

Contents

<i>Foreword</i>	vii
<i>Preface</i>	xiii
<i>Notes on Contributors</i>	xiv
Introduction	1
<i>Andrei V. Belyi and Kim Talus</i>	
Part I The International Political Economy of State–Market Interaction in Energy	
1 States and Markets in the Oil Industry	17
<i>John V. Mitchell and Beth Mitchell</i>	
2 States and Markets in Energy Policy	40
<i>Pami Aalto</i>	
3 Regional Institutions and Energy Market: Systems, Societies, Communities	61
<i>Andrei V. Belyi and Andrey Makarychev</i>	
Part II States and Markets in Hydrocarbon Export-Dependent States	
4 State Capitalism and the Politics of Resources	83
<i>Wojciech Ostrowski</i>	
5 State and Markets in Russia’s Hydrocarbon Sectors: Domestic Specificities and Interrelations with the West	103
<i>Andrei V. Belyi and Catherine Locatelli</i>	
6 The Dynamic of Latin American National Oil Companies’ Evolution Case Studies: Pemex and PdVSA	122
<i>Isabelle Rousseau</i>	
7 The Question of ‘Security’ of Middle East Oil Supply Revisited: Domestic Crisis in a Middle East North African Oil Producer and Its Impact on International Markets – The Case of Libya	144
<i>Marat Terterov and Claudia Nocente</i>	

Part III The ‘Consumer’ State Perspective

8	State–Market Interrelations in the US Onshore and Offshore Oil and Gas Sectors <i>Roman Sidortsov and Benjamin Sovacool</i>	171
9	European Union Energy: New Role for States and Markets <i>Kim Talus</i>	198
10	China’s Oil and Gas Industry: Stranded Between the Plan and the Market <i>Philip Andrews-Speed</i>	214
11	State–Market Interaction in Hydrocarbon Sector: The Cases of Australia and Japan <i>Vlado Vivoda</i>	240
	Conclusion <i>Andrei V. Belyi and Kim Talus</i>	266
	<i>Index</i>	270

Introduction

Andrei V. Belyi and Kim Talus

Markets, technologies, and policies constantly evolve at different levels in various countries, and this has led us to analyse these aspects as the drivers of energy policies. All have a policy and regulatory impact on market structures, which further stimulates technological development. It is noteworthy that the causes of the energy transition may either stem from the state or from market forces. Therefore, interaction between the state and the market is a key topic when analysing the hydrocarbon sectors.

The importance of the interaction between the state and the market has been repeatedly stressed, albeit without comprehensive theoretical analysis. For instance, a number of policy-oriented questions have emerged in the past decades regarding the oil and gas industries. The key questions include, among others, the following: can the state influence the hydrocarbon markets to its own advantage by limiting the effects of interdependencies? Or, can we argue that the interests of energy-producing states are inherently in conflict with those which import energy? Do the markets provide stability while states need only to ensure their predictability? This leads us to debate the very essence of the interaction between the state and the market and how this varies on a regional basis.

The key aim of this book is to demonstrate that processes related to energy transitions are related to the nature of the interaction between the state and the market and that these are not linked in a linear fashion to the structural issues of reserve distribution or supply and demand levels. The importance of structural factors is not underestimated, but the book attempts to understand the institutional causes for energy transitions in time and in space.

In order to provide a comprehensive overview of regional energy transitions, a number of writers, drawn from various disciplines

2 Introduction

ranging from international relations to energy law, have contributed to this book.

State–market interaction as a core topic of international political economy

In spite of important sectoral particularities, the analysis of state–market interaction in the hydrocarbon sectors requires general contextualization – an exercise which has already been carried out in respect of many other spheres of political economy. Indeed, the very debate on the relationship between the state and the market began with studies relating to the Industrial Revolution. A number of misleading assumptions exist to the effect that the Industrial Revolution was stimulated by economic policies of *libre echange*. One should not underestimate the role played by direct state support, protectionism, and the indirect stimulation of the economy through the development of national military industries (Bailroch, 1995). Classical political economists pointed to various institutional mechanisms by which new technologies were developed in various spheres of society. For example, the coal industry was far from being the main driver of the Industrial Revolution. On the contrary, it was the Industrial Revolution and the national policies related to it that increased the importance of the coal industry in global economic transactions. Although there had been a degree of technological and industrial development prior to the Industrial Revolution, the level of development it brought about underlined its political importance. In turn, this political importance stimulated various state policies directed towards supporting central banking systems as well as promoting coherent industrial policies together with science and innovation.

At the same time, the scale of innovation and the evolution of the market placed firm limits on state sovereignty. Capital-intensive technologies employed in the mining industry reinforced path dependencies and lock-in effects for long-term national policies. Moreover, the increased flow of information led to best practice transfer in law and other regulations. In many segments of the economic chain, from extraction of minerals to retail markets, cross-border influences have had a significant effect on state decision-making processes.

An important academic debate is taking place over growing interdependencies and the subsequent restriction of national policies. In particular, interdependencies have increased in various

economic spheres, including finance, investments, and trade in various commodity markets. In turn, interdependencies and the subsequent limits of state sovereignty in economic policies have generated a misleading belief in the ‘invisible hand of the markets’.

The complex interaction between states and markets has attracted attention from a number of international political economy scholars. Works published by Susan Strange (1988) and Robert Gilpin (2001) sought to define the general rules of the state–market relationship. States seek to use the markets for their own strategic domestic and foreign policy purposes, whereas market institutions tend to bypass national borders, becoming international. In this context, limits are placed on national sovereignty as states are not always successful in orientating market institutions to their own advantage.

For a number of years, states have been considered as similar actors in international political economy. The Waltzian system (Waltz, 1979) views states as blank units of international relations. In contrast to such classical approaches, new trends in international political economy outline regional particularities in the techno-economic paradigm (Hayter, 2004). The core idea stems from the existence of region-specific path dependencies in relation to particular technological and economic structures, and a region-specific adaptation to global economic change. Regional interactions might partially reflect global economic trends (e.g. energy and mineral markets) but reflect local choices, preferences, perceptions of threats, and subsequent policy attitudes. Therefore, regions may evolve into specific embedded institutions, whose combination does not especially reflect global economic trends (Hayter, 2004). In particular, regional dynamics may reflect various forms of resource nationalism, cultural perceptions of land ownership and of contracts, as well as the existence of region-specific trade practices.

Therefore, regional institutions (interdependencies, perceptions of threat, economic and cultural particularities) play a crucial role in international political economy. The nature of state–market interaction significantly differs between, for example, North America and Europe, between the West and the post-command economies of the former Soviet Union (FSU), and between industrialized regions and developing post-colonial countries. On this basis, it becomes useful to understand how diverse states (and public bodies in general) behave in the context of specific economic constraints related to energy interdependencies. In turn, regional discrepancies also need to be assessed.

Hydrocarbon interdependencies viewed in the light of state–market interaction

This book primarily focuses on state–market interaction in the hydrocarbon sectors. The role played by energy is hardly underestimated in the study of international political economy. Indeed, both oil and gas have generated complex cross-border interdependency in terms of production and consumption, regulatory cross-influences, financial transactions, and inter-state security considerations (Barry Jones, 1994). The effects of regional and international interdependencies were felt in the aftermath of the oil shocks of 1973, which had a significant impact on the global economy. Furthermore, recent internationalization of the gas markets has given rise to new political considerations as regards energy security, new market risks, and new stimuli for technological development.

Most of the scholars who have focused on international energy relations have emphasized the role played by structural factors in international political economy as regards energy. Studies focused on, among other topics, the alleged use made by hydrocarbon producers of energy as a foreign policy instrument, on the geopolitical rivalry between states competing for access to resources, and on the structurally opposing interests of hydrocarbon-producing and hydrocarbon-consuming nations in relation to energy markets (Kalicki and Goldwyn, 2006).¹ These approaches strongly underestimate the roles played by market trends, interdependencies, and best-practice transfers in energy policies. At the same time, the nature of energy interdependencies cannot be dissociated from political perceptions and political understanding. Interestingly, international energy interdependencies can be perceived in a different way in various regional political relationships.

It is worthwhile to underline the crucial role played by institutional factors in the early stages of the history of international political economy. In other words, it is important to focus on existing and historical patterns, which influence the behaviour of agents (i.e. states, companies, and societies) towards energy interdependencies. In particular, the role played by states in the energy sectors has to be understood by assessing policy drivers in the context of the background agenda. In particular, the nature of the influence of the state stems from both formal and informal relationships between public bodies and energy companies. Discrepancies between different policy drivers can generate different in-depth meanings for policy priorities, which can be identified in different countries and contexts.

A recent book entitled *Dynamics of Energy Governance in Europe and Russia* attempted to assess various approaches to energy governance within the European Union (EU) and its member states, in Russia and other FSU countries. Our objective consists of further delineation of the importance of institutional factors in international energy relations. For example, the conception of the role played by the state in the market, the conception of national control over resources, and regional perceptions of threat and path dependencies are crucial elements of oil and gas interdependencies. These institutional factors might play a more important role than the structural components of the interdependency in question. For instance, the distribution of resources, dependencies, and structure of markets take on either a greater or a lesser importance depending on the types of institutions involved at the national and regional levels.

Adapting these assumptions to energy markets, this book aims to demonstrate that the economic interests of market institutions do not always overlap with those of states, which tend to use market forces to bolster their long-term energy strategies, either with resource policies or with the provision of long-term energy security.

One of the core controversies with which most scholars focusing on hydrocarbon interdependency engage is the decoupling of energy security from energy dependency. Energy security is not inherent to energy dependency, but related to the stability of regional cross-border markets, norms, and practices. For example, the different degree of politicization of the coal and gas markets is linked to the fact that the international coal markets are subject to predictable norms and practices, which is not the case for natural gas. It is important to understand that energy relations vary over time and therefore do not exist independently of a specific historical context. A supply–demand pattern can exist for decades while the political climate in which that supply–demand pattern operates can change over time. In particular, institutions result from historical processes, which form cultural and social perceptions of threats related to hydrocarbon interdependencies.

On these grounds, this book aims to enlarge the geographical scope of the previous publication on the *Dynamics of Energy Governance in Europe and Russia*. Furthermore, this objective involves focusing on various aspects of the role played by the state in hydrocarbon interdependencies. This requires a careful interdisciplinary approach, which combines international political economy with a legal analysis of regulations and laws. Indeed, the legal and regulatory component

6 Introduction

can be viewed as the main instrument by which the state may influence markets and interdependencies.

The role of regulation and law

The role played by states and other public institutions (i.e. supranational organizations in the case of the EU) in sector-specific market interaction is significant. The role of the state is most visible in the law, which can be viewed as the embodiment of government policies. Energy law and energy regulation are inextricably linked with energy policy. Both the state and the public sector use law and regulation as a tool to impact, for example, the design of the market or even public opinion in relation to the energy sector. In this respect, law is a frozen form of energy policy at a certain moment, but this policy evolves and is therefore bound to change the meaning and implication of the words. Rules relying on policy standards – for example, natural monopoly, security of supply, or public service – can change dramatically if such concepts undergo evolution or if their meaning and general acceptance collapse. These changes can be rapid, as in the case of change in technology, or gradual, as in the case of a change in the underlying policy approach to energy or energy markets. Such changes are more difficult to predict, though they can be recognized in retrospect.

Over the past few decades, energy regulation has transcended national borders. This means that states often use similar terminologies in energy law and regulation, in investment right definition, and in various social and environmental liabilities. Nevertheless, the wording does not always correspond to the institutional understanding of the regulation in each state or region.

Globalization has influenced new perceptions of energy security threats and hence various national and regional reactions to global processes. However, regional and national specificities are still very important in the variety of reactions towards the globalization. The role played by public policies (China), non-market driven diversification (the EU), and the use of energy as a diplomatic tool (Russia) highlight various examples of the trend. These policies do not always reflect the logic of the markets and therefore political and economic perspectives often contradict each other. There is an emerging contradiction between the reshaping of national sovereignty and the vulnerability of states in the light of global market trends, on one hand, and the ever-present desire of states to control the markets, on the other. At the same time, these dynamics are different for export-dependent states, where

resource nationalism is often accompanied by non-acceptance of norms and practices emanating from the traditional 'old West'.

Interdependencies, institutions, and regions

Taking the above-mentioned theoretical debates into account, Part I analyses three main components of the international political economy of energy. These are mostly related to various dimensions of energy interdependencies, to the impact of such interdependencies upon institutions, and finally to the possible impact of hydrocarbon interdependencies and national institutions on regional integration–disintegration processes.

The first component consists of redefining energy interdependencies. Oil markets have long been international and gas markets are now becoming international. States are exposed to market volatilities and progressively take into account new economic realities. Hence, Part I mostly addresses horizontal transnational challenges for both states and markets in terms of international energy relations. Therefore, Chapter 1 by John V. Mitchell and Beth Mitchell assesses the different impacts of international political economy on hydrocarbons. Interestingly, state influence often wanes in trade transactions, as states become exposed to international trade and financial flows. At the same time, when looking at resource control, the role of national oil companies has only accelerated. Moreover, national oil companies go international and adopt new behaviour, which might be a faster adaptation to the challenges of globalization.

The second component consists of analysis concerning concrete institutional reactions to interdependencies. Although there is no consensus on the definition of institutions, institutional analysis offers a solid platform from which to demonstrate the role played by formal and informal practices and norms, all of which stem from their structural context. The common ground for an institutional analysis consists in providing a conceptual framework for long-term policy priorities, risks, and structural constraints (Peters et al., 2005). The book also includes discussion of the role of institutions in interdependent contexts. For this purpose, Chapter 2, by Pami Aalto, assesses the impact of hydrocarbon interdependencies on the development of state and market institutions.

This continuum is made up of actors at various levels. The first of these comprises 'informal institutions' representing long-term, historically developed abstract principles and practices such as sovereignty; trade, including the market and also other varieties of capitalism;

8 *Introduction*

management of energy issues among the great powers; and energy diplomacy. The second level comprises ‘formal institutions’, which represent the organizational embodiment of informal institutions. These include states and supranational entities like the EU; companies; and international financial institutions. Thirdly, within formal institutions we may also discern more mundane ‘policy-making institutions’, which have a short-term impact on energy policy. These include energy and market regulators; sector-specific ministries and Directorate-Generals within the EU; committees and task forces; lobbyists and other interest groups.

Given this theoretical framework, the task of the energy analyst involves outlining how the continuum of informal, formal, and policy-making institutions impacts on particular markets in practice. By evaluating these long-term and short-term institutions, we may develop a realistic, policy-relevant idea of what states and markets may be expected to achieve in energy policy terms within a given timeframe.

The third component of the horizontal section focuses on the interaction between the interdependence of the hydrocarbon markets and regional integration–disintegration processes. Chapter 3, written by Andrei V. Belyi and Andrey Makarychev, analyses the importance of regional integration–disintegration processes. The main research objective of this chapter lies in seeking to understand whether energy can be a factor in regional integration. When assessing the institutional dynamics within energy interdependencies, one needs to understand that interdependence may be either positive or negative. A positive interdependence emerges when states are happy to cooperate with each other. By contrast, negative interdependence leads to mutual avoidance. In particular, mutual avoidance leads to a willingness to pay for various diversification projects, even though those may not be economically profitable. Integration and disintegration processes stem from deep-rooted policy practices, which lead to either the acceptance or rejection of common institutions. The interest that frames our approach consists in highlighting interactions between political (state-centred) and economic (market-centred) institutions, where regional institutionalization of energy relations is concerned, and in analysing the diversity of regional institutions. In some cases, energy impacts on the policy motivations of states, while in others it is merely a tool to achieve other objectives.

The three components form a single research topic which comprises the assessment of the influence of the institutional component outlined above on the structural component. More particularly, Part I seeks

to understand the impact of political institutions on international interdependencies in hydrocarbons.

Control over resources: A single concern with varied approaches

Control over resources is one of the crucial aspects of hydrocarbon interdependencies. In this regard, a basic distinction must be drawn between states endowed with energy resources and those which import energy. This also involves a distinction between energy policy and resource policy. Energy policy is about markets, security of supply, and efficiency. It is about government policies aimed at securing energy resources at the least possible cost, including social costs. Modern energy policy typically relies on the markets, at least to some extent, to provide efficiency and security. Government energy policy is geared to the provision of a supply of energy at low cost in order to promote the competitiveness of the national economy as a whole.

On the other hand, resource policy is about government strategy to maximize revenue and exercise sovereignty. It is often related to a country's more general development policies. In this regard, government policy focuses on maximizing resource revenue. The objective is to squeeze as much revenue as possible from the resources, before they run out. The revenue thus derived is then (ideally, though not always in practice) used to develop the overall economy or to attain other similar objectives. The strategy is not very different in terms of energy resources and other types of resources, such as precious metals and so forth.

This distinction is drawn as the drivers behind the two are different. With a degree of generalization, one might suggest that one essential difference between the two is that energy policy is about security of supply, whereas resource policy is about security of demand. This is a significant difference and distinguishes the policies of producing and consuming states. Of course, producing states will also have an energy policy in place, which can be linked with the resource policy.

In Chapter 4, Wojciech Ostrowski highlights the main ideological divide regarding the energy sector, which occurs between liberal economies and state capitalism. In most cases, energy-rich countries tend to gain certain strengths from their reserves in order to either attract more foreign investment (liberal approach) or gain greater political power (resource nationalist approach). However, discrepancies between these perspectives also depend on national and regional characteristics.

As analysed in Chapter 7, written by Marat Terterov and Claudia Nocente, the Middle East remains the most complex area of policy-economic interrelationships. Latin America analysed by Isabelle Rousseau, in Chapter 6, offers an interesting example of changing resource regimes between states and also over time. Resource nationalism has specific political regional characteristics. Oil reserves are often interpreted by states in this region as instruments of regional influence, which can take on a strong ideological dimension. Isabelle Rousseau's comparison of Mexico and Venezuela evidences different political attitudes towards resources.

Russia remains a *sui generis* case, which does not fit the profile of a 'classic' petro-state (Gufstanson, 2012). Russian energy policy is based on a developed state structure, backed by a large scientific and engineering establishment. Although corruption and non-transparency do exist, most of the hydrocarbon export revenues are repatriated to Russia. Russia has developed its own conception of gas markets, which is certainly challenged by recent developments in the internationalization of transactions in blue fuel. Chapter 5, written by Andrei V. Belyi and Catherine Locatelli, constitutes a case study of Russia in this respect.

Various regional studies of hydrocarbon-export-dependent economies demonstrate the importance of historical institutions, cultural background, and political specificities, which impacts on various state attitudes towards resources and markets. Although path dependencies exist in most of these cases, the type of resource nationalism exhibited varies.

Hydrocarbon-consuming states: Between competition and market stability

State and market interrelationships are very specific in energy-consuming countries – that is, states which have a significant demand for fossil fuels, even where there is some domestic production which does not create export dependency on energy commodities. In most cases, states tend to influence markets through regulatory measures. Nevertheless, these measures still differ between North America and Europe as well as between the 'old West' and emerging Asian economies. One may observe that some of these states are also hydrocarbon producers.

The United States is the most interesting and debated case because of the shale gas revolution which has taken place there. Conventional wisdom tends to attribute this revolution to free market forces and the private property system. While these certainly played a role, a little known

Index

- ACER (Agency for the Cooperation of Energy Regulators), 51, 212
- Algeria, 29–31, 87, 145–6, 158, 206, 231
- Angola, 21, 92, 230–2
- APEC (Asia-Pacific Economic Cooperation Forum), 11, 48, 51, 234
- Arab Spring/ Arab uprisings of 2011, 81, 145–67, 268
- ARF (ASEAN Regional Forum), 234
- Argentina, 122–4
- ASEAN (Association of Southeast Asia Nations), 48, 51, 55, 234
- Australia, 12, 18, 92, 169, 173, 231, 240–8, 253–62, 267
- Azerbaijan, 19, 67–9
- Baltic Sea region, 65, 71–2, 76–8, 114
- Bangladesh, 233
- Belarus, 66, 67
- Belgium, 45, 200
- Berti, Humberto Calderón (1941), 128
- Black Sea Economic Cooperation, 72
- Black Sea region, 65, 69–70, 72–3, 108
- Bolivarian Alternative, 137
- Bolivia, 122–4
- Brazil, 22, 23, 87, 123–4, 232
- Bulgaria, 75, 116
- Bush, George H. W. (1924), 182
- Bush, George W. (1946), 90, 182
- Calderon, Felipe (1962), 135–6
- Canada, 18, 20, 76, 92, 173
- capital intensive projects, 70
- Cardenas, Lazaro (1895–1970), 126
- Central Asia, 19, 68–9, 72, 78, 89, 91, 230, 232, 234
- centralization, 105–9, 112–19
- Chavez, Hugo (1954–2012), 123, 136–8
- Chile, 92, 123–4, 189
- China, 11, 19, 21–2, 66, 68–9, 84, 94–8, 214–35, 250–1, 257–8, 267
- climate, 36, 49, 50, 52, 55, 192, 210
- change, 34, 37, 40, 42, 189, 204, 221, 244, 251
- negotiations, 36
- CNOOC (China National Offshore Oil Corporation), 90, 223–4
- CNPC (China National Petroleum and Gas Corporation), 90, 223–4, 232–3
- coal (industry), 2, 5, 189, 190, 209, 221, 223, 226, 227, 229, 242–4, 246, 250, 253–62
- Colombia, 20, 87, 123–4, 134, 139
- Communist party (in China), 218–22
- competitive markets, 28, 50, 58, 110, 190, 200
- cooperation, 12, 47, 49, 61–78, 83, 90, 91, 92, 94, 95, 98, 138, 208, 226, 242, 256–8, 268
- corporatism, 50, 51, 95–8
- cross-border energy projects, 61
- decentralization, *see* centralization
- De la Madrid, Miguel (1934–2012), 130
- Denjiren (Federation of Electric Power Companies) in Japan, 249
- developing countries, 2, 22, 35, 85–6, 91, 103, 202
- developmentalism, 50, 51, 56
- domestic market, 103, 110, 112, 116, 132, 139, 222, 225, 235
- East Asian Summit, 11
- Eastern Europe, 65–7, 75, 85, 110
- ECOWAS (Economic Community of West African States), 71
- Ecuador, 20, 123–4, 231
- Egypt, 23, 31, 73, 145–6, 150, 154, 160, 163, 231

- EITI (Extractive Industry Transparency Initiative), 93
- Energy Community Treaty, 74–6, 199
- energy crisis, 149, 159, 250, 261
- energy diplomacy, 8, 41, 46, 48, 50, 55, 67, 137, 233, 241, 254, 258
- energy export, 12, 33, 103, 241–5, 247, 253, 254, 256–9, 261
- energy import, 9, 241–2, 248, 253, 257, 262, 267, 269
- energy law, 6–7, 50, 52, 198, 205, 209–12, 262
- energy policy, 6–12, 40–57, 73–4, 171–2, 186–92, 204–5, 220–1, 226–7, 240–61
- free-market, market-based policy, 40, 63, 75, 84–6, 110, 176, 198, 202, 204–7, 240, 243–4, 267, 269
- statist, state controlled energy policy, 55, 114, 240–2, 247, 253–4, 257–8, 260–1
- energy security, 4–6, 55, 77, 144, 188–9, 191–3, 198–204, 241–61, 268–9
- energy solidarity, 77, 198, 202–5, 211–12
- Energy White Paper, 244, 247, 255
- environment, 24–5, 34–5, 40–4, 50–6, 182–93, 198, 203, 209–11, 217, 221, 235, 244–6, 253
- negative impact of, 221, 259
- protection of, 64, 71, 173, 180, 210
- sustainability, 35, 198, 209, 251, 253
- EU (European Union), 1–12, 22, 34, 45–6, 47–8, 55–78, 114–20, 151, 198–213
- European Atomic Energy Community Treaty, 199
- European Coal and Steel Community Treaty, 199
- European Commission, 34, 54, 94, 206, 210–12
- European Energy Community, 74
- TFEU (Treaty on the Functioning of the European Union), 203, 204, 211
- financial crisis (in 2008), 85, 90, 112, 138, 165
- Fox, Vicente (1942), 134
- France, 22, 27, 28, 200, 209, 211–12
- free market approach, *see* market approach
- gas
- liquefied natural gas (LNG), 44–6, 110, 113–14, 119, 191, 206, 231–2, 242–6, 254–6, 259, 260
- market, 76, 104, 110–20, 147–8, 178–9, 199–201, 205, 210, 246, 248, 254, 267
- natural gas, 44–8, 110, 112–17, 132–6, 172–80, 187–91, 199–200, 204–12, 228–31, 256–62
- price, *see* prices
- sector, 69, 103–5, 109–12, 117, 119, 136, 147, 156–9, 161, 171–80, 192, 225
- shale gas, 10, 12, 115, 116, 169, 172, 184–92, 198–9, 209, 210, 225, 230, 234, 245, 267
- unconventional gas, 11, 209–11, 230, 245
- Gazprom, 19, 22, 41, 47, 104, 107, 109–20
- geopolitics, 66, 67, 68, 88, 144–5, 188, 190–1, 257
- Georgia, 68, 69, 72, 204
- Germany, 28, 48, 71, 151, 200, 209, 211
- Ghaddafi, Muammar (1942–2011), 146–54, 164
- globalization, 6–7, 64, 77–8, 92–3, 148, 159, 268–9
- global market, 6, 18, 149, 161, 254
- government agencies, 219, 225–7, 248
- great power management, 50, 52, 55, 71
- Herrera Campins, Luis (1925–2007), 132
- Hungary, 116
- hydrocarbon sector, 1–4, 81, 103, 105, 240, 266–8

- IEA (International Energy Agency), 11, 36, 45, 124, 147, 165, 228, 233–4, 242, 247, 251, 255–6
- IEF (International Energy Forum), 11
- IMF (International Monetary Fund), 87, 91–2, 132
- Indonesia, 20, 28, 92, 231, 242
- institutional factors, 4–5
- institutionalism, 64, 98
- interdependence (positive, negative), 1–9, 15, 42, 54, 61–3, 70, 74, 77–8, 266–9
- internal market, 76, 199, 200, 212, 213
- international communities, 76, 158
- international conflicts
9/11, 144
Cold War, 85, 258
Gulf War of 1991, 144
Iranian revolution of 1978–79, 144
Iran–Iraq war in 1980, 140, 144
Iraq's invasion of Kuwait in 1990, 144
Libyan civil war in 2011, 147, 149, 161
US-led invasion of Iraq in 2003, 33, 145
- international market, 89, 104, 149, 151, 159, 162, 163, 218, 220, 227–8, 235, 241, 242, 244
- international societies, 63, 71, 72
- international systems, 36, 62, 72
- Interstate Compact to Conserve Oil and Gas (US), 178
- interventionist policy, *see* state intervention
- IPE (International Political Economy), 2–7, 15–57, 61, 77, 148, 159
- Iran, 22, 27, 29, 31–3, 65–70, 78, 144–5, 160–2, 238
- Iraq, 27, 30, 32–3, 90, 144–5, 152, 155, 160–2, 165, 232
- Italy, 22, 28, 200, 206
- Jordan, 145, 150
- Kazakhstan, 69, 95, 108, 230–2
- Kuwait, 32–3, 144, 146, 160, 163–4
- Latin America, 10, 32, 48, 81, 122–4
- liberal approach, 9, 81, 242, 254
- liberalization, 75, 104, 114–20, 124, 129, 133, 200–7, 222, 227, 248, 269
- Libya, 21, 29, 30, 87, 138, 144–66, 268
- Libyan crisis, 148–9, 159
- Libyan National Oil Company, 155
- Libyan Oil and Gas Corp, 157
- Lithuania, 77, 211
- Lukoil, 32, 106–7, 109, 112, 119
- Malaysia, 23, 92, 231, 242
- market approach, 241, 242–7, 250, 257, 259, 261–2
see also energy policy
- market-based ideology, 198, 211
- market socialism, 50, 51
- Mediterranean Energy Forum, 73
- MENA (Middle East and North Africa) region, 73, 150, 162, 232–3, 268
- Mexico, 10, 87, 122–30, 133–4, 139–41, 165, 181–2, 189
- Middle East, 10, 22, 28–33, 70, 81, 85, 122, 126, 144–66, 230–3, 247, 254, 257
- mining sector, 92, 124
- Moldova, 66
- monopoly, 6, 19, 29, 96, 103–16, 118, 125–8, 131, 133, 135–6, 142, 190, 200–1, 205–6, 248–9
- Mubarak, Hosni (1928), 150, 163
- Myanmar, 231–3
- national interest, 90, 244, 254, 257
- nationalization, 30–2, 88, 106–9, 122, 124, 125–6, 129, 131, 133, 136, 138–40
- national security, 89, 233, 240, 250, 258, 261
- national sovereignty, 3, 6, 123, 125, 130
- NATO (North Atlantic Treaty Organization), 52, 151, 154
- neo-mercantilism, 50, 51
- NGOs (Non-Governmental Organizations), 17, 34, 42, 48, 50, 52, 55, 91–2

- Nigeria, 23, 29, 162, 231
 normative power, 66–7
- OECD (Organization for Economic Co-operation and Development), 26, 172, 233–4, 260
- oil companies
 international (IOC), 86, 89, 125, 132, 133, 135, 146, 155, 156, 164, 224
 national (NOC), 86, 89, 112, 122, 132, 135, 137, 139, 223–5, 229–30, 232, 234–5
- oil crisis, 149, 150, 161, 162, 240, 248, 250, 260, 261
- oil price, *see* prices
- oil sector, 29, 32, 34, 35, 36, 103–7, 109, 113, 119, 134, 152, 155–6, 223, 224
- Oman, 160, 191, 231
- OPEC (Organization of the Petroleum Exporting Countries), 26, 30–4, 36, 48, 51, 94, 124, 128, 136, 139–40, 146, 151, 160–6, 179, 242, 245
- PdVSA (Petroles de Venezuela), 122–3, 127–42
- Pemex, 22, 122, 127–31, 133–41
- Peru, 87, 123, 124, 231
- PetroChina Ltd, 224, 225, 230
- Petroleum Facility Guards, 157–8
- petroleum (industry), 33, 140, 173, 175, 183, 190, 229, 246, 255–6
- Pipelines
 Arab Gas pipeline, 73
 BTC (Baku-Tbilisi-Ceyhan) pipeline, 69
 BTS pipeline, 78
 CBSS, 71, 77
 CPC (Caspian Pipeline Consortium) pipeline, 78, 108, 109
 Egypt's gas pipeline to Israel (and Jordan), 150
 IKL oil pipeline, 207
 IPI (Iran-Pakistan-India) pipeline, 69, 70, 78, 268
 Italian ENI/Trans Tunisian pipeline, 206
 Nabucco pipeline, 69, 212
 Nord Stream project, 48, 71
 Russia's Far Eastern pipeline, 257
 South Stream project, 69, 73
 SUMED pipeline, 145
 Trans-Caspian Pipeline system, 69
- Poland, 71–2, 77, 116, 209–11
- politics of resources, resource policy, 9, 83
- Portillo, Jose Lopez (1920–2004), 128
- prices
 gas, 47, 76, 116–17, 180, 189–91, 228–30, 246
 oil, 32–5, 127, 132, 145, 158–9, 161, 163–6, 177–8, 227–8, 245, 250–1, 255, 260
 price volatility, 40, 116, 118, 165, 178
 privatization, 19, 43, 108, 129, 131, 135, 201–2, 222, 224, 235
- Qatar, 45, 138, 146, 151, 160, 162, 164, 191, 231, 243
- realist policy, 8, 62, 97
- regional energy interdependence, 62, 74, 78
- regional energy projects, 62–3
- regional integration, 7, 8, 68, 74, 76, 78
- regionalism, 62, 71–2, 74, 76–7, 96
- regulation, 6–7, 11, 40, 46, 63, 75, 111–13, 118–20, 137, 178–86, 201–2, 205–7, 209–12
- renewable sources, 72, 192, 198–9, 203, 208–10, 226, 252–3, 260–2
- resource nationalism, 3, 7, 10, 86, 88, 95, 251
- Rosneft, 19, 22, 104, 106–7, 109, 111, 112–14, 119, 232
- Russia, 5–10, 19–23, 32, 46–8, 63, 65–77, 84, 90, 94–5, 97–8, 103–20, 230–4, 242, 257–8, 267
- Salazar, Ken (1955), 171, 172, 182
- Salinas de Gortari, Carlos (1948), 131
- Saudi Arabia, 22, 28, 29, 31, 33, 84, 95, 97–8, 104, 146, 149, 150, 160–3, 173, 230

- SCO (Shanghai Cooperation Organization), 234
- self-sufficiency, 243, 245
- Serrano, Jorge Diaz (1921–2011), 128
- “Seven sisters”, 28, 30
- Sinopec (China National Petrochemical Corporation), 90, 223–5
- South Caucasus, 65, 68, 72
- sovereignty, 2–3, 6–7, 9, 18–19, 21, 30–1, 50, 52–3, 55–6, 123, 125, 130, 139, 266
- Soviet Union, 3, 19, 29, 32, 65–6, 68, 75, 81, 85, 90, 103, 106, 108, 115–16, 217, 220, 232
- Sri Lanka, 233
- state capitalism, 9, 12, 51, 56, 83, 99, 183–99, 218, 267, 269
- state company, 123, 124, 125
- state intervention, 11, 35, 85, 87, 137, 198, 206–8, 211–12, 248, 250, 252, 255, 266
- state-market interaction, 2–4, 15, 17–78, 104, 119, 240–62, 268
- statist approach, state centered (ideology), 6, 240–2, 247–53, 254, 258–61
see also energy policy
- subsidies, 35, 132, 198, 222, 228, 230, 242, 260
- Sudan, 21, 44, 155, 161–2
- Suez Canal, 30, 145
- SurgutNG, 107, 119
- Sweden, 209
- Syria, 31, 73, 145, 150, 160–1, 164
- taxation, 30, 31, 35, 132, 135, 224, 228, 258
- TNK-BP, 107, 110
- Transneft, 19, 107–9, 232
- transparency initiative, 83, 91–4, 111
- Trinidad Tobago, 173
- Tunisia, 145–6, 150
- Turkey, 66–9, 72
- Turkmenistan, 68–9, 231–2
- UAE (United Arab Emirates), 146, 151, 160, 162, 164, 231
- Ukraine, 65–7, 72, 75–7, 202, 204
- United Kingdom, 11, 22, 26, 35, 200, 209, 224
- United States (of America), 10–11, 18–35, 67–9, 88–90, 171–93, 200, 245
Supreme Court, 133, 175, 179, 183, 185
- uranium, 244, 255
- Uzbekistan, 231–2
- Venezuela, 87, 123–8, 131–3, 136–42
- Visegrad group countries, 74, 76–7
- Wintershall, 156, 164
- World Bank, 91–3
- Yemen, 145, 150, 160, 165, 231
- Zeidan, Ali (1950), 158
- zero-sum (terms, bargaining), 66, 249, 257