CHAPTER SEVEN

Conclusion - A Hybrid and Multi-polar Energy Order

The global energy order is undergoing a major transformation, marked by e.g. the transnational expansion of state-owned oil companies from the global South and Russia, a resurgence of resource nationalism in various key producing regions across the globe, an exceptionally high oil price, and a growing awareness of the dramatic consequences of climate change. Arguably, the most profound aspect of this transformation however is the rapid development of major growth poles outside the OECD world. This transformation can also be observed in the global political economy and entails a drastic reconfiguration of the geographical patterns of energy production and consumption. This study has contributed to the growing body of research on this transformation by describing and analysing the rise of non-OECD state-owned oil companies and their impact on the existing corporate and institutional power relations within the global energy order, as well as on the prevailing mode and content of governance of energy. The following research question was formulated to guide the study:

*How do we explain the nature of non-OECD National Oil Companies growth and expansion since the turn of the millennium, and their impact on corporate networks and governance of the global energy order?*

This research question also reflects a theoretical puzzle within the field of International Political Economy. The recent re-articulation of state power and the global expansion of state-owned capital challenge the assumption of a general retreat of the state. However, this renewed importance of the role of the state and ‘statist capital’ has not led to a reversal of transnationalisation and financialisation of the global political economy, but has instead – as this study has confirmed - further expanded and deepened these processes. In their analyses, state-centric approaches fail to include the persistent transnationalisation and interdependency that characterise the world oil market, whereas liberal-institutionalist and hyper-globalization approaches tend to stress the latter, but neglect to take account of the resurgence of state power.
By applying a critical political economy approach I have instead theorised about the interrelatedness between state power and the globalization of capital, and focused on the social relations that underpin this ‘state-capital nexus’ in the analyses. I operationalised these particular social relations as ‘corporate elites’ which are proposed to form a nexus between the state and the processes of capital accumulation. Applying the method of social network analysis in combination with biographical and organisational mapping, this approach enabled me to undertake a systematic enquiry of the social organisation of power at the apex of the global energy order, both in terms of the inter-organisational corporate networks of the major oil companies and of the interpersonal oil elite networks. This mapping of the configuration of the social organisation of power was triangulated with qualitative analysis based on more than thirty elite- and expert interviews that were conducted for the purpose of this study.

In this concluding chapter I will summarize the study’s main findings in relation to the central research question, discuss its empirical, methodological, and theoretical contributions, explore the implications of these findings for the future trajectory of the ongoing transition in the global energy order, and outline future avenues for research.

Main Findings and Contributions

Main Findings

First, the development and nature of the recent growth and expansion of non-OECD NOCs was placed in a broader context. The historical exposition of the evolution of the global energy order since World War II in Chapter Three, illustrated the transition of ownership of reserves: from being largely owned and exploited by the Anglo-American cartel of the major private oil companies in the mid-20st century to - in the current juncture - being controlled for at least 70 percent by the resource holding state-owned oil majors, mostly with a non-OECD origin. It also illuminated how the crucial turning point in this transition - i.e. the early 1970s, when most resource holders nationalised their reserves and most of the now dominant NOCs were established - simultaneously gave the impetus to an exponentially growing and increasingly globalised oil market, which now forms the core of oil trade activity and price setting. Crucially the
gradual ‘emancipation’ of the non-OECD resource holders thus took place alongside a development of ongoing transnationalisation - and later financialisation - of the oil market. As has been pointed out, this paradox captures precisely the contradictory dynamic manifest in the current energy order of persisting transnationalisation on the one hand and the (re)pronunciation of state-power on the other.

This broad sketch of the changing contours of the energy order furthermore crystallised that the latest re-pronunciation of state-power – which became manifest around the change of the millennium - is markedly different from the earlier wave. The latter had a more defensive and emancipatory character - marked by a battle over prices, rent-capture, and ownership - whereas the current wave is of an expansionist and competitive nature: NOCs are increasingly taking up the roles previously reserved for IOCs by expanding beyond their borders and intervening in traditionally ‘IOC exclusive’ domains. Moreover, what is entirely novel about the current transition is that it coincides with the aforementioned rise in production and consumption of energy in major growth poles outside the OECD, in particular China. This trend was documented on the basis of aggregate data showing a crucial shift in the late 2000s when non-OECD countries surpassed the traditional ‘core’ (OECD) in terms of energy consumption. Finally, Chapter Three outlined the process through which the corporate top of the global petroleum sector has in the past decades become more hybrid and less ‘OECD-exclusive’. The aggregate longitudinal analyses did however not reveal drastic changes in terms of a ‘NOC-overtake’ or dominance; rather NOC presence in the upper echelon of the global petroleum sector had somewhat declined. This finding emphasised the need for a different approach to studying the expansion of non-OECD NOCs, which moves beyond the aggregate descriptives; this formed the starting point of the empirical heart of this thesis.

For the analysis of the impact of the rise of non-OECDs NOCs on corporate networks, the approach of this study has been to focus on the corporate relations of the companies, and to provide a systematic in-depth mapping of the transformations undergone by these relations in the period between 1997 and 2007. By focusing on social and corporate relations, instead of comparing individual attributes or aggregate statistics, the data revealed the parallel developments of NOCs’ expansion on the one hand, and their ongoing integration into the core of the global energy market on the other. Chapter Four, through social network analysis, charted how the geographical expansion of the
corporate networks of five of the world’s most prominent non-OECD NOCs, reflected their increased cooperation with other key players from the corporate top of the petroleum industry, including IOCs, NOCs, and hybrid oil companies. In a more general sense, this finding underlined the dual development that I have argued to be characteristic for the transition of the global energy order: increased participation of states and greater presence of state capital in global energy markets, paradoxically developing alongside a persistent transnationalisation trend. Moreover, it illustrates how the power structure of the global energy order is becoming more hybrid. As indicated, joint ventures and other partnerships between NOCs and IOCs, or Hybrids, do not imply a fusion of ownership: within these partnerships we find the co-existence of state-owned capital and private capital, which is precisely what makes them hybrid alliances.

The relevance of these differences in the ownership structure of the oil companies also came to the fore in Chapter Five. Indeed, the analysis of the oil elite networks in which directors of the worlds’ major oil companies participate, revealed stark differences between the OECD and non-OECD networks and, importantly, a near complete lack of integration between them. This transpired a) from the lack of corporate interlocking on the part of the non-OECD elites, such interlocking is seen in the literature as a powerful social mechanism to forge a common outlook and bridge intra-elite and inter-corporate differences; and b) from a near complete lack of affiliations of the non-OECD oil elites with transnational policy planning networks, which are seen as crucial platforms for transnational (corporate) elite formation and for shaping global governance. Moreover, these systematic mappings made clear how extensively and directly connected many of the non-OECD oil elites are with higher levels of government in their respective countries. While this is not an unexpected finding, it does constitute another difference between non-OECD and OECD oil elites, as the latter turned out to have more indirect, advisory relations to the state, characterised by a revolving door pattern.

The ‘mixed’ nature of these findings was further elaborated on in Chapter Six, by gauging the impact of the rising non-OECD NOCs on the mode and content of governance of the energy order, i.e. addressing the last part of the research question. While some argue that resource holders have become rule makers instead of rule takers and that the NOCs are enabling this process, my argument has been that - depending upon their bargaining power – resource holders can decide to break with particular rules or use them to their advantage,
but this does not make them rule makers. A distinction should be made in this regard between negotiations and rule setting (or rule disputing) that takes place between individual resource holders and resource seeking companies on the one hand, and the more global level of energy governance on the other hand.

Chapter Six has shown that with respect to resource disputes non-OECD oil elites have become better at playing by the rules of the game, yet they are not defining those rules. Rather, they are adapting to them and trying to balance between these adaptations and the different rule sets and expectations ‘at home’, i.e. related to their directorship of a state-owned company and the interwoven interests with the state. Particularly illustrative in this respect are the findings on Chinese NOCs, indicating how close ties to the state, in combination with the company’s expansionary drive abroad, have generated ‘two faces’ of governance and a dual role for these NOCs and their managers. Internationally, they are adapting to the rules of the game of international business – i.e. Western capitalism – and learning to play by these rules with increased ‘sophistication’, but domestically they still adhere to the national rules of the game, closely tied to the state-apparatus and to the respective set of expectations, responsibilities, and formal and informal rules. On a global governance level, Chapter Six showed that - although there is a clear awareness that the non-OECD major powers should no longer be ignored - the global institutional bodies of energy governance might be hesitantly ‘reaching out’, but in effect do not represent the non-OECD states’ and companies’ interests and values. While some of the non-OECD rising powers are invited to participate, the terms, language, and interests that are placed on the agenda are still dominated by Western players.

In sum, even if non-OECD actors are becoming increasingly influential, the content of the rules by which the game is played is still set by OECD actors, within an OECD framework. It is, for instance, by hiring an American lawyer that NOCs are seen as capable of understanding and playing the rules of the game, whereas consulting an Iranian law professor would be considered inappropriate. Similarly, it is likely to be an American service company that will provide the NOCs with the necessary technology to eventually compete with the IOCs. The content of governance is primarily tailored to competition, privileging shareholder value, and (short term) profit making, i.e. promoting and opening up space for the extension and deepening of capital accumulation. NOCs need to balance this dominant mode with ‘national’ requirements that - while perhaps encouraging towards participation of NOCs in global oil markets
and financial circuits, and towards the generation of revenues - also emphasize a different content, related to e.g. the values of the dominant political ideology and national interests such as supply security and social stability.

**Main Contributions**

Although recently a host of studies has been appearing on both NOCs and newly emerging TNCs from the non-OECD world, a systematic empirical analysis of the way this expansion of non-OECD NOCs occurs and how this process impacts on corporate networks, has not been undertaken. Neither has the corporate elite from the non-OECD region been studied systematically. Empirically, this project has contributed to the further study of these topics by constructing two comprehensive databases on the world’s major oil companies and their directors, using a method I have termed ‘biographical and organisational mapping’. The firm data base contains panel data on five major non-OECD NOCs’ joint ventures, equity alliances, consortia, and other strategic alliances and investments abroad - in 1997 and in 2007, including, for instance, ownership structures and geographical distribution of the investments. The oil company directors’ database contains data on the ‘ego networks’ of 187 directors of the major NOCs and IOCs, collected in 1997 and in 2007, including demographic information, educational background, corporate affiliations, affiliations with business coalitions, policy planning bodies and other socialising platforms, and the state. These databases – apart from forming the basis for the analyses conducted for this particular study - can be used for future work and by other scholars.

A particular methodological contribution of this study has been to show how two-mode social network analysis (SNA), which incorporates the duality of organizations and persons, can be applied within a framework of critical political economy. The study demonstrates how changing patterns in the social and corporate relations that make up the core of the petroleum industry can be revealed and analysed by combining SNA with a mapping method such as organisational and biographical mapping. It was also shown that SNA is particularly well suited to analyse the interplay between agency and structure as conceptualized from a critical realist perspective. SNA simultaneously visualizes the way social structures are shaped by agency and provides the pre-existing context within which agency acts.
Theoretically, this study has contributed by providing an explanation for the particular nature of the growth and expansion of the non-OECD NOCs and their impact on corporate networks and governance, by regarding its nature as an instance of a broader rearticulating of state power within deepening transnationalisation. The contribution of this thesis to the solution of this puzzle has been to show how the resurgence of the state is both driven and conditioned by globalizing capital. Whereas existing explanations focus either on the continuance/primacy of state power or on the persistence of the transnationalisation at the expense of state power, this study put forward a theoretical account of how the state is integral to and plays a vital role in the globalization of capital. The latter implies, simultaneously, the constant drive to transcend the boundaries of state power and their re-articulation.

I have theorised how the expansion of capital, that is one of the driving forces behind the transnationalisation process, significantly depends on the existence of geographical and institutional boundaries, and how the borders as embodied by the state have become indispensible in this sense. Here I have put forward the notion of sovereign social space as embodied by states and structured by the interstate system, which has both a territorial dimension and a jurisdictional dimension. As capital expands globally it effectively transcends national borders – i.e. the boundaries of sovereign social space - but at the same time it still requires the continued existence of these boundaries. The patchwork of sovereign social spaces creates stable internal and external spaces which provide critical pathways for capital expansion as they allow for the avoidance of over-accumulation and devalorisation (i.e. they enable expansion through ‘spatial fixes’). Moreover, the patchwork of sovereign social spaces creates exclusive spheres of differential development, which can be exploited by inter-capitalist competition. This subsequently explains the dynamic between a widening and deepening transnational dimension and a resilient (inter)state dimension. It makes clear that, with the globalization of capital, the role of the state will not diminish but instead will be continuously re-articulated.

This theoretical approach showed that a focus on social relations in the corporate realm generates substantial findings and insights into the transformation of the energy order that also directly - and indirectly - involves the role of the state and interstate relations. Indirectly it sheds light on the important issue of an ongoing geopolitical power shift in the global political economy, with China rising in the ranks and challenging the dominant status of the US, and a gradual decline of the latter’s hegemonic power. This study
demonstrated how an analysis of the governance of oil and the strategies of Chinese state-owned oil companies, can at once highlight the importance of the global oil market and the ongoing marketisation and financialisation of the world’s energy relations, and shed light on the geopolitical dimension that is implicit in the workings of the global oil market. It also makes clear that the transition towards a more evenly balanced multi-polar order – even if it might imply increased geopolitical rivalry between the two major powers China and the US – will be characterised by hybridity, that is, the co-existence of statist and private forms of governance and capital.

Implications for the Future Trajectory of the Energy Order

Although the transformation of the global energy order is ongoing, and the outcome is still highly uncertain, a general conclusion following from this dissertation is that the nature and direction of the transformation indicates both hybridisation and multi-polarity. Linking back to the existing literature (as discussed in the theoretical chapter) this development entails not so much a trajectory towards either ‘regions and empires’ or ‘markets and institutions’ (cf. Correljé and van der Linde 2006), but is rather a transition towards both; a world divided by regions and empires, but also increasingly connected through global markets and institutions. Hence we are witnessing more hybrid forms of cooperation underpinned by multi-polarity.

Why hybrid? Because – as this study has shown - the fault lines between IOCs and NOCs are progressively blurring, and because an increasingly hybrid and varied set of corporate-state energy relations are emerging from the ongoing transnationalisation of the energy sector. Contrary to most expectations expressed in the literature, the expansion of NOCs has not led to a ‘take over’ by state-owned companies or a ‘return of state capitalism’. Nor has it resulted in a complete adaptation by ‘statist contenders’ to free market ideologies and Western business practices, or in their merger into a so called transnational capitalist class. Rather, this expansion has generated new alliances of state-private, private-private, and state-state partnerships, in what one interviewee called a ‘coalition of the willing’. Yet, at the same time, fundamental distinctions remain in place in terms of ownership structure, distribution of rents and profits, and different ways in which corporate elites are involved in the organisation and coordination of capital accumulation. This first of all,
underscores the hybridity and duality of the rise of non-OECD NOCs, but also has potentially important consequences for the future governance of the energy order, to be addressed below.

Why multi-polar? Because a fundamental transformation has indeed taken place, departing from a multilateral order under US hegemony, towards an order in which the new growth poles - that are located outside the OECD area - can no longer be ignored. This is a vital change and it is bound to lead to a more drastic reshuffle of power and rulemaking in the global energy order. On a longer time frame it can be expected that at least some of the non-OECD players will become increasingly powerful and autonomous actors within the global energy order. In terms of governance my hypothesis is that such a power shift, while implying that these non-OECD players will be in a position to actually define the content of the rules of the game, i.e. effectively become rule makers, will not imply a complete break with, or rejection of, the current mode and content of energy governance. Rather, it will create a more hybrid form of global governance in which elements of the current rules are combined with the values and interests of the non-OECD powers. I base this proposition on the assumption that while the non-OECD players are in the process of adapting to the rules – which is imperative for them to be able to expand their influence and their reach in the first place – they are also learning. This socialisation process implies that they will internalise some of the existing rules and some of the underlying ideas, values, and interests. Once they become rule-makers themselves, those new rules will, at least to some extent, reflect this internalised worldview.

Avenues for Further Research

One of the key findings of this dissertation has been that global corporate energy relations are becoming increasingly hybrid. This finding was based on analysis of the some of the most prominent types of non-OECD NOCs, i.e. Saudi Aramco, PDVSA, CNPC (and PetroChina), NIOC, and Gazprom. A next step would be to extend the case selection in order to determine to what extent these findings have a wider applicability and/or what kind of variance might occur. In particular, it would be very interesting to include ‘deviant’ or ‘exceptional’ cases such as non-OECD private oil companies (e.g. Russian Lukoil), highly corporatized and internationalized non-OECD hybrid oil
companies (such as Brazilian Petrobras), or hybrid oil companies originating in the OECD (such as Norwegian Statoil and Italian Eni). While extending the case selection in those directions might offer fruitful avenues for further research, the opposite research strategy might also generate interesting questions, i.e. a more in-depth focus on differences between the non-OECD NOCs and their respective networks. In spite of the common trajectories of these companies there is, of course, a great variety in their strategies and interests.

The focus of the analyses in this thesis was on the extent of transnationalisation and integration of the OECD and non-OECD oil elites. The finding of distinct oil elite networks in the OECD and non-OECD world, and the lack of integration between them, warrants more research. Although there might be a time lag, i.e. it might be the case that elite integration in due time will follow from increased corporate cooperation, the findings in this study do not point to a co-optation of the non-OECD corporate elites by the West (contrary to what some authors belief, see e.g. Robinson 2004, 2007). Rather, there are strong indications that they will remain tied to distinctive networks of power (related to the state apparatus and political parties for instance) each with a distinctive nature and distinctive rule sets. First of all, it needs to be seen whether these findings hold in a more general sense, for instance in other highly strategic sectors such as finance. Second, both empirical and theoretical investigations are needed to determine the distinctiveness of non-OECD corporate elites and their state-capital nexuses. There is, as of yet, still very little research on the particular features of non-OECD corporate elite formation and little theorisation of how this relates to the state and to capital accumulation processes, which points toward a promising new frontier of research. Given the ongoing power transition in the global political economy towards an order that increasingly needs to include – at least some of - the major non-OECD powers, it seems even more relevant to explore, chart, understand, and explain the distinct make-up of non-OECD corporate elite networks.

On the basis of the finding just described, a conclusion was drawn that non-OECD oil elites still have little access to, and influence within, the typical Western elite and business circuits. The question remains whether the non-OECD directors are not allowed access – for instance due to their close ties to the state - or whether they do not want access. In either instance, a case can be made that it is a missed opportunity for the Western resource seekers, since inclusion of non-OECD oil elites on their corporate boards might provide them
with more opportunities to access resource holders’ ‘networks of power’ and their reserves. Along the same line of reasoning, inclusion of Western directors on non-OECD NOC boards might facilitate cooperation in energy relations. As was discussed, it is probably no coincidence that it is at Saudi Aramco’s board that we find Anglo-American directors, given the company’s historically close relationship with the US in particular. A similar line of explanation might apply to the presence of a German director on Gazprom’s board. More research into the motives and causes behind the lack of integration would likely provide more conclusive answers to these standing questions.

This thesis has shown how there is an implicit geopolitical dimension to the social organisation of power in the global oil market and how the roles of states and of interstate relations are inherent to the analysis of social relations in the corporate realm. However, the role played by states and interstate relations still needs more explicit and in-depth study. Indeed, state policy analysis and geopolitical strategies are domains that have been largely left out of this study, but require further elaboration, both empirically and theoretically, in order to complement the findings and explanations presented here. What are the main factors and ideas driving foreign policy makers and (foreign) policy making with respect to energy (security) in OECD and non-OECD major countries, in particular the US and China? How are energy (security) objectives related to other foreign policy objectives? And how are foreign policy makers related to the respective corporate elite and state-corporate elite networks? What are the main differences in terms of state-business relations between the OECD and non-OECD countries and how can those differences be explained? These are all questions that form a fertile basis for further analyses.

Lastly, this dissertation has focused on what may be labelled the ‘old’ energy order, i.e. the fossil fuel based energy order. While in even the most ‘optimistic’ projections hydrocarbons still make up more than half of the share of primary energy use globally (see Martinot et al. 2007), it is hard to deny that the world is set on a path to develop an alternative, more ‘sustainable’, or ‘green’ energy order. While the urgency of such a fundamental transition is increasingly being acknowledged and the evidence in terms of ecological, economic, and social necessity has been generally accepted, the daunting complexity of this task in political, economic, and practical sense is also apparent. The obstacles and opportunities for such a transition are - and will be - widely studied in both environmental studies, governance, public policy, economics, and business. The research presented in this dissertation, by
providing systematic insights into, and explanations of, the configuration of social power at the apex of the fossil fuel order, as well as of its governance, provides a fruitful backdrop for studies that want to focus on the power dimension involved in the transition towards a more ‘sustainable’ or green energy order. The present study may contribute both with regard to questions about the substantial corporate interests involved in such a transition, and with respect to the related (geo)political dimensions; e.g. questions about the role and responsibility of China and other emerging countries in such a transition vis-a-vis the role and responsibility of a long term major polluters such as US.

Concluding Remarks

The oil and gas industry is constantly changing. When this study took off in 2007/2008, the energy world found itself in the grip of extraordinarily high oil prices, declining reserves in the major OECD producing regions, re-emergent resource nationalism, and a revived role for National Oil Companies. All of this - in combination with the growing sense of emergency regarding the impact of climate change – instigated, what may be called a ‘re-politicisation’ of energy security. Although many of these elements are still in place, what appears to be a watershed change has taken place since, which has shifted the terms of debate from a focus on scarcity to one of plenty, primarily due to the ‘shale gas revolution’ and, more recently, ‘tight oil’ in North America. Most basically, this refers to the opening up of large unconventional gas and oil reserves (in shale rocks), which is made possible due to upstream technological advances, such as hydraulic fracturing and horizontal drilling, and which allows for a tapping into resources that were hitherto not accessible. If fully realised – this ‘revolution’ will drastically redraw the global gas and oil flows and the geopolitics that come with them. First of all, it would imply that the world’s largest consumer in due time would again become a net-exporter of oil and gas (IEA 2012a), a role which it lost in 1949. At least, the US could become self-sufficient, which would arguably have significant geopolitical implications, since the quest for control over sufficient energy supplies has played such a key role in shaping its global posture and foreign policy. Shale gas is, however, also potentially plentiful available in places like China and South Africa; it is thus also a matter of technological diffusion and capabilities that will determine the future geographical distribution of the production of, in this case, shale gas. Yet, there
are good reasons to be cautious about these ‘revolutions’, which come at a high cost, both economically and environmentally (see e.g. Stevens 2012). Moreover, while ‘revolutionary’, these developments constitute shifts within the ‘old’, fossil fuel based, energy order, which means that both high oil prices and the environmentally destructive course that such a continued fossil fuel based path of development implies, are being reinstated. Arguably, a real transition would involve a transformation towards a more sustainable energy order, the contours of which are starting to shape, but which still has a long way to go with vast challenges on its path.

Notwithstanding these developments - the outcome of which is thus unclear - a tectonic shift is taking place that will be defining the shape and direction of the current energy order; that is, a shift in the geographical patterns of energy production and consumption, in which the non-OECD world is taking up an increasingly large share of global production and consumption, even outpacing the OECD world. Concurrently and subsequently, non-OECD state-owned oil companies are becoming increasingly influential players within the global energy order. Any questions with respect to transitions within, or beyond, the fossil fuel based energy order, will need to factor in these developments. This study has contributed to a better understanding of these two ongoing major trends, by charting their impact on the configuration of corporate power at the apex of the global energy order and on the rules governing that order.