sudan, Sudan, and Venezuela/Ecuador) were produced and are available at The World Peace Foundation website (<https://sites.tufts.edu/wpf/carbon-compact-decarbonization-and-peace-in-fragile-states-in-africa-and-the-middle-east/>).

World Peace Foundation

[The World Peace Foundation](https://www.wpf.org/), an operating foundation affiliated with The Fletcher School at Tufts University, aims to provide intellectual leadership on issues of peace, justice, and security. We believe that innovative research and teaching are critical to the challenges of making peace around the world and should go hand-in-hand with advocacy and practical engagement with the toughest issues. To respond to organized violence today, we not only need new instruments and tools—we need a new vision of peace. Our challenge is to reinvent peace.

PEACEREP

[PeaceRep](https://www.peacerep.org/) (Peace and Conflict Resolution Evidence Platform) is a research consortium based at Edinburgh Law School. Our research is rethinking peace and transition processes in the light of changing conflict dynamics, changing demands of inclusion, and changes in patterns of global intervention in conflict and peace/ mediation/transition management processes.

Author

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INTRODUCTION

The unprecedented steep rise in oil prices in the 2000s, and the sharp and equally unexpected decline in 2013, invite scholars to revisit and advance debates on the relationships among oil rents, environmental change, and conflict. Key to this is understanding the role of specific institutional political settlements—especially those that partly rely on rentier economics, such as the political marketplace. Against this background, the article intends to comparatively investigate the interrelation of decarbonisation and peace processes by looking at the process of political financing in the context of peace process implementation.

In doing so, the article moves away from explaining conflict and conflict transformation by looking at identity politics, which plays a dominant role in contemporary peace and conflict studies. The seismic shift in international carbon economics, which are reflected in the oil price and the changing oil production patterns, especially with the United States becoming the biggest oil producer in the world in 2017, serves as the starting point of this analysis. Such renewed attention follows up on discussions on international military interventions in oil-rich areas that were present in the 1970s and 1980s, and in the aftermath of the Gulf War in 1990/91. It does, however, provide a new lens, since it is less about the impact of natural resources in the realm of geopolitics and international intervention, but more about natural resources as source for political finance in different political marketplace settings undergoing war-to-peace transitions.

A comparative assessment of the global trajectories produced by these new conditions is necessary for identifying patterns that could point towards the consequences of what is to be expected as a process of global decarbonisation. Such decarbonisation, for the purpose of this article, is understood as a two-fold process related to the assumption of a strategic decline of crude oil prices. On the one hand, the so-called fracking revolution has reduced global dependency on the oil trade. This “revolution” has not only contributed to strategically low oil prices due to new, enormous oil reserves, but has also resulted in a geostrategic reconfiguration, especially in the Middle East. On the other hand, the global effort to reduce carbon-based economics to tackle climate change work towards yet another economic revolution towards renewable energies. If this change in the global energy mix should prove substantial and sustainable, visions such as “peak oil” and ever-increasing oil demand – resulting in ever-increasing crude oil prices – would become a thing of the past.

As some of the case studies in this collection demonstrate, such a change is already concretely experienced in some countries with a long history of armed conflict. Especially Sudan, once a profoundly oil-dependent economy whose per capita oil production has meanwhile dropped to the level of low-key producers like Austria, underwent this transformation of its economic basis and, consequently, its political-economic institutionalisation. Taking the experience of the armed conflict and peace process trajectories in such countries as a starting point, the article asks about the implications of carbonisation and decarbonisation on global patterns of war and peace. It argues that, indeed, both the periods of the sharp rise and the decline of oil prices have triggered specific consequences in (once) oil-dependent countries entangled in civil war. These consequences are not linear or direct: they are the result of broader structural shifts that come to the fore in the peculiar modes of political settlement institutionalisation in carbon-related economies.

For its empirical investigation, the article relies on the country case studies of WPF’s decarbonisation project and data from the PA-X peace agreements database, produced by the Political Set-

tlements Research Programme at the University of Edinburgh.¹ The database contains publicly available, written peace agreements since 1990. The corpus of peace agreements signed at the national and international level is by and large complete. The collection of so-called 'local peace agreements' produced at the subnational level is progressing but not comprehensive. Nevertheless, for the macro-comparison in this article, both agreement types were included.² In total, 1,868 peace agreements from 160 different conflict dyads have been included in the comparison. A typology of peace agreements (ceasefires, pre-negotiation agreements, partial agreements, comprehensive peace agreements, implementation and renewal agreements) and their recorded length and degree of comprehensiveness, has been used as the comparative factors.

The article sets off by exploring the conceptual background of the empirical investigation. The first section introduces the concepts of political settlement and political *unsettlement* and discusses their interrelation with carbon-dependent economies. The following section connects these concepts with the debate on the so-called 'resource curse' and on the current state of literature that discusses the interrelation between carbonisation, armed conflict, and peacemaking. After that, the empirical investigation follows. The peace agreement data is divided into oil-related and non-oil-related conflict dyads and presented in several descriptive statistics concerning the development of the price of crude oil. Analysis shows that the rise in oil prices in the 2000s led to a period of what we might call "stable peacemaking"—agreements that attempt to resolve an armed conflict by imposing a comprehensive set of transitional processes—while the price decline in the 2010s correlates with an era of "turbulent peacemaking"—a high number of, often short-lived, ceasefires but, by and large, and absence of comprehensive peace agreements. Possible reasons for these effects are discussed in the last section, possible long-term consequences in the conclusions.

Armed Conflict Un/Settlement and Carbon Economies

Despite consensus that a correlation exists between armed conflict and resource-dependent economies, the causal relationships are controversially debated, especially regarding how carbon-based economic systems impact politics, war and peace. The diversity of the carbon-producing case universe makes comparison difficult as institutionalized countries like Canada, Norway, the United Kingdom and the United States, share the conceptual space with conflict-affected countries like Libya, Iraq, South Sudan and Yemen. Countries such as Russia, Brazil, Saudi Arabia and Nigeria further muddy the waters by adding even greater variation in geography, history, governance systems, and levels of formal institutional rule.

A rough global cross-comparison involving the Freedom House Index (FHI) and UNDP's Human Development Index (HDI) affirms commonly held assumptions that carbon economies produce a better level of overall development while sacrificing political rights and democracy. When comparing the top-30 oil producers with the 160 remaining countries with both FHI and HDI-data, the average FHI score for the top oil producers is 45.47 (out of 100) compared with 60.11 for the rest of the world. In short, non-oil economies tend to produce more democratic systems. The picture changes when comparing HDI data. Here, the oil producers score 0.787 (out of 1 as the optimal

1 Bell and Badanjak, 2019.

2 A comparison shows that the documented local peace agreements in PA-X do not distort the overall comparison.

score) vis-à-vis 0.707 for the other economies. Oil economies tend to produce better human development than non-oil economies.

These numbers, however, only give part of the picture. Several of the top oil producers, particularly those with good FHI scores, have managed to diversify their economies or have, as the United States, even started to produce oil at a large scale after their economies had already been, in terms of overall GDP, big and diversified. In turn, the world's probably most carbon-dependent economy, South Sudan, does not even make it into the top 30 of oil producers, the same is true for Yemen, even though the war currently ongoing in the country is characterised by the interference of the two large oil producers Saudi Arabia and Iran.

It is for this reason that the empirical part of the paper chooses the portion of oil revenues in a country's GDP as the hard indicator for identifying carbon-related conflict. However, for the conceptual discussion, the picture based on the overall production capacity is interesting precisely because of these discrepancies. When discussing approaches such as the resource curse, a carbon-related political settlement or political marketplace, it is primarily those countries not fitting the resource curse picture that provide the important comparison. It looks reasonably straightforward to argue a resource curse and a devastating impact of carbon on armed conflict when only looking at examples like Iraq, Libya, South Sudan, or the wider Middle East that would include Syria and Yemen. Still, this is anecdotal evidence and could be easily countered by only highlighting examples such as the United States, Canada, Norway or China, countries that managed diversified economies despite a very significant oil production, or examples like Saudi Arabia, the United Arab Emirates or Qatar that manage to offer an attractive trade off between political rights and a high level of socio-economic development by using their oil revenues as a tool for political control.

Given these discrepancies, it is unsurprising that peace and conflict research has seen a decline in resource-related explanations in recent years. Multi-factor explanations such as bad governance, fragile pathways of socio-political institutionalisation and ethnopolitics have gained in attraction. Indeed, a linear explanation that would suggest direct causality between oil-dependency and patterns of armed conflict seem misleading. The impact of oil – or any other strategic resource – on politics in a given context depends overwhelmingly what institutional setting, or what can be called a “political settlement”, it is encountering. The link between the impact of natural resources and certain economic patterns, the broad socio-economic settlement, and politics have been developed and argued by a number of influential, wide-ranging studies, for instance by Douglass C. North and others³, Daron Acemoglu and James A. Robinson⁴, and Francis Fukuyama⁵.

The conceptual notion of “political settlements” condenses these broader institutional patterns to the specific structures of formal and informal institutions created by “bargaining outcomes among contending elites”⁶ over the mid to long term. The concept has been developed and increasingly used in the context of debates on development and statebuilding. More recently, it has also been deployed in investigations on the role of inclusivity in peacebuilding.⁷ The argument portrayed by the concept is that such political settlement manifests itself as a series of political rights and entitlements. Some of them formally inscribed into a given polity, others only existing in informal

3 North, Wallis, and Weingast, 2009.

4 Acemoglu and Robinson, 2012.

5 Fukuyama, 2012; Fukuyama, 2015.

6 Di John and Putzel, 2009: 4.

7 Pospisil and Rocha Menocal, 2017; Parks and Cole, 2010.

practices. This view provides a lens that overcomes the unhelpful distinction between legal and illegal, legit and corrupt political practices as they are frequently discussed in resource-dominated economies, often with moral underpinning.

Instead of painting a picture of right or wrong, political settlements can provide a background on the modes and specific modalities of public authority and legitimacy. The subject of perpetual bargaining, political settlements can thus explain how and why governance unfolds – or folds again in a process of ungovernance⁸. Moreover, debates over the last decade have suggested an interrelation between how a political settlement is forged and is working, and armed conflict.⁹ The prevailing assumption put forward is that an “inclusive political settlement” that would be able to accommodate all relevant political stakeholders along a comprehensive political agenda would enable to tame violence.

In essence, inclusive political settlements resemble functional and democratic statehood as the locus of public authority. The three elements highlighted by Fukuyama as the cornerstones of a modern political order: a stable institutional setting, the rule of law (in contrast to the non-inclusive rule by law), and state accountability are, in this understanding, result as well as a precondition of an inclusive political settlement. When political settlements “unsettle”, or if there has never been a political settlement institutionalised, political violence is likely. Structurally, there are three explanations for such processes that all bare specific relevance for processes of political unsettlement in carbon-based economies: (1) a lack of political or economic stability that results in substantial grievances and political unrest; (2) a fall-out in the elite pact at the heart of an exclusive political settlement, either motivated by radical political disagreement or by unfortunate incentives in a political marketplace; and (3) an institutional configuration that is unable to provide an institutional framework to either forge a political settlement or formalise political unsettlement.

Formalised political unsettlement is the institutionalisation of often-violent political contestation. It is either provided by contracts that bind formally bind belligerents into a joint transitional framework without any viable settlement reached, or by the institutionalisation of practices of violent but politically flexible contestation for power. The political marketplace represents the latter of these configurations – the perpetual fight for power is not based on incommensurable political principles, but on a highly competitive marketplace logic.

In most violent conflicts, a combination of these three patterns is at play. Rarely, a single-factor provides a sufficient explanation for armed conflict. Institutional settings like political settlements are a complex institutional system. They have specific characteristics and behavioural patterns, and ways to constrain actor behaviour. More loose or fragile political settlements often allow significant autonomy of actors, which can, at times, enable a transition of a tense political situation into armed conflict by unlucky or bad political decision making. In such contexts, armed conflict can result from political miscalculations or misfortunes without being actively pursued by any stakeholder. In other contexts, armed conflict itself may have developed into a characteristic of political institutionalisation.

Carbon economies show peculiar forms of political institutionalisation. However, institutions among them differ significantly. They broadly fall into three types: stable states with diversified economies, carbon-enabled political settlement, and situations of carbon-related political unsettlement.

First, as mentioned above, some of the biggest oil producers are stable states with diversified

8 Bell, 2020.

9 Cheng, Goodhand, and Meehan, 2018.

economies: the United States, Canada, Norway, the United Kingdom, Colombia, Mexico. If we rate stability over the quality of democracy, we can add Brazil, Indonesia, China, and Russia to the mix. In most of these cases, the ability to diversify economies is a result of when oil has been discovered in the pathway of a country's economic development and how other solid sectors of its economy perform. Even though oil revenue and the importance of oil as a resource are crucially important, countries like the United States or the United Kingdom are simply too powerful and diversified economies to become oil-dependent in their state revenues.

The second category is carbon-enabled political settlements, which often are authoritarian. Political settlements based on carbon economics disincentivise representation and inclusivity. Carbon-induced wealth and growth can be utilised as a tool for buying political legitimacy. As long as financial means are available, the desire for political participation can be kept at bay by providing a standard of living beyond any constraints of individual success in a capitalist market. In doing so, these regimes are, and partly were, able to postpone the politics of economic distribution. However, the problem with systems that disperse oil-fueled benefits to citizens in exchange for their acquiescence to postpone—perhaps indefinitely—wider economic and political representation becomes immediately clear when oil revenue falls (from either low prices or decreased production). In a number of instances, carbon-based political settlements, not only nationally but regionally, become unstable and even untenable: Iraq, Syria, Libya, and, to an extent, Venezuela and Iran are cases in point. In other countries, oil revenues are substantial enough to maintain a political settlement: Saudi-Arabia, the United Arab Emirates, Kuwait, and Qatar are prominent examples; as are Kazakhstan, Azerbaijan, Angola, and Algeria, although to a lesser extent.

The third category is carbon-related political unsettlement, which usually occurs when oil reserves are discovered and exploited in an institutionally fragmented polity. In such circumstances, the new revenue does not trigger conflict since political conflict was already ongoing, often in a violent way. Yet, it severely impacts the conflict landscape and catalyses political reconfigurations, for example, by incentivising a formalisation of political unsettlement that might even tame violence in order for conflict parties to reap political rents out of the new wealth (often substantial). Few cases fall in this category, but those that do are significant contributors to the global landscape of armed conflict: Sudan, South Sudan, Nigeria, Mozambique, and partly also Yemen and Syria – the latter two, even though limited in their oil resources, located strategically within an oil-rich region and their conflicts substantially impacted by oil-rich regional powers.

This brief conceptual discussion shows that the interrelation between the configuration of a political settlement and the economy's carbon-dependency is not linear and direct. Qualitatively assessing the cases at hand, GDP-dependency on oil impacts representative and democratic governance, a correlation which might be caused by the ability to “buy” political legitimacy. Academic accounts confirm a negative correlation based on a quantitative global comparison.¹⁰ Based on the heuristic qualitative framework presented here, this is undoubtedly the case for carbon-related authoritarian political settlements. Matters are, however, different for the other two forms of political institutionalisation. In more general terms, this claim falls in line with previous comparative research suggesting that carbonisation of an economy does not result in an institutional transformation.¹¹ For the purpose of this article, it is necessary to know whether this insight also holds true when looking at decarbonisation in situations of ongoing armed conflict.

10 Aslaksen, 2010

11 Mehlum et al., 2006

Revisiting the “Resource Curse”

The discussion of the particularities of carbon-based political settlements has already highlighted the problems attached to a general “resource curse”-argument, defined as “the perverse effects of a country’s natural resource wealth on its economic, social or political well-being”¹², in relation to violent conflict. Whether the peculiar impact of economies heavily reliant on resource rents on political settlement formation is indeed a “curse” depends, first and foremost, which institutional setting the availability of resource rents is meeting. Whether an impact turns into a curse depends, first and foremost, on the context.

Despite its questionable overall value, the resource curse argument is widely debated in peace and conflict studies. While its general purchase has dropped in recent years, it is still of considerable influence in academic and policy debates, especially when it comes to countries like DRC (diamonds, coltan), Sudan (gold), South Sudan, or the wider Middle East (the latter cases because of oil). However, comparative research has always had difficulties establishing overall patterns, largely along the discrepancies between oil-impacted economies as described above. Most accounts have been able to establish quantitative significance supporting the assumption whereby carbon economies face an increased risk of violent conflict. One of the most-cited comparative accounts, by Fearon and Laitin, state that even when considering a number of interfering variables, “[t]he effect of oil remains strong”.¹³ A more recent study by Lei and Michaels establishes an increased risk of violent conflict by 8% after oil is discovered.¹⁴

What these studies do not take into account, however, is the pre-existing political settlement patterns at play. For instance, it is perfectly possible from a combination of variables to empirically argue a resource curse for the armed conflicts in Sudan and South Sudan. The ebbs and flows of the armed conflict over time show significant correlation with the carbon economy. The start of the second Sudanese civil war in 1985 coincides with the beginning of oil exploration on a large scale. The negotiations on the Comprehensive Peace Agreement follow the beginning of oil production in 1999 and coincide with a substantial rise in global oil prices and a consequential substantial expansion of the Sudanese GDP. Finally, the breakdown of the South Sudanese internal political unsettlement in 2013 and the fall of the Bashir regime in Sudan in 2019 correlate with a sudden and, in the case of Sudan, a strategic decline in oil revenue.

Nevertheless, this story is only half of the picture. Sudan, especially its South, has been, with only brief interruptions, continuously at war since the begin of the colonisation with the Turkiyya period, the Turkish rule over Egypt and Sudan since the early 19th century. While the Sudanese economies’ carbonisation and decarbonisation play a substantial role in explaining the conflict trajectories in both Sudan and South Sudan, they are not the reason for warfare. It may be even likely that the South Sudanese political marketplace will be able to sustainably transform into a post-carbon era, with the very same patterns of violent political domination continuing based on the utilisation and exploitation of alternative, albeit significantly lower, sources of income.

Moreover, the resource curse argument requires contextualisation in a geopolitical and geostrategic sense. Without a doubt, the long-lasting and considerable interference of the United States in the wider Middle East, especially from the 1960s to the 1990s, has been motivated by the United States’ interest to strategically control the region’s vast oil resources. Similarly, the current

¹² Ross, 2018: 200

¹³ Fearon and Laitin, 2003: 86

¹⁴ Lei and Michaels, 2014

disinterest in, if not the strategic disengagement from the region needs to be read against the background of the strategic decline in dependency. Besides the elements of direct interference, most recently, in Iraq, the effects of the declining interest are mainly indirect. The long-standing interest of the United States and other global powers in regional stability that serves their self-interest has resulted in a particular pathway of political institutionalisation. The ruling systems in countries such as Saudi Arabia, the United Arab Emirates, Kuwait, or – over decades – the Iraq under Saddam Hussain are impossible to explain without the strategic interest the United States took in the region. But also countries such as Syria, Libya, Turkey, and Yemen profited significantly from the overall relatively stable, US-guaranteed regional order.

With the United States' shift from the largest oil importer to the largest oil producer in the world, the situation has changed significantly in recent years. More in an attempt to stabilise global oil prices and the sources of political finance in the region, the United States guaranteed the stability of the Middle East. Its strategic reorientation from this stabilisation paradigm and towards a focus on the Asia-Pacific region and China correlates with the United States becoming oil-autark. The oil-induced regional stability especially in the MENA region, a stability that, of course, must not be misunderstood as an, by any measure, inclusive political settlement, broke, and, starting from the failure to stabilise Iraq, Syria, Libya, and Yemen drifted into violent turmoil. It is as if the resource curse arrived late, after the strategic importance of the region has ended.

Against the background of comparative conflict patterns as well as case studies, the resource curse argument needs to be complemented by two additional elements. First, in contrast to many accounts elaborating on the resource curse, especially in violent conflict, the resource curse often works in an indirect way. It creates its impact at a systems level and, in many instances, not nationally but mediated through regional integration and institutionalisation. It would be misleading to interpret carbonisation and decarbonisation as mainly national phenomena.

Second, based on the observations by the case studies, it is safe to assume that decarbonisation has an at least equally substantial effect compared with carbonisation. The turbulent situation in the contemporary Middle East would even suggest that the effects of decarbonisation are structurally more destabilising than carbonisation. In blunt words, it may not be oil that causes conflict. It may be the loss of oil that causes conflict. This assessment is supported by the cross-national analysis in this paper.

Making this argument is not straightforward. The uncertainties of prediction are going to increase in a global process of gradual decarbonisation, which is, due to substantial international efforts by states and the private sector to reduce or even eliminate the carbon-dependency in energy production and transport to tackle adverse ecological effects, likely to occur in forthcoming decades. One of the particular uncertainties is the question of what resources, and what types of resources, gain in strategic importance when the relevance of oil is declining. The Horn of Africa presently demonstrates the strategic role of water, regionally, as demonstrated by the dispute about the Grand Ethiopian Renaissance Dam and its impact on the Nile waters, or locally, where a reducing number of water points and related livestock migration routes regularly develop into conflict triggers.

Peacemaking in Oil-Dependent Countries

What does empirical data reveal about the effects of carbonisation and decarbonisation on peace processes that have occurred since 1990? The following empirical comparison suggests a relatively simple and straightforward mechanism: an upswing and high level of oil prices, with a related substantial increase of state revenue and GDP, in hard currency from exports, seem to calm down conflict and incentivise comprehensive peacemaking. In contrast, falling prices seem to result in a breakdown of political settlements or formalised situations of political unsettlement and, as a result, a triggering of violent conflicts.

To empirically substantiate this argument, peace agreement data from the PA-X peace agreements database was used to calculate a few descriptive comparisons between peace processes in countries with oil-dependent economies and those without, and over time in relation to the development of the global average price for crude oil. For categorising peace agreement data, two units were applied: first, peace agreements themselves and their particular type, distinguished by PA-X along six categories (i.e., ceasefires, pre-negotiation agreements, partial and full comprehensive peace agreements, implementation agreements, and renewal agreements), and, second, peace process dyads, distinct episodes of armed conflict-related peacemaking, of which 160 have been identified since 1990.¹⁵

In a first step, carbon-related conflict dyads had to be identified. This was done by comparing absolute and relative (to population size) oil production, oil export, and the significance of oil revenue in the respective country's (or countries') GDP. When cross-comparing these factors and relating them qualitatively to the conflicts at hand, a 1 per cent portion of oil revenue in a national GDP emerged as the most significant condition that could also be assessed from available World Bank data in most of the cases. The 1 per cent threshold was thus established as the hard selection criterion in distinguishing oil-influenced peace process dyads from those not significantly characterised by an oil economy.

Out of the 160 peace process dyads since 1990, 54 were categorised as carbon-related. Several countries with significant oil production have seen more than one peace process dyad, such as Libya with three, Iraq with two, or South Sudan and Sudan with, in total, nine. Other countries with a high number of negotiated peace agreements identified in this category due to the significant role of oil revenue for its GDP include Russia (three dyads), Colombia (six dyads), Indonesia (including East Timor and Aceh, three dyads), Syria (three dyads), and Yemen (three dyads). Especially the inclusion of Yemen and Syria, both barely making the 1%-GDP threshold (with 2.6% and 2.5% respectively) is significant because of the substantial involvement of regional powers and big oil producers such as Saudi Arabia, the second-biggest global oil producer after the United States, Russia, or Iran in these armed conflicts.

The peace agreement data from these dyads was compared to the average yearly price of crude oil (graph 1). The same comparison was made for the 106 peace process dyads in countries without significant oil revenue (graph 2). Already at first glance, the comparison between the numbers of peace agreements signed in periods of sharp rises and falls of prices is astonishing. Graph 2 shows that the overall number of peace agreements in non-oil-dependent economies is, by and large, stable. The comparatively high number of agreements signed in the early 1990s is a product of the post-Yugoslavia wars that saw a lot of written peace agreements produced, many of which short and limited ceasefires (as represented in the blue portion of the bar, which shows that indeed ceasefires are the main difference from the early 1990s to later years). The two years 2005

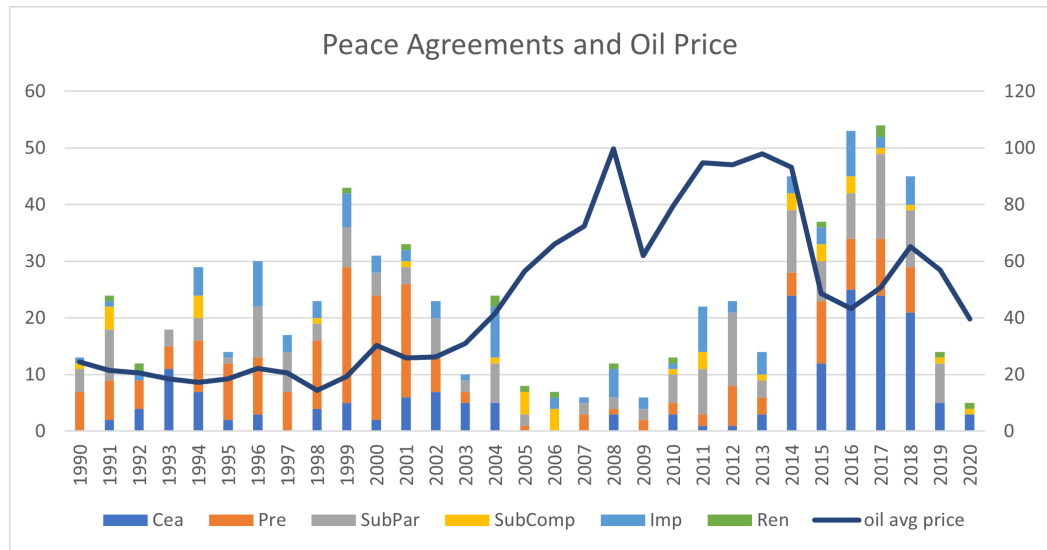
¹⁵ One country can have several peace process dyads, going on subsequently or in parallel.

and 2010, which show a low number of peace agreements overall, represent statistic outliers in global peace agreement production, probably for simple historical reasons (substantial peace processes were ongoing in both years, which might impact the overall numbers of agreements produced). Data from 2019 still cannot be considered complete, explaining the comparatively low total number of agreements.

As the first comparison over time (graph 1), the years during the upsurge in oil prices show a drastically lower number of peace agreements compared with the long-year average, while the years with the downturn in prices show a very high number. The carbon effect is confirmed by comparing this trend with peace agreement data from non-oil dependent economies that show a relatively stable trajectory (graph 2, with the year 2005 as the previously highlighted anomaly). In contrast to the first impression, however, it does not point towards decreasing peacemaking during rising prices and increasing peacemaking during falling prices. It is almost the exact opposite. The numbers point towards different types of peacemaking that, in turn, point towards a remarkable difference in ending violent conflict through a negotiated settlement.

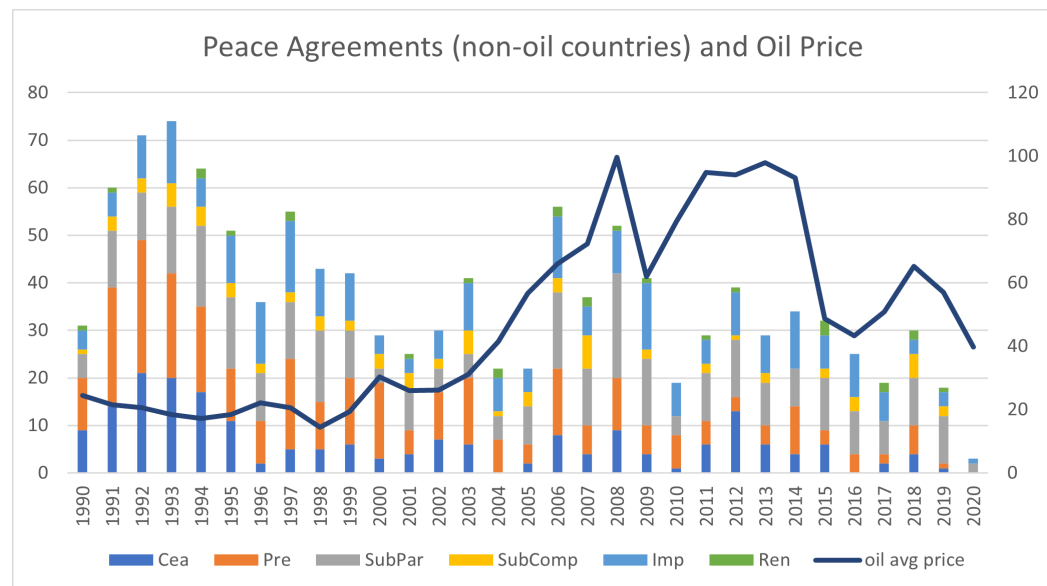
Graph 1:

Peace agreements in countries with oil revenue over 1% of their GDP (number of peace agreements per year / line: average crude oil price/barrel in USD)



Graph 2:

Peace agreements in countries without significant oil revenue (number of peace agreements per year / line: average crude oil price/barrel in USD)



The patterns are primarily caused by the considerable divergence in numbers of ceasefires (dark blue bar) and the comparably high number of comprehensive and sub-comprehensive peace agreements (yellow bar). The number of ceasefires strongly decreased in periods of high oil prices, while they increased in periods of low oil prices. Comprehensive peace agreements appear to behave in the opposite manner.

When explicitly considering these two elements, the years 2005 and 2006 appear particularly strong in comprehensive peacemaking. All years during the upswing and the subsequent high level in crude oil prices show partly none, partly a very low number of ceasefires signed in carbon conflicts. During these two years, the major agreements or quasi-agreements signed were the Comprehensive Peace Agreement between Sudan and the South Sudanese SPLM, the Darfur Peace Agreement for Sudan, the Eastern Sudan Peace Agreement, a comprehensive Memorandum of Understanding for the Cabinda Province in Angola, and the Iraqi constitution, which by its characteristics resembles a comprehensive peace agreement and is thus included in the PA-X database.

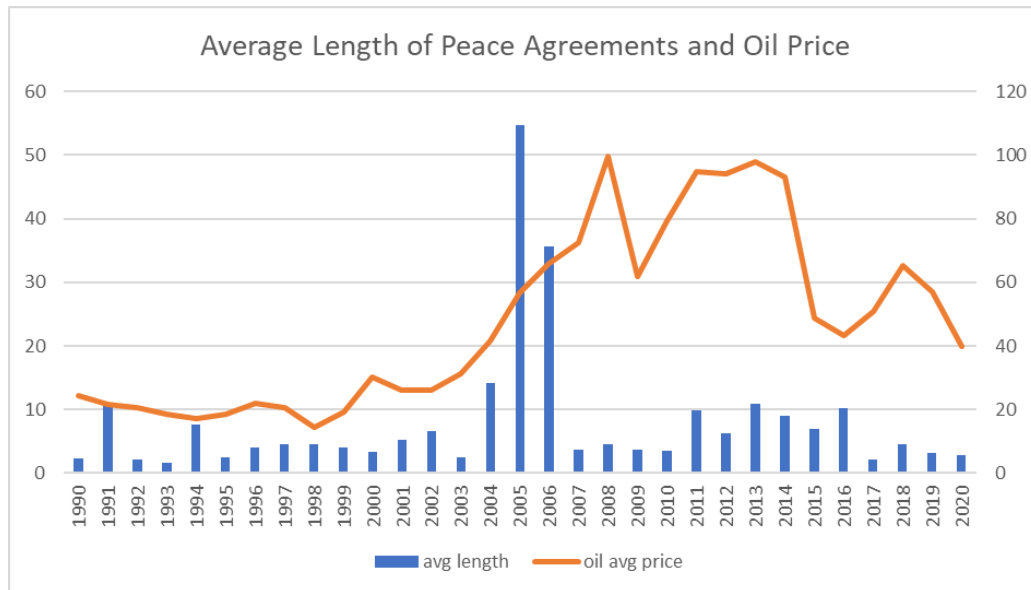
The high number of ceasefires in the years after 2013, which correlate with the plummeting of crude oil prices from safely above 100US\$ per barrel to below 30US\$, mainly stems from four conflict areas: Syria, Libya, Yemen, and South Sudan. All of them are oil-dependent economies or, at least, show a strong influence by heavily oil-dependent regional powers. The comparison with peace agreements signed in non-oil-dependent economies clearly reveals that this large number of ceasefires is confined to those four conflicts.

Possible explanations for these phenomena are, of course, complex and will be discussed in the following part. However, the correlation between peacemaking and conflict trends and oil prices in economies characterised by a strong impact of oil revenues is remarkable. Even though the number of cases (conflict dyads) and peace agreements is too small to make a statistical assessment credible, an influence of carbonisation and decarbonisation on violent conflict patterns is safe to assume. To further substantiate this finding, graph 3 and graph 4 look at the same data from another angle by focusing on the average length of the signed peace agreements. While the length cannot necessarily be equated with the relevance and the subsequent political impact of an agreement, it is a reliable proxy for its comprehensiveness – the longer an agreement, the more comprehensive it usually is.

The comparison of average agreement length and global crude oil prices confirms the assessments made based on the overall number and types of peace agreements. The trend looks even more substantial, especially compared with peacemaking in non-oil dependent economies, as demonstrated by the average length in pages of the agreements shown in graph 4. Interestingly, the trajectory in non-carbon conflicts is not only steadier. The average agreement length is also higher. This points to fewer conflict management agreements, such as ceasefires, compared to comprehensive peacemaking agreements signed in these contexts. As was to be expected, the years 2005 and 2006 represent the big outliers. As a result of the high number of comprehensive agreements signed combined with only very few ceasefires, these two years represent the peak of comprehensive peacemaking in carbon conflicts.

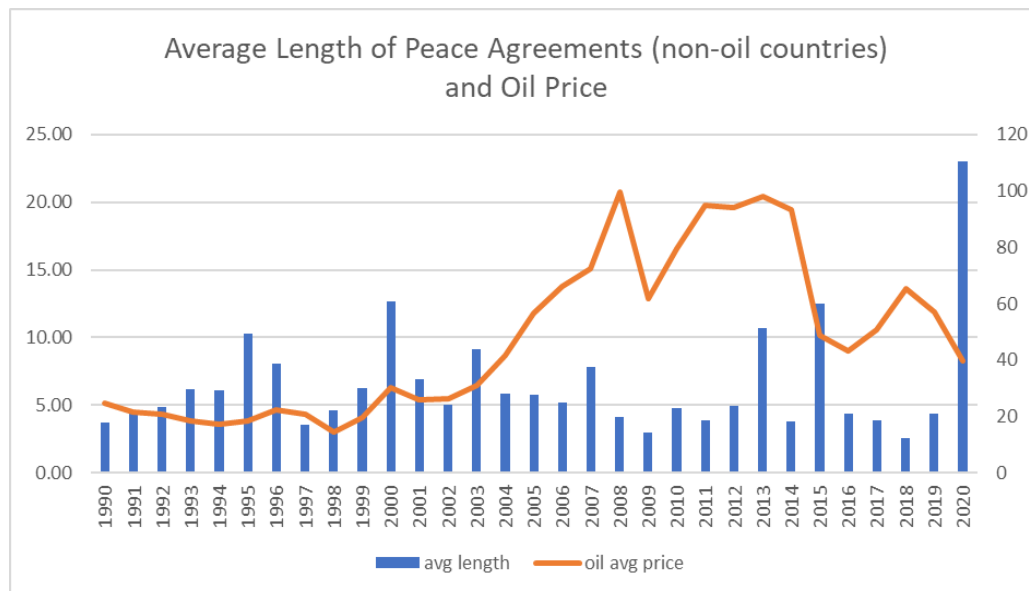
Graph 3:

Average length (pages) of peace agreements in countries with significant oil revenue



Graph 4:

Average length (pages) of peace agreements in countries without significant oil revenue



Violent conflicts in carbon-based economies come down to especially four cases: Syria, Libya, Yemen, and South Sudan, with other cases such as Nigeria and Sudan adding to this picture. The high number of short ceasefire agreements comparatively confirms what qualitative political analysis suggests: that these conflicts are protracted and tend to withstand any attempts to resolve them in the given regional disorder, and, hence, produce a high number of agreements that focus not on resolving, but on managing the conflict. The strategic decline in oil prices has resulted in a new era of political turbulence that often plays of violently.

Old Institutional Patterns and New Realities

What are the explanatory factors for these strong correlations between trends in peacemaking and crude oil prices? Is there substantial reason to believe that these correlations are based on interrelations between these two factors? The answer to the latter question is yes; however, as stated above, the stronger effects might be caused by mediated, indirect processes rather than by direct, immediate impact. Three interlinked assumptions offer a viable, albeit certainly not a complete, explanation.

First, the graphs suggest a direct impact that seems to work without a noticeable time lag. Especially during the rise in oil prices and the related expansion of oil revenues in countries characterised by violent conflict, these new revenues resulted in an almost immediate political move towards stabilisation and peacemaking. A closer look at the data, however, suggests that this tendency mainly came to the fore in Sub-Saharan Africa, especially in Sudan/South Sudan and in Angola, where the government's appetite and ability for peacemaking grew exponentially with rising state revenue.

The government's ability to foster peace settlements may be explained with the availability of means to generate political rents and, thus, realise a buy-in of contending elites in the political marketplace. To an extent, the political marketplace became more horizontally inclusive and, at the same time, more kleptocratic. Such a process can also explain the comparably quiet situation in other conflict settings. Notwithstanding Iraq, the Middle East lived through a rather stable period, and also recent African hotspots such as Nigeria and Mali, primarily mediated by the still calm situation in Libya, profited politically from the oil boom.

The fall of prices and the halt of oil production due to other circumstances, as in South Sudan, resulted almost immediately in violent uprisings. Surely, the effects are never direct, nor the only factors at play. The increasingly unstable situation in Northern Nigeria, Mali or Burkina Faso is also related to spill-overs from the fall of the Ghaddafi regime in Libya and the subsequent wave of militant Islamism in North-Western Africa. Moreover, the fall of Ghaddafi is to be seen more in the broader movement of the Arab Spring, which is related, albeit not solely caused by the shifting economic situation.

Indeed, the Arab Spring is the second explaining assumption, especially responsible for the rise in peacemaking turbulence in the first half of the 2010s. While there is hardly any doubt of the impact of the Arab Spring on violent conflicts in Syria, Yemen, Libya, and, to an extent, Mali, Burkina Faso, as well as on the regime change in Sudan, the interrelation between the Arab Spring and the development of global crude oil prices requires more of an explanation. It is widely accepted that economic motivations were causal for the Arab Spring. Moreover, it is undisputed that the events were mainly driven by the middle class that saw their growing economic expectations and related political ambitions unfulfilled. Besides institutional factors like the highly exclusive and kleptocratic political systems in many countries that experienced Arab Spring revolts, the burdening, corrupt anti-market policies that frustrated many small and mid-level producers and traders, and the substantial youth bulge are discussed in the literature as causal factors.

However, the graphs in this article point towards the influence of oil prices on the events. They confirm several accounts¹⁶ that assume that the oil price was indeed a major contributing factor for the Arab Spring. Again, the effects are partly long-term and relate to the already discussed peculiar modes of political institutionalisation in carbon economies. The second factor concerns

¹⁶ See, for instance, Malik and Awadallah, 2013

public economic expectations generated by the rapid rise in oil prices in the 2000s. While especially the middle class wanted to see the increasing revenues utilised to improve their living standard, it did, at the same time, enable the ruling elites to postpone political participation and fair economic chances and distribution. When the rise was over, and large sectors of the middle class saw their, not the least oil-revenue-induced, expectations not only unfulfilled but found themselves threatened to slide into poverty, the rebellion started.

Finally, the subsequent period of turbulence in the wider Middle East would not have been likely without the withdrawal of the United States from the role as a guarantor of regional stability, which is also caused by shifts in global oil production. The US' transformation from the biggest oil importer to the biggest oil producer globally is a major factor behind its loss of interest and disengagement from the region. The subsequent power vacuum was then filled by regional powers such as Russia, Saudi-Arabia, Turkey, and Iran – all but Turkey also major oil-producers, what enabled them to militarily act as regional powers in the first place.

These three factors taken together, national, and regional transformations interacting with the geostrategic shift caused by new foreign policy priorities of the United States, are in a causal relation to the development of global oil prices in the importance of carbon in national and regional economies. They point towards two main insights towards the question of the impact of decarbonisation on violent conflicts and peacemaking. First, the effects are often indirect, long-term, and mingle with other factors and processes. Second, this notwithstanding, it can still be assumed that decarbonisation, globally most likely strategic in nature, contributes to political turbulence rather than pacification and stability.

Conclusions and Perspectives

Armed conflict patterns, peacemaking patterns, and trajectories of carbonisation and decarbonisation correlate. The empirical comparison based on peace agreements data confirms that. The trends are also clear: An increasing level of oil prices favours efforts of comprehensive peacemaking and conflict settlement. Plummeting prices, in turn, result in turbulence, in the prolongation and protractedness of violent conflicts and continuous but largely unsuccessful peacemaking.

As it has been shown, however, the correlation does not work in a linear way that is based on a direct impact. Especially decarbonisation works intermediated by factors such as regional dependencies and the interests of regional and global powers, as well as based on expectations at the national and local level. A convincing argument has been made that the Arab Spring was a product of unfulfilled expectations for a further rise of socio-economic development and fair distribution of public revenues. The stop of rising oil prices and their subsequent downfall made this option financially unviable for a number of states in the larger Middle East. Even countries with still substantial oil revenue, like Saudi Arabia, struggled to keep the socio-political dynamics created by the Arab Spring under control.

Besides regional political settlements and socio-political power dynamics, the shrinking purchase of the concept of “liberal peace” is the third element that coincided with economic decarbonisation. The diminishing possibility of comprehensive peacemaking supported by a coherent effort of a, however vague, “international community” was accompanied by increasing doubts if peacemaking based on a comprehensive statebuilding endeavour designed based on the example of leading OECD states is conceptually possible and even ethically desirable.

These factors taken together almost appear like a “resource curse” in reverse. While the implications of decarbonisation are, of course, vastly different according to context, an overall comparison points towards a new era of turbulence that is currently being triggered. It is unlikely that decarbonisation and its economic implications will result in more peace. Carbon rents have been habitually used to “buy” peace and tame violence by providing the funds required for a “big tent” approach based on incentive structures favouring intra-elite deals. Readily available political finance brings competing actors together at a price level sufficient to purchase their political loyalty.

In most parts of the world, these mechanisms have died down and, in the short and medium term, are unlikely to reappear. The process of decarbonisation also results in a diversification of strategic resources. Contextual factors will decide whether strategic resources will be able to generate the financial resources to dominate political marketplace dynamics and forge stably formalised political settlement. While it is safe to assume that alternative resources will take the place of carbon economics, it is unlikely that they will be globally as dominant as carbon economics have been in the decades of their heyday. The non-simultaneousness will result in diminishing global patterns and a stronger focus on regional dynamics. Globally, decarbonisation, without doubt, will prolong turbulence and will make stable regional orders more difficult to achieve. In the long run, however, this is not necessarily bad news: reduced global dependencies might make regional orders more challenging, but if established, probably also more resilient towards global shocks and trajectories.

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