

Conflict and Coexistence in the Extractive Industries

A Chatham House Report

Paul Stevens, Jaakko Kooroshy, Glada Lahn and Bernice Lee



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A set of supplementary online materials, including a description and quantitative exploration of the CHAD, several country and regional case studies, and an overview of international governance initiatives for the extractives sector, is available on the Chatham House website at: <http://www.chathamhouse.org/conflictandcoexistence>.

Acronyms

AAR	Alfa-Access-Renova
AMD	Acid mine drainage
ANC	African National Congress
BHP	Broken Hill Proprietary Company Ltd. (now part of BHP Billiton)
BP	British Petroleum
BRA	Bougainville Revolutionary Army
CHAD	Chatham House Arbitration Database
CNPC	Chinese National Petroleum Company
DRC	Democratic Republic of the Congo
EIA	Environmental impact assessment
EITI	Extractive Industries Transparency Initiative
FDI	Foreign direct investment
GDP	Gross domestic product
IMF	International Monetary Fund
IOC	International oil company
IPC	Iraq Petroleum Company
KMG	KazMunaiGas
LME	London Metal Exchange
LSE	London Stock Exchange
MENA	Middle East and North Africa
MRRT	Mineral Resource Rent Tax
NEITI	Nigeria Extractive Industry Transparency Initiative
NOC	National oil company
OECD	Organisation for Economic Co-operation and Development
OPEC	Organization of Petroleum Exporting Countries
PNG	Papua New Guinea
PPP	Purchasing power parity
PSA	Production-sharing agreement
PWYP	Publish What You Pay campaign
RSPT	Resource Super Profits Tax
RWI	Revenue Watch Institute
SBI	Sustainable Budget Index
TNK	Tyumenskaya Neftyanaya Kompaniya (Tyumen Oil Company)
UNCTAD	United Nations Conference on Trade and Development
UNG	UzbekNeftGaz
WTO	World Trade Organization
YPF	Yacimientos Petrolíferos Fiscale (Treasury Petroleum Fields)

Executive Summary and Recommendations

Clashes over the terms of mineral contracts have become a political lightning rod in many resource-rich countries. A series of bitter disputes in recent years – some ending in lengthy litigation, project cancellation or even expropriation – has unsettled investors and global markets. These disputes call attention to the fragile and complex relationship between companies and their host governments that characterizes the extractives sector.

The economic significance of the sector to producer countries is well known, as is its role in influencing the fate of political leaders. Consequently, it is often subject to intense global scrutiny – whether over revenue transparency or its environmental legacy. Its impact on the national economy or local communities also remains an area of contested rights, responsibilities and benefits.

A decade of high prices and fast-growing global demand has triggered a new generation of mineral mega-investments. Many of these ventures are located in countries with long-established extractive industries, such as Australia, Chile and Canada. But ‘emerging producers’ – such as Mozambique and Mongolia – are also attracting interest from extractive companies, whether private corporations or state-owned enterprises (SOEs).

Today, public anticipation of the benefits of extractives projects is again rising in many countries, with producer governments asserting greater control over their mineral endowments. But these expectations come at a time when the operational and political context for mineral investments is shifting across the world, raising questions about the long-term future of the extractives sector, especially in developing countries.

Mineral and hydrocarbons production increasingly takes place in geologically, ecologically and politically challenging regions, as opportunities for more accessible reserves dwindle. Water scarcity and the increasing frequency of extreme weather events are raising new risks for investors and producers. Heightened concerns over resource security, environmental degradation and climate change will bring further scrutiny and tensions. Other uncertainties also cloud the market outlook. Talk of the end of the commodities super-cycle is prompting some companies to slash investment, undermining the prospects for resource-led development.

The relationship between host country and company in the extractives sector will remain contentious. In many parts of the world conflicts are set to escalate. Future disputes have significant ramifications not only for the economic and political stability of the countries concerned but also for companies’ assets and reputations.

Key findings

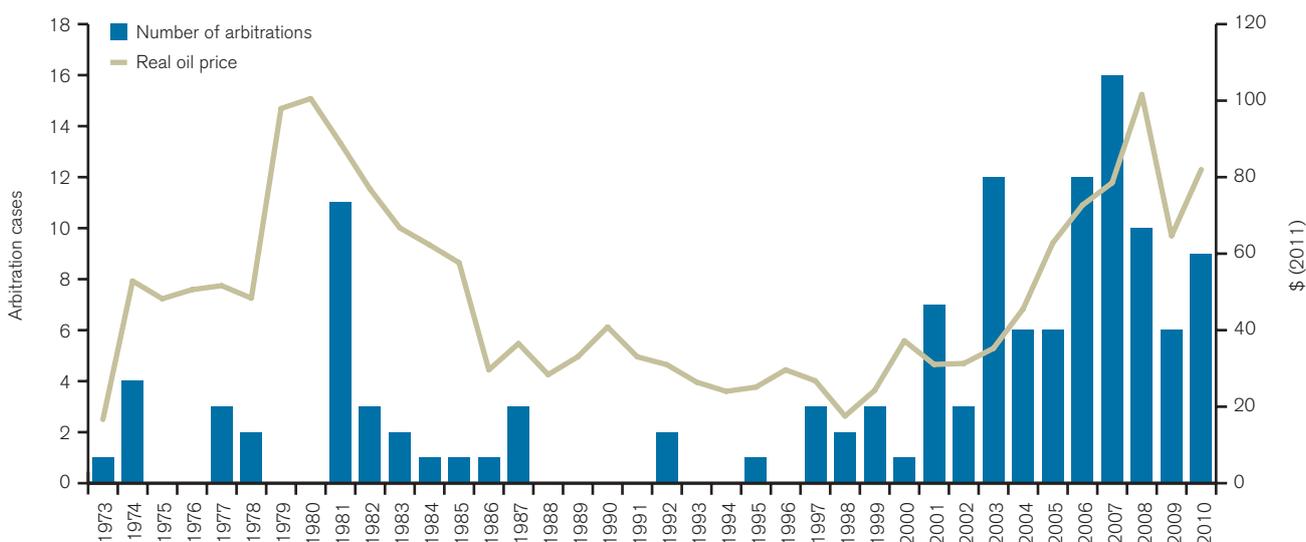
[The number of disputes is on the rise.](#)

Over the last decade, more disputes in the extractives sector have resulted in international arbitration than ever before. Between 2001 and 2010, arbitration cases for oil and gas increased more than tenfold compared with the previous decade,

while those for mining increased nearly fourfold. This dramatic increase reflects escalating tensions among stakeholders involved in the sector, culminating in disputes that have been difficult to resolve in a cooperative manner.

Companies and governments are always competitors when it comes to the distribution of mineral and hydrocarbon revenues and profits, despite their mutual drive to unlock potential wealth. Not so long ago, experts suggested that the worst types of commercial dispute would become a thing of the past. But experience has proved otherwise: three recent expropriations (affecting Repsol in Argentina, Rio Tinto in Guinea and First Quantum Minerals in the Democratic Republic of the Congo) have cost investors some \$13 billion.

Figure A: Real oil prices and international arbitration cases in the extractives sector, 1973–2010



Source: Chatham House Arbitration Database (CHAD).

The higher incidence of arbitrations correlates strongly with the commodity price boom. No country or type of company is immune to such disputes, although they tend to play out in different ways depending on the level of sophistication of the host country's legal and political system. They range from fights over changing legislation and project revisions to wrangling over liability for environmental damages.

Community-level conflicts, for example, remain frequent in countries with weak environmental protection frameworks, high economic and social inequality, and insecure water rights and land tenure. Reliable statistics on community conflicts and their impact are generally unavailable, but incidental evidence suggests that the number of such conflicts is increasing in many parts of the world. One assessment identified 126 active local conflicts in Peru related to the extractives sector as of mid-2013.

Poorer countries are not necessarily more prone to conflict. Even in long-established producer states, resource governance frameworks are susceptible to political pressures, as shown in the 2010 Australian super-profit tax debate and BP's ongoing legal battles in the United States over the Gulf of Mexico blowout and oil spill. At the same time, companies from emerging economies confront similar investment risks to those of their Western counterparts. The multi-billion-dollar loss that Vale, the state-backed Brazilian company, faces in Argentina and Guinea is a case in point.

Tensions between foreign investors and host governments are often attributed to resource nationalism. But many analysts fail to distinguish incendiary rhetoric from policies that legitimately address societal concerns. The extreme positions taken by Argentina and Zimbabwe are likely to remain exceptions rather than the rule. Most producer governments remain wary of deterring foreign investment. Where governments have announced new ownership requirements or taxation regimes – in Peru, Mozambique, Mongolia, Zambia or Guinea, for example – these proposals are often watered down or reversed under industry pressure.

The contract between government and extractive companies is inherently vulnerable.

At the heart of the problem is the absence of a practical formula or a benchmark to determine an equitable distribution of revenues between the state and companies in extractive ventures. Model contracts of the 1990s have by and large failed to weather the commodities price boom. According to the World Bank, more than 30 countries have revised petroleum contracts or entire fiscal regimes between 1999 and 2010. In mining, at least 25 governments (including most major mining countries) announced or implemented tax or royalty increases in 2010 and 2011 alone.

Revenue-sharing is often the frontline of company–government disputes. How to ensure a ‘fair share’ for each party remains an overriding challenge, and perceptions of fairness or equity are heavily shaped not only by the changing domestic and international context, but also by historical experience. Questions of who is in control and who benefits from the resource extraction remain relevant to a company’s presence and operations in a country long after the ink on the contract is dry.

In theory, governments should focus on capturing resource rents in excess of normal profits. In practice, distinguishing objectively between rents and profits is extremely difficult. Revenue-sharing agreements are therefore typically reached after protracted bargaining, while original contracts may be amended or renegotiated several times over many decades. Outcomes in these negotiations depend on the relative bargaining power of each party, including their control of information, market sentiment and prevailing views regarding the role of the state in the sector.

Throughout the lifetime of a project, three sets of structural pressures tend to challenge the contract between parties. First, commodity price cycles can undermine existing contracts and challenge their legitimacy. Second, ideological shifts and transitions of power, especially from dictatorship to democracy, often trigger demands to renegotiate deals. Third, the changing distribution of bargaining power over the project cycle may embolden action by one or other party. For example, companies often hold more bargaining power at the outset of a project, given their access to finance and technical know-how. After the investment costs are sunk, however, the balance of power can shift.

Extractive industries are in a period of flux.

The rules by which extractive companies operate in producing countries will be subject to changes, sometimes radical, as markets remain volatile and many resource-rich countries lack a broad national consensus on how their domestic resources should be managed. In several states, particularly in sub-Saharan Africa, generational change will bring new demands on the sector.

Global pressures and new obligations for companies to disclose information concerning their overseas investments are also accelerating. For the extractive industries, greater use of legal measures and penalties relating to transparency and corrupt practices will have ramifications for the ways in which companies operate abroad.

The increasing level of scrutiny from multinational NGOs, and the speed and reach of global communication mean that the spread of ideas and access to information about how projects should be conducted will influence local and national demands. The more varied nature of joint ventures globally, involving combinations of multinational companies, SOEs and smaller independent partners, is likely to increase the complexity of potential conflicts.

Meanwhile, a ‘capital strike’ by major investors – triggered by growing uncertainty about future prices and demand – is now a serious risk for some countries whose budgets rely on a continuing boom in resource investments and exports. This could lead companies to scale back, delay or even cancel flagship projects. Governments may demand that companies adhere to their ambitious development schedules, and companies risk being confronted with ‘use-it-or-lose-it’ arguments.

Going forward: recommendations

Even with a strong body of knowledge, lessons learnt and expertise on regulation, tax regimes and good governance, for example, best practices in each of these areas have been unevenly implemented. Despite initiatives such as the Extractive Industries Transparency Initiative, Intergovernmental Forum on Metals, Mining and Sustainable Development or the United Nations Guiding Principles on Business and Human Rights (also known as the Ruggie Framework), relations in the extractives sector worldwide continue to be strained.

Caution is essential for new producers moving into extractives-led development. While economic and political pressure to develop resources quickly will be high, in some countries the best option may be to 'go slow'. The emphasis should be on building the capacity to regulate companies, generate employment opportunities and manage revenues in tandem with the resource sector. Delaying development could be a preferred option for Afghanistan and Somalia, for example, given the combination of political instability, conflict and environmental stress they are currently facing.

With a greater number of mega projects and the range of new actors involved, it is imperative for stakeholders to persist in their efforts to tackle these governance challenges and invest in processes to enhance dialogue and to defuse future tensions. Recommendations include:

Improving the terms of engagement

- Companies and governments should opt for more flexible contractual arrangements with built-in response mechanisms to changing market conditions such as sliding royalty scales, rather than focusing on rigid, 'watertight' agreements.
- Governments should simplify tax and regulatory frameworks for investors – including clearer, more concise mining and petroleum laws that standardize licensing frameworks – to reduce the burden of negotiation for individual licences or contracts.
- Companies should conduct regular, open dialogues with civil society, organized labour and the media as well as opposition parties on issues such as the impact of operations; and they should stretch their engagement beyond governments, regulators and affected communities.

Raising standards of governance

- Companies should align due diligence, environmental practices and transparency standards with international best practice to ensure their long-term 'social licence to operate' and to insulate themselves from risks arising from unanticipated regulatory and political changes.
- Producer countries should make full use of governance-related initiatives (e.g. with respect to revenue transparency, or assistance in training local journalists and community leaders to enhance public understanding of extractives-sector development) to strengthen accountability through capacity development and checks and balances, with the support of donor agencies.
- Governments should clarify and update the risk assessment and liability regimes in accordance with international best practice and stress-test them against a range of scenarios, especially for 'frontier' and 'unconventional' projects.

Planning together and defusing tensions

- Governments should undertake a public assessment of national and local capacity to capture development benefits, prior to taking strategic decisions on exploration or development of major deposits. Companies should set out in concrete terms how they can contribute to filling capacity gaps to help manage local expectations.
- Multilateral institutions and donor agencies could support the development of integrated infrastructure plans in developing producer economies to meet not only the needs of the specific projects but also the broader development objectives.
- Public–private partnerships should be established to channel targeted investment in local capacity, including small and medium-sized enterprises, to strengthen forward and backward linkages from the extractives sector to the rest of the economy. Blunt approaches such as unrealistically high local content requirements should be avoided.
- Donor agencies could support the appointment of an independent, high-level ombudsman for the extractives sector, especially in emerging producer countries, to help defuse company–government tensions at an early stage, and to conduct public investigations into allegations of legal breaches.

- A decade of high prices has attracted a wave of new investment in subsoil resources. Today, the combined value of global extractive industries is more than \$10 trillion, and expectations about the benefits from the sector are running high in many parts of the world.
- A series of bitter disputes between extractives companies and host governments in recent years has led to heavy losses for investor for investors, threatening the development the development prospects of many resource-rich countries.
- This report aims to provide a clear understanding of the relationship between companies and host governments, and the factors that cause and influence disputes between them. An examination of these underlying drivers could help both sides to find approaches that reduce future tensions.
- Disputes between governments and companies in the extractives sector have a long history, but new fault lines are emerging and the stakes are higher. New actors, volatile prices and increased international scrutiny are changing the rules of the game.
- New projects are bigger and more expensive and carry greater risks, as companies move into challenging frontier regions. Concerns that the commodities 'super cycle' may soon be over – or faces a dip – have raised questions about the viability of some of these greenfield projects.
- Mega-projects in the petroleum and the mining sectors are becoming more alike, suggesting new opportunities to share lessons.

1

Introduction

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1 Introduction

A decade of high prices for energy, metals and minerals has generated large profits in the extractive industries and attracted waves of new investments. Today, the combined value of global fossil fuels and mining is more than \$10 trillion and expectations about the benefits they can bring to producer countries are high. Yet a series of bitter disputes between extractives companies and host governments in recent years urges caution over the ability of many of these projects to deliver. Going forward, relations in the extractives sector face multiple challenges from more volatile resource markets, harsher operating environments, political shifts in producer countries and mounting environmental stress.

The purpose of the report is to provide both host-country and company stakeholders in the extractives sector with a clearer understanding of the characteristics of the relationship between companies and host governments, and the factors that cause and influence disputes between them. The report re-examines the potential for and likelihood of disputes between resource-owning governments and extractives companies globally. It focuses on the global trends and cycles that drive or influence company–government relations, and how they are shaped by local factors such as institutional frameworks, historical legacies and shifts in the balance of power among national or regional groupings. An examination of the drivers behind disputes, both historical and current, could help both companies and governments to find approaches that reduce the risk of future tension.

1.1 A history of troubled relations

The history of minerals and hydrocarbons extraction is often inseparable from countries' experience of colonization, independence and development.

The history of minerals, metals and hydrocarbon extraction is closely intertwined with experiences of colonization, independence and development. In many parts of the world, the extractives sector is central to the economy and, as a result, to the political legitimacy of a country's leaders.

Resource-rich countries, especially those with limited productive capacity, often seek to develop their mineral endowment through foreign direct investments. But contracts with extractives companies are not signed in a political vacuum.¹ How to ensure a 'fair share' for each party remains a salient question. The perception of fairness or equity is not only heavily influenced by historical experience but also subject to the vicissitudes of the domestic and international political and economic context. Public expectations and economic dependence on the sector can raise the political stakes of resource development. Questions of who is in control and who benefits from resource extraction continue to be relevant to a company's presence and operations in a country long after the ink on the contract is dry.

Disputes, in a variety of forms, between the companies extracting resources and the various groups or official institutions of the territory on which they operate are a recurring theme in this history. 'Disputes' between extractives companies and host countries here may be understood to cover everything from low-level wrangling over the terms of resource rent distribution to outright attacks on assets or expropriation.

In the 1990s, academics and practitioners suggested that serious disputes or expropriations in the extractive industries would become increasingly rare. They argued that governments' desire to attract investment and technological know-how would make nationalizations less likely in the future. Instead, nationalizations in extractive industries have returned with a vengeance in the 21st century. Against the backdrop of a fading Washington Consensus and the longest and strongest resource boom in a century, governments in resource-rich countries have pushed vigorously for greater control over their resource endowments and many countries have not shied away from seizing assets or declaring contracts void.

Disputes and expropriations in extractive industries have returned with a vengeance in the 21st century.

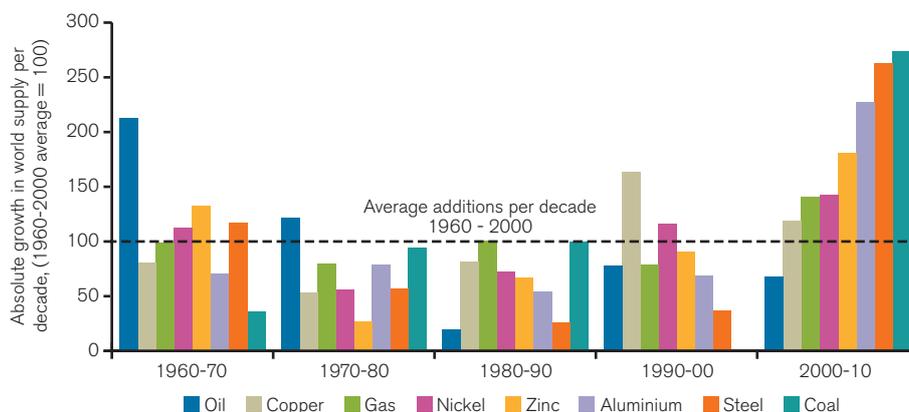
1.2 What's new?

The stakes, players and rules of the extractives game have changed and this is reshaping relations between governments and companies in the sector. It is also affecting the likelihood and nature of disputes in the industry.

The extractives sector has undergone major expansion over the past decade. On the back of growing demand from emerging economies and a boom in commodity prices, oil, gas and mining industries have expanded dramatically. Growth in coal and steel production between 2000 and 2010 is equivalent to the total of all the growth that occurred between 1960 and 2000. In the same period, aluminium and zinc production increased by as much as it had in the preceding 25 years. Not all commodities grew at the same rate: global oil and copper production did not undergo the same acceleration.

During the commodities boom, oil and copper did not experience the same acceleration as steel and coal production.

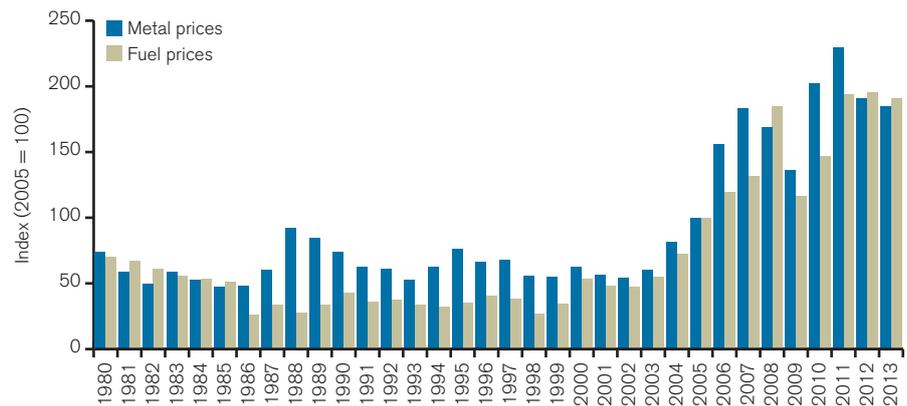
Figure 1.1: Growth of world mineral supplies, 1960–2010



Sources: Chatham House calculations based on production data from Kelly and Matos (2013), BP (2013) and Nehring (2009).

Prices for metals and fossil fuels have increased sharply over the past 10 years, after a long period of decline characterized by modest demand growth and overcapacity. Between 2002 and 2008 commodity markets went through the longest and strongest period of price increases in at least a century.² Prices initially plummeted in response to the 2008 financial crisis (see Figure 1.2), but resumed their upward trajectory in 2009 – reaching the pre-crisis highs again in 2011. Since then, resource prices, especially for many metals, have again dropped somewhat, although they are still twice as high as prices in 2002 in real terms.

Figure 1.2: Average annual fuel and metal prices, 1980–2013



Source: Chatham House calculations based on the IMF Primary Commodity Prices Database.

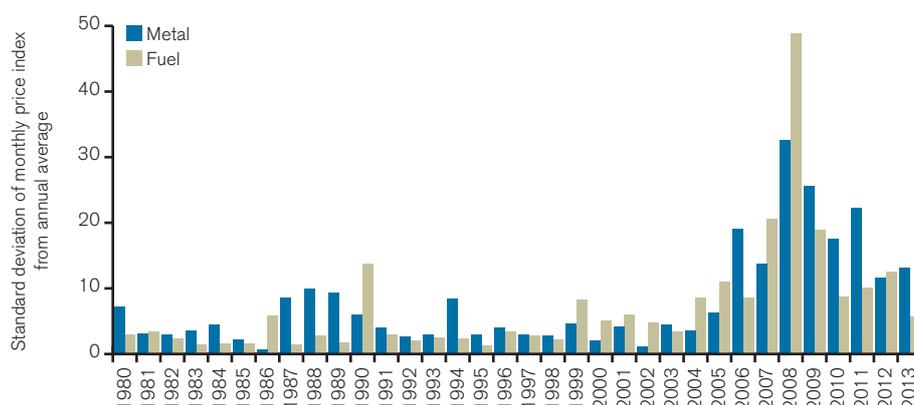
Note: Annual averages are calculated from the monthly IMF Metals Price Index (which is based on market prices for copper, aluminium, iron ore, tin, nickel, zinc, lead and uranium) and the Fuel Price Index (which is based on market prices for crude oil (petroleum), natural gas, and on coal price indices). The Fuel Price Index is available only from January 1992 onwards. Before 1992, the IMF Crude Oil Index is used as proxy, which constitutes over 80 per cent of the Fuel Price Index. Data and a detailed description of sources are available at <http://www.imf.org/external/np/res/commod/index.aspx>.

Price swings are driven by shocks to demand and supply, but are exacerbated by sophisticated trading technologies and commodity-linked securities.

Prices have also become considerably more volatile (see Figure 1.3). These price swings are driven in large part by shocks to demand and supply, but there are exacerbating factors such as the sophistication of trading technologies and the increasing prevalence of commodity-linked securities. Fluctuations in market sentiment are amplified by the ease with which rumours can travel the globe and then be multiplied by the efficiency of electronic trading systems, which buy or sell assets in nanoseconds. Correlation trading has made it commonplace for whole asset classes (such as oil futures and copper futures) to be dumped when a tangential event (such as monthly Chinese economic data, or a terrorist threat in London) occurs. As result, oil and copper prices may move sharply with little regard for oil and copper fundamentals.

This boom has also created new economic powers and new dependencies. The fortunes of leading mining countries and companies are increasingly tied to the import needs of China, which is now the destination for more than half of all metals exported by Australia, Indonesia and Peru and well over a third of exports from Brazil and Chile.

Figure 1.3: Deviations of the IMF's monthly energy and metal price, 1980–2013



Source: Chatham House calculations based on the IMF Primary Commodity Prices Database.

Note: Standard deviations are calculated using the nominal metal and fuel price indexes from the IMF. Note that measuring volatility is technically challenging and that the standard deviations presented here should be understood as a crude proxy for changing trends in volatility over time, rather than as precise statistical measurement.

Thus **the actors have changed**. Two types of actor have long dominated the story of extractives companies' investments. The first are the large Western companies that are listed on international stock exchanges and operate in several countries. The second are the various types of state-owned companies that operate in their home territory. But the landscape has changed over the past two decades, owing in part to the 'going out' strategies in import-dependent Asian countries, above all China. Under such strategies, state-owned extractives enterprises receive government support in order to secure resource production abroad (see Box 1.1).

Emerging economies in particular are not only embracing national champions but also investing heavily through state-owned enterprises (SOEs) and sovereign wealth funds in extractive industries abroad. Their investments have been partly responsible for the increasing share of energy and mining in global capital expenditure since 2003. Among Standard & Poor's list of the top 2,000 corporate capital spenders in the financial year 2012, energy or mining companies make up 13 of the top 20. Five of them can be classed as SOEs, including the top two: China's PetroChina and Brazil's Petrobras.³

These approaches to investment, often referred to as 'state capitalism', are challenging the business models of private multinationals. In addition, smaller companies have proliferated in hydrocarbons and mining. Both trends increase the choice of partner for resource-owning countries, bringing new issues and diplomatic realignments. At the same time, the more recent international investors are facing old challenges in terms of how they get along with their host countries.

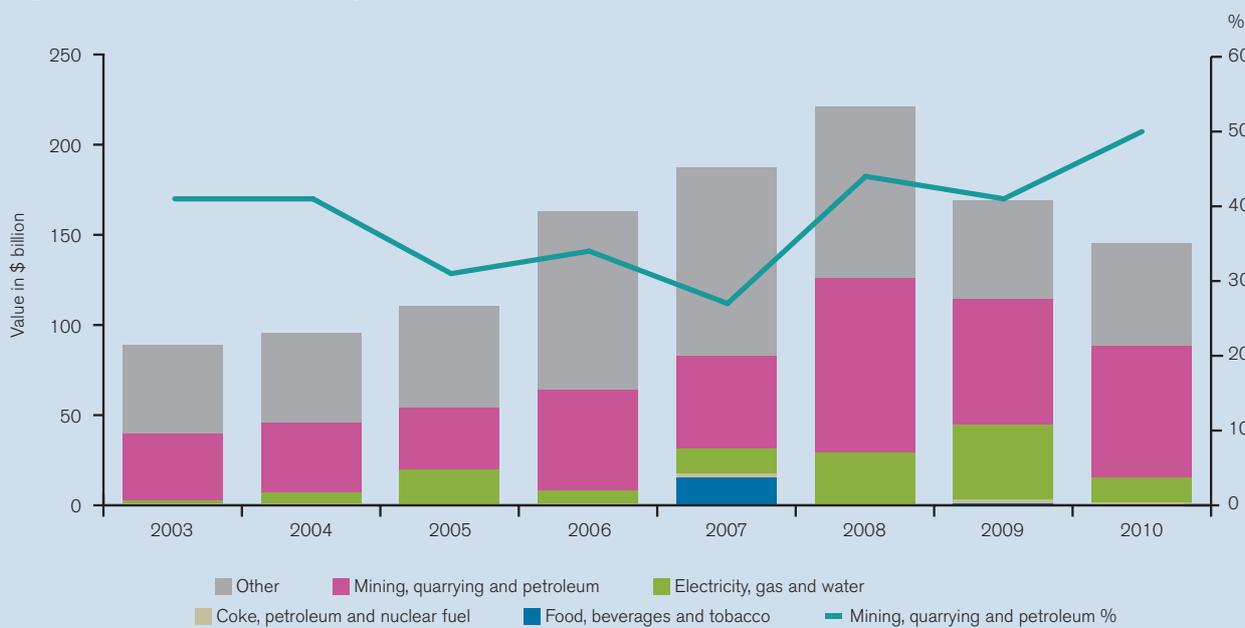
Companies are richer. The extractives sector is far larger and richer than it was just 10 years ago, whether in terms of revenue, profits or stock market valuations. According to PricewaterhouseCoopers, the world's 40 largest mining companies, for example, saw more than a fivefold increase in revenues between 2002 and 2012. Their net profits rose more than tenfold, from \$6 billion to more than \$80 billion per annum (see Figure 1.5). During the metal price spike in 2010–11, profits even jumped to \$132 billion.

In 2012, 13 of the top 20 corporate capital spenders were energy or mining companies, including five state-owned enterprises.

Box 1.1: The rise of state-backed foreign investment in the extractives sector

The bulk of foreign direct investment (FDI) by SOEs has gone to the mining, quarrying and petroleum sectors (see Figure 1.4). SOEs from China accounted for 27 per cent of total outflows in 2010, up from just 13 per cent in 2003, predominantly in oil, iron ore, aluminium and uranium. Developing countries' SOEs have also increased the scale of their investments: they completed four of the six FDIs valued at more than \$10 billion in 2005–10.^a

Figure 1.4: State-owned enterprises – outward FDI by sectors, 2003–2010



Source: Chatham House based on data from UNCTAD (2011).

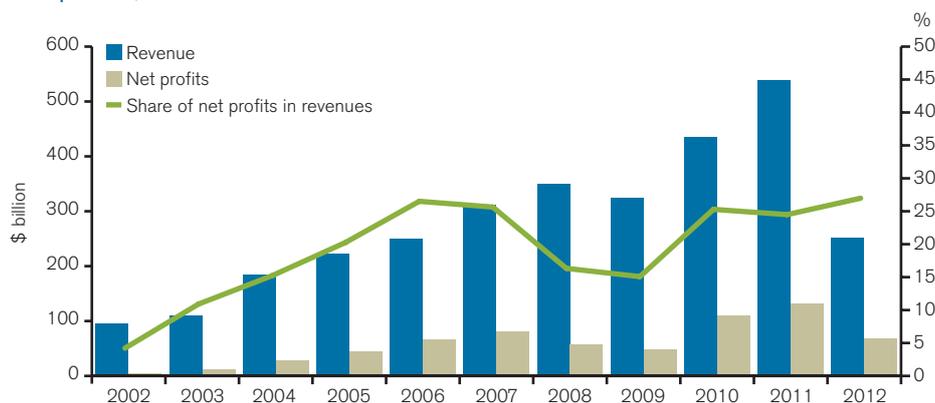
^a UNCTAD (2011).

The resource boom of the past decade has pushed the value of extractive industries beyond the \$10 trillion mark.

Although precise data do not exist, the available evidence suggests that the resource boom of the past decade has pushed the value of the global extractive industries beyond the \$10 trillion mark. The value of FTSE 100 mining, oil and gas companies on the London Stock Exchange (LSE), where some of the largest extractives companies are listed, increased from £181 billion in 2002 to £519 billion in 2012.⁴ But the LSE presents only a small share of the global industry. Calculations by Revenue Watch in 2011 showed that the combined value of extractives companies listed on the 35 largest stock exchanges worldwide exceeded \$9 trillion.⁵

Additionally, non-listed companies make up a big part of the industry. Glencore (now Glencore Xstrata), for example, had been a private commodity trading house for more than 30 years until it went public in 2011, valued at \$60 billion. The value of these non-listed private companies is dwarfed, however, by national companies such as the China National Petroleum Corporation or Mexico's Pemex, some of which are listed or partly listed on exchanges. The Russian company Rosneft, of which a majority is government-owned, for example, became the largest publicly traded oil producer in the world when it acquired TNK-BP in March 2013.⁶ But many others are not listed anywhere. The value of Saudi Aramco alone has been estimated to be between \$2.2 trillion and \$3.6 trillion, making it the world's largest company by far.⁷

Figure 1.5: Revenue and net profits for the world's 40 largest mining companies, 2002–2012



Source: Chatham House, based on data from PwC (2013), and previous editions.

Recent investments are bigger, more expensive and more risky. Extractive industries spending increased exponentially in the past decade, reflecting both rising costs and the expected growth in global demand. Investors sank more money into the ground in 2012 than they spent in total during the boom years of 2007 to 2008. The financial crisis of 2009 only slightly dented the rise in spending. Citi estimated in 2012 that capital expenditure in the mining industry globally quadrupled from \$20 billion in 2004 to an estimated 88 billion in 2012.⁸

At the same time, the costs of operating mines have risen, creating a new floor for the global prices that investors require for commercial success. An in-depth analysis of production costs at Anglo American's copper division, Rio Tinto's iron ore division, Xstrata's coal division and BHP Billiton's Escondida copper mine (one of the world's largest) shows that in all cases, production costs rose by at least 50 per cent between 2007 and 2011.⁹ These cost increases were driven by a variety of factors (see Table 1.1), with higher input prices an important contributor. Tyres and drill rigs are more expensive, along with the rubber and steel that make them. Power and fuel prices are also rising. Labour costs are driven up by the scarcity of qualified workers.

New projects are also moving to frontier regions with environmentally and geologically challenging conditions, driving up project costs too. Some of the biggest new hydrocarbon projects, for instance, include Kashagan, an offshore oil field in Kazakhstan, the Santos pre-salt basin in deep water off the coast of Brazil and the oil deposits of the Russian Arctic rim. Simandou, an iron ore deposit deep in the interior of Guinea; the Oyu Tolgoi copper project in Mongolia's Gobi desert; the La Granja copper project in the Peruvian Andes; and the Benga coal deposit in northwestern Mozambique all rank among the world's top ten greenfield mining projects.¹⁰ Many of these projects push the limits of extractives technology and carry high political risk. Furthermore, their remoteness requires huge investments in infrastructure such as roads, ports and oil platforms, thereby pushing up ancillary costs.

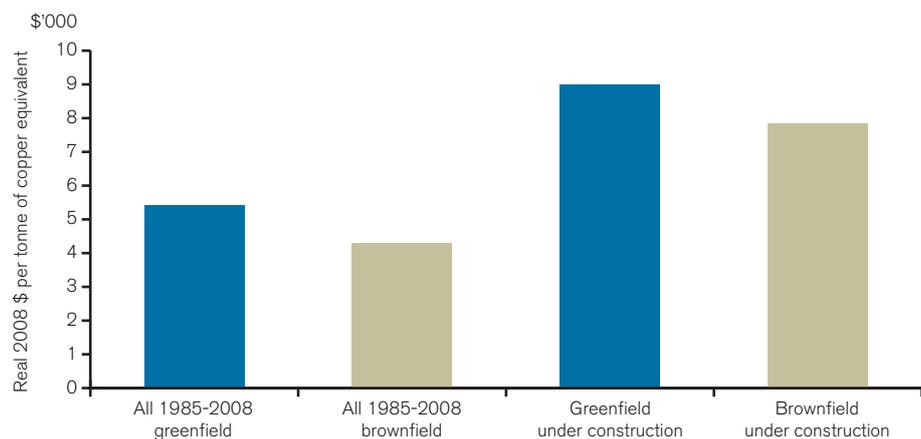
Rising operating costs for mines act as a new floor for global prices.

Many new projects push the limits of extractives technology and carry high political risk.

Table 1.1: Summary of supply-side drivers of higher mineral prices

Drivers	
Rising marginal costs	Higher input prices (e.g. energy, steel, water, machinery) More complex geology Lower-quality deposits
Rising overhead	Higher wages and skills shortages Higher taxes and royalties Larger infrastructure investments Tougher environmental standards More frequent delays and disruptions Higher working capital requirement
Higher risk premium	Less inventories and more frequent disruptions Increased political risks

Figure 1.6: Higher cost of next-generation copper projects



Source: Xstrata (2011).

The boom has also spurred investments in high-risk, resource-rich developing countries.

This spending boom has also spurred investments in high-risk, resource-rich developing countries. Governments with little experience in iron ore or copper extraction demand multi-million-dollar signature bonuses or substantial equity stakes – and receive them, as Guinea and Mongolia did from Rio Tinto. Their bargaining position rises along with the captive investments made in their country, allowing them to push for higher upfront tax takes before the oil has flowed or the gold has been mined. Indeed, rising taxes are a further important component of rising costs.

Mounting concerns that the commodities ‘super cycle’ may soon be over – or faces a dip – compound these risks.¹¹ Concerns focus on the slow global recovery and particularly on China, which has accounted for the lion’s share of demand growth for energy and metals. GDP growth in China slowed in 2012 and 2013 and even the National Development Plan targets 7 per cent to 2015, after three decades averaging 10 per cent. New output, including from unconventional sources – particularly shale gas and oil in the US – is also having a moderating effect on expectations of future oil, gas, coal and iron ore prices.

However, while commodity prices as a whole have eased somewhat from their 2008 and 2011 peaks, they have remained volatile with few indications of a clear trend. The resource-intensive processes of urbanization and industrialization still have a long way to go in many parts of the developing world. Without a radical shift to more sustainable consumption paths, demand for metals and fossil fuels will continue to escalate in the coming decades. Meeting this demand will require strong price signals and continued long-term investment in future supply.

In any case, the shadow of an uncertain future market has prompted worries among extractives companies about the viability of some of the more expensive and risky greenfield projects. This has led to shareholder pressure for disciplined capital deployment and projections of slower or negative growth in expenditure on resource projects in the coming years.¹² By 2013, private investment in mineral and energy resources, which accounts for the bulk of capital expenditure in the sector globally, showed signs of slowing as companies exhibit more caution in an increasingly uncertain price environment.

The prospect of falling revenue in conjunction with declining foreign investment poses a double threat to producer countries. Several major producers already suffer the impacts of inflation, the decline of productive sectors of the economy and unemployment, and could be hit hard by a prolonged dip in investments and prices for their prime exports. These risks are compounded as many of these countries, new ones especially, lack the capacity and institutions to effectively manage extractive industries and increasingly volatile revenues and foreign investment.

Scrutiny of minerals and fuel production around the world has intensified.

Whether owing to considerations of equity and development, competition over water use, corruption, or concerns about climate change, scrutiny of the extractives sector has never been greater. Tackling financial transparency in the sector, for example, remains a key global agenda item, including for the 2013 G8 presidency. The Obama administration's Wall Street reform package from 2010 (the so-called Dodd-Frank Act) includes requirements for extractives companies listed on US stock exchanges to report annually on their payments to all foreign governments. In April 2013, European leaders reached an agreement to incorporate similar binding disclosure requirements into the EU's transparency and accounting directives.¹³

The sector's prosperity has brought more visibility, and the increasingly public nature of extractives companies has magnified the potential impact of disputes over natural resource rents. Anyone, from a finance ministry clerk in Gabon to an investor in New York, can find corporate balance sheets on the internet. A move by the government of Kazakhstan to change tax rates, for instance, is now a matter of importance to investors from London to Hong Kong with shares in public Kazakh copper companies.

With an increasing number of actors, projects, costs, risks and reporting pressures on extractive industries, new fault lines are emerging in company-government relations. It is imperative for all stakeholders, whether governments, companies or local communities, to consider afresh the dynamics that make extractives investments vulnerable to future disputes.

Commodity prices have eased from their 2008 and 2011 peaks, but remain volatile with few clear trends.

The increasingly public nature of extractives companies has magnified the potential impact of disputes.

1.3 About this report

The focus of the report is on relations between companies investing in and carrying out the extraction of subsoil resources and the host governments that have sovereign control over these resources. The report does not examine wider ‘resource conflicts’, the term often used to encapsulate all violent conflict associated with control over valuable territorial resources from minerals to land and water.

Specifically it explores the following fundamental questions:

- 1) What is the nature of disputes between governments and companies in the extractives sector, where is it occurring and why?
- 2) Can useful trends be identified by looking at data on international arbitrations and/or at regional and country analyses?
- 3) What can historical experience tell us about the drivers for current and future disputes?
- 4) How can companies and governments reduce the risk of future disputes?

Global trends are a powerful force in reshaping bargaining power between companies and governments.

This report proposes that two factors are at the heart of these challenges: first, the long-standing dilemmas about how mineral wealth should be shared between the state, the private companies and the affected communities; and secondly, the appropriate roles and responsibilities of each of those actors. These tensions are by no means new, but the stakes have increased and the task of finding answers has reasserted itself with new urgency through the structural changes that are confronting the industry.

The report shows how global trends are a powerful force in reshaping the bargaining power of actors in extractive industries and how they can contribute to the potential for and likelihood of disputes between them. These trends include the effects of changing market prices for extracted commodities; the transmission of events and shocks in one part of the world to another; global initiatives that affect extractives-sector governance and company behaviour; and changing paradigms and normative models in the sector that transcend country boundaries.

In addition, the report emphasizes the key role of local and national contingencies – such as historical legacies, institutional frameworks and capacity, stage of economic development and countries’ legal systems – in determining how different actors choose to respond to such trends. Examining the political economies of different producer countries is indispensable to understanding where disputes are likely to occur and how they are being resolved.

1.3.1 The meaning of ‘disputes’

Table 1.2 defines the scope of disputes covered by the report. It is not exhaustive but rather presents the main contested issues, triggers and forms of action that may be taken by companies and governments. Tensions often involve demands for changes by one of the parties to a contract. But disputes only result if the other party objects to those changes, which is not always the case. There are also obvious overlaps between these different types of disputes. For example, the company may contest additional taxation on the environmental impact of its operations or a new government law

Table 1.2: Scope of disputes between extractives companies and host governments

Locus of dispute	<ul style="list-style-type: none"> • Legitimacy: e.g. legality or constitutionality of original contract, ownership or regulation • Compliance: adherence of parties to contractual terms • Change of terms: parties seek to revise contractual terms e.g. distribution of revenues • Accountability or liability: impacts of company operations not covered by the existing contract, for example activities associated with security and infrastructure
Common triggers	<ul style="list-style-type: none"> • Change of government or political crisis in host country • Diplomatic tensions between host country government and the extractive company's country of origin • Territorial dispute between countries or regions over contested resource-rich territory • Central and regional government contest revenue-sharing or distribution • Domestic economic crisis resulting in urgent need to increase government revenues from the sector • Environmental disaster involving the project • Project delays or cancellations • Public outrage e.g. over alleged corruption, environmental cover-ups or human rights violations
Response options	<ul style="list-style-type: none"> • Negotiation or mediation between government and company representatives • Legal action in local or national courts • International arbitration • Revoking or refusing to grant license by competent authorities • Calls for strikes or popular protest by politicians • Suspension of operations or cutbacks in investment by companies • Seizure of assets by government agencies

giving a larger stake to a state company because it questions whether such changes are valid under the terms of the original contract. Equally, one form of dispute may lead to another.

Disputes between companies and governments in extractive industries do not only have different triggers, they also can take a variety of forms. Tensions may result in reduced cooperation: companies may, for example, encounter sudden delays in customs clearance for imported equipment, or governments may experience growing tardiness in responses to requests for information. In more extreme cases, disputes can lead to nationalization followed by claims for compensation. Such claims often come from both sides, as evinced for example by the US–Iranian Claims Tribunal at the International Court of Justice in The Hague. In other words, sometimes a dispute may escalate; at other times, it may simply simmer or be resolved, resulting in a lessening of tensions between the parties.

1.3.2 Mining versus oil and gas: divergence and convergence

In this report, the 'extractives sector' covers both mining and oil and gas. Although there are strong parallels in the challenges facing both industries, there are also marked divergences. These involve company size, project economics, social and environmental footprint and the sector's national political significance (Box 1.2). It is important to note these differences at the outset, as they will influence the types of disputes that are more likely to occur in each industry.

..... Mining, oil and gas industries differ in terms of company size, social and environmental footprint and political significance.

Box 1.2: Similarities and differences between mining companies and oil and gas companies

Mining companies operate in smaller and more fragmented markets than oil and gas companies. Petroleum industries supply a small number of relatively homogeneous commodities, despite differences in characteristics such as weight and sulphur content.^a The Organization of the Petroleum Exporting Countries (OPEC) has historically attempted to set prices by controlling production volumes. The mining sector, by contrast, produces dozens of metals and mineral commodities with their own physical characteristics as well as supply and demand dynamics. Even the global market for iron ore, by far the most important metal, is less than a tenth of the size of the \$3 trillion crude oil market.^b Large mining companies typically produce a variety of metals, and individual geological deposits are often mined for a combination of co- and by-products.

The economics of the two sectors also differ at the project level. Extracting oil, for example, requires early capital; mining demands a longer timeframe for development and continuous investment over a project's lifespan.^c On many occasions, infrastructure needs (such as port facilities, roads, water and power supplies) are more demanding for mining than for petroleum projects.^d Once the initial investments are made, margins (at least for conventional hydrocarbons) tend to be considerably larger in the oil and gas industry. Mine production is also more rigid. Oil wells can be easily shut off when demand falls. Mines, on the other hand, are cumbersome and expensive to close down or to reopen.

Moreover, the local footprint of a mining operation is typically larger than that of an oil or gas drill site. Mines typically employ more people and have greater linkages with the local economy; hydrocarbon projects tend to exhibit stronger enclave characteristics.^e Tensions involving mining often centre on specific operations and their impacts on local livelihoods at the community level.

During normal operations, mines tend to have a greater local environmental impact than oil and gas projects. Open-pit mining, a dominant practice, requires extensive overburden removal. It also produces large quantities of waste rock, tailings, airborne dust and other contaminants.^f There are marked exceptions, notably in gas flaring and oil spills, but the received wisdom is that petroleum projects can avoid extensive disturbance through their mode of access to the reserves, namely by a small shaft opening at the surface.^g A substantial share of oil and gas production is now also taking place offshore (with a different set of risks in the marine environment) while the mining industry remains principally onshore.

These divergences in the scale, economics and environmental impacts of the two sectors have given rise to different sets of political dynamics. Traditionally governments and the public attach far greater economic and strategic significance to the petroleum sector thanks to its size and larger resource rents. Oil rents typically provide a much larger fraction of 'value added', affording much greater scope for 'buying' social stability than most minerals extraction. There is also broad appreciation of the large disruptive potential of oil supply bottlenecks.

National oil companies, or partially state-owned oil and gas companies and projects, remain common and are not limited to developing countries or emerging economies. By contrast, state-owned companies make up a relatively small share of the global mining industry, perhaps with the exception of coal. But state-backed mining companies from emerging economies will become much more important producers and financiers in the global industry.

^a Barrows (1982). ^b Economist (2012). ^c Crowson (2003). ^d Eggert (1994). ^e Crowson (1998). ^f Eggert (2001).

^g Taverne (1999). Both industries can obviously cause environmental damage in many other ways over the lifetime of a project, be it due to water and soil contamination or, for example, as a result of gas flaring or acid mine drainage. Catastrophic failures such as oil spills or tailings dam failures are further examples of such environmental impacts.

Capital requirements for mining have changed significantly, increasingly resembling the financing needs of oil and gas projects.

However, some convergence is now taking place. Mega-extractives projects, whether from the petroleum sector or the mining sector, have become more alike. Greater reliance on unconventional reserves, together with pressure to unlock new resources in remote and challenging operating environments such as the Arctic, have raised costs rapidly and squeezed the margins of oil and gas companies. These new projects also require major and lengthy infrastructure development. Meanwhile, capital requirements for mining have increased significantly, resembling more and more the financing needs of oil and gas projects. This suggests possibilities for the sectors to draw lessons from each other.

1.3.3 Methodology

The research supporting this report both analyses the data on historical disputes at the global level, and looks in detail at selected case studies in order to garner conclusions about the drivers and triggers of such tensions.

The study took as its starting point data on the number of projects that enter international arbitration – a proxy for measuring tensions between governments and foreign companies in extractive industries. Records of arbitrations, which go back to the 1970s, provide a useful indication of when, where and how often serious disputes have occurred, even if they cannot capture in micro-detail the evolution of company–government relations in all parts of the world.

For this project, the Chatham House Arbitration Database (CHAD) was created. It is based on records from different arbitration panels, including the International Centre for Settlement of Investment Disputes, which is part of the World Bank Group, and those convened by the International Chamber of Commerce. These records are further verified with desk-based research by regional and sectoral experts. This database identifies 182 cases of international arbitration concerning oil, gas, minerals and electricity ventures from 1973 to 2010.

Two caveats are essential. Many disputes do not reach the international arbitration stage, and so these data are likely to represent only the tip of the iceberg of disputes in the extractives sector. Disagreements are often addressed through bilateral negotiations or trusted intermediates. Many companies see arbitration as an unattractive option of last resort because the chance that they will recover any financial compensation is usually slender and because the process can jeopardize relations with the host government.¹⁴

Other factors may also account for the larger number of arbitration cases in recent times. Privatizations in extractive industries in the 1980s and 1990s and the increased scale of foreign direct investment (FDI) may have increased the number of disputes going to arbitration. Meanwhile, international arbitration clauses in investment contracts have become commonplace compared with colonial-era concessions, which had no mechanism for arbitration. There has also been a dramatic increase in bilateral investment treaties (BITs) – from fewer than 500 in 1990 to 2,500 at the end of 2005. BITs guarantee investors an option of recourse to international arbitration even if this has not been stipulated under the original contract.

1.3.4 Structure of the report

Chapter 2 presents a short empirical analysis of international arbitration data and discusses the commonly understood drivers of disputes between companies and governments. They include issues related to the resurgence of ‘resource nationalism’, project impacts on the local community and environment and liability issues.

Understanding how disputes in extractive industries will evolve requires a reappraisal of the complex dynamics that drive state–company relationships. Chapter 3 explains the unique character of the government–extractives company relationship, highlighting the central role of revenue-sharing and the difficulties involved in determining how resource rents should be apportioned between governments and operators. The

Governments and the public attach far greater economic and strategic significance to the petroleum sector, owing to its larger resource rents.

Records of international arbitrations provide a useful indication of when and where serious disputes have occurred.

inherently vulnerable nature of these agreements contributes to disputes in the sector. Shifts in bargaining power, prices and prevailing ideologies can undermine their stability further over time.

Chapter 4 considers how these recurring global cycles influence the government–company relationship on the ground in three key regions. Extractive industries around the world are connected through global commodity markets and international flows of capital and expertise, but the chapter shows that fundamental differences in terms of industry structures, key actors, institutional frameworks and historical legacies remain. Case studies taken from the Asia-Pacific region, Russia, Central Asia and sub-Saharan Africa provide lessons from the different historical trajectories of extractive industries in different producer countries.

Chapter 5 looks at the prospects for better governance in order to help improve conditions for coexistence in the extractives sector. It outlines the impact of international initiatives and discusses several case studies in which specific approaches to governance appear to lay a more secure grounding for company–country relations.

Chapter 6 summarizes the key conclusions, the outlook for disputes and the specific risk factors. Chapter 7 concludes the report with recommendations for business, governments and other stakeholders.

2 Disputes in the Extractives Sector: Lessons from Historical Patterns and Conventional Wisdom

2.1	Arbitration data and patterns of disputes	18
2.2	Received wisdom on drivers of disputes	20
2.3	What does the evidence tell us about the future?	33

- Records of international arbitration cases in extractive industries show that tensions between governments and companies have increased in line with higher commodity prices. There were just 12 cases between 1990 and 2000, compared with 87 between 2001 and 2010 – 65 in the oil sector and 22 in the mining sector.
- No country is immune to such disputes. Even in advanced economies, resource governance frameworks can become susceptible to political pressures, as the Australian super-profit tax debate shows.
- Resource nationalism is often blamed for tensions between governments and companies. But the concept remains hazy, and labelling all forms of tightening regulation or higher taxes in this way obstructs a better understanding of why and how governments are intervening in the sector.
- Tensions with local communities and environmental issues typically incur serious financial and reputational liabilities for both parties. Best practices can reduce tensions and mitigate impacts significantly, but many mines and drill sites currently do not benefit from state-of-the-art know-how, management and technology.
- Unclear liability regimes and due diligence failures contribute to lengthy, protracted disputes, especially where the government is directly involved as a project partner.

2 Disputes in the Extractives Sector: Lessons from Historical Patterns and Conventional Wisdom

This chapter looks for patterns and indicators that may help to identify the drivers and conditions for company–government disputes. We first explore whether there are socio-economic indicators that can help to identify countries prone to disputes between governments and investors. The investigation is based on a new data set of 182 international arbitration cases involving governments and extractives companies over the past four decades. The chapter then discusses the factors and dynamics commonly perceived as triggers of disputes between companies and governments. They include ‘resource nationalism’, tensions with local communities, the impacts of extractives projects on the environment and disputes relating to questions of liability and due diligence. The conclusions comment on how useful these descriptive accounts are in enabling us to predict future patterns of disputes in extractive industries.

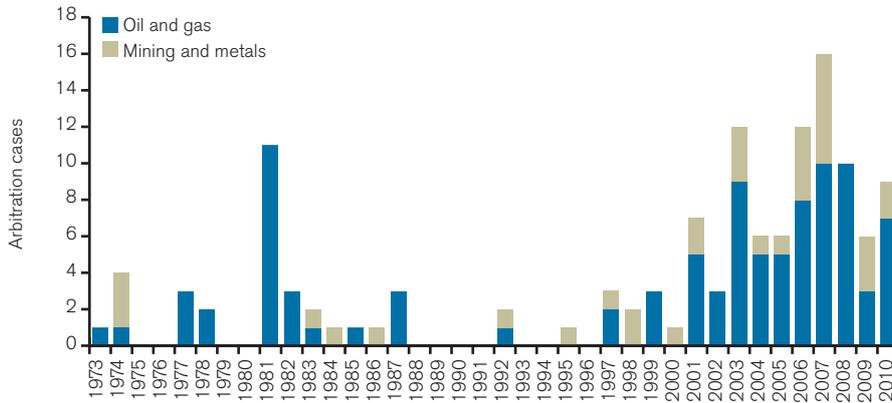
2.1 Arbitration data and patterns of disputes

The number of international arbitration cases between extractives companies and host-country governments has increased sharply over the past decade.

Records on international arbitrations between extractives companies and host-country governments show a sharp increase in cases over the past decade (see Figure 2.1). From 1990 to 2000, there were just six cases of arbitration in the mining sector and six cases in the oil and gas sector. From 2001 to 2010, by contrast, there were 65 cases in the oil sector and 22 cases in the mining sector. The significant increase in serious disputes between states and companies indicates an escalation of tensions between stakeholders in the sector and suggests that disputes have become more difficult to resolve in a cooperative manner.

An extensive empirical literature tries to identify the socio-economic and institutional factors that can reliably predict the countries in which foreign investments are more likely to be expropriated or to end in arbitration. Quan, for example, concludes that of 523 acts of expropriation carried out between 1960 and 1992, 426 cases occurred under autocratic governments and only 97 occurred under democratic governments.¹⁵

Figure 2.1: Number of arbitration cases in the energy and mining sectors, 1973–2010



Source: Chatham House Arbitration Database (CHAD).

Of course, many more governments were autocratic during this period than subsequently, which may negate the value of these results. Using quantitative and qualitative data from the political risk insurance industry, Jensen found similarly that risks of expropriation and contract disputes for foreign investors are reduced by the existence of democratic political institutions that constrain governments in host countries.¹⁶ Examining the connection between inequality and expropriation, Fails finds that higher levels of inequality increase the risk of expropriation for foreign firms and that they also weaken the otherwise protective influence of political institutions against the risk of expropriation.¹⁷

But generally, this line of research has produced few robust conclusions that can help to identify expropriation- or arbitration-prone countries. Comparing CHAD's evidence on arbitration cases with a variety of institutional and socio-economic factors likewise yields some interesting patterns but few reliable conclusions. A group of countries that had been subject to the greatest number of arbitration claims over the past 40 years was compared with a larger group of countries that had experienced very few claims over the same time. The two groups were examined for common traits across a variety of dimensions, including per capita income, trade balance, standard of living, literacy rate and other measures (see Table 2.1). The countries involved in the most arbitration claims in the 2000s were poorer, as measured by per capita income, than countries with fewer cases. Per capita income in the countries with the largest number of claims, among them Argentina, Ecuador, Iran and Venezuela, had also been sliding since the 1980s. The data suggest, however, that high-profile disputes were not a deterrent to foreign investors, as countries with the most arbitrations received levels of FDI in the 2000s similar to those of the less litigious group of countries (see the supplementary online material for more details and further findings from CHAD).

Extensive literature exploring expropriation-prone countries has so far produced few robust conclusions.

Table 2.1: Variables examined for correlations with arbitration data

Category	Variable
Type of economy	<ul style="list-style-type: none"> • GDP per capita based on constant \$2005 in purchasing power parity (PPP) terms • Agriculture's share of GDP • Gross fixed capital formation (percentage of GDP) • Foreign direct investment
Standard of living	<ul style="list-style-type: none"> • Life expectancy • Mortality rate under 5 • Literacy rates
Trading position	<ul style="list-style-type: none"> • Exports of goods and services (percentage of GDP) • Current account balance (percentage of GDP)
Quantitative measures	<ul style="list-style-type: none"> • Membership of OECD • Membership of WTO • Ease of doing business • Level of corruption • Level of economic freedom

2.2 Received wisdom on drivers of disputes

2.2.1 The impulse towards greater national control of resources

In the 1970s, 'resource nationalism' became a popular concept to describe the political economy of oil and other natural resources in the midst of decolonization, widespread nationalization of extractive industries and attempts among producer countries to form cartels (see Box 2.3). But as prices declined in the following decades and a wave of privatization swept through resource industries, the concept fell out of fashion among academics and analysts.

In the 1990s, experts suggested that major expropriations in the extractive industries were not likely to resurface.¹⁸ The sharp fall in the incidence of expropriations in the late 1980s and the 1990s, the waves of privatizations in resource industries as well as the proliferation of bilateral investment treaties were all held up as empirical evidence confirming this view. The concept of resource nationalism, Edward Morse observed in 1999, had 'practically disappeared from the discourse of international relations'.¹⁹

With the longest and strongest resource boom in a century, governments have pushed for greater control over their resources.

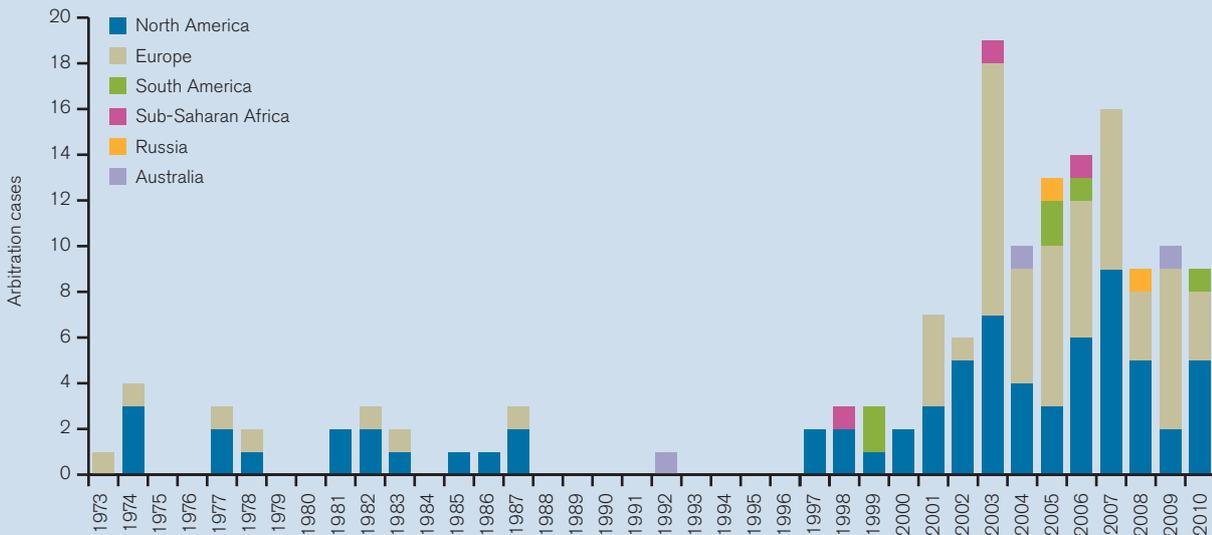
But nationalizations in extractive industries have returned with a vengeance in the early 21st century. Against the backdrop of a fading Washington Consensus (see Section 3.2.2) and the longest and strongest resource boom in a century,²⁰ governments in resource-rich countries have pushed vigorously for greater control over their resource endowments. As commodity prices have soared and investors have scrambled to secure new sources of supply, many countries have not shied away from seizing assets or declaring contracts void, making predictions about the 'demise of expropriation' appear premature in retrospect.

In April 2012, for example, Argentina's government under Cristina Fernández de Kirchner decided to partially nationalize YPF, the country's largest oil producer.

Box 2.1: The country of origin of companies involved in disputes

Most arbitration cases involved companies from North America and Europe (see Figure 2.2). Of 155 companies involved in arbitrations identified between 1973 and 2010, there were 61 from the US, 10 from Canada, 15 from the UK, 8 from France, 8 from Italy and 6 from Spain. Together these six countries accounted for 70 per cent of arbitration. The vast majority of companies involved in disputes are relatively long-lived, privately owned multinationals listed on international stock exchanges; they operate in many countries and their home governments are former colonial powers. In effect, they represent the typical Western multinational oil, gas or mining company.

Figure 2.2: Disputes by regions of company origin, 1973–2010



Source: Chatham House Arbitration Database (CHAD).

Kirchner claimed that Repsol, the Spanish owner of YPF, had failed to make sufficient investments into its subsidiary, forcing the country to buy \$9 billion worth of foreign oil and prompting an energy-cum-fiscal crisis. Repsol would pay the price, the president argued, if the company failed to be a responsible custodian of such an important national asset.²¹ Repsol furiously denounced the decision as ‘unconstitutional, discriminatory, and unlawful’²² and threatened international arbitration.

The drama recalled the nationalizations of the 1960s and 1970s. But what is perhaps most noteworthy about the YPF case is how quickly international attention has shifted away from the drama, despite the predictable initial outcry. Ignoring Repsol’s protests, the nationalized YPF went on to sign a joint-venture agreement with Chevron to develop the giant Vaca Muerta shale oil and gas field that was discovered by the Repsol-YPF consortium.²³ Meanwhile, the Argentinian government recently announced a \$1.5 billion compensation payment to Repsol – far short of the \$10.5 billion Repsol is demanding.²⁴ Within a year YPF has become just another example of the type of government expropriation that has recently haunted global extractive industries.

These recent incidents of increased state intervention in extractive industries have led many experts to declare a ‘rise’ or ‘revival’ or the ‘revenge’ of resource nationalism.²⁵ The concept has been re-introduced as a tool in the analysis of the political economy of natural resources. It is now regularly used to explain growing state–company disputes.

Box 2.2: Defining resource nationalism

Despite growing attention to the phenomenon, resource nationalism remains difficult to define. It is particularly challenging to distinguish resource nationalism from typical forms of government regulation and taxation of the resource sector. The International Energy Forum, for one, simply defines resource nationalism as 'nations wanting to make the most of their [resource] endowment'. Joffé et al. (2009) describe it as 'the expression, by states, of their determination to gain maximum national advantage from the exploitation of natural resources'.^a In discussing resource nationalism in the oil sector in the Middle East, Stevens (2008) defines the term as consisting of 'two components – limiting the operations of private international oil companies and asserting a greater national control over natural resource development'.^b

Bremmer and Johnston have highlighted the wide range of government activities that could be described as resource nationalism, arguing that there are at least four variants 'which differ in the factors motivating the policy and impact on industry and investment patterns'. They draw a distinction between revolutionary and economic resource nationalism. The authors describe the former as more radical in rhetoric and action, noting that it is 'linked to broader political and social upheaval, not merely directed at the natural-resource sector'. In contrast to this, more common economic resource nationalism is less concerned with '[a]ctual political control and ownership' and more with 'increasing the host government's fiscal take'.^c

What these various definitions have in common is that they all describe resource nationalism as a political doctrine that promotes greater state intervention in the resource sector with the aim of better harnessing domestic resource endowments for national development and welfare goals. As Solomon notes, this is underpinned by the 'perception that the state can both effectively and efficiently unlock resources, and facilitate a more inclusive and equitable dispensation of [resource] rents' compared to resource exploitation purely by private companies.^d

^a Joffé et al. (2009).

^b Stevens (2008).

^c Bremmer and Johnston (2008). The other two forms are 'legacy resource nationalism', where historical incidents of industry nationalizations have become 'central to national political and cultural identity', and 'soft' resource nationalism, which is similar to economic resource nationalism but with an emphasis on 'established regulatory or legislative channels, rather than in arbitrary action'.

^d Solomon (2012).

Recent incidents of increased state intervention have led many experts to declare a 'revival' of resource nationalism.

⋮ In particular, resource nationalism has become a central concern for investors and companies operating in the extractive industries. For example, it has topped Ernst & Young's list of business risks for the mining sector for the past two years.

However, resource nationalism is a hazy concept, and this limits its usefulness as an explanatory factor for growing disputes between states and companies (see Box 2.2). Governments have clearly broken with the ideological and economic retreat of the state from the resource sector that characterized the 1990s. But simply labelling all forms of tightening regulation or higher taxes as 'resource nationalism' obstructs a better understanding of why and how governments are intervening more forcefully in the sector.

As a case in point, calls for direct state participation are motivated by different factors. The aim may be economic development, as South Africa's controversial 'State Intervention in the Minerals Sector' report suggests. The report recommends that a state mining company should develop strategic materials such as iron and coal in order to 'supply them ... to the domestic market at competitive or utility rates', thereby supporting downstream manufacturers by relieving input costs.²⁶ Or the aim may be strategic. Guinea's minister of mines has said that state participation rates exceeding 30 per cent were desirable so as to be able to 'block any decisions and take part in the big decisions the mining sector makes'.²⁷

Moreover, there may be a clear rationale for producer-governments to try to adjust regulatory regimes to a high-demand/high-export-price environment or to seek to limit environmental impacts that were ignored in the past. Debates dominated by resource nationalism make it difficult to distinguish between carefully crafted state interventions that address legitimate policy concerns and crude attempts to squeeze investors for cash or to wrest control over valuable assets from rivals.

Rather than being seen as a driving force, resource nationalism may be better understood as a means to an end in disputes between governments and companies. In many resource-rich countries, resource extraction may be burdened by a legacy of deeply engrained historical grievances. Such a situation often gives rise to arguments about the need to prevent foreign interests (or corrupt local elites) from exploiting the country's natural riches. Politicians can mobilize these grievances relatively easily through resource-nationalist rhetoric, and this language can be used to attack political opponents or trying to improve the government's bargaining position with foreign investors. In recent years, higher prices and bigger rents, a rush of foreign investment and concerns about resource scarcity have strengthened the appeal of such a resource-nationalist platform for both politicians and domestic audiences, especially in countries where corruption, conflict and inequality are widespread.

A resource-nationalist orientation might not cause disputes between governments and industry, but it certainly makes existing tensions more difficult to resolve. Sudden changes in the terms of investment without consultation will undermine trust between governments and foreign investors. Populist cries for governments to exercise sovereign power decisively also make it harder for state officials to work towards a mutually acceptable compromise. As such, resource nationalism leads to a greater number of arbitrations and project cancellations. It can also act as a powerful deterrent to foreign investors, as it creates regulatory uncertainty.

2.2.2 Tensions with local communities

The activities of extractives companies often have important economic, environmental and social consequences for the local communities in which they operate. This can lead to tensions with groups in the host country over a wide variety of issues, such as compensation for land rights and resettlement, local employment and financial benefits, environmental and health impacts or the undermining of traditional livelihoods. These tensions are more likely to escalate in countries with low institutional capacity, where weak legal and governance frameworks fail to protect the rights and interests of affected communities. In those countries, disputes between foreign companies and local communities often result from weak environmental protection frameworks, the lack of a political voice for local residents or insecure water rights and land tenure.

Industry leaders have generally recognized that the ability to maintain cooperative relationships and trust with local communities is important for operational and commercial success. Ernst & Young has rated 'maintaining a social licence to operate' consistently among the top six business risks facing the mining sector over the past five years. But despite attempts to move community relations from the margins of corporate social responsibility to the centre of extractive industries business models,

Higher prices and bigger rents, a rush of foreign investment and concerns about resource scarcity have strengthened the appeal of a resource-nationalist platform.

Tensions are more likely to escalate in countries where weak governance frameworks fail to protect the interests of affected communities.

Box 2.3: The original oil nationalizations

The original Middle East oil concessions were granted on terms that were extremely favourable to the international oil companies (IOCs). The contracts were very long-term: in Iran, Iraq, Kuwait and Saudi Arabia, the average lifespan of a contract was 82 years. And the areas covered by the agreements were very large. Mexico nationalized the oil industry in the late 1930s; and by the 1940s, the balance of power between companies and governments had started changing between companies and governments. In 1943, Venezuela pioneered the practice of 50:50 profit-sharing, claiming that 50 per cent of project profits were due to the state, in one of the earliest production-sharing contracts. The use of 50:50 profit-sharing spread from Venezuela to the Middle East, where by 1952 Saudi Arabia, Kuwait and Iraq had all adopted it.

In the 1950s, the bargaining power of producer states increased markedly. This was the post-colonial era, in which all forms of nationalism were in the ascendancy as newly independent nations of the 'Third World' asserted their sovereignty. State intervention in the economy was increasingly regarded as the norm after the Second World War. For host governments, two drivers were crucial: the rise of 'permanent sovereignty' over natural resources and dissatisfaction with the original concession terms.

The first full nationalization happened in Iran under Dr Mohammad Mosaddegh in 1951. The United Nations adopted its first resolution on 'permanent sovereignty over natural resources' in 1952. A decade later, another resolution recognized the rights of a country to dispose of its natural wealth in accordance with its national interests. Resolution 2158 (1966) was even more explicit: host countries were advised to secure maximum exploitation of natural resources by acquiring full control over production operations, management and marketing. The Organization of the Petroleum Exporting Countries (OPEC), established in 1960 to protect the interests of the producer governments, supported this idea strongly. Radical actions by host governments, however, were severely constrained by the fate of Dr Mosaddegh.

Pressure on IOCs to relinquish at least some of their huge concession territories grew. In 1961, Law 80 in Iraq in effect nationalized all the unused acreage of the foreign-owned Iraq Petroleum Company (IPC). The IPC was left its existing producing fields. IOCs in Kuwait and Saudi Arabia quickly began to relinquish acreage 'voluntarily'.

Fiscal terms were changing too. In 1970, Libya, then a new producer, agreed a profit-sharing deal that shattered the 50:50 status quo. Soon Iran and other countries followed, with the split widening to 55:45 and 60:40. 'Fair share' was redefined through ratios increasingly favouring the state.

The IOCs slowly began to lose managerial autonomy in their licence areas. Meanwhile, governments looked with increasing disfavour on a system that allowed IOCs to be effective 'states within a state'. As host governments gained confidence and greater capacity in the 1960s, they gradually secured better terms from the IOCs. New oil-production arrangements involved the state in the operation of the assets. The arrangements took the form of joint ventures, production-sharing agreements (PSAs) and service contracts. The seeds of state participation in the sector were planted. However, resource nationalism had reached fever pitch. The PSAs might be considered a compromise, but they failed to address the issue of control. Popular pressure to nationalize the IOCs, which were seen to embody an imperialist past, was intense. These pressures had peaked by June 1967 when Zaki Yamani, Saudi Arabia's oil minister, proposed a solution to the control problem. He promoted the idea of 'participation' as a way to begin the process of seizing control without provoking a political backlash from Western governments affiliated with the IOCs.

The October 1972 General Agreement on Participation followed between a number of Gulf States and US multinationals. The agreement gave producers an initial 25 per cent equity stake, projected to rise to 51 per cent by 1982. But in the same year that the agreement was signed, Algeria and Iraq went for nationalization; they had run out of patience with a negotiated settlement. The Western powers failed to retaliate in any serious way against the Algerian and Iraqi nationalizations, hastening the destruction of the General Agreement on Participation and its gradualist approach to state participation.

By 1976, the old-style concessions had been swept away. Producer governments now had full control over their oil operations and indeed oil prices. Only in Libya and Abu Dhabi, where officials felt they lacked the capacity to take over complete control of all oil operations, did the government stop short of complete nationalization.

many companies still struggle to build good community relations. This is clear from a series of cases in recent years in which high-profile projects have been delayed or cancelled because of resistance from local communities.

To be clear, these types of conflict do not necessarily always harm a company's relationship with host governments. As Box 2.4 demonstrates, governments sometimes even side with the company rather than the community in disputes.

Nonetheless, community-related conflicts often incur serious financial and reputational liabilities for both parties. A well-known case is that of the tensions between the oil major Shell and local communities in the Niger Delta over pollution and human rights abuses. This conflict ultimately led to highly publicized, long-running campaigns by local and international NGOs against the multinational. Local protests can also disrupt production schedules, at substantial cost. A recent study on the cost of community conflict in the mining industry estimated that disruptions to a larger exploration project cause losses of around \$10,000 per day. For a major mine, the costs of disruptions escalate sharply to an estimated net present value of around \$20 million per week.²⁸ In Peru, one of the world's largest recipients of foreign investment in mining, the government has identified 129 active community disputes in the mining industry.²⁹ Such conflicts have led to a series of deadly clashes and to the suspension and cancellation of several flagship projects, such as the \$4.8 billion Conga copper-gold project and the \$1 billion Tia Maria copper mine.

Local community action – often linked to other national communities in alliances of interest – is also growing feature of the so called 'shale revolution' which began in the United States in the early 2000s. For example, local governments have passed a number of resolutions or statutes in response to hydraulic fracturing of shale gas in the US Marcellus shale (parts of which extend across New York, Pennsylvania, Ohio, and West Virginia) that seek to delay or restrict company activities. These are often based on a lack of trust in the companies' methods – particularly their refusal to provide detailed disclosure of the chemicals used in the fracking process – and concerns about inadequate regulation to protect the environment, especially water resources.

As other governments look to replicate the US success in shale gas and oil extraction – often in much more densely populated countries such as the United Kingdom, Germany and Poland – local protests at the site of projects are on the rise, targeting both industry and the governments championing their development. These protests are often framed in terms of larger questions about energy and climate security as well as the assertions of local rights to a clean environment against government and corporate interests.³⁰ Industry often has not anticipated the force and impact of these protests,³¹ which have led to a sequence of bans and moratoria in several European countries and the revocations of permits in France and Bulgaria.³²

Demographic pressures, price volatility and strain on water and land resources are likely to magnify tensions between companies and communities. At the same time, information technology and social media are enabling communities to communicate their concerns and demands to a broader audience. The process of democratization and decentralization in many countries is making governments more responsive to their grievances, and dissent from local communities will no longer go unnoticed in a

Community-related conflicts often incur serious financial and reputational liabilities for both parties.

Local community action is also a feature of the so-called 'shale revolution'.

Box 2.4: The case of Bougainville, Papua New Guinea

Extractive industry-related disputes in Papua New Guinea (PNG), New Caledonia and the Pacific islands have generally been between local communities and international companies, with governments often supporting the companies' side. Land ownership in these areas is often held in collective trust by communities rather than by individuals. Thus land ownership issues have played a prominent role in extractives disputes in the region.

Bougainville Copper Limited, a subsidiary of Rio Tinto, began drilling for copper in 1964 in Panguna, in Bougainville, a part of PNG. The mine soon became the world's biggest copper mine, and provided the largest single source of revenue, apart from aid, to the PNG government between 1975 and 1988. The central government received 20 per cent of the mine's profits; Bougainville received between 1.25 per cent and 5 per cent of the government's share. Few people on the island benefited directly from the mine.

The mine became embroiled in conflict almost from its beginning. In the late 1960s, local landowners complained about inadequate compensation to Australia, which at that time held PNG in trusteeship. The Australian high court found that compensation had indeed been inadequate under Australian law but that PNG was not guaranteed the same standards that applied to mainland Australia.

In 1975, the interim provincial government in Bougainville tried, but failed, to secede from PNG and join the Solomon Islands. Tension over the mine re-emerged in the 1980s, this time over concerns that profits from it were not benefiting the island sufficiently. They were reinforced by environmental concerns that tailings from the mine were causing birth defects in the local population. The Panguna Landowners' Association demanded half the profits that the mine had earned since 1969. Failed negotiations eventually resulted in the formation of the secessionist Bougainville Revolutionary Army (BRA) in 1988.

The BRA's operations crippled the mine, which closed in 1989 and has remained shut ever since. In response to the BRA, the government mobilized the army; between 15,000 and 20,000 people died in the chaos that followed. At one stage the government hired Sandline International, a private military company, to suppress the rebellion. The conflict ended in 1997 following negotiations brokered by New Zealand. A peace agreement in 2000 provided for the establishment of an autonomous government, with the promise of a future referendum on the question of independence. That vote has not yet been held.

company's home country. The practices of multinational companies are scrutinized ever more closely by shareholders, international NGOs and home governments.

2.2.3 Environmental impacts

The environmental impacts and risks associated with mining and oil and gas production can both trigger and exacerbate disputes between companies, governments and local communities. Environmental issues are a common feature of disputes, and frequently lead to contract renegotiations and delays in major projects. Environmental impact assessments (EIAs) are a critical point of entry for NGOs and other groups opposed to extractives projects.

Principal sources of tension include the direct and indirect impacts of extractive industries on the environment, safety and human health but also questions about who bears the cost of remediation. This cost can be quite high. The EIA for the recently closed Giant Mine in Yellowknife, Canada, for example, estimates clean-up costs of close to \$1 billion. The costs in some places, such as Picher in Oklahoma, are considered so high that sites have been abandoned after mining ends in preference to remediation (see Box 2.5).

Environmental issues often lead to delays in major projects and contract renegotiations.

The following recent cases show how environmental issues are often involved in mining disputes:

- The Ok Tedi mine in Papua New Guinea has seen many years of disputes and protests relating to the 90 million tonnes of mine tailings and waste rock that flow into a local river system each year. BHP, which previously had a majority stake in Ok Tedi and faced a class action lawsuit, withdrew in 2002 and converted its stake into a fund to support local development in return for indemnity against environmental damages.³³
- Vedanta is seeking to mine a rich seam of bauxite in Orissa in India, but in the most recent setback, the supreme court ruled that the company had failed to carry out adequate consultation with an indigenous tribe about how the mine would affect a sacred peak 10 kilometres from the proposed site.³⁴
- In Indonesia, a coalition of NGOs has appealed against a decision by the supreme court to allow Newmont Nusa Tenggara to continue dumping 140,000 metric tonnes of waste per day from its Batu Hijau copper and gold mines into the sea.³⁵
- As of January 2013, a total of 135 mining projects with a value of \$7.5 billion were on hold in Peru while the environment ministry examined their EIAs.³⁶
- In Siskiyou, an ecologically diverse region in Oregon, a decade of legal challenges followed the lifting of a moratorium on gold mining in 2002. In 2012, for instance, an appeals court in San Francisco found that the US Forest Service had violated the federal Endangered Species Act when it approved mining operations on the Klamath River, reversing previous decisions from 2005 and 2011.³⁷
- Bans on uranium mining in Australia were lifted in New South Wales and Queensland in 2008 and 2012 respectively,³⁸ and mining is to resume in Queensland in 2014.³⁹ However, NGOs continue to cite environmental impacts and indigenous land access as reasons for restricting industry operations.

Stakeholders will naturally differ in their perception of what is an acceptable risk, even when a solid evidence base is available on which to make an assessment – not least because the impacts of a mine or a drill site on ecological systems or human health can be extremely complex and play out over long timescales. Shortcomings in comprehensive, systematic and transparent data collection and reporting are often an important cause of heightened tensions and mistrust.

Stakeholders differ in their perception of risk, not least because impacts can be complex and play out over long timescales.

In recent years, risk-management processes aimed at improving comparability, applying rigorous scientific processes and engaging with local stakeholders have been developed.⁴⁰ Technological improvements have also enabled better environmental performance in a range of areas – from minimizing the removal of vegetation and increasing the resilience of tailings ponds to improving remediation treatments. Near-real-time monitoring systems that better reflect the dynamics of, for example, flash flood or subsurface drainage patterns have become available. Traditional sampling methods used to track pollution are costly, labour-intensive and not always accurate.⁴¹

Box 2.5: Types of environmental impact from mining

The various stages of a mining project's life cycle can have different environmental impacts, both direct and indirect. Direct impacts include land clearance (for access roads, exploration and removal of overburden or for waste sites), discharges to bodies of water, land contamination and air pollution from dust and smelter emissions. Secondary impacts, including the social and environmental changes induced by mining operations, are often more complex and harder to identify in the short term.^a

Pollution from mining activities varies with the mineral being extracted and processed, as well as with the approach and technology used. Whether through water or land contamination or via accumulation in the food chain, toxic metals and organic compounds have had serious impacts on human health in many mining areas. Children in the Rudnaya River Valley in Russia and in Kabwe, Nigeria, for example, continue to have high lead levels long after the smelters in both areas have been closed. An assessment in La Oroya, Peru found that 99.7 per cent of children living close to the smelter had dangerously high levels of lead in their systems. Acute neurotoxicity from mercury poisoning is now primarily associated with its use in artisanal gold mining, which is practised in more than 50 countries. The waste from gold mining also often contains high levels of arsenic, another highly toxic metal.

Acid mine drainage (AMD), the formation of movement of acidic water rich in toxic metals, can result in acute and chronic toxicity to both human users and the environment and render water unfit for drinking or for agriculture.^b In South Africa, for example, AMD has been reported at Witwatersrand Gold Fields, Mpumalanga and KwaZulu-Natal coalfields and the O'Kiep Copper District.^c In the eastern US, more than 5,000 miles of streams and rivers have been contaminated via AMD, primarily from coal mining.^d

Failures in tailings ponds often account for particularly serious incidents, through landslides and toxic contamination of land and water. Although the number of incidents has fallen in recent decades, 20 serious failures of tailings dams were recorded in the 2000s. A dam failure in Hungary on 4 October 2010, for instance, released about 700,000 cubic metres of tailings into a nearby river.^e The collapse of a reservoir of waste material at an illegal mine in Taoshi in Shanxi province in China in 2008 led to a mud slide that reportedly killed more than 100 people. The Chinese government aims to close 20,000 illegal and unsafe mines by 2015 in an effort to improve mining safety.

Mining also dramatically alters the landscape, ecology and stability of the surrounding area for decades after mines have closed. The US Environmental Protection Agency's National Priorities List, for example, included over a thousand seriously contaminated non-federal hazardous waste sites in 2009, of which 75 are classified under 'unacceptable human exposure'. Picher, a former lead- and zinc-mining town in the state of Oklahoma, is considered the most toxic place in America, with a contaminated water supply, a high incidence of lead poisoning and geological instability. Mining ceased in 1969, but facing huge clean-up costs, the federal government instead paid people to leave the town, which is now abandoned. (See also Section 4.1 for cases in Asia and the Pacific.)

Mining activities can also alter the hydrogeology of an area on account of vegetation removal, changes in soil structure, large dumps of waste material and the build-up of sediment in river beds. Such impacts can lead to increased risk of flooding and landslides, notably during periods of heavy rainfall. For example, waste material from coal mining may have contributed to the 2006 flood in Chandrapur, India.^f A combination of logging and mining have been blamed for the flood that hit Jabonga town in the Philippines in 2011^g and a regional environmental agency in Indonesia blamed 18 mining companies for the extensive flooding that hit Samboja in 2011.

^a ICMM (2012).

^b Expert Team of the Inter-Ministerial Committee under the Coordination of the Council for Geoscience (2010).

^c Coetzee et al. (2006); Wade et al. (2002).

^d EPA (n.d.).

^e Azam and Li (2010).

^f Katpatal and Patil (2010).

^g Mattangkilang (2012).

But only a small part of mines and drill sites around the world benefit from state-of-the-art know-how and technology for environmental protection, and environmental impacts will probably remain a common trigger of disputes in extractive industries, even if best-available technologies and processes are applied. One reason for this is that regulations are often tightened over time, raising questions about compliance at older sites. Another is that monitoring and tracking technologies will also be available to opposition groups, who will use them to measure and highlight environmental consequences of projects more effectively.

Only a small part of mines and drill sites around the world benefit from state-of-the-art know-how and technology for environmental protection.

There is also a growing risk of disputes as extractive industries are spreading to more extreme and ecologically sensitive environments. As with oil and gas, Arctic mining is set to be a prime example: the region contains, for example, large deposits of iron, gold and copper. In the Canadian Arctic, ArcelorMittal is about to begin digging at the Mary River iron ore project while Canada Coal plans to develop mines at Ellesmere and Axel Heiberg islands. As Arctic resources become increasingly accessible owing to rapidly melting sea ice and modern shipbuilding technology, new projects and disputes are likely to follow.⁴²

At the same time, many resource-rich regions are facing a number of environmental pressures such as increased consumption of water and land, deforestation, soil erosion and more volatile weather. These are likely to contribute increasingly to tensions between extractives companies, governments and other stakeholders.

Climate change in particular poses a strategic challenge to the extractives sector. To date, most attention has been focused on the impact of carbon-related regulation and pricing,⁴³ rather than on the geo-physical implications – such as accelerated degradation of extraction, transport and energy infrastructure, disruptions of operations, and intensified conflicts with local communities over water resources in arid regions (see

Box 2.6: Environmental constraints in Chile's copper sector – water, ore grades and energy

A significant share of copper production in Chile – the world's largest producer – takes place in arid regions such as the Atacama Desert. Its copper industry consumes around a million tonnes of water a day. Even with significant improvements in water efficiency, the government estimates a 45 per cent increase in water demand by 2020 to sustain planned capacity expansions.^a Mining companies are increasingly switching to desalinated seawater to meet likely shortages. But, with several large operations in the Andean mountains, the seawater needs to be desalinated and pumped inland up to a height of 4,000 metres above sea level to the mine sites. This presents a significant technological, environmental and financial challenge, and mining companies in Chile are currently investing more than \$7.5 billion to improve water supply to the industry.

Given the relative proximity of the Pacific Ocean, the 'water problem' of the mining sector in Chile (as well as in neighbouring Peru) can also be understood as an 'energy problem', as large amounts of energy required to desalinate and transport water over long distances and to high altitudes. Meanwhile, ore grades in key Chilean copper operations have been declining rapidly after decades of intensive large-scale mining. This means that more water and energy are needed in mining operations, as larger amounts of host rock need to be processed in order to access the red metal. As result, local water scarcity and declines in ore grade are rapidly increasing the energy intensity of Chile's copper industry – and make availability of energy the key constraint for the sector's future growth. Growing energy demand will also add substantially both to production costs and to greenhouse gas emissions, which are projected to increase fourfold by 2030, and will make the industry increasingly vulnerable to rising energy prices.

^a Global Water Intelligence (2009).

Table 2.2: Potential climate change impacts on the mining industry

Climate impacts	Implications for mining industry
Average temperature increases	<ul style="list-style-type: none"> Permafrost thaw will affect Arctic and sub-Arctic mining, creating engineering challenges for construction and for the maintenance of mines and related transport infrastructure. Higher capital expenditure and operating costs are likely. There will also be positive impacts, such as increased shipping access to the Arctic region.
Increasing incidence of water stress	<ul style="list-style-type: none"> To ensure adequate water supply at mine sites, desalination and long-distance water transport will often be required. There will be a higher incidence of dust and an increasing need for dust suppression. Greater potential for conflict with local communities over scarce water resources.
Extreme weather events	<ul style="list-style-type: none"> An increased incidence of floods, heatwaves and extended droughts and a greater variability in weather patterns will pose operational and technical challenges, such as a more variable hydrogeology. Higher capital expenditure will be required. More production disruptions and the risk of catastrophic failures, including for tailings dams, will result in higher insurance costs. Transport links for the delivery of mine supplies and products may be disrupted more often. In some regions, more frequent forest fires will lead to disruptions of operations.
Rising sea level	<ul style="list-style-type: none"> Mining in coastal areas may be exposed to a higher incidence of floods.
Regulatory changes	<ul style="list-style-type: none"> Stricter standards and rising costs related to carbon emissions. Mandates to develop and implement carbon capture and storage technologies in mining and metal processing. Higher costs for water use, tighter water efficiency standards and stricter rules on the quality of water discharge from mine sites, especially in regions with intensifying water stress. More restrictions on, and increased costs of, land-use change, including stricter regulations for mine site rehabilitation. Stricter engineering norms for mining operations, including, for example, tailings ponds and open-pit design, in order to increase resilience against extreme weather events.

Sources: Chatham House based on Nelson and Schuchard (2011); Hodgkinson et al. (2010); Eskeland and Flottorp (2006); Pearce et al. (2011); Broderick and Hendel-Blackford (2007).

Extreme weather events have been the leading cause of tailings dam failures over the past decade.

Table 2.2).⁴⁴ Many climate-related consequences will also affect projects after they have ceased production, bringing new issues of accountability for post-project environmental damage and remediation.⁴⁵ Mine site infrastructure, such as tailings dams that have been constructed on the assumption of broadly stable climatic conditions, may be inadequate in the future. An increased incidence of extreme weather events may also create significant environmental hazards and financial liabilities for companies, either during the lifetime of a mining operation or after a mine's closure. Extreme weather events, for example, have been the leading cause of tailings dam failures over the past decade.⁴⁶

Apart from carbon pricing, few have attempted to quantify in a comprehensive manner other commercial, operational and reputational costs and risks associated with climate change. Although a small number of mining companies are starting to address some of these issues, awareness of the significant and multidimensional challenges climate change poses to the mining community remain limited. So far there have been few attempts to develop comprehensive climate-risk management strategies. A 2013 survey of the principal risks facing the mining industry by Ernst & Young put climate change in fifteenth position, one place lower than in 2012⁴⁷ and five places lower than in 2010, when it still was ranked as one of the top ten threats.

2.2.4 Disputes related to liabilities and due diligence

Liability and due diligence issues can lead to protracted disputes in extractive industries. Long, costly legal battles often ensue when disasters or environmental damage, human rights violations or corruption occur in the context of an oil, gas or mining project. Damage claims in these cases can run into tens of billions of dollars, and who is responsible often becomes subject to legal fights among different project partners. This could, for example, include the concessionaires to the exploration or production acreage, the companies managing the operations or subcontracted service companies carrying out technical and support activities.

The variety of entities with different mandates, financial capacities and insurance limits means that in the case of a breach of contract or an allegation of a breach, there is potential both for obfuscation of responsibility and prolonged legal cases. As state institutions are often closely involved as regulators or project partners, the question of who is responsible when serious failures occur often leads to mutual accusations that can mar state–company relations for years or even decades.

Questions about whether due diligence was exercised and risks were properly assessed before failures occurred, and about who knew what and when once problems started surfacing, are often central to the ensuing legal battles. The dispute between the project partners involved in the April 2010 Macondo disaster in the Gulf of Mexico illustrates this point. US law apportions responsibility for oil spills to the owner of the vessel from which the pollution was discharged. The main licensee, BP, had contracted Halliburton to cement the casing for the well from which the blowout and subsequent spill occurred, and it leased the Macondo rig from Transocean, which built, owned and staffed it.⁴⁸ This created joint responsibilities for testing and for monitoring safety; and the interpretation of those responsibilities is central in determining which party will have to cover the huge damage claims that followed the disaster. Halliburton and Transocean claim that BP was ultimately in charge but BP maintains that the ‘accident was the result of multiple causes, involving multiple parties.’⁴⁹ After three years of legal proceedings, an end to the case is not yet in sight.

Unclear or overlapping legal liability regimes can hamper the resolution of liability disputes. This is particularly true for offshore environments, for which legal rules are often complex and heterogeneous, complicating the attribution of liability. Several international regimes govern liability for marine pollution from shipping, yet there is no international agreement on liability and compensation resulting from spills from offshore oil rigs, pipelines and wellheads. The Macondo case might have been dealt with faster if liabilities were more clearly defined in advance. In Norway, for example, the law clearly states that the licensee of a block is responsible for any pollution caused by operations there.⁵⁰ If a service company were at fault in causing an accident or pollution, the licensee would still be liable for all damages. After payment, it is up to the licensee to recover any costs from the service company at fault.

Over the lifetime of a project, changes in ownership or shifting responsibilities between project partners complicate matters further. Pollution resulting from oil drilling operations in the Amazon rainforests in Ecuador has, for example, led to more than 20 years of international legal wrangling among the state-owned PetroEcuador, its joint-venture partner Texpet, Texpet’s parent company Texaco and Chevron, which acquired Texaco in 2000.⁵¹ Since 1993, the dispute has been subject to a series of court

Disputes over who is responsible when serious failures occur can mar state–company relations for decades.

cases in both Ecuador and the US. These have been complicated by the fact that over the years, PetroEcuador took an ever-bigger role in conducting and directing the drilling operations.

In 2011, an Ecuadorian court fined Chevron \$8.6 billion in damages,⁵² but an end to the case is not in sight. Chevron has denounced the ruling as corrupt, sued the lawyers of the plaintiffs in the US under the controversial ‘Racketeer Influenced and Corrupt Organizations Act’, appealed against the ruling in Ecuador’s national court and forced Ecuador into international arbitration. The Permanent Court of Arbitration in The Hague has since ruled in favour of Chevron, although the legal basis of this ruling has been disputed by the Ecuadorian government.⁵³ In the meantime, the plaintiffs have sued Chevron in Argentina, Brazil and Canada in an effort to force the company to comply with the ruling.⁵⁴ Chevron’s attempt to obtain an injunction to block those efforts has recently failed in the US Supreme Court.⁵⁵

The ongoing Simandou case is another instance of how disputes can arise after mergers and acquisitions. Shortly before his death in 2008, Guinea’s long-time ruler Lansana Conté expropriated half the Simandou iron ore deposit from Rio Tinto, claiming that the company was developing the deposit too slowly. He granted the rights to the company of the Israeli mining tycoon Benny Steinmetz.⁵⁶ Steinmetz’s company BSG Resources (BSGR) invested an estimated \$160 million in the development of the mine and then sold 51 per cent of it to the Brazilian miner Vale for \$2.5 billion.⁵⁷ After coming to power in 2010, the current government vowed to review the validity of existing mining concessions with the help of international experts. Vale suspended payments to BSGR after BSGR was warned that it would be expropriated if the allegations the company were substantiated. The case has escalated since the arrest of an associate of BSGR in the US in April 2013 on bribery charges and the surfacing of documents allegedly showing that one of Lansana Conté’s wives was promised millions of dollars in exchange for helping to secure rights to Simandou.⁵⁸ If the Guinean courts find BSGR’s original acquisition of Simandou to be fraudulent, Vale’s ownership of its share of the Simandou deposit would also be in jeopardy, and an international legal battle will almost certainly ensue.

Even when settlements are negotiated in liability disputes, their legitimacy may be challenged by a new government or the public.

Finding a lasting solution to such disputes is often difficult: even when settlements are negotiated, their legitimacy may be challenged by a new government or the public. The case of the Ok Tedi copper mine in Papua New Guinea, discussed above, is illustrative. The area around the Ok Tedi has suffered extensive environmental damage as consequence of the dumping of tailings into an adjacent river system, a practice that began under the former majority shareholder BHP in the 1980s and was tolerated by the PNG government in view of the large revenues that the mine generated for the PNG economy.⁵⁹ Faced with growing international pressure and mounting concerns about the long-term liabilities that the project could create for the company, BHP Billiton decided to withdraw from the project in 2000. Initially, it suggested closing the mine but eventually agreed to transfer its share of the ownership to a ‘PNG Sustainable Development Programme’ with a mandate to use revenues to support local communities and the sustainable development of the region.⁶⁰ As part of its exit strategy, BHP signed a number of agreements with the government and affected communities providing it legal protection from any future damage claims. But the immunity deal has been called into question. PNG’s prime minister, Peter O’Neill, recently claimed that BHP Billiton avoided ‘damages and compensation

claims that would run into billions of dollars' only because the PNG parliament had 'failed in its duty to the people' by accepting the immunity deal.⁶¹

The above-mentioned legal proceedings against Texpet are another example of how immunity deals sometimes provide no effective protection from future claims. When PetroEcuador took full control of the project in 1992, the government officially acknowledged that Texpet's operations had been in line with existing environmental regulations and industry practices.⁶² In 1995, mounting pressure nonetheless forced Texaco to agree to invest \$40 million in environmental remediation efforts. In 1998, Texaco's remediation efforts ended and the Ecuadorian government officially 'absolved, liberated and forever freed' Texaco from 'any claim or litigation by the Government of Ecuador concerning the obligations acquired by Texpet'. Despite these assurances, Texaco, and later Chevron, continue to battle liability claims to this day.

2.3 What does the evidence tell us about the future?

Arbitration data clearly show that disputes between companies and governments in extractive industries are not restricted to one region, level of development or type of economy or government. They also indicate a sudden jump in arbitrations coinciding with the current commodity price boom. But in line with the recent literature, our analysis confirms that it is difficult to predict which countries are prone to disputes on the basis of a narrow set of indicators such as type of government, commodity price levels or per capita income. Certain trends, including declining GDP levels, are more prevalent among those countries involved in arbitrations, but the correlations are not robust and are not supported by a convincing causal theory.

International arbitration data remain the best-available comparable quantitative proxy for government company tensions. But small sample sizes and difficulties in controlling effectively for contextual factors does not make these data particularly suitable for more complex statistical analysis, such as multivariate regressions. Understanding the drivers and triggers of company-government disputes appears to require a more qualitative and comparative empirical analysis.

The survey of four sets of drivers for host country-company disputes presented in this chapter provides insight into the often complex and multi-layered nature of disputes and tensions between governments and companies. However, these drivers do not provide sufficient explanation for when tensions escalate and when disputes can be avoided, nor do they account for the spatial or temporal clustering of company-government disputes that the arbitration data appear to suggest.

Resource-nationalist policies come in many different forms and can sometimes be adequately accommodated, for example through negotiations and compromise. At best, the phrase is a useful catch-all for the impulse for greater state control over territorial resources and resource rents - it is often more of a means to an end in company-government disputes than a cause in itself. Similarly, community grievances can trigger disputes between investors and governments, but they may also be ignored or be countered by a government supporting a company. Environmental degradation may not cause a breach of contract, and low-level local and international opposition to a project can go on for many years without affecting a company's investments. Poor

Disputes between companies and governments in extractive industries are not restricted to one region, level of development or type of economy or government.

No overarching theory exists to identify when issues are likely to escalate to company–government disputes.

due diligence and weak liability regimes are clearly a factor in protracted disputes, but they tell us nothing about when these issues are most likely to arise or the relative strength of the parties involved in a claim.

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In sum, despite an extensive literature examining company–host country tensions, there remains no overarching theory that can help to identify when these issues are likely to escalate to company–government disputes. The next chapter attempts to fill this gap by turning to structural factors, namely the nature of the relationship between extractives companies and host countries and the forces that exert an impact on an impact on this relationship over time.

3 The Relationship between Host Country and Extractives Company

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- Governments and companies depend on one another for unlocking resource wealth, but fundamental asymmetries in power, information, capabilities and resources often make for an inherently vulnerable partnership.
- Economic theory calls for governments to capture 'resource rents', but in practice revenue-sharing agreements are the outcome of often protracted bargaining rather than a simple formula. There is no objective way to establish *ex ante* what a 'fair' distribution of profits between governments and private investors should be.
- Extractives projects often stretch over decades, but few revenue-sharing agreements survive that long. Structural pressures from changing bargaining power, ideological shifts and changing global market conditions can lead to demands for tax rules to be adjusted or contracts to be renegotiated.
- The upward shift in prices, a fraying Washington Consensus and the perception in producer countries that bargaining power has shifted in their favour have upset company–government relations in recent years. Many governments have been trying to drive a hard bargain, and the laissez-faire approaches that dominated the industry in the 1990s have fallen out of fashion in many parts of the world.

3 The Relationship between Host Country and Extractives Company

To improve understanding of how disputes between governments and oil, gas and mining companies will evolve requires a reappraisal of the state–company relationship in the sector. What makes it different from other state–company relationships? And what can challenge its stability over time? This chapter highlights the central role of revenue-sharing in this relationship and discusses the inherently vulnerable nature of contracts that apportion resource rents between governments and operators, which often puts them at the heart of disputes in the sector. It shows that there is no objective formula that can determine a ‘fair’ distribution of revenues and risks and explores how shifts in bargaining power, prices and prevailing ideologies can undermine contracts’ stability in the long term. Focusing on tax levels for resource companies, the chapter concludes by showing how in practice these changes result in a wide variety of outcomes in different countries and how attempts by many producer governments to respond to structural changes in global markets since the early 2000s have led to growing tensions with companies.

3.1 The flawed contract

3.1.1 An asymmetric relationship between parties

Governments as sovereign owners of mineral resources are often unwilling or unable to mobilize the technical, financial and managerial resources that are necessary to effectively and efficiently produce them. As a result, they enter into agreements with (often foreign) private companies to explore, develop and exploit those resources. Given the important role of mineral resources for many economies, these contracts are often signed or approved at the highest levels.⁶³

Each contract represents a different formula to distribute ownership, managerial control, revenues and costs between the government and companies.

Contracts can take many different forms, each of which represents a different formula to distribute ownership, managerial control, revenues and costs between the government and companies over the lifetime of a project, which can extend over several decades from initial exploration to closure and remediation (see Box 3.1). They can be complicated further by the involvement of various forms of state-owned extractives companies, which can act as partner, shareholders, regulators or licensees in a project. Contracts are also shaped by the wider legal context, including constitutional provisions on natural resources and specific sectoral legislation such as mining and petroleum laws.⁶⁴ All these formal agreements need to navigate tensions between the government’s and society’s claims on benefits from national resource wealth, on the one

hand, and providing sufficient incentives for companies to make long-term investments, on the other hand.

The ideal is a mutually agreeable interdependence between the two parties. However, fundamental asymmetries in power, information, capabilities and resources often make for an inherently vulnerable partnership.

Large extractives companies often have more technical know-how, managerial capacity and financial resources at their disposal than their host government. This poses challenges to effective regulation. In most cases of investment outside the extractives sector, it is taken for granted that the host government will provide the necessary infrastructure for a project – a bank or factory does not usually have to build its own roads – and regulate the industry, ensuring compliance with national and local laws. By the same token, it is assumed that the major contribution to the country will be through employment and tax revenue and that ‘corporate social responsibility’ initiatives are adopted at the company’s discretion. In the extractives sector, the high-value, high-risk, high-tech and high-impact nature of operations means that these roles are less clearly defined.

In many instances, the role of one entity is perceived to be encroaching on that of the other, creating what is often a heavily politicized context. For example, in countries where the government lacks the capacity to provide infrastructure, local housing, health care, education or even policing functions to support the project, the company may end up taking on the role of a ‘state within a state’. This is problematic because the company will lack the legitimacy or accountability of a government body. Conversely, the government may be seen to be affecting company operations negatively through ‘political’ intervention, for example by obligating a larger uptake of national employees in the event of public pressure over unemployment. These are issues faced by both foreign and state-owned companies.

3.1.2 Dealing with uncertainty: what is a fair share?

Another fundamental challenge to managing state–company relationships in the extractives sector is that contracts need to be written against the background of inherent uncertainty about the risks and rewards from investments. There is no appropriate distribution to establish *ex ante* what the appropriate distribution of profits between governments and private investors should be for a specific project. This uncertainty is tied to several factors, including changing world market conditions and prices for the extracted commodity, evolving knowledge about the size and quality of the deposit that is being developed and advances in technologies that change the cost of extraction. Over the years, highly profitable enterprises can suddenly turn into loss-making businesses and dormant concessions can literally turn into goldmines. Both governments and companies may spend a great deal of effort to model these factors, but ultimately they remain informed guesswork subject to large margins of uncertainty.

In theory, the state as owner of the resource should seek to capture the ‘economic rent’ associated with its production and to compensate the private company for the cost of its services. Economic rent is the difference between the market price received for the resource and the full cost of production. The full cost of production, which includes a ‘normal profit’, also referred to as the ‘risk-related’ or ‘required’ rate of

There is no objective way to predict an appropriate distribution of profits between governments and private investors.

Box 3.1: Principal types of revenue-sharing agreements

Most types of revenue-sharing can broadly be classified as one of four types: concessions, joint ventures, production-sharing agreements or service contracts (see Table 3.1).

Concessions Under a concession, the licence gives the company relatively free rein to operate, subject to health, safety and environmental requirements. The operator decides on the spending and investment levels as well as the speed of development and production levels. In most systems the governments retain the legislative authority to set production levels, although they rarely exercise this power. The UK, for example, has never used this authority.

Concessions, which are common in the countries of the Organisation for Economic Co-operation and Development (OECD), give companies the freedom to operate on a commercial basis. IOCs invariably prefer concessions, and accept alternatives only when they are the sole way to gain access. In return, governments can in theory secure revenue with little effort or commitment of resources.

A concession means that the government has limited control over operations other than through control of the licensing process that makes acreage available to companies. Also, if a company is driven solely by commercial considerations, marginal fields may not get developed and external benefits such as additional employment or infrastructure could be lost to the country.

Joint ventures (JVs) Under most types of JV, initial exploration is pursued at the sole risk of the international investor. Once a commercial discovery has been declared, a joint company is created between the company and the government, usually represented through a state-owned company with predetermined equity shares. The government then repays its share of the exploration expenditure; the JV will meet further exploration and development costs jointly. The output is sold and subject to the normal tax rules, which might be the same for a concession.

The advantage of a JV is that the government avoids the risks inherent in exploration; but if commercial discoveries are made, it can still participate in their development. Not only does this allow governments to retain an ownership share, it also allows a state-owned company to learn from multinationals, which can be valuable when states have limited experience in commercial operations. This was, for example, a major factor in the development of the Egyptian state oil company in the 1960s and 1970s. It also means that the government is directly in control of operations, assuming that it carries 51 per cent or more of the equity of the JV, which is usually the norm.

Production-sharing agreements This kind of agreement is similar to a JV except that the state does not provide any resources to cover exploration, development or operating costs. Private companies explore and develop the resource and in return win the right to a share of production in order to cover costs and to generate a return on investment, with the remaining output going to the government.

Service contracts Companies are also responsible for funding exploration and development under service contracts. Instead of gaining a right to a share of the project output, the company is compensated through a predetermined fee per unit of output that it generates through its 'services'. In some cases, this fee is adjusted automatically to higher prices.

Table 3.1: Different types of fiscal arrangement for oil and gas

	Cost recovery	Royalty	Government share of production	Profits tax*
Concession	By the operator from sales revenue	Yes	No	Yes
Joint venture	By the operator from sales revenue, but exploration costs repaid by government partner	Yes	No	Yes
Production-sharing agreements	From oil production	Yes	Yes	Yes
Service contracts	From oil production	No	Yes	A fixed return for operators

* Profits can be taxed in many ways: via generic taxes, such as income taxes, corporate taxes etc., or through taxes specific to extractive industries such as the petroleum revenue tax in the UK or the mineral resource tax in Australia.

Governments choose different types of revenue-sharing mechanism for a variety of reasons. An obvious example is the level of development and stability of the country, which will strongly influence the nature and effectiveness of its institutions. For example, OECD countries tend to have more confidence in their systems' ability to manage operating companies and are therefore more willing to grant 'concessions' that allow the company freedom to operate within the existing regulatory framework. The concessions often would not need clauses on environmental protection, for instance, because border regulations already exist to cover the extractive industries. By contrast, many emerging producer countries lack this institutional maturity and are therefore forced into creating specific regulations that are explicitly incorporated into the contract, for example as part of a production-sharing agreement.

return for the company. This required rate of return denotes the amount that makes the investment worthwhile for the investor, but does not include any 'profit' in the popular sense of the term.

Two essential elements determine the required rate of return: the amount investors would earn by leaving the money in the bank, known as the riskless rate of interest, and the risks associated with the project. In theory, the 'risk premium' should be just high enough to make investors indifferent about whether to invest or leave their money in the bank. Setting appropriate premiums for individual projects is more difficult in practice because risks are often complex and difficult to quantify and may not be fully understood in advance.

3.1.3 Assessing complex risks in extractives projects

Complex risks facing extractives projects are a key driver of this uncertainty. An investment in a project can be considered subject to three types of risk: market risk, operating risk and shareholder risk. Market risk is the risk that the resources the project seeks to produce turn out to be worth less than originally thought, either because the business opportunity did not exist in the first place or because changes in effect destroyed the potential value added embodied in the project. Examples include developing a gas field for domestic consumption when the local economy subsequently collapses or developing a specific mineral capacity when technological change makes the mineral redundant.

Operational risk refers to potential problems with operating the project that could mean that it fails to deliver on its potential value added. This can be for a number of reasons, such as inadequate infrastructure associated with the project, military or civil disturbances where the project is meant to operate, changes to the regulatory or fiscal regime under which the project operates, shortages of critical manpower or other inputs and third-party risk, whereby operating in one country causes political or reputational problems for the same company operating in another country.

Shareholder risk is when the project is real and delivers but for some reason the company cannot return the value added to its domestic shareholders. This may be (in extreme cases) the result of nationalization or because foreign exchange restrictions forbid the repatriation of hard currency, or it may be due to a joint venture dividend squeeze whereby the local partner wants to increase the reinvestment levels at the expense of shareholder dividends.

When negotiating contracts, companies and governments will place different weights on these risks, which makes it difficult to define an objective 'required rate of return'.

Methods such as the capital asset pricing model and its variations seek to assess risks associated with projects in each sector, based on factors such as the share performance of companies in specific sectors. Non-systemic risks in these models are often assumed to be diversified away.

Ignoring depletable assets and ‘externalities’

The exhaustible nature of mineral resources further complicates their valuation in deals between companies and governments. The barrel of oil or tonne of ore produced today cannot be produced tomorrow. In theory, a depletion premium should be added, based on the discounted value of a possible substitute at the time of complete exhaustion less the extraction costs of the present resource. In practice, however, this aspect is rarely taken into account, as tenuous assumptions would have to be made about the timing of depletion of the deposit and the cost of the alternative technology that would be needed to provide other sources.

Contracts in extractive industries often fail to take into account a range of costs (and benefits) that are not appropriately priced by markets.

Finally, contracts in extractive industries often fail to take into account a range of costs (and benefits) that are not appropriately priced by markets. These costs can range from the health-related impacts from local particulate pollution to the costs of global climate change. Pricing such externalities is far from simple, and is subject to large uncertainties. In their negotiations, companies and governments often tend to ignore these aspects, but they may be forced to reconsider them at a later point. Costs borne by domestic constituencies, for example indigenous peoples, may be ignored if they lack political power in the capital. But as locals gain a political voice or as international norms emerge (such as the UN Guiding Principles on Business and Human Rights that were widely endorsed in 2011), these costs may have to be met (see also Section 2.2.4).

In practice, companies and governments have no choice but to bargain using imperfect and often asymmetric information with which to agree on a revenue-sharing formula that compensates companies for their initial investments, operating costs and the risks involved. Governments typically grant exploration and extraction rights to companies without either side knowing exactly what those rights will be worth in the future. Expectations and assumptions on both sides can often be far apart, creating the potential for tension and disputes.

3.2 Forces of change affecting extractives agreements

Projects typically stretch over decades, but few contracts struck between companies and governments last that long.

Whatever the outcome of the initial bargaining process, the results are often challenged in time. The lifetime of extractives industries projects typically stretches over decades, but few agreements struck between companies and governments last that long. Any number of factors can change: the political climate, extraction technologies, the relative bargaining power of the parties involved, prices, costs and the understanding of the geology of the project. All these factors can create pressure to amend contracts in the medium to long term, and can ultimately result in renegotiations or disputes.

The following sections describe how three basic structural factors – bargaining power between host countries and investors, state ideologies and commodity markets – tend to fluctuate over time and how this works to undermine existing agreements.⁶⁵

As a result, all three factors can become a potent force for disputes in the sector. Nonetheless, it is important to remember that the impact of these factors in individual countries and projects will be shaped in important ways by local and national factors, the topic of the next chapter.

3.2.1 The obsolescing bargain or the shifting bargaining cycle

The terms of the initial agreement between a host government and a foreign investor are determined by the relative bargaining power of the parties at the time of negotiation. At this stage, foreign investors often have the upper hand because they control the capital and know-how necessary to translate resource endowments into actual revenue. After the operator has made the necessary investments and becomes unable to remove the investment without incurring large losses, the bargaining power swings to the government, which may seek a renegotiation of terms. This model of producer–operator power relations is known as the obsolescing bargain cycle.⁶⁶

The well-documented tensions between states and oil companies in the Middle East and North Africa provide some insight into what is happening in the extractive industries today. An extreme case involves the Arabian-American Oil Co. (Aramco), an international oil company (IOC) that enjoyed a vast Saudi concession. From the 1930s, Standard Oil of California and Texaco, the original Aramco partners, funded exploration and the development of Saudi oil basins. They enjoyed favourable terms, taking advantage not only of colonial-era power dynamics but also of the government's reliance on their technological expertise and access to project finance. But bargaining power had shifted by 1950, when the Saudi government agreed a 50:50 profit split. By this time, Aramco had built up a large Saudi oil infrastructure and was paying rents. Their investments were immovable, increasing the government's leverage. In the 1970s, Saudi Arabia nationalized Aramco. At first, the state retained the former owners as operators. Today the company is Saudi Aramco, the largest of the national oil companies (NOCs). Foreigners have no equity stake, and their bargaining power became obsolete long ago.

Although there are more complex dynamics at play, the Kashagan affair (see Section 4.3.2) would appear to be a case of the obsolescing bargain in which rising oil prices prompt the state to revise the terms of the agreement once international investors have sunk costs into exploration. Contracts signed when the price of oil stood at \$18–20 per barrel, were challenged by the Kazakh elite as prices rose and it consolidated power and grew more confident.

As these examples illustrate, the balance of power in contract negotiations between companies and host countries tends to change radically over the project cycle. Disputes can arise when a party that is gaining bargaining power sets out to renegotiate contractual terms. When a government in a weak bargaining position gets a poor deal, it may just bide its time and seek to renegotiate when the investments have been made and the tables have turned.

3.2.2 Changing ideologies or the shifting political cycle

What is considered a 'fair share' often evolves with the ebb and flow of predominant economic narratives and orthodoxies. At the heart of the matter is the question of what role the state should play in the extractive industries.

The balance of power in contract negotiations between companies and host countries tends to change radically over the project cycle.

Changing perceptions about the role that states should take drive the 'political cycle' in the resource sector.

Recent literature has emphasized the cyclical pattern of state involvement in the resource sector and the recurrent patterns of nationalization and privatization over time. Stevens (2008), for example, highlights the importance of shifting commodity prices, investment cycles and political fortunes as determinants in the fluctuating appeal of resource nationalism.⁶⁷ Joffé et al. (2009) assert that resource-nationalist cycles last for approximately 20–25 years.⁶⁸ There is clearly a strong ideological component to the role that states take in the resource sector and in the operation of the national economy – and changing perceptions drive what one can describe as the 'political cycle'.

There is much variation in the way these trends and cycles are translated into national policies and strategies. In the 1990s economic policy approaches in East Asia, for example, have tended to be considerably more statist than in many sub-Saharan African countries. Nonetheless, global trends in the thinking about the role of extractive industries – and the relationship between the state and the private sector more broadly – are an important factor in shaping government policies towards foreign investors. Because of its crucial contribution to the evolving nature of state–company relationships around the world, this political cycle deserves elaboration.

In terms of modern economic history, the period between the Second World War and the late 1970s saw an expansion of the state's involvement in national economic systems. There was a widely held view that governments could and should intervene directly in order to address social and economic problems.

Three basic drivers can be identified that encouraged government intervention. First, the existence of 'market failure' was generally accepted. Unfettered market competition was widely considered to produce sub-optimal results for society owing to the inevitability of monopoly power and therefore imperfect competition, the presence of externalities and the concept of public goods, whose benefits to society were too important to leave to the market. Moreover, solutions to the problems of market failure lay in government intervention in the form of corrective taxes and subsidies, regulation, price controls, planning and ultimately government ownership.

Secondly, the legacy of Keynesian economic theory had resulted in the view that the equilibrium level of employment would not necessarily coincide with full employment. The function of government was, by the management of aggregate demand, to force the two to coincide.

Finally, Soviet planning was held up by many as a successful model for mobilizing the resources of an economy to promote growth. Even the UK introduced a 'five-year plan' in the mid-1960s. In the OECD these three drivers led, among other things, to the nationalization of public utilities and industries as part of the development of instruments for economic management.⁶⁹

For many in the developing world, the justification for state intervention received additional support. Structuralist views of the global economy challenged the assumption that participation in the international market economy would necessarily lead to mutual gain. Market forces would not lead to the convergence of economic development between countries (as was assumed by mainstream economics) but instead would aggravate differences between them. State action was considered essential if this was to be avoided.

A less extreme position promoted a ‘big push’ to jump-start development. Its proponents argued that a concerted focus of resources was needed to break out of the vicious circle of poverty whereby low income leads to low savings, low investment and low output, leading back to low income. The underdevelopment of the private sector in developing countries meant that only the state could marshal sufficient resources for a ‘breakout’. In a similar vein, a number of economists were arguing that, over time, commodity producers would face a decline in their terms of trade, or relative prices, *vis-à-vis* producers of manufactured goods, because the consumption of manufactures grows faster than the consumption of basic commodities when incomes increase (i.e. raw materials have lower income elasticity of demand). Adherents of this so-called Prebisch-Singer thesis⁷⁰ were arguing that governments of countries that relied heavily on commodity exports needed to find ways to diversify their economies – or face a future of steadily declining relative wealth.

In a world where government intervention was viewed as necessary and desirable, attention was paid to the development of strategic sectors, the ‘commanding heights of the economy’. For major mineral producers this inevitably meant the mineral sectors.

These previously unchallenged views of state intervention came under scrutiny in the 1970s. The intellectual underpinnings came under attack from three recently developed areas of economic analysis: the economic theory of politics examining the behaviour of politicians; theories of public choice examining the behaviour of bureaucrats; and principal-agent analysis examining the interaction between politicians and bureaucrats. These areas of analysis identified mechanisms that would lead to a misallocation of resources if government intervened in the economy – so-called ‘government failure’.

This ideological criticism of government intervention was reinforced in the 1970s by the perception that macroeconomic management was failing to deliver in a global economic downturn that was marked by strong price instability. Supply-side and monetarist economic analyses attacked the Keynesian doctrine of macroeconomic intervention. In the developing world, weakening economic performance led to the conclusion that developing countries were failing to catch up because of government intervention – rather than because of the lack of it. There was growing concern that state intervention in developing countries led to rent-seeking and ‘crony capitalism’, further undermining the performance of those economies. In the extractive industries, this could mean, for example, underinvestment, protectionism and poor management of the sector, with local elites maximizing short-term revenues and employment at the expense of long-term investment and competitiveness.

During the 1980s, these views coalesced into what became labelled the ‘Washington Consensus’. Following the debt crisis of the 1980s, the primary advocates of this position, the IMF and the World Bank, found themselves in a uniquely powerful position to impose these views on developing countries. When the Soviet Union collapsed, the story appeared complete. The result was privatization, deregulation and general liberalization in extractive industries and elsewhere. State-owned enterprises came to be viewed as dinosaurs requiring a helping hand to extinction. Privatization and deregulation came to be seen as undisputable requirements for unlocking growth and development, with many economists believing that everyone would benefit, as profits and rapid economic growth eventually would ‘trickle down’ to broader society.

In the 1990s, privatization and deregulation came to be seen as indisputable requirements for unlocking growth and development.

Box 3.2: The revival of industry policy and export restrictions on metals

There is a long history of various types of export restriction such as taxes, quotas and price disciplines on minerals and metals. Australian coal exporters, for example, used to be required to submit the details of a proposed transaction when applying for an export permit, information the government could use to enforce price discipline. The last of these restrictions was removed only in the 1990s.^a

In recent years, a number of emerging economies have resorted to export controls as part of a broader move towards more explicit and interventionist industrial policy – for example, to support domestic processing of raw materials, subsidize inputs for domestic industries or enforce price discipline among mineral product exporters. Since 2004, China has applied tighter quotas and taxes on coking coal exports, for which it is the world's largest producer. According to the OECD, this provided Chinese steel producers in 2008 with 'a cost advantage equal to more than 20 per cent of the world market price for carbon steel'.^b

Indonesia, a major exporter, has forced companies to submit plans to develop domestic processing capacities in order to obtain an exporting licence for nickel ore and other unprocessed metals, and it plans to move to a full ban by 2014. Export taxes and domestic supply requirements for coal producers are also being debated.^c Vietnam too has imposed restrictions on iron ore, copper and speciality metals.^d In India, the world's third-largest iron ore exporter, there has been a long-running debate about an export ban to support the domestic steel industry. There has also been public debate in Brazil and South Africa about the introduction of new iron ore export taxes. Meanwhile, more than 20 countries have applied restrictions on the export of steel scrap that is easily recycled into new steel products.^e Ironically, large emerging economies such as China and India are among those hit hardest by these restrictions, because they are among the main importers of metals from other emerging economies.

But industrial policy goals are not the only reason for governments to impose export restrictions. They are also being used to support national security policies (mainly in the case of uranium); to protect the environment, and combat corruption and human rights violations. Extensive export controls exist e.g. for rough diamonds and restrictions on the export of tin, tantalum and tungsten from the African Great Lakes region have recently been introduced to rein in the trade of 'conflict minerals from the DRC'. Both Goa and Karnataka, the most important iron ore producing regions in India, for example, have imposed temporary bans on exports of iron ore to combat illegal mining.^g Beijing has used a similar argument to defend its controversial regime of export restrictions on rare earth elements.

^a Gooday (1993). ^b Price and Nance (2010). ^c Platts (2012). ^d ConceptBank (2012). ^e Price et al. (2008). ^f Blore and Smillie (2011). ^g Fontanella-Khan (2011).

At the beginning of the 21st century, experts and policy-makers began to question whether strategic sectors could really be left to the market.

However, the Washington Consensus as the dominant doctrine on the state's role in the economy began to falter at the beginning of the 21st century. A number of factors contributed to this. The Asian financial crisis of 1997–98 and the economic collapse of Russia in 1998 had a profound impact on the thinking of economists, especially at the World Bank. Russia had complied with all the policy prescriptions of the Washington Consensus, yet it simply collapsed. At the same time, it was clear that although many developing economies were growing strongly, poverty alleviation was struggling in many cases. The 'trickle down' effect appeared not to be working.⁷¹

In energy, experts and policy-makers began to question whether such a strategic sector could really be left to the market. This view was reinforced by growing problems with electric power, most spectacularly in California in 2002–03, by growing concerns over climate change and by the need to control greenhouse gas emissions and rising oil and gas prices. State intervention in energy again became respectable for governments, even if not with the same fervour as in the 1950s and 1960s.

This trend is being reinforced by the fallout from the 2008–09 global financial crisis. The dramatic failure of markets and government regulation of the financial sector has further damaged confidence in *laissez-faire* approaches. As Box 3.2 shows, emerging economies have, for example, introduced stronger industrial policy and export controls for the minerals sector in an attempt to protect local markets and to create jobs.

The autopsy of the crisis and the fallout from continuing economic malaise, particularly in Europe and the US, are leading to increasing public pressure for greater transparency, to calls to overhaul the way states manage markets and to a harsh critique of the close collaboration of business and political elites. The policy responses to this pressure are not yet clear and are unlikely to be homogeneous. But they might include stricter guidelines for extractives companies at home and abroad as well as potentially pressure for greater tax returns for governments.

This evolving political cycle is woven through the history of extractive industries. It has a powerful impact on the degree of state intervention in the sector and shapes perceptions about what an equitable distribution of mineral wealth between companies and governments looks like. This works to undermine existing agreements and can create disputes between industry and governments, making the political cycle essential to understanding the dynamic nature of disputes in the industry.

3.2.3 The impact of prices or the shifting commodity cycle

A structural shift in commodity prices or increasing resource scarcity, whether real or perceived, can stir nationalist concerns about a lack of control over resources at a time when they appear to be of increasing strategic importance. Higher prices also increase resource rents, creating powerful incentives for more government intervention in the extractive industries. At the same time, higher prices strengthen the bargaining power of governments *vis-à-vis* investors, which can accelerate the obsolescing bargaining dynamics described earlier.

It is therefore no coincidence that in times of higher commodity prices there is often an overlap between demands for greater state involvement in extractive industries and disputes between investors and governments. The former typically express themselves as calls for the country to receive its ‘fair share’ of the profits derived from its resource wealth. The assumption behind such demands is invariably that the current share is not fair, with foreign interests and corrupt domestic elites to blame.

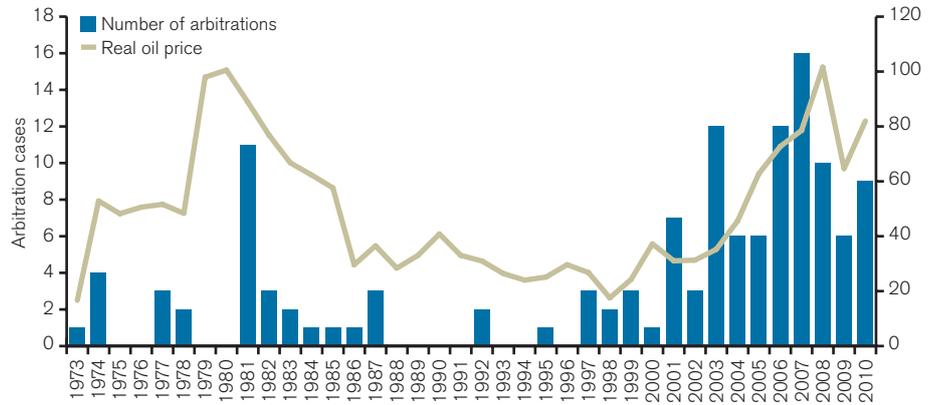
The rising price of commodities in the past decade correlates with higher instances of company–government disputes. Arbitrations have moved broadly in line with real oil prices (Figure 3.1); the raw correlation between nominal oil prices and arbitration cases is 0.72, suggesting a close association, even though these statistics have to be treated with caution given the small sample size. Other research has found similar correlations with oil prices for expropriation data.⁷²

Although there seems to be a correlation between rising prices and disputes between governments and companies, the impact of falling prices on disputes in the sector is more complex. A sustained period of low commodity prices appears to have a dampening effect on disputes between companies and governments. Indeed the late 1980s to the mid-1990s was a period of widespread optimism among companies

The political cycle has a powerful impact on state intervention and shapes perceptions about what an equitable distribution of mineral wealth looks like.

Higher prices increase resource rents, creating powerful incentives for more government intervention.

Figure 3.1: Real oil prices and extractive industries disputes entering international arbitration, 1973–2010 (lhs: number of arbitration cases; rhs: \$(2011))



Source: Chatham House Arbitration Database (CHAD).

There is a correlation between rising prices and disputes, but the impact of falling prices on disputes is more complex.

that model contracts could produce lasting stability for investors. (See Box 3.3 for an example of how lower oil prices from the late 1980s onward led to more collaborative relationships between IOCs and many Middle Eastern oil producers.)

But at least in the short term, there are several reasons to believe that a drop in commodity prices might exacerbate disputes. A drop in prices can trigger fiscal crises in resource-dependent economies, particularly when the government has increased spending on items such as civil service wages and consumption subsidies during the boom years. Governments may try to increase their take from shrinking project revenues, leading to tensions with companies and running the risk of deterring future investment. Governments under public pressure from mounting economic problems might also resort to this strategy in order to shore up political support. In addition, the ‘patronage pot’ will be smaller and thus less able to cement political stability in autocratic states. This is likely to intensify distributional conflicts among elites, for example between the central government and regional authorities.

As projects are curtailed, delayed, or cancelled, companies may face ‘use-it-or-lose-it’ arguments, labour unrest and political pressure to limit job losses.

Moreover, price slumps can lead to company behaviour that can cause disputes. Efforts to reduce operating costs and capital expenditure might, for example, lead to projects being curtailed, delayed or cancelled entirely. Such a ‘capital strike’ by companies could spark conflict with countries that rely on those projects for current and future jobs, investment and tax revenues. In response, companies may face ‘use-it-or-lose-it’ arguments regarding their licences or face labour unrest and political pressure to limit job losses at existing operations. Attempts to cut costs may also lead to reductions in budgets that drive the social and environmental performance of extractives companies, and that has the potential to spark growing resentment from local communities.

Price volatility, a likely trend for many commodities over the next two decades given the uncertainties outlined in Section 1.2, is potentially the worst of all worlds in terms of the conditions for coexistence between extractives companies and governments. For companies, continuous price volatility increases risk premiums and encourages caution in investment decisions. They commit capital with a 10-to-30-year view on expected prices and returns. Once they sink capital into the ground, it cannot be

Box 3.3: Impact of falling oil prices in the 1980s on state-company relations in the Middle East

After several decades of ever-greater state control in the oil industry, the situation in the Middle East and North Africa (MENA) changed from 1986. The collapse of oil prices, and consequently government revenues, meant that many governments in the MENA region began to encourage IOC entry in an effort to offset lower prices with higher production levels. MENA oil producers instituted increasingly progressive fiscal terms that adjusted to changing prices, as did some major mining countries. Under a progressive fiscal system, taxes would be relatively limited as long as prices remained low. But host governments would still be able to capture the majority of windfall profits, whether generated by unexpectedly large volumes or by higher prices. After 1986, all the MENA countries except Saudi Arabia began to encourage the re-entry of the IOCs. They were not always successful. In both Kuwait and Iran, for example, efforts at re-privatization clashed with domestic political policies and generally failed.

transplanted. With little clarity as to what to expect over the next two or three years, much less the next decade, extractives companies focus on deploying their money conservatively. They develop only the lowest-cost, highest-quality projects in their portfolio or focus on paying down debt and building up a cash position.

For producing countries, volatility poses economic and political risks related to budgetary dependence on extractives sector revenues and the capacity to cushion a sustained price fall. Reduced or cancelled investment creates a double threat. The recent dip in metal prices has, for example, led major mining companies to slash multi-billion-dollar capital expenditure programmes.⁷³ This is not only causing political difficulties, especially in low-income countries that were promised those investments, but also potentially setting up global markets for future supply constraint and price spikes.

3.3 Revenue-sharing and taxes: a work in progress

Taxes, next to ownership arrangements, are the main form of revenue-sharing between governments and companies in the sector. In principle, comparing how tax outcomes differ across countries and over time provides one way by which to measure the impact of shifting economic and political forces on revenue-sharing arrangements in extractive industries.

In practice, tax levels in different countries are surprisingly difficult to compare.

In practice, however, tax outcomes turn out to be surprisingly difficult to measure owing to the variety of taxes that are levied on individual projects.⁷⁴ They consist of a combination of general tax rules for companies, for instance corporate taxes, value-added tax and export taxes, as well as specific taxes and fees that are levied only on extractive industries, among them unit-based royalties, value-based royalties, windfall taxes and resource-rent taxes. But even within one country, these taxes are rarely uniform across the sector. They vary not only between different provinces or states but also between different commodities or phases of the project cycle, for example exploration versus production. Other variants also contribute to discrepancies, such as whether the project is onshore or offshore or whether a mine is open-pit or underground. Additionally, in some cases tax rates are progressive rather than fixed: fiscal terms adjust to higher sales or commodity prices, with higher mineral prices automatically translating into greater government revenue.

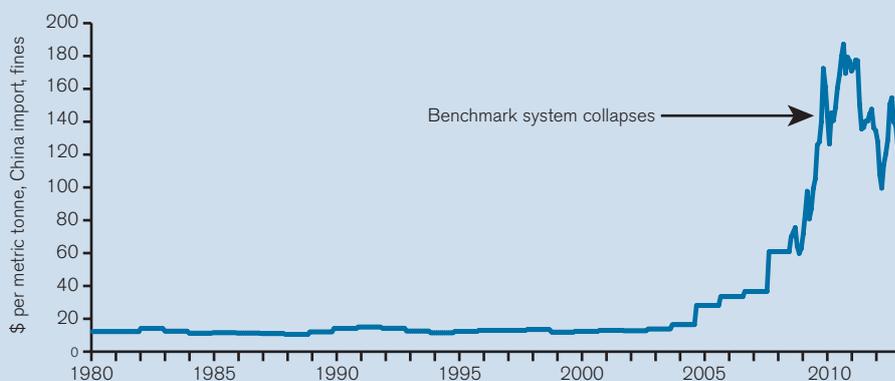
Box 3.4: Pricing mechanisms and increasing volatility for iron ore

Historically, international prices for many metals, ores and concentrates were often fixed for specific periods, whether for a quarter or a year. Price levels were either set unilaterally by producers or determined through bargaining among key players. The negotiated price then served as a benchmark for price formation in the rest of the market. Such pricing systems may reduce short-term price volatility but the inflexible nature of these systems itself creates tensions between consumers and their suppliers, and these systems arguably struggle to function in an environment of increasingly volatile fundamentals. Over time, spot pricing – where the price for an individual delivery contract is negotiated ‘on the spot’ between a buyer and a seller – has become more common. Contracts for aluminium and nickel were introduced on the London Metal Exchange (LME) in the late 1970s.^a Molybdenum and cobalt contracts became available as recently as 2010. Benchmark prices give producers and consumers the advantage of stable, predictable prices (and hence revenues and costs), but spot markets offer immediate opportunities to respond to changing market expectations. This also makes spot markets more volatile in nature.

The case of iron ore pricing shows how new customers for a commodity and increased use of the spot-market can quickly alter price behaviour. Benchmarks for iron ore pricing used to be negotiated annually between the ‘Big Three’ seaborne iron ore-producing companies (BHP Billiton, Rio Tinto and Vale) and Japanese steel-makers, their biggest customers. But China’s iron ore imports overtook Japan’s in 2003; and by 2008 they were three times as large, leading to demands by Chinese companies for a seat at the negotiating table. At the same time, spot market trading became increasingly common, especially for the thousands of smaller steel mills in China that were unable to guarantee offtake of large quantities. With continuous upward pressure on prices between 2002 and 2008, spot markets became more attractive, especially for smaller producers, spot prices would typically trade at a premium to benchmark prices.

Iron ore miners disagreed about the viability as well as the usefulness of prolonging the benchmark pricing system. Those in favour of market-based pricing saw the potential of higher windfalls for the companies and argued that a spot-pricing system could reduce tensions with consumer governments compared to the increasingly contentious negotiation rounds. Others, notably those that relied heavily on their revenue from iron ore, felt that the benchmark system should be maintained, as it protected mining companies from short-term price slumps. When the spot market crashed in 2008, many Chinese buyers reneged on their benchmark contracts and bought instead at a discount in the spot market. This meant that producers who stuck to the benchmark system ended up losing in both good and bad times. Meanwhile, price negotiations between iron ore miners and Chinese steel producers became increasingly politicized, culminating in the arrest and sentencing of four Rio Tinto negotiators on charges of accepting bribes from Chinese steel mill owners.^b This was intensified by the accusation that they had colluded to inflate the prices of iron ore imports to China. In March 2010, the Big Three eventually abandoned the benchmark system and spot negotiations became the dominant pricing mechanism. Iron ore prices have since entered a period of unprecedented volatility (Figure 3.2).

Figure 3.2: Average monthly iron ore price, 1980–2013 (\$ per metric tonne, China import, fines)



Source: IMF (2012) Primary commodity price tables.

^a Humphreys (2011a). ^b Humphreys (2011b).

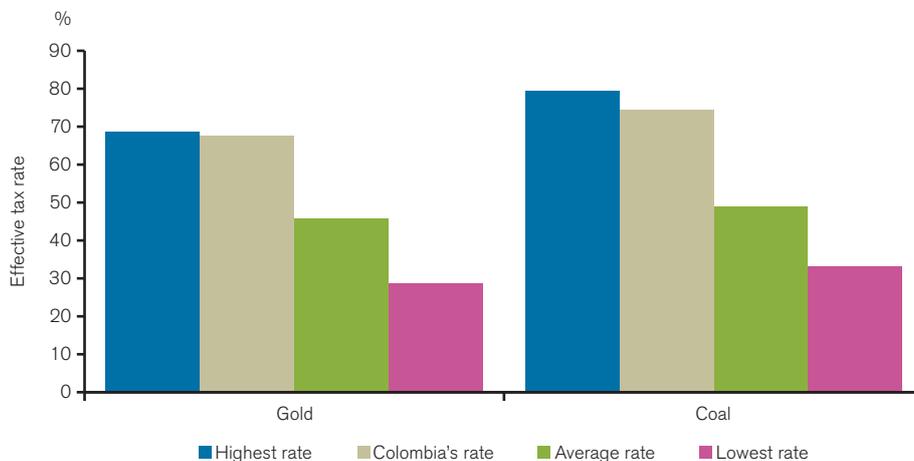
This is complicated further by specific tax arrangements at the project level. For instance, national or state-level regulations might specify that the government is entitled to a royalty but might leave the negotiation of rates to authorities on a project-by-project basis. Many contracts for larger projects are also riddled with supplementary provisions, such as tax breaks, lump-sum payments, future options on equity and penalties for late development. Commitments to develop infrastructure, provide local employment and compensate communities for relocations can further affect the bottom line for companies and other stakeholders. Taken together, these project-level agreements can significantly alter the distribution of revenues and profits.

Many contracts for larger projects are further complicated by supplementary provisions, such as tax breaks or penalties for late development.

3.3.1 The differences in tax regimes across countries and commodities

One of the most striking findings of previous attempts to compare tax regimes is the wide variety of outcomes that these systems appear to produce – not only across countries but also across different types of commodities. In a landmark study last updated in 2004, the mining economist James Otto modelled the total effective tax rate borne by the same hypothetical copper mine placed in 25 countries. The lowest effective tax rate was 29 per cent in Sweden. The highest rate was 64 per cent in Ontario province, Canada; the mean centred on Kazakhstan at 46 per cent (see Table 3.2). Interestingly, taxation of mining projects generally tends to be lower than for oil and gas, although the precise reasons for this remain unclear (see Box 3.5).

Figure 3.3: Comparison of Colombian and other countries' taxation of gold and coal mines (%)



Source: Ernst & Young (2012).

In 2012, Ernst & Young undertook a similar exercise for the government of Colombia and found the spread to be just as wide (see Figure 3.2). To provide an international comparison for the tax burden on a Colombian gold mine and coal mine, Colombia's new mineral tax regime was benchmarked against those of South Africa, Peru, Chile, Argentina, Brazil, Canada and Australia. Using long-term coal price forecasts, the study estimated that a new open-pit coal mine in Colombia bears an effective tax rate of 74 per cent. This compares to 80 per cent in Indonesia and just 33 per cent in South Africa. An underground gold mine, on the other hand, would pay a 77 per cent tax rate.

Table 3.2: Estimated total effective tax rates for a generic copper mine, early 2000s

	Country	Total effective tax rate (%)		Country	Total effective tax rate (%)
Lowest taxing quartile	Sweden	28.6	Second-lowest taxing quartile	PNG (2002)	42.7
	Western Australia	36.4		Bolivia	43.1
	Chile	36.6		South Africa	45
	Zimbabwe	39.8		Philippines	45.3
	Argentina	40		Indonesia	46.1
	China	41.7		Kazakhstan	46.1
Second-highest taxing quartile	Peru (2003)	46.5	Highest taxing quartile	Indonesia (non-contract of work)	52.2
	Tanzania	47.8		Ghana	54.4
	Poland	49.6		Mongolia (2003)	55
	Arizona (US)	49.9		Uzbekistan	62.9
	Mexico	49.9		Côte d'Ivoire	62.4
	Greenland	50.2		Ontario (Canada)	63.8

Source: Otto (2004), p. 17-1, as cited in Otto (2007) p. 36.

A World Bank study in 2006 compared 'total government take' (a holistic calculation that combines the percentage of project cash flows paid to a government in taxes along with the government's equity stake in that project) in oil-producing countries. At the extreme ends were Norway, with a government take around 85 per cent, and the US, with a rate of approximately 40 per cent for deep-water offshore oil.⁷⁶

Government take varies from less than a third to more than four-fifths, with no effective benchmark for negotiations.

What these studies show is that with the government take in extractive industries projects varying from less than a third to more than four-fifths, there is no rate that could serve governments and companies as an effective benchmark in their negotiations. Norway's hydrocarbons model is not transferable to Colombia, and even Colombia's gold tax formula is different from its coal tax formula.

Without a global standard, a wide range of negotiating stances is open to both sides. Factors such as the prevalence and quality of commodities, the speed at which the government requires a return from those commodities and the desired ancillary social investments will influence the government's view of an appropriate tax take. The company, meanwhile, may take into account its investment requirements, based on geological conditions, infrastructure provision and perceived political risk in making the case for lower rates of total government take.

3.3.2 Understanding recent higher tax rates in their historical context

Higher commodity prices in recent years have put companies under growing pressure to pay more taxes.

Although the global tax landscape for extractives companies remains uneven, higher prices in recent years have clearly put companies around the world under growing pressure to pay higher taxes. Tax receipts have increased in line with revenues and profits, but also reflect attempts to capture what many governments have regarded as structurally higher resource rents. During the most recent metals price spike in 2010 and 2011, for example, 25 countries increased or announced their intention to increase mining taxes and royalties.⁷⁷ Deutsche Bank estimates that BHP Billiton, Rio Tinto, Anglo American and Xstrata, four of the largest mining companies, paid \$21

billion in taxes in 2010 compared with \$9 billion in 2005, amounting to an 18 per cent annual growth rate in tax payments.⁷⁸

In historical terms, however, tax rates still remain comparatively low. Investors bemoan ‘tax grabs’, but generally the tax burden on extractives companies has fallen over time. Mining companies in Australia faced income tax rates of 46 per cent in 1983, which fell to 39 per cent by 1991 and to 30 per cent by 2008, according to Hogan and Goldsworthy. In Canada, the rate dropped from 38 per cent to 22 per cent over the same period.⁷⁹

One explanation for this trend is that many of today’s mining fiscal regimes are legacies from the 1990s, a period of greater bargaining power for companies. Following privatizations of minerals assets in the 1980s, a large number of new producer countries entered the market hungry for private investment and competing against established mining countries such as South Africa and Australia. But this expansion of the mining market occurred during the prolonged stagnation of metals prices in the 1990s. Favourable tax policies followed, as countries courted investors in an anaemic market. This international competition prompted revised fiscal terms, which involved lower rates in several countries. Describing the oil industry, Tordo similarly notes that governments often ‘no longer efficiently capture the projects’ economic rent’ as ‘many fiscal systems were designed when oil prices were in the US\$15–18 barrel range.’⁸⁰

3.3.3 Ongoing instability of taxation frameworks

As governments in many resource-rich countries have sought to increase their share of extractives revenues against fierce resistance from companies, frameworks for taxation have become nearly as volatile as commodity prices, particularly for the mining sector. Few resource-rich countries today can offer investors credible assurances that their investment framework will not change, especially against the background of volatility in commodity prices (see Box 3.6 for the example of copper royalties in Zambia).

Frameworks for taxation have become nearly as volatile as prices, particularly for the mining sector.

This is particularly a problem in countries where taxation has not adjusted to changing commodity prices and profits or where profitable contracts are negotiated with corrupt officials. Both the Democratic Republic of the Congo (DRC) and Guinea have reviewed all their mining licences in an attempt to weed out unfavourable contracts signed by previous governments, with the aim to force licence-holders to agree to more favourable terms. Guinea, a new iron ore producer, passed a mining code in 2011 that grants the state a 15 per cent stake in all projects as well as an option to buy up to a 35 per cent stake.⁸¹

Even when such laws are passed, they may not always be enforced, causing additional uncertainty. This applies to existing projects and also to future investments, especially when the legal framework of the mining code is unclear. Like Zambia, Mongolia has overhauled its fiscal system. According to the new law, the government could take up to a 34 per cent equity stake, but it did not clarify in legal terms whether or not companies will be compensated for the loss of their share.⁸² As a consequence of mounting concerns about declining foreign investment and weakening global commodity prices, Mongolia is currently again revisiting restrictions on foreign investment in mining.⁸³

Box 3.5: Government take on hydrocarbons tends to be higher than on minerals

Compared with oil and gas projects, mining projects are generally taxed at appreciably lower rates. In McPherson's study of 'total government take' for generic oil and gas mining projects in six countries, the rate of 'government take' on a copper mine in Indonesia, Chile and Botswana would range from 45 to 57 per cent. The range for an oil project in Ghana, Colombia or Angola, on the other hand, would be higher, at 68–89 per cent.^a

No single reason explains the differential, and experts on resource taxation are hard pressed to explain why the gap is so large.^b However, several pertinent factors differentiate the economics of oil and mining. First, margins in oil extraction can be much higher than in metal extraction. Therefore the rents available for capture are also higher. In part this has to do with the lower average cost of drilling a well than of processing millions of tonnes of ore to extract metals from the ground. Average production costs for two leading copper producers were, for example, around \$2,000 per tonne in 2011 and they were selling to a market that was paying over \$7,500 per tonne. By contrast, the average cost of producing a barrel of oil for Saudi Aramco, the world's biggest producer, was estimated at \$5 per barrel in 2011 compared with market prices of around \$80 per barrel.

Secondly, mining companies frequently argue that the risks associated with mining are greater than those in the oil industry and require a higher rate of return for companies to justify investments. Exploration tends to be more costly because the success rate of finding an economic metal deposit is lower than that of finding an oil deposit. When metals deposits are found or acquired, they often take longer to extract and take longer to reach peak production than oil deposits, especially when deposits are in remote locations.

Thirdly, industry structures could also play a role. Mining companies tend to take a majority stake in individual projects, which exposes them to greater financial risk, unlike oil companies: their prevailing consortium structure spreads the risk more widely. Cartel price support through OPEC may also reduce price risks for oil companies and increase available resource rents compared to mining. These factors may explain why mining projects are not always able to bear the 80 per cent government take rates that many oil projects involve.

Finally, state participation in mining projects tends to be far lower than in oil projects – an additional factor that could contribute to lower total government take in mining. State participation rates of 20 per cent or more are common in oil-producing countries. Rates in Brunei, the United Arab Emirates, Venezuela and other oil producers exceed 50 per cent. National oil companies (NOCs) are also commonly found in hydrocarbon-producing states, from Saudi Aramco (Saudi Arabia), Petrobras (Brazil), Rosneft and Gazprom (Russia) to the Nigerian National Petroleum Co. But for most metals, state-owned mining companies currently still play a relatively limited role, and in many countries, a minimum government stake in mineral projects is not required. Powerful state-owned mining companies such as Chile's Codelco or China's Chinalco so far remain the exception rather than the rule, and state influence in companies such as Brazil's Vale or Russia's Norilsk Nickel and Rusal is often ambiguous and tacit rather than explicit and direct.

In recent years, demands for state participation have grown in the mining sector. The size and capabilities of state-owned or state-led miners from emerging economies are likely to grow rapidly in line with the rising economic power and minerals demand of their home economies. Some resource-rich developing countries, such as Mongolia or Guinea, have also begun to insist on an equity stake in key mining projects. Meanwhile, the 'frontier' projects for oil and gas – extraction from shale rocks, tar sands and ultra-deep and Arctic waters – have required more tax breaks or other government incentives in order to attract investment and offset the costs of greater risk and more expensive technology requirements. Over time, these developments could contribute to narrowing the gap in total government take between the two sectors.

^a McPherson (2010).

Many investors insist on fiscal stability agreements in order to ensure that the rules of the game do not change when a president dies or commodity prices double. These agreements freeze the terms of investment for a fixed period, often the first five or ten years, and sometimes for the lifetime of the project. Although a government has sovereign power to change tax policy at any time, the logic is that governments will honour such agreements so as to protect their reputation among investors.

However, as Daniel and Sunley note, a fiscal stability assurance may not be a hedge against change if the contract becomes economically or politically untenable.⁸⁴ Sovereign power ultimately trumps investor concerns. As suggested by the DRC's vice minister of mines,

We have come across unreasonable and indeed illegal constraints on the sovereign power of the government to apply its general legislation and regulation to these projects. ... Typically contracts demand that the law should be set in stone at the point of the signature of the deal ... We have some sympathy for those who were concerned about arbitrary government action, but it is impossible to operate a system which effectively blocks any changes in environmental, social, labour, or tax law unless it benefits the investor.⁸⁵

Where contracts become economically or politically untenable, sovereign power ultimately trumps investor concerns and fiscal stability assurances.

3.4 The enduring centrality of revenue-sharing agreements

In sum, this chapter shows that the revenue-sharing arrangements that are at the heart of company–government relationships are inherently tenuous in nature. Even when supposedly iron-clad investment guarantees exist, structural pressures from a changing distribution of bargaining power, ideological shifts or changing global market conditions can undermine the legitimacy of agreements. This can lead to changing tax rules, new ownership rules or demands for renegotiation, all of which are powerful drivers of disputes between the two parties.

The extractive industries are clearly in the midst of such a period of upheaval, one triggered by the structural upward shift in commodity prices and the perception in many producer countries that bargaining power has shifted in their favour. Determined to make the most of the boom, many governments have been trying to drive a hard bargain, and the *laissez-faire* approaches that dominated policies towards the sector in the 1990s have fallen out of fashion in many parts of the world.

The revision of government policies is of course not unique to the extractive industries. The current changes in policy towards the sector must be understood in the context of a *zeitgeist* characterized by public demands for re-regulation and 'fair' taxation and the growing international role of much more statist emerging economies.

Box 3.6: Overhauling the fiscal regime for copper mining in Zambia

In 2008, after several years of rising copper prices, Zambia overhauled its fiscal regime, raising royalties on copper from 0.6 to 3 per cent. More controversially, the country also instituted a 25 per cent windfall tax to capture a greater share of the copper mining super-profits. By 2009, copper prices had crashed from a 2008 peak. Zambia scrapped the windfall tax in 2009, after multinational mining companies warned that the tax could lead to mine closures, affecting their investments, and threatened to take legal action.

The repeal of the windfall tax looked at first like a victory for mining investors. But a 'mini-boom' in copper prices followed, and the state made another attempt to claim a larger share. Michael Sata, the new president, doubled the royalty on copper mining from 3 to 6 per cent. Copper miners again warned that this would affect new investments. The royalty rate is indeed high relative to other base-metal producing countries, and it may end up in the long run as a more aggressive instrument than the windfall tax.

This repositioning of policies has undoubtedly led to greater tension between companies and governments in the extractives sector, which are likely to increase further as investors pull back investments because of price uncertainty. But such pressures do not always lead to disputes and, more often than not, governments and investors are able to find compromises and adjust arrangements without arbitration panels, project cancellations or expropriations. Understanding where and why disputes escalate – and where and how mutually agreeable solutions can be found – thus requires a careful analysis of the political economic conditions of individual countries that shape government–company relationships.

4 A Regional Outlook: Old Problems, Changing Dynamics

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- Case studies from the Asia-Pacific region, Russia, Eurasia and Africa show the importance of national political and regional power dynamics and perceptions in shaping the investment context.
- Shifts in prices, ideologies and bargaining power influence a host government's propensity to challenge contracts, but are tempered by its need for the company's investment, technology and managerial know-how.
- If high public expectations from the sector are not met – e.g. owing to delayed development or poor revenue management – political pressure often leads to attempts to penalize companies.
- Contracts are often challenged at the intersection of different local pressures, e.g. intra-elite competition over resource control, discontent over regional wealth disparities and an outcry over the environmental impacts of a project.
- A new bout of Dutch disease is threatening both developed- and developing-country producers, leading to new regulation to insulate other industries and create jobs.

4 A Regional Outlook: Old Problems, Changing Dynamics

Disputes involving the mining industry have been more serious than oil- and gas-related disputes in the Asia-Pacific region.

Although extractive industries around the world are connected through global commodity markets and international flows of capital and expertise, fundamental differences remain concerning industry structures, key actors, institutional frameworks and historical legacies. These differences have been shaped by the various ways in which extractive industries have developed in producer countries – and these histories are likely to shape future company–government relations and the outlook for disputes between. Given the frequent references to cases in Latin America and the Middle East in other parts of the text, this chapter analyses the political economy of selected producer countries in Asia and the Pacific, Russia and Central Asia, and sub-Saharan Africa.

4.1 Lessons from the Asia-Pacific region

The Asia-Pacific region is home to a number of sizeable resource producers, including Australia, Indonesia, Malaysia, the Philippines, India, Papua New Guinea and several Pacific island states. Relative to other parts of the world, there have been fewer high-profile company–government disputes there. When they have arisen, the root cause has often been contracts that are seen to favour the private sector. This is partly a reflection of perceived corruption in the region. In some cases, rents have been allocated on terms that are most beneficial to the ruling elite, to the detriment of the larger population. Frequently, environmental disasters, which may be a result of lax law enforcement, have triggered a re-examination of contracts.

Disputes in the Asia-Pacific region fall into several broad categories. First, some disputes have grown out of governments' desire to revise contracts after the collapse of dictatorships, notably in Indonesia and the Philippines. Often those contracts were assumed to be overly generous to the company involved: the benefits frequently went not to the state but to the dictator and his associates or relatives. Democratization in Indonesia coincided with the Asian financial crisis of 1997–98, which increased the onus on the incoming leaders to re-examine the government's finances.

Secondly, environmental degradation or disasters have also triggered a re-examination of contracts. A third category of disputes has arisen in the tribal societies of Papua New Guinea and some of the Pacific island states. In those cases, divergent conceptions of land ownership have caused disputes between locals and mining companies. In

Indonesia, disputes have also arisen over the division of revenues between central and provincial governments.

In general, disputes involving the mining industry in the Asia Pacific region have been more serious than oil- and gas-related disputes. This may reflect greater professionalism and investment in oil and gas. Mining disputes have at times stemmed from companies adopting a more amateur and short-term approach to their operations.

The price and investment boom of the past decade has led to the rapid growth of resource extraction, from Mongolia to the Philippines. In the future, many of these countries will face complex challenges related to the impacts of this boom that will shape the further development of and attitudes toward the extractive industries.

4.1.1 Renewed concerns over 'Dutch disease'

The resources boom has posed countries in the region challenges as well as opportunities. There is increasing concern about the impact of 'Dutch disease'.⁸⁶ These worries are especially prevalent in Indonesia, Mongolia and the Philippines. Leading political figures in those countries have spoken publicly about the dangers inherent in the resource boom. The prime minister of Mongolia has emphasized the need for a more balanced growth model that creates jobs in industries besides mining.⁸⁷ According to a World Bank economist for Mongolia, Rogier van den Brink, 'diversifying from resources would be a solution similar to what the Dutch found to combat the resource disease'.⁸⁸

Indonesia has been particularly vulnerable to Dutch disease. Like Brazil, it was well on its way towards the competitive industrial diversification of its economy when the commodity boom began in 2004 and seriously set back its manufacturing competitiveness, further increasing already high unemployment.⁸⁹ Developed economies also share this worry about economic imbalance. The deputy governor of the Reserve Bank of Australia, Philip Lowe, has acknowledged the need for 'structural adjustment' in the Australian economy if it is to avoid falling prey to Dutch disease (see Box 4.1).

4.1.2 Tougher regulatory frameworks

Globally, many governments are imposing tighter regulations on the extractives sector, both to mitigate the threat of Dutch disease and to redress the balance of power and the sharing of profits in view of the resource boom and revising tax regimes. The 2010 attempt to raise taxes from the sector in Australia is one such example, discussed in more detail in Box 4.1. New regulations have also been implemented in Indonesia, the Philippines and Papua New Guinea.

In Indonesia, new regulations, accompanied by strong nationalist rhetoric, are restricting the export of raw ores from 2014 onwards and are threatening to force foreign mining companies to divest more than half their assets after 10 years of production. These rules are intended to stimulate the development of a downstream processing industry, ending the export of relatively cheap, unprocessed raw materials. The deputy energy and mineral resources minister, for example, has talked of the risks of being 'economically colonized'.⁹⁰ There is, however, a real possibility for these policies to backfire. Several Chinese exploration and mining companies have closed their Jakarta offices. In August 2012, Chinese nickel imports from Indonesia fell by 39

In Indonesia, new regulations, accompanied by strong nationalist rhetoric, will restrict the export of raw ores from 2014 onwards.

Box 4.1 Australia: the resource super-profits tax (RSPT)

In 2010, the Australian government launched an attempt to increase government revenue from the country's burgeoning mining sector. Despite a nearly decade-long mining boom driven by growing iron and coal exports, especially to China, tax proceeds had risen only marginally. As a comprehensive review of the Australian tax system by Ken Henry, then the secretary of the treasury, noted, 'existing resource taxes and royalties have collected a declining share of the return to resources over the recent period of increasing profitability in the resource sector.' The Henry Tax Review recommended that Australia adopt a 'uniform resource rent tax ... set at a rate of 40 per cent' in order to 'ensure that the Australian community receives an appropriate return on its non-renewable resources'.^a

Rumours about a new mining tax circulated in the weeks leading up to the review's publication in May 2010, but the industry was not prepared for the political broadside that followed. Concurrent with the publication of the Henry Tax Review, the Labour government proposed a resource super profits tax (RSPT). The tax would claim 40 per cent of 'super-profits', defined as any profit above a given threshold, and would apply to all commodities other than oil and gas and to all past and future investments.

The RSPT became the linchpin of Labour's fiscal and social reform programme. The estimated A\$9 billion in additional revenue would not only allow Australia to return to a budget surplus but also lower the corporate income tax rate and fund an increase in company superannuation (pension) schemes.^b

The mining industry reacted with outrage. BHP Billiton, Rio Tinto and Xstrata, the three biggest mining companies investing in Australia, paid for a large advertising campaign against the RSPT. They suggested that it would raise the headline tax rate to 57–58 per cent and endanger jobs and investment.

The industry's opposition focused especially on the taxation threshold and the fact that the supertax would apply to all mines – old, new and under construction. Mining companies claimed this showed a fundamental misunderstanding of capital allocation and return profiles. Mines that are profitable are still paying off hefty construction expenditures incurred years or even decades earlier, so targeting profits in the middle of a long pay-off cycle would threaten some projects' economic viability and hit share prices.

All profits exceeding a rate of return equivalent to the 10-year bond rate, which was 5.7 per cent at the time, would be subject to the RSPT. Australia's Petroleum Resource Rent Tax (PRRT), the nearest equivalent to the RSPT, had a much higher taxation threshold of 11 per cent. Mining companies protested that the tax was not just on super-profits but in effect on all industry returns above the most risk-free rate of return in the marketplace. Another complaint was the way in which the tax had been presented, as a *fait accompli*, limiting subsequent discussions to 'implementation and transition'.^c

Major arguments about the architecture of a A\$9 billion tax hike should not come as a surprise, but the government seemed to have miscalculated the strength of the opposition. Kevin Rudd, the prime minister, admitted that although he had anticipated a 'fear campaign', he had possibly underestimated the impact of the proposal.^d The government went on to answer with its own media campaign against what it claimed was 'misinformation being pushed by some parts of the mining industry'.^e

Meanwhile, the battle escalated. In June, Xstrata suspended a A\$586 million expenditure on two mining projects, with reference to the RSPT, and other miners warned of bigger project deferrals and job losses. Twenty mining executives signed an open letter stating that 'Every day the uncertainty over the RSPT is allowed to continue, greater damage occurs to Australia's national self-interest'.^f BHP Billiton, Rio Tinto and Xstrata all spoke of the rise of Australian 'sovereign risk', a phrase normally associated with Hugo Chávez's Venezuela or Joseph Kabila's Democratic Republic of the Congo. In the ensuing mud-slinging fight, two premises of a rational debate were lost: a profits-based tax would capture rents more efficiently than Australia's patchwork royalty system; and the mining sector had never objected in principle to higher taxation.

Polls indicated that the RSPT was becoming unpopular and endangering Labour's prospects in the upcoming election.^g Kevin Rudd's premiership had already suffered after he had backtracked on a carbon-tax scheme.

By mid-June, the RSPT issue had become a fiasco. And on 24 June, Julia Gillard, the deputy prime minister, took over the leadership after receiving the support of disaffected party factions.^h

The Gillard government immediately dropped the RSPT in favour of an outlined mineral resource rent tax (MRRT), modelled on Australia's petroleum tax. The new tax included key concessions: the headline rate of taxation was reduced from 40 per cent to 22.5 per cent and the return threshold rose, in effect doubling. It also targeted iron and coal projects only. The MRRT, which is now law, is often called a watered-down version of the RSPT.

With weakening commodity prices, the proceeds from the tax have been substantially below expectations. In the first six months of its existence, the MRRT raised just A\$126 million instead of the projected A\$2 billion.ⁱ Should prices rebound, however, the government's take could be much higher. Pietro Guj, a mining tax specialist at the University of Western Australia, calculated that with higher prices, the tax rate on a model iron ore mine could rise from 38 per cent before the MRRT to 45.5 per cent.^j This compares with a maximum marginal tax rate of 55 per cent under the RSPT.

The MRRT set off a new round of opposition, but it was not as explosive. The implementation of the new tax appears to have been more politically palatable, as it was preceded by two years of consultation and compromise. The newly elected Liberal government under Tony Abbot is seeking to scrap many of the mining taxes in order to 'reboot' investment in the sector.^k Mining corporations, however, have been told to increase their capital investments in order to develop rather than hoard the nation's resources or risk losing their rights to tap deposits.^l This move could reignite debates over cost burdens between Canberra, state governments and the mining industry.

^a Commonwealth of Australia (2009). ^b Commonwealth of Australia (2010). ^c Stevens (2010). ^d Kehoe (2010). ^e Maher and David (2010). ^f As cited in Keane (2010). ^g Shanahan (2010). ^h Taylor (2010). ⁱ Hume (2010). ^j Guj (2012). ^k Wilson (2013). ^l Crowe (2013).

per cent, marking the third consecutive month of steep declines. In the same three-month period, Chinese imports from the Philippines doubled, demonstrating that heavy-handed Indonesian policies may end up displacing its mining industry rather than encouraging large-scale investment into a downstream processing sector.

The Philippines too has implemented new regulations, with the government spurred to act by a combination of provincial concerns over the environmental and social impacts of large-scale mining and a sense that the state has not been receiving its fair share of mining profits. Until recently, foreign mining companies operated according to the 1995 law, under which they paid no income tax, no export tax and an excise tax of just 2 per cent. But the country has recently revised its mining tax laws, in line with an IMF recommendation, in order to include revenue-sharing measures on mining contracts and gross earnings. No new mining contracts will be granted in the country until the measures have become law.

Papua New Guinea has responded to the mining boom in similar fashion to its neighbours. It has implemented legislation that returns control of subterranean resources to the traditional landowners, increasing their opportunity for equitable compensation.

Compensation for land has also become the foremost issue in the mining industry in India. The government is currently considering a new mining act that would require mining companies to pay between two to four times the value of the land as compensation, in addition to providing funds for resettlement and rehabilitation. The tax increases included in the bill would make India's mining industry the most highly taxed in the world, with rates rising to 60 per cent for coal and 55 per cent for iron ore.⁹¹

Compensation for land has become the foremost issue in the mining industry in India.

A major challenge faced by the Asian extractive industries is the current hostility towards Chinese dominance in the sector.

In July 2012, Laos implemented a four-year moratorium on new mining investments, mainly as a result of concerns over the environmental and social impact of large-scale mining projects. Projects that have already been approved but have not begun are not affected by the moratorium.

4.1.3 Aversion to China

One of the major challenges faced by the extractive industries in Asia is the strength of hostility towards Chinese dominance even though China is a major source of demand. This aversion is most apparent in Burma (Myanmar), Mongolia and Laos. In Mongolia, China already has significant political and economic influence: it has a near-monopoly over the country's exports and a history of impinging on its sovereignty. Resentment of China and also fear of foreign exploitation resulted in parliamentary election victory in June 2012 for candidates who relied on resource-nationalist rhetoric. The nationalization of some projects being developed by foreign investors in the country remains a possibility; and anti-Chinese sentiment has led the Mongolian government to resist awarding China a contract to develop vast reserves of coal at Tavan Tolgoi and thereby add to its large portfolio. It is considering instead bids from several international mining companies, among them the US mining company Peabody Energy.⁹² This corporation is supported by the US government, which is vying for the right to develop Mongolia's untapped coal reserves as well as attempting to gain influence at the expense of the Chinese.

China has also gained an important foothold in the mining industry in Burma, partly owing to its willingness to engage with the Burmese junta at a time when Western countries imposed sanctions on new investment. However, its deals have been unpopular in Burma and measures are now being taken to counteract Chinese influence. Officials are also working to reverse the destructive impacts of major deals with foreign mining companies on local communities and the environment. Growing freedom of expression in Burma has led to an increase in public outcry at the effects of Chinese mining.⁹³ This outcry currently focuses on a copper mine at Latpadaung, near Monywa, where 7,800 acres of land have been seized for the project. The recent visit of President Barack Obama, the first by a serving US president, also signals the regime's desire to strengthen its ties with Western powers in order to offset Chinese influence. The mining industry is an important part of this changing approach, and Burma's reaction to the Chinese could yet prove to be a model for other regional countries in a similar position.

Laos's reaction to China's presence in its mining sector has been more muted. In October 2012, Laos's energy and mining minister agreed a deal whereby China would finance a 418-kilometre rail link from the capital Vientiane to the Chinese border, in return for a supply of 5 million tonnes per year of mineral resources, mainly potash.⁹⁴ Implementation of the agreement has stalled as a consequence of worries about the level of Chinese involvement, particularly relating to property development rights along the route.

4.1.4 Power plays in Afghanistan's mining sector

Afghanistan, which has rich mineral resources, including gemstones, metals such as copper, gold and iron and valuable reserves of gas, oil and coal,⁹⁵ could be a future hotspot for mining in Asia. But the development of the sector depends almost entirely on political outcomes after the planned withdrawal of foreign troops from the country in 2014. Mining is often held up as a possible solution to Afghanistan's economic woes. More plausibly, the causation should be reversed: the benefits of the country's natural resources will be felt only if there is political stability, security around mining operations

and transparency in the awarding of mining contracts. At the same time, Afghanistan's mineral wealth could fuel ethnic and regional conflicts, which may escalate after 2014.⁹⁶ Criminal mining syndicates already exist: half of all chromite in the border province of Khost is already being extracted illegally and smuggled into Pakistan.

Despite the obvious security risks inherent in extractive industries in Afghanistan, there has been decided interest from international mining companies, and several lucrative mining contracts have already been awarded. At least 108 contracts have been signed, leading to concerns from local and international NGOs that an ill-prepared rush to develop the sector could put Afghanistan in a poor negotiating position. Such a scenario, they warn, risks exacerbating corruption and causing harmful environmental and social impacts.⁹⁷

Two major contracts have attracted much attention. Signed with state-backed Chinese and Indian firms, these contracts may reveal larger strategic interests at work. The first is a 2007 agreement signed with a Chinese state-owned company, the China Metallurgical Group Corporation, to develop the country's largest copper deposit at the Aynak mine, 30 kilometres south of Kabul. Containing an estimated 11 million tonnes of copper valued at \$88 billion, the Aynak deposit is one of the biggest copper sites in the world. Its development has been slowed down by the discovery of an ancient archaeological site, by difficulties in developing infrastructure and by concerns over security. However, officials express optimism that production will commence by 2016.⁹⁸

The second contract is a 2011 agreement to develop a world-class deposit of 1.8 billion tonnes of iron ore at the Hajigak mine in Bamiyan province, 100 kilometres west of Kabul.⁹⁹ The contract was signed by a consortium of seven Indian companies led by the state-owned steel company the Steel Authority of India. The consortium promised to invest \$11 billion in Afghanistan to develop the mine, to construct a power plant and railway and to build a steel plant capable of processing six million tonnes of steel per year.¹⁰⁰ This contract comes hard on the heels of a 'strategic partnership' on security, trade and cultural issues signed between India and Afghanistan in the same year. The investment has rung alarm bells in Pakistan, which fears that the deal is part of a wider move by its old rival India to reduce its influence in Afghanistan.¹⁰¹

However, delays by international investors in beginning mining operations suggest that these companies are waiting to see whether investment remains tenable after 2014. Much investment in infrastructure is needed in order to support the mining industry, and foreign companies are proving to be reluctant to commit their capital to a country that has such an uncertain future.

4.2 Sub-Saharan Africa: escaping its past?

Of all the world's resource-rich regions, Africa has historically been the least explored owing to difficult accessibility, the high cost of doing business and other risk factors. Today, however, Africa is attracting huge investor interest, especially in the mining sector. This is coming at a time when politics on the continent is still in a transitional stage.

The post-Cold War 'governance turn' has run out of momentum. Many of the vanguards of the African Renaissance – Yoweri Museveni of Uganda, Paul Kagame

Afghanistan could be a future hotspot for mining. But the sector depends on political outcomes after the withdrawal of foreign troops in 2014.

In Africa, regional and national differences will see African states make different political and economic choices regarding resources.

of Rwanda and Meles Zenawi of Ethiopia among them – have lost their reformist zeal. The ‘white elephant’ development disasters of the 1970s and 1980s, coupled with widespread corruption, particularly in resource-producing states, have left many African populations cynical about politics and political elites. Politics in many countries has either broken down along ethnic or regional lines or simply become irrelevant to the majority. Thus African governments are unlikely to be able to generate widespread public support for a reduction of the private sector, at least on a continent-wide basis.

At this juncture, it is difficult to chart continent-wide trends. The general pattern will be one of regional and national differences as African states make individual political and economic choices.

Clearly, there are different types of government regime. Some exhibit predatory characteristics; others are more development-inclined. The trends and trajectories of predatory governments are, on the whole, negative. Leaders and officials act for private gain, not in the public interest, and economic mismanagement and a lack of policy coherence are the norm. Bloated, stagnant, nepotistic and co-opted public sectors further hinder governments’ ability to achieve broad-based economic growth. Predatory governments confirm the worst stereotypes about misgoverned and corrupt African countries.

The majority of development-inclined African governments, on the other hand, seek to avoid repeating past mistakes and strive to reap greater benefits from domestic natural resource extraction. For many of them, an integrated strategy for mineral and other natural resource extraction is critical to reducing poverty and embarking on a path of sustainable and equitable development.

4.2.1 Risks, attitudes and incentive structures

Large Western investors, many of which are exposed to great reputational risk, are recognizing more that good corporate citizenship and strong relations with local communities are central to their profit margins and to the sustainability of their operations in African countries. This includes relations with government departments, NGOs, local communities and marginalized stakeholders, among other actors.

Conversely, the same type of investor is increasingly moving away from profitable concessions with large reputational or operational risks. Examples include the decision by Shell to exit parts of the Niger Delta in Nigeria and, arguably, the decision of BHP Billiton to try to sell its stake in the Mount Nimba iron ore project in Guinea. In the case of BHP Billiton, a fall in commodity prices and the economic slowdown in China may have also played a role.

When large multinationals sell their stake in such projects, smaller mining firms, often referred to as ‘junior’ miners, and oil and gas companies are often the buyers. These companies, often privately owned, tend to keep a low profile and run much smaller operations. They generally have a higher appetite for risk.

Publicly owned enterprises such as NOCs and other state-owned enterprises have different risk profiles altogether. Such entities increasingly act as a buffer between large risk-averse multinationals and small and/or privately owned companies, which tend to be risk-takers. NOCs and SOEs can help to create space for junior miners to

enter the market, e.g. through so-called ‘farm-outs.’ However, this model fails to take into account the shifting nature of corporate risk profiles, which can change quickly when there are a growing number of joint ventures involving international and Western companies, NOCs/SOEs and local enterprises.

Enterprises with a marked risk exposure are looking to invest in stable regulatory and legislative environments that have strong institutions, but other types of partner, such as NOCs/SOEs and juniors, are either largely immune to those risks or can hedge against them effectively.

Large or small, a company’s appetite for risk determines the opportunities that are open to it. The level of risk appetite also affects the context (regulatory, legislative and otherwise) in which a company will be willing to invest. In countries where government entities are seeking to follow a development path, the choice of private-sector partners can be decisive in strengthening, or weakening, political institutions. In general, companies seeking stable investment regimes also tend to contribute positively to the development of regulatory institutions and governance mechanisms in the host country.

Conversely, if stability depends on the rule of a small elite or a single individual, the regime may be strengthened by the presence of investors that have few concerns about public legitimacy. Global developments such as higher mineral prices, greater global competition and diminished profits outside Africa have increased mining companies’ appetite for risky investments on the continent; and the same factors may also expand the number of risk-takers operating there.

Unlike large investors, smaller companies often tend to invest over the short term (from six months up to an election cycle). They generally do not depend on stable and independent institutions to the same extent that larger operators do. They tend to rely instead on links and preferential access to individuals in order to maintain their operations, and their low involvement with institutions may ultimately undermine them.

The extent to which foreign NOCs and SOEs affect institutions depends on the strength of the institutions and on whether the country in question is following a development path. In low capacity contexts, the impact of foreign NOCs and SOEs is likely to be neutral at best, as risk is not mitigated by strong institutions but by politics, deep pockets or other tools available only to enterprises that are backed by states. The net result is that because institutions can be bypassed, they do not matter. External political and diplomatic considerations, not domestic institutions, end up shaping the investment decisions taken by NOCs and SOEs.

4.2.2 Growing public pressure for tangible benefits

As popular expectations about the benefits of natural resources grow, so do the stakes. Governments are under increasing pressure to deliver, and populations expect to benefit sooner rather than later. African governments are recognizing more the need to deliver tangible benefits to their populations. This message is being promulgated not only by development-orientated leaders and governments, which might be expected, but also by more autocratic and predatory states and elites. Being seen as having the ‘people’s interest’ at heart is becoming unavoidable for leaders, a consideration that has become more acute in view of the ‘Arab uprisings.’ Yet it is also a result of international

In general, companies seeking stable investment regimes also contribute positively to the development of regulatory institutions and governance mechanisms in a host country.

and national advocacy by international NGOs, donors and civil society groups. This is especially relevant in countries with substantial natural resources and existing or imminent mining operations, where citizens' expectations are quickly mounting.

Several countries are taking many measures to try to ensure that the extractive industries generate wider socio-economic benefits for their domestic economy. These measures include new tax regimes designed to capture the benefits of transactions between companies and local content provisions intended to reduce unemployment and to ensure at least a minimum participation by the indigenous workforce.

Other, more innovative measures may arise in different contexts. For instance, Angola has introduced legislation that requires all the domestic oil industry's financial transactions to be made in the local currency. One of the aims of this legislation is to strengthen the Angolan financial sector and its ability to finance a larger number of Angolan businesses.

The 'white elephant' development disasters of the 1970s and 1980s, coupled with widespread corruption, have left many African populations cynical about politics and political elites.

African governments are also more aware that partners matter. For many, attracting large and responsible multinationals that contribute to the country's development is a primary goal. As a result, countries are aiming to present themselves as stable and low-risk investment destinations. To do so, they are highlighting their previous investment successes, regulatory reform initiatives and fiscal and macroeconomic stability. At the same time, countries are seeking to diversify their international and corporate relations so as to ensure that no single country or enterprise has too much power.

The international legal and regulatory framework is changing too for countries and investors. The Dodd-Frank Act in the United States (which requires companies to disclose all payments to foreign governments) and similar EU legislation arguably reward well-governed countries that have predictable regimes and independent institutions by making them even more attractive as investment destinations.

4.2.3 Structural challenges

Although governments are becoming more aware of the need to attract the 'right type' of company, the general public does not always look upon the Western multinationals favourably. In some cases, there is deep suspicion of their motives. Thus many Ivorians are convinced that the international intervention in Côte d'Ivoire in 2011 was a disguised resource grab, and the dominant theme of the war in the DRC is of proxies for the West creating chaos in order to profit from resources.

Uganda is a good example of how these dynamics can influence contract negotiations. President Yoweri Museveni has encouraged popular nationalism as a way to bolster his negotiating position with IOCs. But the Ugandan population has little faith in politics, and assumes that most revenues will go to the elite anyway. As result, much of the public has thus far remained relatively unmoved. It has been more concerned with allegations of corruption against the government than with exploitation by the oil companies. If Museveni or any other political actor can mobilize the Kampala 'street', the balance of power between government and industry could shift quite radically – but no one has succeeded in doing so yet.

Foreign companies want Uganda's oil, but they do not have enough trust in the Museveni government to invest the \$10 billion that would be needed to develop key

assets in the country. They worry that in doing so, they could end up on the wrong side of an obsolescing bargain with an unscrupulous leader. Many Ugandans, thinking that Museveni would use the revenues from oil sales to shore up his regime, are not keen to see a deal done either. As Museveni is eager to obtain resource rents but is also unwilling to relinquish long-term control, the result for now is stasis.

When extractive industries fail to deliver, disputes are possible, especially when their failure is coupled with allegations of corruption or mismanagement. This scenario provides fertile ground for the emergence of populist movements or collective protests. The rallying cries of such movements inevitably centre on probity, fairness and lack of equality.

South Africa is a case in point. The country has seen a series of protests over pay and conditions in the mining sector. Julius Malema, the populist former leader of the ANC Youth League, has managed to present himself as the defender of the dissatisfied workers whose expectations have been dashed. Malema may have been encouraged and supported by certain factions of the ANC that oppose President Jacob Zuma, and in many ways his lifestyle is contradictory to the plight of workers in the mining sector. Nonetheless, he has effectively managed to articulate and capture the real grievances of many.

The botched security responses to protests and the empowerment of Malema have already damaged the country in the eyes of many investors, and there is a real risk now of a continuing downward spiral. The way in which the South African government has handled its citizens' great expectations for the extractive industries could profoundly affect the politics and future of the country. The fundamental factors at work in South Africa and elsewhere are poverty, the raised expectations of disaffected populations and the inability of governments to create equitable wealth and to fulfil expectations.

In this context, labour relations play an integral part in populism and in tensions with foreign investors. Trade unions and labour groups are increasingly assertive and are having a growing impact on policy in countries such as Zambia and Ghana as well as South Africa, among others. Governments hoping to avert labour-related unrest can look to international institutions such as the International Labour Organization (ILO) and other sources of 'best practice' to get help in handling issues such as local bargaining and labour representation. For instance, the ILO often aids African countries in fine-tuning their labour laws to fit the domestic social, economic and political context. Other initiatives are also emerging around labour, unemployment and workers' rights.

Even where locals' expectations of the resource sector are low, the presence of extractive industries can still lead to tensions. In some cases, citizens have few, if any, expectations of government in general and specifically in terms of receiving resource rents. But externalities from mining and resource extraction operations are risk factors nevertheless. This is especially the case for rural populations in resource-rich areas. Immediate and acute impacts such as forced land evictions are a clear example of those externalities, and environmental issues such as local contamination and degradation are of serious concern too. These issues enter national politics through local NGOs and increasingly sophisticated local political actors; they can ultimately cause the censure of foreign investors and the revision of partnerships. The

Labour relations play an integral part in tensions with foreign investors, and trade unions are becoming increasingly assertive in Zambia, Ghana and South Africa, among others.

environmental degradation in the Niger Delta and associated health problems are a case in point.¹⁰²

Corruption and perceptions of it are growing points of grievance for many and can catalyse protests and populist movements that challenge contracts in extractive industries. Local elites can often wield undue influence over concessions, contracts or access, and inefficiencies related to corruption can also increase the cost of operations and expose companies to greater reputational risk.

In the absence of strong institutions and with the advent of stringent new legislation such as the Dodd-Frank Act, corruption and undue elite influence are major risks to investors, notably in the mining sector. Governments may try to control them, but their efforts may be undermined by the presence of high-risk-taking firms or of other factors, such as transnational criminal and trafficking networks, that erode systems of accountability and legality.

As Western aid budgets shrink and mineral resources make up a greater proportion of African state budgets, the influence and impact of international development cooperation decline.

With regard to the institutional robustness and development of African countries, trends in development policy are also relevant. As Western aid budgets shrink and mineral resources make up a greater proportion of African state budgets, the influence and impact of international development cooperation decline. To the extent that development partnerships have contributed to reducing poverty and to building and sustaining independent institutions, this is a potential risk factor. The emergence of new donors and a shift among existing development partners away from a 'development agenda' and towards a 'prosperity agenda' could exacerbate internal tensions and jeopardize development outcomes.

Demographic trends create further challenges for the continent, which will also affect the extractive industries. According to the United Nations Population Fund, the population of sub-Saharan Africa has grown from approximately 275 million in the late 1960s to more than one billion in 2010 and is set to double by 2050.¹⁰³ Approximately 70 per cent of the population of sub-Saharan Africa are now under 30 years of age; 41.2 per cent are under the age of 15.¹⁰⁴

This new cohort of young people will be reaching adulthood in the next decade; and when they do, they will fundamentally alter the terms of the political debate. This generation sees formal politics as a mechanism for dividing resources among elites, often defined on ethnic grounds, and feels that political leaders do not have much to say to the enormous, poor and increasingly urban youth population. This new generation will probably have a very different outlook and set of aspirations from their parents. So far, this pressure has not yet found tangible political expression, but the governance of natural resources will undoubtedly be a central part of the political debate throughout the continent. Whether this new politics is globalized and outward-looking or parochial and defensive will help to shape Africa's relationship with extractives companies in the coming years.

4.2.4 Increased risk of disputes

With higher rates of natural resource exploration, discovery and production, there may be a rise in disputes and conflicts between states, especially in border areas and also within states. These conflicts could take the form of localized protests as a result of dashed expectations, as described above in the case of South Africa. They could

also break out between regions of countries. This is especially possible in countries suffering from inimical systems for managing public finances, and lacking a reliable mechanism for local and regional representation in the capital.

In these contexts, resource-rich regions or provinces may seek greater autonomy, or even secession and independence. Naturally, the central government will oppose such moves and violence may ensue. One example of this scenario can be found in Angola, where a movement has been fighting for the independence of the oil-rich enclave Cabinda for decades and where an incipient movement for autonomy, if not independence, is brewing in the diamond-rich Lunda province. The Front for the Liberation of the Enclave of Cabinda has been fighting for independence since before oil was found, but the momentum for independence accelerated when oil was discovered. Other examples include Nigeria, where internal dynamics and national politics are to a large extent determined by events in the oil-rich Niger Delta in the south of the country, and the DRC, where the province of Katanga has fought for independence and may do so again.

The case of Zanzibar and mainland Tanzania is relevant too, as national president Jakaya Kikwete and Zanzibar's president Ali Mohamed Shein agreed 'in principle' on 25 October 2012 that Zanzibar may manage its own oil and gas industry.¹⁰⁵ This may breathe new life into some of the existing deals with extractives companies that were in effect frozen owing to unclear regulatory and legislative environments. Simon Henry, the chief financial officer of Shell, stated that 'We have acreage which we haven't been developing because it's effectively under both jurisdictions' and that 'any agreement ... is good news that would enable us to have that discussion about going ahead. It's a positive step for us.'¹⁰⁶ Another case in which agreement has been reached is the Joint Development Zone between São Tomé and Príncipe and Nigeria.

The risk of conflict increases with more discoveries of natural resources in contested areas, and one truth applies in all cases: if no resources are extracted owing to conflict or another cause, the contestants would all perceive a loss of opportunity. This is especially so for minerals or hydrocarbons that are technically difficult to extract and therefore require third-party expertise. The real possibility of receiving no resource rents at all is a powerful incentive for cooperation among countries that may have resources in their border regions, especially if power relations between the countries in question are more or less balanced.

The risk of conflict increases as more discoveries are made in contested areas. But the possibility of receiving no resource rents at all is also a powerful incentive for cooperation.

4.3 Russia and Central Asia: the long shadow of the state

The Eurasian continent is rich in natural resources; they are concentrated in the Caspian basin, Siberia and the Russian Far East. Russia alone possesses the largest reserves of natural gas in the world and is the second-largest exporter of gas after Saudi Arabia. Azerbaijan and Kazakhstan are also major oil producers, and Turkmenistan is estimated to have the world's fifth-largest reserves of natural gas.

The countries that emerged following the collapse of the Soviet Union are politically, culturally and geologically diverse. Twenty years after the fall of communism, the successor states are on divergent political paths and the coherence of the post-Soviet space as a single region is increasingly being called into question. Nevertheless, the

shared Soviet legacy has led to important commonalities in the political economies of many of the successor states, ones that have wide implications for resource governance and state–business relations.

The disputes that have arisen between international extraction companies and governments have largely been determined by the institutional logic of the transition from command economy to capitalism. In the early years of independence, the post-Soviet states were characterized by dysfunctional institutions, weakly enforced property rights and low state capacity. The transition to a market economy was not accompanied by the development of strong institutions to regulate the sale and exploitation of resources in a transparent and equitable manner. A weak rule of law in all countries of the region meant that the oil and gas industry was vulnerable to rent-seeking and predatory policies by the state and other actors. In addition, the chaotic and opaque process of privatization created problems of legitimacy, which compromised companies' ability to defend their property rights.

The presence of Soviet power and the socialist command economy meant that the oil and gas industries of the region have not followed the classic resource cycle paradigm that has applied, particularly in many post-colonial contexts, since at least 1970. With the exception of Azerbaijan, which as a part of the Russian empire was the focus of major international oil ventures in the latter 19th century, the resources of the USSR were initially developed by the domestic state-controlled energy sectors. They were built virtually from scratch, with little external involvement.

4.3.1 Changing attitudes in Russia?

After the fall of communism, Russia's gas sector remained (and remains) publicly owned as the monopoly Gazprom. The oil sector, by contrast, was rapidly privatized via closed auctions, which excluded international investors. As a result, Russia became an international anomaly: a major oil-producing state in which the sector is largely in private hands. The readiness of the government to sell major energy assets could simply be attributed to the state's weakness. At any rate, it could not maintain control over assets supposedly in public hands.

With the dismemberment of Yukos and Rosneft's recent acquisition of TNK-BP, the ownership structure of Russia's oil industry has swung back towards state ownership. This partial renationalization of Russia's oil industry in the past decade has not been the consequence of a coherent ideology of state capitalism. Even as the state has consolidated control over a large portion of the oil industry, it has moved in the opposite direction in the gas sector. Moves to liberalize the domestic gas market have allowed independent producers, chiefly Novatek and Russian oil companies, to capture an increasing share of domestic production. In 2011, the state-owned Gazprom reported that independent producers accounted for 25 per cent of total domestic sales.¹⁰⁷ The Kremlin has also resisted significant nationalization of the mining sector. Except for the titanium-producer VSMPO-Avisma,¹⁰⁸ which was purchased by the state corporation Rosoboronexport in 2006, the state has not sought to build a national champion in the mining sector. The Kremlin has to date mostly avoided being drawn into the various corporate disputes between the owners of major mining assets such as Norilsk Nickel.

After the fall of communism, Russia became an international anomaly: a major oil-producing state in which the sector is largely in private hands.

Box 4.2: The TNK-BP affair

The complex politics of Russia's oil industry is well illustrated by the case of the TNK-BP. The company is a joint venture between BP and Alfa-Access-Renova (AAR), a group of powerful businessmen led by Mikhail Fridman. The deal has been immensely profitable for BP, accounting for 10 per cent of its global profits, but the company has been plagued by a range of corporate disputes driven by the Russian partners' demands for greater control of the board.

In January 2011, BP announced that it was entering a partnership with Rosneft to pursue new ventures in the Arctic. The deal collapsed in March 2011 after the Stockholm Arbitration Tribunal upheld AAR's claims that the share swap with Rosneft breached a shareholder agreement requiring BP to pursue new projects in Russia exclusively from within the TNK-BP joint venture.

BP had wrongly assumed that an alliance with the state-owned Rosneft and Igor Sechin, then deputy prime minister and one of the most powerful figures in the energy industry, would give it sufficient clout to neutralize any objections from AAR, whatever the strength of the latter's contractual position. But once the disputes came into the open, the Kremlin was not willing to fight on behalf of a foreign investor against the interests of major Russian businessmen, despite the involvement of a state-owned oil company. In June 2012, BP announced that it had received offers to purchase its stake in TNK-BP, and in October a deal was concluded to sell its share to Rosneft.

The TNK-BP affair demonstrates that the state's interests in the energy sector are neither monolithic nor clearly defined. In Russia's minerals sector, the formal categories of state versus private ownership have mattered less than the *de facto* control of mineral rents and the political and commercial actors that are bound up with them. Whether in nominally private or state hands, these assets are subject to complex informal contestation between rival elites. This was also illustrated by the failed attempt in 2004 and 2005 to merge Rosneft and Gazprom into a single state energy champion. The merger collapsed on account of competing interests within the two companies.

There is little evidence of strategic thinking in Russia's policy towards its extractive industries. It seems to be the product of conflicting decisions and divergent philosophies, reflecting a struggle for political and economic power among rival elites.¹⁰⁹ The extractive industries, oil in particular, are perceived as the keystones of domestic power, and the difficulties of diversifying Russia's economy and democratizing its institutions suggests that they will continue to be so for some time. As a result, natural resource extraction will remain the focus of political competition and conflict between elites. As the reconfiguration of the oil sector in state hands has not settled the matter of power in relation to the industry, the energy sector remains subject to a complex interplay of private and public interests, as illustrated by the TNK-BP affair (see Box 4.2).

Policy towards extractive industries in Russia seems to reflect the struggle for political and economic power among rival elites.

It is therefore unlikely that the return of the state has markedly changed the political risks for foreign operators in the oil sector. There is still no consensus within the elite about the best form of ownership and management of subsoil resources. The regulatory regime is, for this reason, likely to remain in flux, and disputes with foreign investors will continue.

Nevertheless, there are likely to be significant opportunities for international energy companies to develop partnerships with Russian energy companies in the coming decades. The geography of Russia's oil production is changing. The giant fields in western Siberia, the core of Russia's oil production for the past two decades, have now entered terminal decline. The source of Russia's future oil production is in challenging environments such as the Yamal peninsula, eastern Siberia and Sakhalin island. Fields there will be costly and technically difficult to develop. The estimated investment

A need for investment, decline in production and a widening skills gap are pushing Russia steadily in the direction of greater openness to the international oil industry.

required to maintain production to the late 2020s is expected to be double that of the early 2010s in constant dollar terms.¹¹⁰

While the global oil industry has been forced to rapidly innovate in order to maintain production levels, the Russian oil industry has largely relied on legacy assets initially developed in the Soviet period. Russian oil companies have successfully adopted new extractives techniques to extend the life of deposits in western Siberia but they lack the technical capacity to develop new fields offshore and on the continental shelf. The need for major capital investment, the decline in legacy production and a widening skills gap between domestic and foreign producers are pushing Russia steadily in the direction of greater openness to the international oil industry.¹¹¹

Similar dynamics are at work in the gas sector. Russia's energy strategy to 2030 foresees gas production increasing by half. Around 40 per cent of established gas reserves are on the continental shelf. Much of Russia's gas production already comes from onshore projects on the continental shelf but Gazprom will require foreign technology in order to develop reserves further.

The central drama of Russia's energy industry in the coming years will thus revolve around the relationships that state-owned companies build with IOCs to develop frontier oil and gas plays. As Russia struggles to maintain production levels in the face of growing technical challenges, there is in principle a renewed opportunity for major new foreign investment in the energy sector in partnership with state companies. Rosneft has led the way, forming high-profile alliances with ExxonMobil and BP to develop the Arctic shelf. It has also signed cooperation agreements with Italy's Eni and Norway's Statoil.¹¹²

As Michael Bradshaw observes, there is no reason why Russia cannot in principle develop an effective production sharing agreement (PSA) regime drawing on the lessons learned from the 1990s to support frontier oil and gas development in Sakhalin and the continental shelf.¹¹³ But the government elite has historically distrusted PSAs, regarding them as iniquitous and unsuitable to a country of Russia's level of development. As a result, only three have ever been signed.¹¹⁴ However, providing incentives for foreign investment in major new developments will require a substantial overhaul of the regulatory regime. The current tax system, which is based on production rather than profit, is a strong brake on investment, as it does not account for the higher costs involved in working on the continental shelf. Reform of the tax system would imply, at least in the short to medium term, reducing the government's take from oil production.

The fundamental problem for the elite is that Russia's dependence on oil is continuing to grow, even as the era of easy oil in Russia is coming to an end. Oil and gas account for approximately 30 per cent of Russia's GDP; oil provides nearly 40 per cent of the government's tax revenues.¹¹⁵ Reforming the oil industry in order to incentivize investment demands painful readjustments to diminished energy revenues for the sake of longer-term gains. It is unclear whether the current regime has the vision or the capacity to undertake such measures, particularly as its support is in decline. As Gustafson argues, faced with declining production and revenues, the elite may be tempted to reach for short-term remedies, by squeezing private owners and

minority foreign investors, resulting in another wave of nationalizations and renewed company–government disputes.¹¹⁶

Russia also faces major challenges to increase investment in its mining sector. It is an indictment of the country’s regulatory regime and business climate that virtually all the major mining assets in Russia were explored and initially developed in the Soviet period. With a few exceptions, such as Kinross Gold, major international mining companies are virtually absent from Russia. A white paper produced in partnership with Kinross Gold for the Russian government notes that Russia has the lowest exploration density of any major mining target country in the world.¹¹⁷

The government has made tentative moves to facilitate foreign investment in the mining sector, such as increasing the share of ‘strategic’ mining assets that can be acquired by foreign investors without government approval. Nevertheless, foreign mining firms continue to attach a high risk premium to Russian investments. This perception is unlikely to be overturned without comprehensive regulatory and institutional change. But for now, the domestic oligarchs who dominate the Russian mining sector are hamstrung by excess capacity and obsolete facilities, which they are often unable to close owing to political elites’ concern over the harmful social impacts of closures.

4.3.2 Tough climate in Kazakhstan

In Russia, the Soviet period bequeathed a large pool of expertise in resource extraction that, if not world-class, was still capable of managing production under domestic private ownership. However, this was not the case in the resource-rich Central Asian states. As a result, foreign investment in the oil and gas sectors in Kazakhstan was necessarily high, and a number of major PSAs were signed with IOCs on terms extremely favourable to the foreign energy majors. In Kazakhstan, PSAs accounted for 86 per cent of output. According to one analyst, these agreements ‘gave greater rights to the investors than anything since the colonial era’.¹¹⁸

In recent years, the response of the state has been to use administrative pressure to increase its equity in the major oil and gas projects, often at below-market rates, at significant cost to IOCs. And IOCs have not helped their position by underestimating the time and costs required to implement the various phases of production. In 2007, for example, the consortium developing the largest oil project in the country, the Kashagan field, announced that its original cost estimate of \$27 billion for the first stage of production could more than double to \$60 billion (see Box 4.3). Similar cost overruns have occurred for other projects. Foreign companies could claim with some justification that the technical difficulty of the projects makes accurate forecasting difficult and that local content requirements have led to the inflation of costs and delays owing to below-standard work conducted by subcontractors. On the other hand, given the many delays and massive increase in projected costs, the government of Kazakhstan is entitled to question whether the IOCs were really delivering on their chief comparative advantage, their supposed superiority in managing large, complex projects.

Whatever the merits of the case, the reality is that the environment has grown much more hostile for investors in the extractives sector. IOCs wishing to expand production in Kazakhstan will find the government to be a tough and sceptical

Russia faces major challenges to increase investment in its mining sector – virtually all its major mining assets were explored in the Soviet period.

In recent years, the Kazakh state has used administrative pressure to increase its equity in the major oil and gas projects, at significant cost to IOCs.

negotiating partner. The state oil company, Kazmunaigaz, which now holds stakes in all three major Caspian energy projects, will, where possible, seek to shift costs to its foreign partners, and the state may make approval of new investment projects contingent on greater equity.

Although the administrative environment for IOCs has undoubtedly become more hostile in recent years, it is noteworthy that there has been no attempt at a wholesale revision of the PSAs' terms or a bid for outright nationalization, as was the case in Russia with the Sakhalin 2 project. The stability of these agreements is somewhat surprising: oil prices have increased sharply since the PSAs were signed; the state's bargaining position has grown stronger as it has developed its domestic oil industry; and the major projects have moved from the exploration and development stages to production, thus becoming more vulnerable to contract revision.

The survival of the PSAs underlines the large constraints on resource nationalism in Kazakhstan, which are likely to remain relevant in at least the medium term. Kazakhstan possesses world-class reserves but they are expensive and technically challenging to operate. Delays and cost overruns, especially at Kashagan, reflect the difficulties associated with operating large offshore projects in harsh conditions and shallow waters, but this has been compounded by operator mismanagement and incompetence on the part of subcontractors (see Box 4.3). Kazakhstan's NOC, Kazmunaigaz, is financially overburdened and lacks the technical capacity to operate major offshore plays. Despite their occasionally fractious relationship, IOCs remain indispensable to the Kazakh government. Any attempt to comprehensively revise the PSAs could be ruinous to the government.

The Kazakh government is further constrained by foreign policy concerns. It continues to perceive its regional environment as inherently unstable and hostile. Kazakhstan's response has been to pursue a carefully crafted multi-vectored foreign policy, seeking to balance the influence and interests of China, Russia and the West and to avoid excessive reliance on any external actor. The IOCs' investment in Kazakhstan's Caspian reserves is an important part of this strategy, providing a valuable guarantee of Western diplomatic engagement. This is likely to grow in importance as the US begins to withdraw from Afghanistan.

Foreign policy concerns are also likely to mitigate the 'sovereign risk' associated with the leadership transition. President Nursultan Nazarbayev, who has ruled Kazakhstan since independence, enjoys an authority and popularity that any successor will struggle to match, at least in the short term. In the absence of a democratic process to manage leadership transition, an appeal to nationalism may well be perceived as the easiest way to strengthen the legitimacy of any successor. Foreign actors will play an important legitimating role for the new administration too, and this will afford much help in protecting the interests of major foreign investors.

Having weathered an oil price boom and the emergence of Kazakhstan's NOC, IOCs are unlikely to suffer outright nationalization, particularly now that Kazmunaigas (KMG) has a stake in all three major energy projects in the country. Instead, an uneasy equilibrium is likely to prevail in which the core PSA terms remain untouched while the government employs administrative pressure and a variety of informal mechanisms to extract additional

Kazakhstan has pursued a carefully crafted foreign policy, balancing the influence of China, Russia and the West. IOC investment is an important part of this strategy.

rents at the fringes of the contract and to influence future negotiations. For IOCs, this is likely to mean a constant low-intensity battle to defend the value of their investments. Environmental violations are likely to remain an area of great vulnerability, particularly given the technical challenges associated with oil extraction in the Caspian, such as the high sulphur content, which increase the likelihood of pollution. The government of Kazakhstan has in the past sought to impose heavy fines on IOCs for storing sulphur in the open air, for unsanctioned flaring and for harming water supplies.

Environmental violations are likely to remain an area of great vulnerability for Kazakhstan.

The dynamics of centre-region relations are also likely to play a greater role in future disputes with foreign investors. The western regions of Atyrau and Mangistau, which account for the lion's share of the country's oil production and budget revenues, are among the most socially deprived areas of the country. Protests by oil workers in Zhanaozen in December 2011, which were violently suppressed by the authorities, have underlined these asymmetries and increased pressure on elites at both the national and local levels to maintain employment and to increase social spending. But Kazakhstan's oil rents accrue centrally, and there is little scope for taxation of mineral rents at the local level. As a result, local authorities are inclined to resort to informal mechanisms, such as accusations of environmental violations, in efforts to raise funds or they may put pressure on IOCs to provide local investment.

Despite the claim by then Prime Minister Karim Massimov in 2008 that 'resource nationalism is not a policy for Kazakhstan', the government's determination to expand the role of its NOC has increasingly created tensions with IOCs. In 2005, PetroKazakhstan, a Canadian company with interests in the Turgai Basin region, was hit with new environmental and tax-related charges.¹¹⁹ It sold its stake. The China National Petroleum Corporation acquired around two-thirds of the project and KMG around one-third at a discounted price.

In 2009, the Kazakh authorities also started to put pressure on the operators of the Karachaganak field, claiming \$2.5 billion in unpaid taxes and fines for it. Karachaganak, whose consortium is led by Eni and BG, is the only major extraction project that does not involve KMG. When the state threatened to block exports, the consortium responded by using international arbitration to seek a refund for more than \$1 billion in already paid export duties. The dispute was settled in December 2011, when KMG obtained a 10 per cent stake in the project from BG and Eni. It paid \$1.5 billion for 5 per cent, receiving a further 5 per cent to settle cost recovery and other claims against the IOCs. The foreign partners also provided a \$1 billion loan, repayable in oil and gas production, to finance the acquisition. In addition, they paid \$1 billion in taxes on the deal.¹²⁰

4.3.3 Uzbekistan: the obsolescing bargain at work?

In neighbouring Uzbekistan, future disputes are possible in the gas sector in consequence of a shifting balance in production between state-owned and foreign companies. With the completion of two lines of the China–Central Asia gas pipeline, which runs through Uzbekistan, the country's leadership has set itself ambitious targets for increased eastward gas exports. Most of the Soviet-era fields operated by the state gas company Uzbekneftegaz (UNG) are in decline. In the coming years, the balance of production will shift to fields operated by foreign companies, especially

Box 4.3 The Kashagan oilfield

When Kashagan was discovered in 2000, it was hailed as the biggest oil discovery in 30 years, with an estimated 13 billion barrels of potentially recoverable oil. The original consortium included nine international partners: Eni, BG, BP Amoco, ExxonMobil, Shell, TotalFinaElf, Phillips Petroleum Co., Statoil and Inpex Masela. Eni was chosen as the project operator.

Kashagan's developers envisioned 1 million barrels of oil per day flowing by 2015, the outcome of a series of ambitious development stages. The first stage, 2002–10, would concentrate on the eastern section, which would come to yield 450,000 barrels per day. In 2010–14, production would double to 900,000 barrels; and from 2014 to 2041, Kashagan would average 1.2 million barrels per day. None of these targets were met. Problems first emerged in 2004, when Kazakhstan's government fined the consortium \$150 million for delays in the development schedule.

Kashagan is a technically difficult field. It is in an extreme, remote environment and its geology requires complex extraction techniques. Furthermore, as laws prevented flaring, the developers needed to reinject associated gas back into the reservoir. This had to be done in the shallow waters of the northern Caspian Sea, which freeze in winter, when the temperature may fall to -40°C . Cost overruns were compounded by environmental regulations that became more stringent over the first years of investment. Demands for local workers and contractors also increased, pushing up overall expenditure. The consortium appeared to underestimate both the development costs and the political anger they would incur by delaying the coming on stream of this national money-maker. In February 2007, Eni said that production at Kashagan would be delayed until 2010. Costs for the first phase, it added, would nearly double, to \$19 billion, and total costs would rise from \$57 billion to \$136 billion.

In August 2007, Kazakhstan revoked the environment permit, effectively freezing the project for at least three months while it investigated. The government later determined that Eni was 'incapable of fulfilling some of its obligations'. In September 2007, the parliament approved a law allowing the government to alter or cancel contracts with foreign oil companies if their actions were deemed to 'threaten national security'. The law did not define what could constitute a national security threat. But the law made clear that the IOCs were serving at the government's pleasure, and the government was unimpressed with their performance to date.

In January 2008, Kazmunaigas (KMG), a state energy company, doubled its share in the consortium to 16.6 per cent, with the other partners' stakes reduced proportionately. KMG paid \$1.78 billion for its stake, but Kazakhstan required Eni and its IOC partners to pay compensation of \$3.5 billion over the lifetime of the project.

Since then, the first phase has suffered further delays. It remains unclear when, if ever, the initial target of 450,000 barrels will be reached. Costs for this phase have also ballooned, to \$38 billion. Progress on the second phase is even less clear. In August 2010, Kaigeldy Kabyldin, the head of the state investment holding company Samruk, confirmed that first production from phase two would be delayed by three years until 2018. In May 2011, Shell announced that it was closing its office in Kashagan following the oil ministry's rejection of its development plans. Cost overruns, production delays and political disputes have undermined confidence and held back investment from other IOCs. Commercial oil production is now scheduled for the second half of 2013, although it is unclear what volumes will be initially produced. Negotiations regarding future expansion of the project are ongoing, and ExxonMobil and Shell have warned that they may quit the project if they are not granted greater control in the venture.^a In October 2012, ConocoPhillips announced that it would sell its 8.4 per cent share in the project.^b The original PSA expires in 2037, and the IOCs might not be able to develop the second phase quickly enough to recover their costs before expiration. As Western investors leave, China's CNPC appears poised to acquire equity in the project.

In the long run, there is a risk that losses from the cumulative impact of project delays may outweigh any investor's gains in project equity.

^a Gizitdinov (2012). ^b Paxton (2012).

those run by Russia's Lukoil at Kandym and Gissar.¹²¹ As foreign companies start to account for a greater share of production, the division of resources and revenue is likely to appear ever more inequitable to the Uzbek elite.

Uzbekistan has a poor record of respecting contractual agreements, and the level of sovereign risk in the extractive industries is quite high. The American company Newmont Mining, which operated the Muruntau gold mine, and Oxus Gold, which developed the Amantaytau field, have both sought international arbitration after disputes with regulatory authorities and state-owned companies.¹²² In the case of the gas sector, pressure on foreign investors is likely to be compounded by a general decline in UNG's share of production. Levels of future gas production and export remain uncertain, or at least not publicly available, but some form of contractual dispute seems very likely. As all gas is sold to the state authorities before being exported, the government could progressively squeeze margins in order to maximize export revenue or even seek a fundamental revision of the operating terms so as to increase its equity in the major gas plays.

As foreign companies start to account for a greater share of production, the division of revenues is likely to appear ever more inequitable to the Uzbek elite.

4.4 Main observations from the case studies

This discussion of regional examples and causes of disputes reinforces some of the received wisdom about the catalysts for disputes between extractives investors and host countries. Because the extractives sector is often vital to the economy or is a potential source of wealth and power for those who control it, the political stakes for control of it are high. Several recurring and often interlinked themes are apparent in the majority of cases of company–government tensions in the extractives sector discussed here. The most prominent themes are the impulse for political factions in the host country to seek greater benefits from its resources, perceptions of unfairness in distribution of the benefits of a project, contention over land rights and detrimental impacts of a project on the local environment.

Because the extractives sector is often vital to a country's economy, the political stakes for controlling it are high.

The cases also provide evidence of how, in this context, the cyclical changes in prices, ideologies and bargaining power described in Chapter 3 can prompt the conditions that result in company–government disputes. But they also highlight the very different ways that such disputes can play out depending on factors such as the political power configuration, historical perceptions of companies and their home countries, a changing security situation and the capacity of the country's own extractive industries.

Shifts in prices, ideologies and bargaining power influence the host government's propensity to challenge contracts, but are tempered by its need for the company politically, technically and for development.

The chapter demonstrates, for example, the obsolescing bargain at work in Kazakhstan, where the state's bargaining position has grown a great deal as major projects have moved from the exploration and development stage to production. Similarly, there are many cases in which expectations of higher global commodity prices have led to increasing pressures for contract revision. However, government action to assume greater control or to extract more revenues from the sector can be constrained by the technically challenging nature of the deposits, the foreign policy and security

concerns of a country (as is the case in Kazakhstan), or a lack of public faith in the regime (as in the case of Uganda).

The examples also show the complexity of how these cycles interact with state politics. It might be argued that the recent political trend in the resources sector has emphasized 'state capitalism', but actual patterns of ownership can depend more on competition among elites. In Russia, for example, the state has consolidated control over a large portion of the oil industry, but has encouraged private interests in the gas sector and has avoided nationalization of the mining industry. This makes the point that nominal ownership is not so important here as the informal contestation between the rival elites that stand to benefit.

Resource taxation regimes are rarely the product of a technocratic process to create optimal industry incentives and to maximize government revenues.

The phenomenon of higher mineral and oil prices in recent years (the price cycle) has increased both the appetite for risk among companies and the expectations of societies in resource-producing countries. The Australian dispute over the super-profit tax shows how resource taxation regimes are rarely the product of a technocratic process to create optimal industry incentives and to maximize government revenues. They result instead from 'a compromise between political and economic imperatives often negotiated under colossal pressure, maybe in the shadow of an impending election.'¹²³

When governments fail to deliver and there are allegations of corruption, this increases the chances of populist movements or new governments calling for radical redistribution of wealth and/or more control over the extractives sector. This also applies to countries where substantial natural resources have recently been discovered or large-scale investments are being made, as is the case in several African countries including Tanzania, Uganda and Mozambique. If high public expectations are not met – for example, owing to delayed or curtailed development, or the government's inadequate spending of the revenues – governments in these countries come under increasing pressure to act. This could lead to attempts to penalize companies or extract higher revenues.

The 'resource curse' can increase the risk of extreme action

For many of the countries covered in this section, the extractives industry-led development path has been a factor in inhibiting the emergence of independent, strong institutions capable of effectively managing the sector and spending revenue equitably and sustainably. Key institutions for regulating the sector include those for providing the legislative framework for investment, operations and decommissioning, for monitoring obligations and capacities, for ensuring the enforcement of penalties, for providing clear channels for complaints and communication and, finally, a strong and independent justice system. On the financial side, there would have to be competent tax collection and accounting agencies and institutions for managing volatile revenue (for example, a stabilization fund) and the terms of its spending, along with a host of other institutions involved in ensuring the delivery of public services. A lack of these institutions or a combination of incompetence and corruption within them has often meant inequitable distribution of resources and public distrust variously in companies and governments.

The underlying causes of this maldistribution of resources are well-covered ground under the rubric 'resource curse' or 'rentier state' theories.¹²⁴ In many cases, resource-

poor countries have evolved governments with more representative institutions owing to their economic dependence on taxation from a diverse range of productive sectors, and thus they are more likely to act in the broader public interest. By contrast, where there are large mineral or hydrocarbon resources being or to be extracted, small groups in power tend to benefit from resource rents. The capture of those rents entrenches the power of certain groups and allocative patterns of wealth distribution. This in turn creates patronage networks that discourage competition and meritocracy and encourage corruption.

Although this model of governance may not be desirable from the perspective of social equity or human rights, it certainly does not deter investors; and investments can and do continue without company–government disputes under conditions of entrenched power and corruption for long periods. But when change comes, there can be a great risk of extreme action disrupting the sector without recourse to regulatory and legal institutions to mediate company–government relations. Risks may include the potential for rebellion and institutional and legal overhauls when public frustrations boil over or a contesting faction seizes control. A desire to avoid the mistakes of the past and a range of international initiatives on good governance and transparency focused on avoiding these ills offer hope for new producers in particular.

Negative impacts of the recent boom are informing changing terms in the sector.

The impacts of windfall profits in stifling other sectors of the economy are leading to calls in many countries for better distributive models and a stronger state hand in ensuring national value creation. Some measures, such as Indonesia's regulations restricting foreign companies' autonomy have already caused disputes with mining companies operating there. But these and similar actions come in response to serious public worries about jobs and competitiveness.

A new wave of regulation, especially in East Asia, South Asia and sub-Saharan Africa, is seeking to ensure that the resource sector strengthens the rest of the economy. Simply gaining a greater share of revenue from projects will not necessarily address this issue, and may exacerbate it where the revenue cannot be spent and managed sustainably. Developing countries are looking instead to strengthen 'backward' and 'forward' linkages with the extractives sector. Forward linkages pertain to the output of the project acting as an input to the rest of the economy. For example, an oil and gas project can supply energy to other sectors; and in Indonesia's case, ores supply domestic industry. Backward linkages are the output of other sectors that are used in the project. This includes generating employment for nationals and providing local inputs for the supply chain associated with the project. This is manifest in the many changes or planned changes to local content law applying to extractives projects in Africa, for example.

Changes to laws concerning land rights and compensation for land use, as discussed above in relation to Papua New Guinea and India, are another way to address or to forestall local community objections to mining projects in view of past experience. They may also be intended to capture more rent at the capital-intensive front end of projects.

The impacts of windfall profits in stifling other sectors of the economy are leading to calls across Asia and Africa for better distributive models and stronger state involvement.

Contracts are shaped by national history and challenged by changes in the balance of power.

The cases examined in this study emphasize that the terms of a contract will reflect the specific historical legacy and experiences of the host country. The political and economic circumstances in which a particular contract is signed will change. Balances of power can shift, new regulations can come into force, economic fortunes and the perceived role of the extractive industries in the economy can change. This is almost inevitable given the decades-long nature of mining and hydrocarbons investments. And challenges to the original terms, and modifications to the terms of new contracts, often come with these changes.

Most prominent is the post-colonial or post-dictatorship phenomenon whereby deals negotiated under a power imbalance will be widely considered unfair, especially if the elites which have benefited from that wealth are no longer in power. Indonesia and the Philippines are instances of this phenomenon. There are also numerous cases in which one political faction wants to tilt the domestic political balance in its favour by playing the ‘resource-nationalist’ card and appealing to genuine local grievances. This may be at least part of the story in the case of the rise of Joseph Malema in South Africa.

Disputes often arise at the intersection of different pressures.

Although there are common triggers for company–host-country disputes, they often arise when various pressure factors coincide.

Although there are identifiable common triggers for company–host-country disputes, the nuances of individual cases show that disputes often arise when various pressure factors coincide. Overlapping incremental processes of socio-political change, such as democratization and escalating tension between the capital and regions over the distribution of wealth, in conjunction with an adverse event, e.g. a company accident or an environmental breach in an area of poor law enforcement and corruption, often create the ripest context for disputes. Box 4.4 provides a number of examples that were identified in the case studies of countries (the full versions of which can be found in the supplementary online materials) where such unresolved issues and growing tensions could contribute to future disputes with foreign investors.

In spite of the threat of disputes in many parts of the world, there is also evidence that governments in many resource-rich countries have considerable opportunities to benefit from past experience, from peer lessons on good governance and from recent international initiatives and programmes that help to build institutional capacity and to provide guidance on sector management. The next chapter considers these initiatives and lessons, and discusses how they can help to avoid disputes and improve company–government relations.

Box 4.4: Examples of potential regional flashpoints identified in the case studies

- Burma's reaction to Chinese investment. Anti-China feeling is rife in many parts of Asia. Where Chinese companies have been seen to support autocratic regimes through their investments in the past, regime change may unleash public sentiment against them.
- Contracts are being made in a shifting political and security situation in Afghanistan, which lacks effective regulation and enforcement and has much potential for corruption.
- The interplay of rival elite factions vying for control of the hydrocarbons sector in Russia. Russia's dependence on oil is continuing to grow but if adequate reforms are not made, revenues will decline and that may provoke elites to seek to extract more from private investors.
- An increasingly self-confident Kazakhstan with enhanced bargaining power in negotiations over extractives-sector deals. This confidence is likely to result in a low-intensity battle between the government and IOCs as Kazakhstan seeks additional rent.
- The dynamics of centre–region relations in which there are large variations in development between resource-rich and resource-poor regions. An example identified above is Kazakhstan, but similar observations could also be made about India, Iraq or Nigeria, among others.
- Perceptions of inequity between state and foreign companies in Uzbekistan's gas sector. As foreign companies, particularly Russian ones, begin to account for a greater share of production, the Uzbek elite may seek to revise the operating terms in its favour.
- Generational change in sub-Saharan Africa leading to potentially radical challenges to government and contractual relations with foreign investors. Growing public pressure is informed by a deep cynicism about government leaders and their declared aspiration to alleviate poverty and ethnic inequalities – particularly in the context of rapid demographic, high unemployment and the fallout from the Arab Spring. Governments will increasingly try to appear to act 'in the people's interest', which could entail a changing legal and tax environment for the extractives sector in several countries.
- The risk of a downward spiral of governance in South Africa where public attention focuses increasingly on ownership and distribution of rents in the extractives sector.
- Territorial disputes in several African countries, which could undermine particularly oil and gas investments. Examples include Sudan and South Sudan, the Corisco Bay (Equatorial Guinea–Gabon) and Lake Albert (Uganda–DRC).

5 Prospects for Improving Relations in Extractive Industries through Governance

5.1	International good governance initiatives and resources	86
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5.3	A patchy agenda relative to the scope of the challenges	92

- Global initiatives to improve governance, especially with regard to payment disclosure and revenue transparency have made remarkable progress over the last decade, but the governance agenda for extractive industries remains patchy and inadequate relative to the scope of the challenges facing the sector.
- Some countries have succeeded in establishing checks and balances that help to avoid damaging disputes and provides a stable investment climate. Some striking 'good examples' in the last few years point to innovative strategies and new avenues for governments and companies to work better together.
- A strong, independent judiciary can, for example, play a key role in defusing tensions between the government and companies and can help to push both parties to negotiate a mutually acceptable settlement.
- Similarly, public private partnerships can help local companies to upgrade skills and technologies, enabling them to participate in the value chains of extractives companies. This can be a more effective tool for creating links with the rest of the economy than blunter instruments such as export restrictions or high local content requirements.

5 Prospects for Improving Relations in Extractive Industries through Governance

Several international initiatives launched in this century focus on improving extractives-sector governance (an overview of such initiatives can be found in the supplementary online materials). There is also a body of ‘good practice’ examples of coexistence between host countries and companies, a selection of which is noted below. Together, these positive examples can provide a basis on which to reduce some of the old sources of tension. The international institutions that have been created and evolving global norms on extractives-sector governance will undoubtedly play an increasing role in government–company relations around the world. Meanwhile, companies’ concerns about competitiveness in a field where not all are playing by the same rules may be a growing area of contention.

5.1 International good governance initiatives and resources

Opaque and overly complex revenue-sharing mechanisms can lead to inefficiencies, corruption and disputes. They also engender local populations’ distrust of international companies.

Important efforts have been made to improve the transparency of revenue flows from the extractives sector, which is often criticized for its lack of transparency. For the broader public, and even for experts, it is often difficult to determine precisely between whom and how the revenues from extractive industries are distributed. Opaque and overly complex revenue-sharing mechanisms can lead to inefficiencies, corruption and disputes. They also engender local populations’ distrust of international companies.

These concerns have propelled greater extractives-sector transparency onto the global policy agenda. A number of initiatives – such as the Extractive Industries Transparency Initiative (EITI), the Revenue Watch Institute (RWI) and the Publish What You Pay (PWYP) campaign (see below) – have sought to convince governments and companies to make records of their payments and receipts publicly available.

The EITI, for example, has developed a reporting standard that allows the reconciling of remittances from extractives-sector companies to governments (‘payments’) with the receipts of governments from extractive industries (‘revenues’). These records allow for greater public scrutiny of extractives-sector proceeds, which in the past have been very difficult to track. Identifying discrepancies between payments and receipts

can also be an effective means of combating the corruption that is often associated with resource rents in producer countries.

The EITI has received growing international support: it is now being implemented in 37 countries and is supported by 70 of the world's major oil, gas and mining companies. (See the examples below of East Timor and Nigeria in which the initiative has built significant local capacity for accounting for revenue flows.) Revenue transparency is also being supported by a number of other programmes, such as the PWYP, a global network of civil society organizations with more than 650 members, and the RWI, a non-profit policy institute and grant-making organization operating in 30 countries.

This global transparency agenda has been supported by federal legislation in the United States, which forces extractives companies to disclose their payments to governments. This Cardin-Lugar Provision of the 2010 Dodd-Frank Act requires extractives companies listed or registered on US stock exchanges to disclose publicly all payments above \$100,000 to governments in any country. It applies to all stages of the mineral, oil and gas development process, from exploration and extraction to processing and export. As most internationally operating oil, gas and mining companies are US-listed, the Cardin-Lugar Provision, although a national law, is a major regulatory development for the sector with wide-ranging implications beyond US borders. Legislative pressure for payment disclosure in extractive industries will increase further through a similar EU directive that is being negotiated in Brussels.

These complementary initiatives contribute to making revenue-sharing in extractive industries more transparent in an expanding number of producer countries.

Transparency is necessary but insufficient in itself to drive good governance and more equitable revenue-sharing in the sector – a point repeatedly made by most observers, notably civil society groups. Predatory local elites in producer countries can also blunt initiatives to improve transparency in the sector. The Angolan government, for example, censured BP heavily after the company published its operational data without securing prior approval from state officials. The government sent an open letter to all oil companies operating on its territory threatening to throw BP out and ensuring that all involved understood who was in charge. No other company published data after this incident except Sonangol, the Angolan NOC. Chatham House research on Asian NOCs in Nigeria and Angola provides further evidence that elites in a number of African countries are often firmly in control of the relationship with external parties.¹²⁵

But African states and societies are not static. As in other parts of the world, African populations are holding their governments more to account. Citizens with better access to information and international news are more critical of government mismanagement, corruption, lack of basic services and inequality. The revolutions in North Africa are cases in point, but similar (if less powerful and permanent) manifestations of popular dissatisfaction have been seen in South Africa, Mozambique, Malawi, Uganda and elsewhere.

As a result, there have been a growing number of initiatives, including some not exclusively focused on the extractive industries, to provide companies with guidelines on business practices that help to prevent corruption, protect the environment and uphold human rights. They include the recently updated OECD Guidelines

Transparency is necessary but insufficient in itself to drive good governance and more equitable revenue-sharing in the sector.

for Multinational Enterprises; the 10 principles of the UN Global Compact; the Guiding Principles on Business and Human Rights (the Ruggie Framework); and the Voluntary Principles on Security and Human Rights. Similar initiatives also exist for financial institutions that provide funding for the extractives sector. Among them are the Principles for Responsible Investment and the Equator Principles.

These guidelines and principles have in common that they are voluntary in nature and mostly lack strong monitoring and enforcement mechanisms. And even though they have played an important role in raising awareness of the social and environmental impact of extractives companies among private-sector actors, their 'soft law' nature makes it difficult to assess their tangible effect on those companies' behaviour.

A number of commodity-related international initiatives have also emerged in cases where specific supply chains have been directly linked to violent conflicts. They include the diamonds-focused Kimberley Process and a series of initiatives concerned with 'conflict minerals' from the eastern DRC, chiefly tin, tantalum and tungsten. Proceeds from artisanal mining of these commodities have been used to finance combatant groups in conflicts with widespread and egregious human rights violations. In the case of diamonds, these conflicts include the civil wars in Angola, Liberia and Sierra Leone in the 1990s and early 2000s. For tin, tantalum and tungsten, supply-chain initiatives have been motivated by the use of those metals in financing the series of conflicts that have devastated the eastern DRC since the mid-1990s.

For both diamonds and the DRC-linked conflict minerals, governance approaches have concentrated on developing international certification and due diligence schemes that prevent raw materials sourced in conflict-affected regions from entering international supply chains. Under intense pressure from international NGOs and campaigning organizations such as Global Witness, extensive monitoring and enforcement mechanisms have been established, including both intergovernmental and intra-industry efforts. In the case of conflict minerals from the DRC, these efforts have been boosted by Section 1502 of the US Dodd-Frank Act, which imposes strict requirements on US-listed companies to establish the 'conflict-free' status of the tin, tantalum and tungsten used in their products. These efforts have been credited with achieving a marked reduction in the flow of those commodities from conflict regions, but their impact in terms of reducing tensions and contributing to better livelihoods in conflict-affected areas remains hotly debated.

5.2 A growing body of experience of managing state–company relations

Some countries have managed better than others in establishing a stable climate for investment and there have been some striking 'good examples' in the last few years. Nascent efforts have been made to provide better international support to developing producer countries in improving governance in the extractives sector, for example, initiatives such as the Extractive Industries Source Book, the Canadian-led Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development, and the Natural Resource Charter. They tend to draw on best-practice examples, promoting better understanding and behaviour between the parties involved. The following selected cases identify some key factors in building and maintaining

the conditions for successful company–government relations and indicate where international efforts to support better governance of the sector are helping to provide the groundwork for better future relations.¹²⁶

Chile: The role of an independent judiciary

In 2012, Chile became embroiled in one of the most serious disputes in decades with foreign investors in its thriving mining sector. A strong independent judiciary played a key role in defusing the dispute rapidly and pushing both parties to negotiate a mutually acceptable settlement.

In 1978, the small Chilean state-miner Enami sold a set of copper assets that later became known as the Sur complex to Exxon Minerals, but it retained an option to decide three years later during a one-month window whether or not to buy back 49 per cent of the project. The price would be determined by a formula based on the profits of the company over the past five years. Enami later sold the option to its fellow state-miner Codelco for \$175 million. Exxon Mobil sold the Sur complex to Anglo American for \$1.3 billion in 2002. The Sur complex, with its flagship Los Bronces mine, developed into a coveted project. In 2011, a \$2.8 billion investment by Anglo American put it on track to become one of the world's largest copper mines.

In October 2011, Codelco announced that it would exercise the option in January 2012 and buy 49 per cent of the mine at \$6.75 billion, far below the estimated market value. Taken by surprise and fearing that it would have to sell a large chunk of its flagship projects on the cheap, Anglo American responded in November by announcing that it had sold 24.5 per cent of the project for \$5.4 billion to Mitsubishi. Anglo American claimed that Codelco could still exercise its option at the agreed price in January but that it would have to settle for half of the now much smaller asset. This led to a public outcry in Chile: Anglo American was accused of trying to cheat Chileans of their copper riches. Furious Codelco officials declared the deal with Mitsubishi as illegal and promised to challenge it in court.

A bitter legal dispute ensued in Chilean courts. In many other countries, public pressure would probably have resulted in expropriation of Anglo American's assets and a long-running battle in international arbitration panels. But Chile's tradition of protecting foreign investors' rights and its fiercely independent courts meant that either side could emerge as the winner from the complex legal proceedings. Unwilling to risk a bruising defeat in the high-stakes legal battle, Anglo American and Codelco reluctantly decided to halt the legal proceedings and negotiate a face-saving compromise. In August 2012, less than a year after the dispute had begun, Codelco acquired 24.5 per cent of the project (half of what it wanted) for even less than the option price. Anglo American retained control of the project and was able to claim that compared with letting Codelco exercise its option, the Mitsubishi sale and compromise with Codelco had saved it billions.

Brazil and others: stakeholder cooperation to strengthen economic linkages

As discussed in Chapter 4, the commodity price boom of the past decade has led to even greater dependence on volatile revenues from the mining, oil and gas sectors

A strong, independent judiciary played a key role in Chile in defusing one of the most serious disputes in decades and pushing both parties to a settlement.

Brazil's economy has become increasingly dependent on its large primary sector, but has also managed to create a thriving supply sector for its growing oil and gas industries.

(in Brazil the phenomenon of countries returning to greater dependence on the primary sector has been termed *reprimarização*). This has led to a renewed emphasis on creating stronger links between extractive industries and other sectors of the economy, a long-standing goal for many producer countries. Many policy-makers aim to stimulate the growth of companies that provide support activities for oil, gas and mining companies and to encourage greater downstream processing in the country. The idea is for these backward and forward linkages to create more jobs than the capital-intensive extractives industry and help to retain more of the wealth associated with resource production in the country.

Brazil's economy has become increasingly dependent on its large primary sector, but has also managed to create a thriving supply sector for its growing oil and gas industries. This contributes nearly \$10 billion annually to the economy. The share of supplies offered by local companies has increased steadily and now makes up 75 per cent of supplies for the oil and gas sectors. A broad coalition of government, business associations, local banks, non-profit organizations and oil and gas companies has been crucial to sustaining growth in the sector and preventing investment-damaging disputes. The focus of its activities has been on increasing the skills of the local workforce and providing finance to local companies in order to stimulate the necessary investment.

Close stakeholder cooperation has played a critical role in developing strong backward and forward linkages in other countries too. In Finland, a long tradition of cooperation between industry, universities and government has created a thriving export-orientated mining support sector that is among the most advanced in the world, even though until recently the actual mining industry has developed relatively slowly.

In Chile, a country that has struggled to create strong linkages with its thriving copper sector, a greater emphasis on stakeholder cooperation is beginning to show results. A joint programme by BHP Billiton and Codelco has forged close ties with more than 60 smaller and medium-sized Chilean enterprises, and the aim is to upgrade their innovation and wider business capacity. In this way they will be able to play a stronger role in supporting the two mining companies in Chile and also to orientate themselves more towards international export markets.

Botswana and others: conservative revenue management

Botswana's export revenue depends almost entirely on the diamond industry, but it has managed to avoid many of the problems of revenue volatility afflicting other sub-Saharan African mineral-exporting countries. According to some observers, Botswana's success is chiefly attributed to the development of broad and stable political coalitions formed during its first decade of independence. As a consequence, high state capacity and pro-growth policy institutions were forged in order to maximize the returns from the diamond sector through prudent resource management.¹²⁷ Its success is also due in part to the nature of the diamond trade. There has long been a monopoly seller (De Beers), which has allowed for a relatively stable (generally upward) trend in prices. This was quite important in the early years of Botswana's independence. The country also developed a public-private partnership with De Beers in which the national company now owns a 15 per cent share.¹²⁸

Taking the route of democracy and the rule of law has meant a more stable investment environment and mutual trust between company and government. Botswana's government has managed to sustain fiscal surpluses and a steady stream of productive public investment in areas such as infrastructure, health and education. Several mechanisms help to maintain fiscal balance and economic diversification. A measure of stabilization is achieved by channelling a large share of the exchange reserves that diamond sales generate into a long-term investment fund. Another important ingredient of prudent revenue management was the development of a sustainable budget index (SBI) in the mid-1990s. The SBI is used to assess the balance between spending and productive investment in the government budget; it restricts the ability of the government of the day to spend windfalls on pet projects.

Other countries with conservative spending and investment strategies such as Chile, Norway and East Timor (see below) have also been able to generate large savings from extractive-industries revenues. These provide a strong buffer against the impact of price fluctuations and thus support a stable investment climate.

Papua New Guinea: investments with local communities

Building cooperative relations with communities affected by extractives projects requires a broad engagement that does not focus only on bargaining over rights, compensation and benefits. This is difficult in regions with persistent inequality, weak governance structures and extensive development needs, as there are large information and power asymmetries between negotiation partners.

Papua New Guinea has a long and difficult track record of tensions over mining projects, not least at the Ok Tedi mine (see Section 2.2.4). But the negotiation of agreements with locals affected by Ok Tedi in 2006 and 2007 may offer lessons about how marginalized sectors of society can be integrated into the bargaining process.

Against the background of protracted disputes and extensive damage to the local environment, the operator of the Ok Tedi mine, of which the PNG government is the main shareholder, decided to invest significant resources in the negotiation of community mine continuation agreements with elected representatives of the 156 villages affected by the project. Independent international and local facilitators selected by both parties led the negotiations, and free and independent legal, environmental and accounting advice was provided to the local community negotiators. Additionally, a former chief justice of the supreme court was engaged as an independent observer of the process, which lasted for 18 months at a cost of \$3.4 million, covered by the mining company.

The local representatives initially comprised only men, the facilitators. But the company representatives and the independent observers eventually managed to convince community leaders to include women formally in the negotiation process and to allow one female representative to take part in the top-level negotiations. The impact was substantial. Women would be represented on all relevant governance committees for the agreement, half the educational scholarships would be awarded to women and girls, cash compensations were made to family bank accounts (rather than

Building cooperative relations with communities requires a broad engagement that does not focus only on bargaining over rights, compensation and benefits.

to male clan leaders) and 10 per cent of the compensation payments would be directly administered by groups of women.

The agreements were widely perceived as a success by community and company representatives and by independent observers. However, less effort has subsequently been made to support the implementation of the agreement, and many of its goals have not been achieved in the years since the negotiations.

East Timor and Nigeria: sustained political attention on revenue transparency

Sustained attention at the highest political level has played an important role in pioneering transparency initiatives for extractives-sector revenues in East Timor and Nigeria.

Sustained attention by the highest political level has played an important role in pioneering transparency initiatives for extractives-sector revenues. After achieving independence in 2002, the then prime minister Mari Alkatiri played a crucial role in championing East Timor's efforts to build transparent and accountable institutions for managing the revenues from its rich hydrocarbon resources. Those efforts have been maintained by subsequent governments: East Timor became an EITI candidate in 2007 and the third EITI-compliant country in 2010.

The Petroleum Fund Act of 2005 requires all state revenues from natural resources to be deposited in a discrete fund. This is overseen by an independent board made up of high-level representatives from different branches of government and from political parties and civil society. Quarterly and annual reports must account for the fund's activities, including a company-by-company breakdown of revenues. The government faces strict limits in terms of the amounts it can withdraw from the fund each year, and additional withdrawals must be approved by the parliament. As a result, the fund had grown from an initial deposit of \$250 million in 2005 to nearly \$12 billion by the end of 2012. The government is also prohibited from using the fund as debt collateral. A related law requires that all new oil and gas contracts must be publicly disclosed.

In Nigeria too, the late president Olesgun Obasanjo played a leading role in Nigeria's endorsement of the EITI and the passing of a law that established the Nigeria Extractive Industry Transparency Initiative (NEITI). Especially at the important state level, Nigeria today is still a long way from the transparent and accountable use of its vast petroleum revenues.¹²⁹ All the same, the NEITI reports have made important contributions to increasing transparency at the federal level and have increased pressure on petroleum-rich states to account for their revenues in greater detail.

5.3 A patchy agenda relative to the scope of the challenges

There has been progress in identifying and targeting governance challenges in extractive industries with an array of initiatives and tools in recent years. Particularly with regard to payment disclosure, revenue transparency and stabilization funds, there are some remarkable examples of countries benefiting from the international assistance and guidance of frameworks on offer. That initiatives such as the UN Guiding Principles on Business and Human Rights or the EITI exist and have gained growing acceptance is an impressive achievement.

The cases of Chile, Botswana and others demonstrate the importance of robust institutions to govern operations in the sector, to manage revenue and to resolve

disputes in a cooperative way. Effective governance of extractive industries and maintaining cooperative state–company relations in the sector is clearly possible – there is nothing inevitable about the ‘resource curse’. Initiatives such as the Natural Resource Charter that aim to share lessons learned among producer countries are a step in the right direction.

Yet this brief survey also indicates that much more could be done. The global governance agenda for extractive industries remains patchy and inadequate relative to the scope of the challenges facing the sector. The previous chapters have repeatedly drawn attention to the political and social fragility of many resource-rich countries and the fragility of institutions governing the sector more generally. Escalating tensions between companies and producer governments are often ignored by the international community. In some cases, those tensions could undermine the stability and progress in good governance from which a number of producer countries have benefited in recent years. Many new producer countries still lack support for developing effective regulatory mechanisms to deal with the challenges of rapidly growing extractive industries, volatile revenue streams and a large influx of foreign investment in the sector.

In company boardrooms too, there is not always sufficient attention to the imperative of implementing the pledges and principles to which many major players have signed up. Some business leaders in Western multinationals have voiced concerns that growing international norms and regulations could put them at a disadvantage *vis-à-vis* state-backed competitors from emerging economies, which are not subject to the same rules. Refusing to pay bribes and being obligated to disclose payments makes business more complex in many countries. These views, however, often underplay the role of strong environmental and social performance in maintaining a resilient long-term ‘social licence to operate’. They also ignore the fact that as major state-backed extractives companies are expanding their overseas activities, they are rapidly becoming subject to the same reputational and political pressures that have led Western multinationals to accept tighter scrutiny and regulation.

Sustained attention to better governance and development goals on both sides of the company–government relationship should be an important part of efforts to create trust, avoid damaging disputes and maintain stable investment conditions.

Escalating tensions between companies and producer governments are often ignored by the international community.

State-backed companies are increasingly subject to the same reputational and political pressures that have led Western multinationals to accept tighter regulation.

6 The Outlook for Extractives Relations in a Changing Landscape

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- Solutions will have to be found at a time when the political status quo in many producer countries is being undermined by profound social and economic change. The lack of a national consensus on how subsoil resources should best be managed, and the fragility of political systems are likely to contribute to regulatory instability and tensions with investors.
- New producer countries, in particular, are at risk. Although political leaders in these countries are generally well aware of the pitfalls of extractives-led development, they still are at peril of repeating the damaging mistakes of others.
- The extent to which the extractives sector is able to develop more effective responses to intensifying global environmental pressures is an increasingly salient issue for company–government relations. From water scarcity to climate change, environmental stress is likely to become a greater source of tensions in the sector over the next two decades.
- State-backed investors and companies face an increasingly similar set of operational and investment risks to those of their private-sector counterparts. Growing overseas investment by state-backed companies from emerging economies is likely to subject them to the same fundamental dynamics that have been shaping relations between host governments and Western multinationals for a long time.

6 The Outlook for Extractives Relations in a Changing Landscape

There is a growing risk of mismatched expectations as the commodities boom faces an uncertain future.

This report has focused on the relationship between extractives companies and the governments of countries in which they invest and has examined the drivers of and conditions for disputes between them.

Company-government tensions in the extractive sector, summarized in Chapter 2, are by no means new. But the stakes have increased and the task of finding answers has reasserted itself with renewed urgency. The list of structural challenges confronting the industry is long and includes unprecedented price volatility in global commodity markets, the growing global role of state-backed investors and resource companies, and mounting environmental pressures, notably as a consequence of climate change and competition for water resources. There is also a growing risk of mismatched expectations and dashed hopes, as the decade-long commodities boom faces an uncertain future and billions of dollars of future investments have been put into limbo.

Neither conventionally understood causes of disputes nor statistical approaches for predicting dispute-prone countries can alone offer reliable indications of where serious company-government tensions may erupt. Indeed, the available evidence from international arbitration records and case studies shows that no country or type of company is immune to these disputes. The unique role of the extractives sector in the political economy of most producers combined with power asymmetries in the company-government relationship mean that contracts in the industry are inherently fragile and often fraught with tensions.

Solutions will have to be found at a time when the political status quo in many producer countries is being undermined by profound social and economic change. Governments and extractives companies are under intense public pressure to become more accountable about how and to whose benefit resource endowments are being developed. That pressure is often reinforced by the increasing speed at which information travels globally and the intensifying international scrutiny of extractives-sector investments and governance.

Together, these factors fundamentally change the context of extractives investment and require adaptation in strategic decisions about the sector's development, how it is regulated, investor approaches to wider development issues, and the way

in which contracts are drawn up. Enhanced international cooperation and joint efforts by governments, companies and development agencies are crucial to address these challenges.

6.1 Unpacking company–government tensions

6.1.1 Company–government relations in the extractives sector are innately fragile and vulnerable

The high stakes involved in extractives projects often make them subject to political intervention, by both the host-country government and the home government of the investing company. These relationships are often coloured by current and historical relations between countries or by expectations of dividends that the project will bring to citizens and groups in the host country.

The fundamental asymmetry between the resource ‘owner’ and the resource ‘producer’ further complicates the relationship. The contract is usually between a company and an institution of government, yet each party often has vastly unequal knowledge, capacity to act and political power. Ideally, these imbalances work to a mutually agreeable interdependence: the company supports the economic development of the host country by generating income from its resources while the government provides investors with access to valuable subsoil resources.

However, these imbalances also often set the context for disputes. The host government may harbour suspicions that the company will use its expertise to unduly profit from a country’s resource wealth; the company worries that sovereign power could override the commercial contract. Civil society, for its part, may be concerned that powerful extractives companies could become a ‘state within a state’ in producer countries with inadequate regulatory institutions. Conversely, the company may feel burdened by responsibilities with implications beyond its commercial remit – from building schools to being caught up in disputes between rival political elites.

6.1.2 No country or company type is immune to disputes

Despite much research, it remains unclear of precisely how political and economic characteristics impact on the likelihood of disputes. Analysis of the CHAD and the variety of cases discussed in this report shows that government–company disputes in extractive industries can occur in a wide variety of settings. BP’s legal battle over compensation for the oil spill in the Gulf of Mexico and lawsuits over shale gas royalties in the United States are illustrations of common types of disputes played out within sophisticated political and legal contexts.

Several previous studies have made the case that expropriations of company assets are more likely in undemocratic countries and that greater income inequality increases the risk of disputes. This is reinforced by case studies in Chapter 4. They highlight a company’s vulnerability to political risk in countries with weak state institutions that are ruled by a set of elites. In the absence of democratic processes, greater national control of resources may sometimes be perceived as the easiest way to strengthen the domestic legitimacy of a regime. However, Chapter 4 also shows that contracts are often challenged as the wider society gains a stronger voice in political affairs and particularly

Host governments harbour suspicions that companies try to unduly profit from a country’s resources, while companies worry that sovereign power could override contracts.

upon the fall of a dictator, when contracts signed under the old regime are deemed to be illegitimate illegitimate or illegal.

Project characteristics such as the size of a deposit can also be an important determinant of disputes. The economist Maurice Adelman once remarked that ‘a small find equals a happy landlord; a large find equals an unhappy landlord’. Larger deposits naturally attract more attention and greater expectations from policy-makers and the public, and often result in heavily politicized negotiations with investors. Much larger capital expenditure, infrastructure requirements and environmental impacts further complicate the process and raise the stakes for each party. Owing to the larger impact on local livelihoods, tensions involving mining often centre on specific operations and their impact at the community level. In contrast to this, governments and the public typically attach far greater economic and strategic significance to the petroleum sector because of its size and larger resource rents. This has meant that the oil sector has been more prone to resource-nationalist policies of various kinds.

Geopolitical considerations and foreign policy goals can influence a government's relations with foreign investors and the likelihood of disputes.

In addition, the case studies show that geopolitical considerations and foreign policy goals can influence a government's relations with foreign investors and the likelihood of disputes. Western-backed companies, for example, may be valued in parts of Central Asia as guarantors of continued interest and engagement by Western governments. Kazakhstan and Mongolia both look to Western partners to balance what they perceive to be the threatening rise of Chinese regional ambitions.

How these various factors interact is difficult to disentangle, and it is often hard to predict which countries are prone to disputes. But the country cases suggest one exception: when companies operate in states whose governments lack legitimacy and accountability, the threat of extreme or arbitrary action is heightened. This could either be once the elites which have benefited from that wealth are no longer in power or when the sector becomes subject to power struggles among elites. The question here becomes not if but when contracts will be reviewed or repudiated. Such phenomena are likely to affect government–company relations in transitioning Burma and in the post-coup Central African Republic, for example.

Bilateral investment treaties and international arbitration panels are not a panacea for these problems. Domestic public pressure can force politicians' hands, in spite of investment treaties. And ruling elites, for example in many African countries, have often regarded international arbitration as a breach of trust. Thus the filing of a case could force the claimant to leave the country and lose assets in consequence. Under these conditions, even powerful multinationals may prefer to accept changes to contracts (while complaining through informal channels) regardless of what protection arbitration clauses grant them in principle.

6.1.3 What constitutes a 'fair deal' is subject to change over time

As Chapter 3 shows, the share of revenues a government obtains from a project varies widely from country to country and often even from project to project. There is no objective model or simple formula that can determine a 'fair share' of revenues and control over resources for each party. In practice, parties have little choice other than to negotiate contractual arrangements with incomplete knowledge and with different expectations about project risks and future prices. Under these conditions, information asymmetries and differences in bargaining power become

key determinants of contractual outcomes. With expectations and assumptions on both sides often far apart, this creates potential tensions and disputes as the project gets under way.

What the company, the government or the public considers a 'fair deal' is apt to change over time, influenced by shifting power dynamics, political paradigms and market prices. Structural shifts in commodity prices can sweep away the foundation of existing revenue-sharing agreements and alter bargaining positions. As the arbitration data show, the rise of disputes taken to international arbitration is closely correlated with the rise in the price of oil. Throughout the 1990s, there was relative stability between company and government parties in the sector compared with the period after 2004. Yet the same imbalances and institutional weaknesses discussed throughout this report arguably pertained in most countries. It is clear from the case studies presented in Chapter 4 that the past decade of rising prices for many commodities has challenged contractual relationships, increased expectations and fuelled national pressures to ensure more benefits for the host country.

Shifts in political paradigms and global norms affecting the sector can, moreover, undermine the basis for contracts and challenge their legitimacy. Producer countries closely follow developments among their peers. This involves not only adopting policies that are seen as successful but also attempts to avoid the failures of others. These 'demonstration effects' can lead to a range of countries implementing similar types of policy intervention at the same time. Thus precedents set in one country – from the 50:50 profit-sharing in Venezuela in 1948 to recent lawsuits that redefine the extent of corporate liability – can inspire legislative changes or court cases in others.

6.1.4 Local and regional contexts matter

Local and regional contexts matter. Extractive industries remains segmented through infrastructural constraints or through trade and investment barriers. Gas and coal markets, for example, are still fragmented in a set of regional markets; and investment in the large extractive industries in major emerging economies such as China, India and Russia remains largely cut off from global capital markets.

The national political economy of a producer country will shape the impact of global trends on its extractive industries. They can have a very different impact on the extractive industries of different countries, depending, for example, on the level of economic development, the institutional framework or the ideological legacies that characterize a country's governance approach to the extractives sector. The impact of higher and more volatile prices is much greater in a country such as Chile, which depends on the extractives sector as a main pillar of its economy, than in, say, Mexico, where extractive industries make up a much smaller proportion of the economy. Similarly, a country may respond differently to a wave of state-backed investments from emerging economies if its state institutions are controlled by a tightly knit elite – Burma prior to the recent reforms is a case in point – than might a country such as Peru or Mongolia with a vibrant civil society that is closely monitoring the environmental and social practices of companies.

As Chapter 4 has demonstrated, tensions often become unmanageable at the intersection of specific events, country pressures and power shifts, some of which will be influenced by the global initiatives discussed in Chapter 5. Thus democratization

What the company, the government or the public considers a 'fair deal' is apt to change over time, influenced by shifting power dynamics, political paradigms and market prices.

Producer countries closely follow their peers. Precedents – from 50:50 profit-sharing in Venezuela in 1948 to recent lawsuits redefining corporate liability – can inspire legislative changes or court cases in others.

and escalating tension between the central government and regions over wealth distribution, or an environmental breach when public anger over poor law enforcement, corruption or the declining state of the economy is already high can create a ripe context for government disputes with extractives companies.

6.2 Outlook for company–government relations

This section makes six observations about the outlook and challenges that will shape the future development of company–host country relations in extractive industries. They will have ramifications for how best governments and companies can avoid damaging disputes.

6.2.1 A more nuanced view of ‘resource nationalism’

Governments have broken with the ideological and economic retreat of the state from the resource sector that characterized the 1990s. Most resource-rich countries have been seeking ways to harness their extractives sector more effectively, in the interests of broader national development goals and to capture a greater share of resource rents.

However, warnings of government encroachment and announcements of a global return to the ‘resource-nationalist’ paradigm of the 1960s and 1970s are overblown. They overlook the wide variety of nuances of actual changes in terms for companies and risk ignoring legitimate host-country concerns underpinning new measures that affect the sector.

Cases where governing parties openly embrace an aggressive resource-nationalist agenda are likely to remain the exception rather than the rule.

There are of course valid concerns about countries such as South Africa and Indonesia, where nationalist rhetoric has become a more prominent part of the public discourse on resource-sector governance. But cases such as Argentina, Venezuela, Zimbabwe and Bolivia, where governing parties openly embrace an aggressive resource-nationalist agenda, are likely to remain the exception rather than the rule.

Moreover, the imperative of attracting a steady flow of foreign capital and expertise continues to be a powerful constraint on most governments’ willingness to tear up contracts or to expropriate assets. Although keen to increase tax revenues and to encourage local processing, the governments of countries such as Peru, Mozambique, Mongolia, Zambia and Guinea are well aware of the debilitating consequences of spooking foreign investors. There have been many instances, among them the Australian super-profit tax, in which a government has announced steep tax hikes or new ownership requirements only to compromise later under pressure from industry and investors.

Successive regulatory reforms may lead governments to appropriate a larger share of resource rents, and some governments may seek to exercise greater direct control over major extractives projects – particularly in mining, where tax take and state involvement remain much smaller than in the oil and gas sector. But such changes are likely to occur incrementally and through long-running ‘low-intensity’ disputes between government and company rather than through a global wave of expropriations and nationalizations.

6.2.2 In most producer countries, regulatory regimes for extractives will remain in flux

High prices and a wave of investments by multinationals in recent years have motivated governments to bring in a series of changes to ownership rules, tax burdens and export regulations in both developing and advanced economies. During the most recent metals price spike in 2010 and 2011, for example, 25 countries increased or announced their intention to increase mining taxes and royalties.¹³⁰ Some developing countries with large extractive industries have also been pushing for more direct state control over a sector regarded as essential to the country's further economic development. This often takes the form of automatic or increased state participation, as demonstrated for example by changes to laws in Guinea and Mongolia.

Fragile political systems in many producer countries are also likely to contribute to regulatory instability. New producers face high expectations about the benefits that their resources will bring, intensifying pressure on governments to deliver. Meanwhile, some experienced emerging-economy producers are facing another bout of 'resource curse' effects, as dependence on the sector has increased and has stymied economic diversification and job creation. Governments of those countries will be under pressure to rebalance the economy and to provide more jobs, for example by trying to increase local content laws.

Fragile political systems in many producer countries are likely to contribute to regulatory instability.

As the regional cases have demonstrated, state attitudes towards the extractive industries are rarely monolithic, and many resource-rich countries lack a national consensus on how their domestic resources should best be managed. Extractive industries in most countries will continue to be subject to formal and informal contestation between rival political factions with different interests and agendas. As political fortunes change, the impact on the extractives sector in producer countries can often be immediate.

There are of course exceptions, from Middle Eastern oil producers to mining countries such as Canada, Chile and Australia. But, as the case of the Australian super-profit tax demonstrates, even in developed countries, resource-governance frameworks can be susceptible to contention or to far-reaching reform, not least in response to evolving external conditions. Changes can also cut both ways. For example, the new Mexican administration of Enrique Peña Nieto is considering changes that would allow foreign ownership for the first time since 1938. The regulatory frameworks of many of the large oil and gas producers in the Middle East seem largely static for now, but further political destabilization in the region could change the situation very quickly.

6.2.3 Price volatility will be a key source of friction in company–government relations

Price volatility can destabilize contracts between extractives companies and governments. Many contracts signed in the 1990s, for example, have been questioned or revised because they contained few provisions for dealing with the division of the extraordinary windfall profits that accrued when prices spiked several times over the past decade. Resulting attempts to raise taxes or to renegotiate contractual terms have often led to tensions with companies.

The current uncertainty and volatile outlook for prices in global metal and fossil fuel markets is likely to be a powerful driver of state–company disputes. Finding processes to better manage the sharing of fluctuating revenues and to ensure continuity of projects in volatile environments will be an important factor in creating more cooperative company–host government relations.

In many producer countries, both great expectations and policies that have been informed by the commodities boom are now being challenged by a slowdown in investments and uncertainty about future prices. As many major companies respond by postponing or cancelling the riskiest and most capital-intensive projects, disputes with producer governments counting on these projects to provide infrastructure, jobs and revenues are likely to surface. For example, governments may resort more to ‘use-it-or-lose’ arguments in order to exert pressure on companies to develop valuable deposits despite economic uncertainty.

Well-designed taxation systems, prudent revenue management and contractual provisions for the sharing of windfall profits can greatly reduce the adverse impacts of volatility.

Well-designed and flexible taxation systems, prudent revenue management and contractual provisions for the sharing of windfall profits can reduce the adverse impacts of volatility on both companies and governments to a great extent. But robust safeguards against volatility are still not in place in many producer countries. And investors have often failed to develop a candid dialogue with their hosts about how an uncertain price environment could affect the development schedules of large and complex projects and how such impacts can be managed in a cooperative manner.

6.2.4 Extractives projects pose serious challenges for new producer countries

Large extractive industries have emerged in many countries that so far have had limited experience in regulating the sector. For countries such as Mozambique and Mongolia, this has triggered rapid economic growth but has also brought a host of familiar problems. They include a lack of regulatory capacity, concerns over environmental damage and corruption, the so-called Dutch disease and growing tensions over the appropriate division of resource rents. Current interest in mining in Afghanistan and hydrocarbon development in Somalia or the Arctic region, for instance, throws up a host of new possibilities for company–community and company–government disputes.

Although governments in these new producer countries are generally well aware of the pitfalls, they still run a high risk of repeating the costly mistakes of others. A lack of both experience and technical capability in managing extractive industries creates specific challenges and the potential for tensions between sub-national groups and companies. Initial revenue-sharing agreements in Guinea or Mongolia, for example, have been criticized as being too generous towards investors, and ongoing attempts to increase the tax take and to tighten regulations have already become subject to complex disputes. Furthermore, a lack of infrastructure and a skilled workforce causes project delays and limits the ability of the local economy to benefit from extractives-sector operations. Unrealistic government expectations and a public unaware of the long time that is necessary to develop a project and recover initial investments can give rise to frustrations and tensions.

Compared with economies that have been heavily dependent on extractive industries for a long time, emerging producers may also enjoy some advantages. For example, they may have had more time to develop state institutions and oversight bodies

before they embark on mineral or hydrocarbon production. They may also benefit more effectively from international assistance from various bilateral and multilateral initiatives, such as the specialist teams at the World Bank and the IMF, or the EITI. Additionally, some new producers have already had the opportunity to establish a tax base and a diversified economy before commencing oil or mineral production. There is, for example, evidence that emerging African oil producers, such as Ghana, score better on governance indicators than do their peers with long-established oil production.

A wealth of lessons to be learned, alluded to in Chapter 5, can provide helpful pointers for emerging producers to follow. One of the most salient lessons is the need to maintain control of the pace of development in extractive industries. For countries that lack the capacity to regulate the sector properly or channel revenues effectively into broader economic development, past experience shows that there is a strong case for slowing down the development of extractive industries or sometimes even for leaving resources in the ground. Notably, countries such as Afghanistan, Iraq and Somalia that are still mired in or just emerging from conflict might be better off slowing down or postponing large-scale resource exploitation. Although it is a hard choice to make, patiently developing the sectors that employ most of the national workforce, be it agriculture, services or manufacturing, can be a more sensible option for many countries.

Increasing awareness of the value of other national resources, including water, indigenous lands, forests and sea life, is also encouraging a reassessment of the costs and benefits of opening up new areas to exploration and development. Such arguments will not easily prevail over pressures to cover rising government expenditures, pay for elites' lifestyles or alleviate poverty. However, examples such as the moratorium that the Laotian government has imposed on mineral development are an indication that delayed development is a serious policy option, above all in countries that suffer from a combination of political instability, conflict and environmental stress.

6.2.5 Environmental factors will continue to receive greater attention

The extent to which the extractives sector are able to develop effective responses to intensifying global environmental pressures, from water scarcity to climate change, is likely to become a greater source of tension in company–government relations over the next two decades.

Environmental factors create uncertainties about the patterns of production and consumption of energy and mineral resources. The problems associated with rapidly increasing consumption will be exacerbated and multiplied by the effects of climate change: the availability of water, food and other raw materials will be reduced; the risk of tension over access to resources will increase; and communities made vulnerable by their lack of resources will face mounting environmental hazards. Water and agricultural land are already scarce in many parts of the world, and are coming under more pressure from competing uses as urbanization and industrial development continue.

Environmental change will also confront companies with many of the problems associated with inadequate due diligence and unclear liability regimes that were outlined in Section 2.2.4. In the event of accidents in increasingly frequent extreme

Emerging producers may experience some advantages such as more time to develop state institutions and oversight bodies before they embark on production.

Environmental change will confront companies with many of the problems associated with inadequate due diligence and unclear liability regimes.

weather conditions, for example, questions will be asked about how prepared a company should have been in its infrastructure and safety precautions. Challenges over water and energy rights may erupt in various places, thereby increasing pressure on governments to ration or to alter allocations of those vital resources to companies.

Some of the country cases, particularly in Asia, demonstrate that there are signs that government responses to environmental damage are becoming more assertive and that disputes about land rights are figuring more prominently in government decision-making. Stronger efforts, however, will be needed in the sector in order to assess and strengthen the resilience of extraction, refining and transport infrastructure to climate change, to reduce energy and water intensity and to build more effective regulatory frameworks in many developing countries to govern the environmental impacts of extractives industries.

6.2.6 Disputes involving state-backed companies are likely to increase

Growing overseas investment by state-backed and state-owned companies (SOEs) from emerging economies is likely to make them increasingly subject to the same dynamics (described in Chapter 3) that have been shaping relations between host governments and Western multinationals (MNCs) for a long time. Despite what is sometimes suggested, state-backed investors can face very similar sets of investment risks to those of their private-sector counterparts. After having invested over \$2 billion, Brazil's state-backed miner Vale, for example, was recently forced to cancel a large potash project in Argentina owing to the country's rampant inflation and strict exchange rate controls. The incident provoked a furious response from the Argentinian government and forced Vale's top representatives to flee the country.¹³¹ Other SOEs have similarly decided to pull out from contentious projects in recent years (e.g. Petronas in Venezuela and CNPC and Lukoil in Iran).

The financing and technical capabilities of state-backed entities will undoubtedly grow further over time – but so will their concern for risk management and return on investments.

The retreat of Western multinationals from some countries considered to be high-risk over the past decade, Nigeria, Sudan and Iraq among them, may also bring new vulnerabilities to host countries. Smaller, independent companies and SOEs that are taking their place may engage less with developing-country institutions and seek to foster more direct channels of interaction with the leadership of a country. This preference for access to individuals in order to maintain their operations may play a part in undermining a country developing its institutions.

Among new issues that may spark or influence disputes are large-scale worker immigration from the SOEs' home countries to host countries and the 'package' development deals often pursued by Asian SOEs. These deals make for less clear accountability in the event of an environmental disaster or human rights breach. The more varied nature of joint ventures, involving combinations of MNCs, SOEs and smaller independent partners may also increase the complexity of liability disputes, as touched on in Section 2.2.4.

Although they are currently often less risk-averse than many Western MNCs, SOEs have so far been unwilling or unable to fill the gap left by MNCs in producer countries that have embraced aggressive forms of resource nationalism. In countries such as Venezuela or Bolivia, for example, investments by state-backed or state-owned companies have often yielded disappointing results, for both home and host countries. The financing muscle and technical capabilities of those state-backed entities will

Box 6.2: Potential fault lines for disputes

- **The post-dictatorship phenomenon:** Deals negotiated under oppressive regimes will widely be considered unfair, especially if elites which have benefited from that wealth are no longer in power. Measures taken against companies in one country could inspire similar measures in others, for instance attempts to penalize Chinese companies in Burma.
- **Unmet expectations:** Governments failing to deliver on the popular expectations in emerging producer countries. Indicators of growing tensions include allegations of corruption and the rise of populist movements calling for a radical redistribution of wealth and more control over the extractives sector, as in Mozambique.
- **Growing dependence on extractive sector:** Countries whose dependence on the mining or hydrocarbons sector continues to grow in the event of price declines or market volatility. If reforms are not adequately implemented to reduce dependence, this may encourage governments to try to squeeze more from private investors. Russia is a case in point.
- **Shifting political and security situations:** Especially in post-conflict states without effective regulation and enforcement and with a large potential for corruption, for example Afghanistan or Somalia.
- **Socio-economic inequality:** Growing tensions in countries with large discrepancies between the resource-rich and resource-poor regions. Heightening tensions may lead to a region's assertion of control over resources and an unstable regulatory environment. Kazakhstan, India, Iraq and Nigeria are examples.
- **Major environmental accident in 'frontier' or 'unconventional' projects:** This could halt similar projects in the country and beyond and result in disputes. New regulations might affect companies and such disasters may become important factors in decision-making as to how projects should proceed – and even whether they should go ahead at all.
- **A 'capital strike' by investors:** Cutbacks in investments by major players in developing countries could lead to the scaling back, delay or cancellation of ambitious flagship projects. This can result in new tensions between governments and international investors in countries that are dependent on rapid extractives-sector growth. Governments are likely to demand that companies adhere to their ambitious development schedules, and companies risk being confronted with 'use-it-or-lose-it' arguments.

undoubtedly grow further over time – but so will their concern for risk management and for adequate return on investments. As a result, governments known to be fond of tearing up contracts will not necessarily find SOEs to be easier negotiating partners than their Western counterparts.

7 Recommendations: from Conflict to Coexistence

7 Recommendations: from Conflict to Coexistence

Disputes between stakeholders in extractive industries are escalating. Many producer governments have an interest in preventing such conflicts from undermining future development prospects, while consuming countries are eager to reduce the risks of unanticipated project delays and cancellations that could exacerbate global resource insecurity. Business leaders face challenges in avoiding commercially damaging disputes and managing tensions created by their presence and operations.

Looking to the future, companies and governments will not only need to deliver tangible benefits to the local community, but will also have to demonstrate the long-term contributions of their projects to the economic well-being of the host country. Based on the analysis of the causes and drivers of conflict, this report offers the following recommendations for host governments and extractives companies.

Improving the terms of engagement

Build in flexibility at the contractual stage. Rather than focusing on rigid, ‘watertight’ agreements, companies and governments should opt for more flexible contractual arrangements with built-in response mechanisms to changing market conditions. Automatic adjustment mechanisms, such as sliding royalty scales, can help to sustain the viability of the extractives sector during a downturn, for example preventing the cancellation of projects or mass lay-offs. They also help governments to capture windfall profits during price spikes more effectively. The possibility that companies cancel, delay or downsize the project should also be explicitly addressed in the contract.

Simplify tax and regulatory frameworks for investors. In many producer countries regulatory frameworks remain patchy and unnecessarily complex. Clearer, more concise mining and petroleum laws that standardise licensing frameworks can reduce the burden of negotiation for individual licences or contracts, and can help to avoid special tax incentives or payment terms for individual projects.

Maintain dialogues with civil society, organized labour and the media as well as opposition parties. Companies’ engagement is often narrowly focused on the arm of government with which the contract was signed, relevant regulators and affected communities. Especially in the context of major projects, companies should also enter

into constructive dialogues with other stakeholder groups on a project's impact and the extent of its ability to contribute to local and national aspirations.

Raising standards of governance

Companies should align due diligence, environmental practices and transparency standards with international best practice. Evolving good governance norms and standards for sustainability will put greater pressure on companies to implement best practices. To maintain their 'social license to operate', companies should opt for international best practice in their operations, regardless of host-country rules.

Producer countries should make full use of initiatives for improving governance (e.g. with respect to revenue transparency, or assistance in training local journalists and community leaders to enhance public understanding of extractives-sector development) to strengthen accountability through capacity development and checks and balances, with the support of donor agencies. Home-country governments of extractives companies also need to implement and enforce the standards to which they sign up at the international level such as those pertaining to due diligence in the Ruggie Framework on human rights.

Clarify the liability regime and ensure that it is fit for purpose. Robust liability regimes are crucial in both influencing how companies operate and how quickly disputes are resolved. For new producers and projects, there is an opportunity to stress-test regimes against possible scenarios based on international experience and to incorporate best-practice norms. In particular, liability regimes should clearly apportion responsibility when several parties are involved in projects or when projects change ownership. It is also important to define the jurisdiction of relevant local and national courts and the competencies of different government authorities.

Planning together for the long term

Conduct a comprehensive assessment of the benefits and risks of resource developments under proposal. Countries with low institutional capacity to manage, regulate and benefit from extractives resources, especially those still mired in or just emerging from conflict, might be better off postponing resource exploitation. This is a hard choice to make in view of spending priorities, but patiently developing the sector that employs most of the national workforce, be it agriculture, services or manufacturing, is a sensible option for many countries. Even for those with sophisticated institutions and experience, careful choices need to be made where projects would degrade national assets such as major forest or sea ecosystems.

Develop national 'action plans' for the extractives sector. Governments in producer countries, with broad input from opposition parties, civil society, industry and trade unions, should develop action plans for the sector. Such plans, which could be reviewed every two to five years, should define a strategy for the development of major deposits, the role of the state in the sector, the sharing of revenues, infrastructure needs and the pace at which resources are to be developed. A step-by-

step approach that matches the pace of foreign investment and industry expansion with the development of regulatory capacity should be the priority. The plans could also set out how social and environmental impacts will be mitigated and how the sector will contribute to broader economic development. Companies can assist by giving a clear idea of what they can and cannot contribute in line with the plan through their investments.

Build public–private partnerships to channel targeted investment in local capacity.

Creating stronger forward and backward linkages from the extractives sector to the rest of the economy is a prime objective of governments, but firms in host countries often need time and support to upgrade their technology and skills base and scale up supply chains. Off-take agreements, small business loans and training programmes for local firms could be established by government agencies, with expertise and investment provided by the extractive industry. Blunter approaches such as export restrictions on unprocessed materials or unrealistically high local content requirements often backfire and can deter investment in the sector.

Prepare for volatility in investment and tax revenues with mechanisms appropriate to capacity and needs.

Most producer countries lack adequate mechanisms to protect themselves against shocks and more prudent long-term planning of revenue use will be essential. Some countries, among them Botswana, Chile and Norway, have benefited from the use of sovereign wealth or revenue stabilization funds, but their successful management remains difficult in countries with weak institutions. Policy-makers considering similar mechanisms will need to adapt them to the domestic institutional context and align them with development priorities.

Assess and adapt infrastructure plans related to the extractive industry against broader development objectives.

Multilateral institutions and donor agencies could support the development of an integrated infrastructure plan in developing producer economies which meet not only the needs of specific projects but also broader development objectives – from access to markets and urbanization planning to food and water security. This would also avoid unnecessary duplication and minimize environmental and social impacts arising from infrastructure expansion.

Defusing tensions

Create a panel of international experts to assess the terms of a new extractives agreement at the request of the host country.

This body would provide an impartial and independent source of advice for governments with limited technical capacity or experience. It could, for example, offer advice on getting the terms of a contract right, to better enable resilience and flexibility to markets and other forces of change.

Establish an independent, high-level ombudsman for dispute management.

Donor agencies could support the appointment of an independent, high-level ombudsman for the extractives sector, especially in emerging producer countries, to help defuse company–government tensions at an early stage, and to conduct public investigations into allegations of legal breaches. The scope could include, for example, allegations of environmental damage, contested land and water rights and corruption as well as human rights violations related to the extractive industries.

Endnotes

- 1 A 'contract' in this report refers to an agreement between the host government as owner of the resources and a company as the operator. As will be developed in Chapter 3, these agreements come in many different forms.
- 2 World Bank, 2009.
- 3 Williams, 2013.
- 4 Calculations based on statistics supplied by the London Stock Exchange.
- 5 Vorhees, 2011. Stock market valuations of extractives companies have declined considerably since 2011. The overall estimate presented here should nonetheless be considered as conservative.
- 6 Swint and Shiryaevskaya, 2013.
- 7 Titman, 2010.
- 8 Citi, 2012.
- 9 Liberum Capital, 2012.
- 10 Ibid.
- 11 Williams, 2013; Berthelsen, 2013.
- 12 Standard & Poor, for example, estimates capital expenditure growth in energy to register 'barely positive' growth of about 1.5 per cent in 2013 and negative growth in materials capital expenditure, -4 per cent in 2013 and -14 per cent in 2014. See Williams, 2013.
- 13 European Commission, 2013.
- 14 The case of the US-Iranian Claims Tribunal was unusual in that both parties agreed in advance to deposit \$500 million in an escrow account held by the Bank of Algeria and the Bank of England. This effectively guaranteed that both sides would receive compensation based upon the findings of the Tribunal.
- 15 Quan, 2004.
- 16 Jensen, 2008.
- 17 Fails, 2012.
- 18 Minor, 1994. For similar views, see e.g. Shirley, 1992. For a rare critical perspective, see Chua, 1995.
- 19 Morse, 1999, p. 14.
- 20 World Bank, 2009, p. 51.
- 21 AFP, 2012.
- 22 Webber and Miles, 2012.
- 23 *Economist*, 2013; Webber and Crooks, 2013.
- 24 Reuters, 2013; Mander, 2013.
- 25 Bremmer and Johnston, 2008; Joffé et al., 2009; Currie et al., 2008.
- 26 African National Congress, 2012.
- 27 MacNamara and Thompson, 2011.
- 28 Davis and Franks, 2011.
- 29 *Economist*, 2012a; Defensoria del Pueblo, 2013.
- 30 See, for example, Deutsche Welle, 2013; Harvey, 2013.
- 31 For the industry view of risks from the 'anti-fracking' movement, see Control Risks, 2012.
- 32 Robertson, 2011; BBC, 2012; Healy, 2012.
- 33 Ok Tedi Mining Ltd, 2013; BHP, 2002; Callick, 2013.
- 34 Kazmin, 2013; Vedanta Resources, 2013.
- 35 Kosich, 2012.
- 36 Jasamie, 2013.
- 37 Bowman, 2012.
- 38 Townsend, 2012; Reprisk, 2011.
- 39 Els, 2013.
- 40 For example, the 'Strategic Approach to International Chemicals Management', adopted in 2006, is an international policy framework to foster the sound management of chemicals, many of which are used extensively in the mining and oil and gas sectors.
- 41 Ogilvy et al., 2009.
- 42 World Wildlife Fund, 2013.
- 43 For the mining industry see, for example, International Council on Mining and Metals, 2013a; Hodgkinson et al., 2010; Pearce et al., 2011.
- 44 A notable exception is a recently published ICMM report. See International Council on Mining and Metals, 2013b.
- 45 Ford et al., 2011.
- 46 Azam and Li, 2010.
- 47 Ernst & Young, 2013.
- 48 Egbochue, 2013.
- 49 BP, 2011.
- 50 Emmerson and Lahn, 2012.
- 51 Chevron, 2013a.
- 52 BBC, 2011.
- 53 *Oil and Gas Journal*, 2013.
- 54 Reddall, 2013.
- 55 CNN, 2012.
- 56 MacNamara and Wheatly, 2010.
- 57 Ibid.
- 58 Burgis, 2013.
- 59 Burton, 1999.
- 60 Ok Tedi Mining Ltd, 2013.
- 61 O'Neill, 2013.
- 62 Chevron, 2013b.
- 63 Even in the few cases where deals for mineral rights can be struck with individual landowners (such as in the US), a range of approvals will have to be secured at the state and federal government level.

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- 64 A good summary of the different types of legal frameworks and their development over time can be found in Dietsche, 2013.
- 65 This discussion draws heavily on Stevens, 2008, p. 5.
- 66 Vernon, 1980.
- 67 Stevens, 2008, p. 5.
- 68 Joffé et al., 2009.
- 69 Few voices were raised against such state intervention. Those that were (predominantly the Chicago and Austrian Schools) were regarded, at best, as eccentric.
- 70 Over half a century after it was developed, the question whether the Prebisch-Singer thesis actually enjoys empirical support is still a matter of debate among economists. See Tilton, 2013.
- 71 For those with a sense of history, it will come as no surprise that exactly the same failure in the 1960s led to the gradual undermining of conventional development economics and the rise of the 'Basic Needs' development strategy: Hirschman, 1981.
- 72 Stroebel and von Benthem, 2010.
- 73 Thomas, 2012.
- 74 For a recent review see Smith, 2013.
- 75 Ibid.
- 76 Johnston, 2006, as cited in Tordo, 2007.
- 77 Ernst & Young, 2011.
- 78 Deutsche Bank, 2011.
- 79 Hogan and Goldsworthy, 2010.
- 80 Tordo, 2007.
- 81 Pay et al., 2011.
- 82 Otto, 2012.
- 83 Yap, 2013.
- 84 Daniel and Sunley, 2010.
- 85 Kasongo, 2008.
- 86 This term refers to the strengthening of exchange rates as a result of the extraction of natural resources. The stronger currency then causes other parts of the economy, notably the manufacturing sector, to suffer.
- 87 Humber, 2011.
- 88 Ibid.
- 89 Knowledge at Wharton, 2012.
- 90 Reuters, 2012.
- 91 Shimkus, 2011.
- 92 *New York Times*, 2012.
- 93 Lintner, 2012.
- 94 Mead, 2012.
- 95 AREU, 2012.
- 96 Bowley, 2012.
- 97 Global Witness, 2012; Noorani, 2011.
- 98 Sexton, 2012.
- 99 Ibid.
- 100 AREU, 2012.
- 101 Ibid.
- 102 Baumüller et al., 2011.
- 103 United Nations, Department of Economic and Social Affairs, Population Division, 2008, p. 3.
- 104 Ibid.
- 105 Ng'wanakilala, 2012.
- 106 Gismatullin, 2012.
- 107 Pirani, 2011.
- 108 In November 2012 it was announced that VSMPO-Avisma was being sold via a management buy-out. See *Moscow Times*, 2012.
- 109 Tompson, 2006.
- 110 Sutela, 2012, p. 120.
- 111 Gustafson, 2012a, p. 447.
- 112 Wiśniewska, 2012.
- 113 Bradshaw, 2010.
- 114 Ibid.
- 115 Gustafson, 2012b.
- 116 Ibid.
- 117 Kinross Gold and Foreign Investment Advisory Council of Russia, 2011.
- 118 Muttitt, 2008.
- 119 Kennedy and Nurmakow, 2010.
- 120 Gorst, 2011.
- 121 Roberts, 2011.
- 122 Ferghana Information Agency, 2012; Kozlova, 2006.
- 123 Guj, 2012.
- 124 For a review of these and more detailed analysis of this complex subject, see Stevens and Kooroshy, forthcoming.
- 125 Vines et al., 2009.
- 126 More country examples can be found as part of the Natural Resource Charter initiative at <http://naturalresourcecharter.org/content/case-studies>.
- 127 Poteete, 2009.
- 128 Natural Resource Charter, n.d.
- 129 Shaxson, 2009.
- 130 Ernst & Young, 2011.
- 131 Pearson and Webber, 2013.
- 132 A more extensive discussion of strategies and lessons for emerging producers can be found in Marcel, 2013.

References

- AFP (2012), 'Kirchner thanks opposition for support over YPF', 27 April, <http://www.rnw.nl/english/bulletin/kirchner-thanks-opposition-support-over-ypf>.
- African National Congress (2012), 'State Intervention in the Mineral Sector', ANC Policy Discussion Document, <http://anc.org.za/docs/discus/2012/sims.pdf>.
- AREU (2012), *The A to Z Guide to Afghan Assistance* (Kabul: Afghanistan Research and Evaluation Unit).
- Azam, S. and Li, O. (2010), 'Tailings Dam Failures: A Review of the Last One Hundred Years', *Geotechnical News*, www.infomine.com/library/publications/docs/Azam2010.pdf.
- Barrows, G.B. (1982), 'Petroleum and Mining Legislation: Similarities and Differences', in *Legal and Institutional Arrangements in Minerals Development* (London: Mining Journal Books Ltd).
- Baumüller, H., Donnelly, E., Vines, A. and Weimer, M. (2011), 'The Effects of Oil Companies' Activities on the Environment, Health and Development in Sub-Saharan Africa', European Parliament Committee on Development, http://www.chathamhouse.org/sites/default/files/0811ep_report_0.pdf.
- BBC (2011), 'Chevron Fined for Amazon Pollution by Ecuador Court', 15 February, <http://www.bbc.co.uk/news/world-latin-america-12460333>.
- BBC (2012), 'Bulgaria bans shale gas drilling with "fracking" method', 19 January, <http://www.bbc.co.uk/news/world-europe-16626580>.
- Berthelsen, C. (2013), 'Investors, Analysts See End of Commodity "Supercycle"', *Wall Street Journal*, 22 July, <http://online.wsj.com/article/SB10001424127887324144304578619672666497416.html>.
- BHP (2002), 'BHP Withdraws from Ok Tedi Copper Mine and Establishes Development Fund for Benefit of Papua New Guinea People', www.bhpbilliton.com/home/investors/news/Pages/Articles/BHP%20Billiton%20Withdraws%20from%20Ok%20Tedi%20Copper%20Mine%20and%20Establishes%20Development%20Fund%20for%20Benefit%20of%20Papua%20New%20Guinea.aspx.
- Blore, S. and Smillie, I. (2011), *Taming the Resource Curse: Implementing the ICGLR Certification Mechanism for Conflict-prone Minerals* (Ottawa, ON: Partnership Africa Canada), http://www.pacweb.org/Documents/icglr/PAC_Report_on_ICGLR_RCM-03-2011-eng.pdf.
- Bowley, G. (2012), 'Potential for a mining boom splits factions in Afghanistan', *New York Times*, 8 September, http://www.nytimes.com/2012/09/09/world/asia/afghans-wary-as-efforts-pick-up-to-tap-mineral-riches.html?pagewanted=all&_r=0.
- Bowman, J. (2012), 'Panel: Klamath mining approval violates ESA', *Siskiyou Daily News*, 5 June, http://www.klamathbucketbrigade.org/SiskiyouDailyNews_PanelKlamathminingapprovalviolatesESA060612.htm.
- BP (2011), 'BP Announces Settlement with Anadarko Petroleum Company of Claims Related to Deepwater Horizon Accident' (Media Release), 17 October, <http://www.bp.com/genericarticle.do?categoryId=9034548&contentId=7071856>.
- BP (2013), *Statistical Review of World Energy 2013*, www.bp.com/statisticalreview.
- Bradshaw, M. (2010), 'A New Energy Age in Pacific Russia: Lessons from the Sakhalin Oil and Gas Project', *Eurasian Geography and Economics*, 51 (3), pp. 330–59.
- Bremmer, I. and Johnston, R. (2008), 'The Rise and Fall of Resource Nationalism', *Survival: Global Politics and Strategy*, 51(2), pp. 149–158.
- Broderick, M. and Hendel-Blackford, S. (2007), 'All Change: Adapting to Consequences of Climate Change', *Mining Environmental Management*, pp. 28–29.
- Burgis, T. (2013), 'FBI makes arrest in Guinea bribery probe', *Financial Times*, 16 April, <http://www.ft.com/cms/s/0/4c0059ac-a6be-11e2-885b-00144feabdc0.html#axzz2S3LSmN19>.
- Burton, B. (1999), 'BHP admits Ok Tedi mine is environmental disaster', *Asia Times Online*, 13 August, <http://www.atimes.com/oceania/AH13Ah01.html>.
- Callick, R. (2013), 'PNG ups the ante in with BHP over Ok Tedi mine row', *The Australian*, 2 February, www.theaustralian.com.au/business/mining-energy/png-ups-the-ante-in-with-bhp-over-ok-tedi-mine-row/story-e6frg9df-1226567072656.
- Chevron (2013a), 'History of Texaco and Chevron in Ecuador: Plaintiffs' Myths, Distortions and Fabrications', <http://www.texaco.com/sitelets/ecuador/en/PlaintiffsMyths.aspx#water>.
- Chevron (2013b), 'History of Texaco and Chevron in Ecuador: Remediation', <http://www.texaco.com/sitelets/ecuador/en/remediation/default.aspx>.
- Chua, A. (1995), 'The Privatization-Nationalization Cycle: The Link Between Markets and Ethnicity in Developing Countries', Yale Law School Faculty Scholarship Series No. 342, http://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=1341&context=fss_papers.
- Citi (2012), 'Mining Capex Downside Risk Remains' (note), 3 May.
- CNN (2012), 'Supreme Court won't consider blocking \$18B judgment against Chevron', 24 October, <http://edition.cnn.com/2012/10/10/world/americas/chevron-ecuador-lawsuit>.
- Coetzee, H., Wade, P. and Winde, F. (2006), 'An Assessment of Sources, Pathways, Mechanisms, and Risks of Current and Future Pollution of Water and Sediments in the Monderfontien Spruit Catchment', WRC Report No. 1214/1/06 (Pretoria: Water Research Commission).
- Commonwealth of Australia (2009), 'Chapter 6: Land and Resource Taxes', *Australia's Future Tax System*, http://taxreview.treasury.gov.au/content/FinalReport.aspx?doc=html/publications/papers/Final_Report_Part_1/chapter_6.htm.
- Commonwealth of Australia (2010), 'The Resource Super Profits Tax: A Fair Return to the Nation', <http://taxwatch.org.au/ssl/CMS/files/cms/Announcement%20document.pdf>.
- ConceptBank (2012), 'Indonesia, Vietnam Curb raw Minerals Exports', 19 June, <http://concept-bank.com/?p=902>.
- Control Risks (2012), *The Global Anti-Fracking Movement: What It Wants, How It Operates & What's Next*, http://www.controlrisks.com/Oversized%20assets/shale_gas_whitepaper.pdf.

- Crowe, D. (2013), 'Use it or lose it, miners warned by Coalition', *The Australian*, 18 September, <http://www.theaustralian.com.au/national-affairs/use-it-or-lose-it-miners-warned-by-coalition/story-fn59niix-1226721368923>
- Crowson, P. (1998), *Inside Mining* (London: Mining Journal Books Ltd).
- Crowson, P. (2003), *Astride Mining: Issues and Policies for the Minerals Industry* (London: Mining Journal Books Ltd).
- Currie, J., Greely, D., Nathan, A., Serio, G., Dart, S., Zhang, R. and Khan, A. (2008), 'The Revenge of the Old 'Political' Economy', Goldman Sachs Commodities Research.
- Daniel, P. and Sunley, E. (2010), 'Contractual Assurances of Fiscal Stability', in Daniel, P., Keen, M. and C. McPherson, C. (eds), *The Taxation of Petroleum and Minerals: Principles, Problems and Practice* (Abingdon, UK: Routledge), pp. 405–24.
- Davis, R. and Franks, D. (2011), 'The Cost of Conflict with Local Communities in the Extractive Industry', in Proceedings of the First International Seminar on Social Responsibility in Mining, http://shiftproject.org/sites/default/files/Davis%20&%20Franks_Costs%20of%20Conflict_SRM.pdf
- Defensoría Del Pueblo (2013), *Reporte Mensual de Conflictos Sociales*, No. 113, July, <http://www.defensoria.gob.pe/modules/Downloads/conflictos/2013/Reporte-Mensual-de-Conflictos-Sociales-N-113---Julio-2013.pdf>
- Deutsche Bank (2011), 'Who Gets the Profits?' (note), 16 December.
- Deutsche Welle (2013), 'Polish Town Says No to Shale Gas', 27 June, <http://www.dw.de/polish-town-says-no-to-shale-gas/a-16911687>
- Dietsche, E. (2013), 'Sector Legal Framework and Resource Property Rights', in Dannreuther, R. and W. Ostrowski, W. (eds), *Global Resources: Conflict and Cooperation* (Houndsmill, UK: Palgrave Macmillan), pp. 159–86.
- Economist* (2012a), 'Mining in Peru: Dashed Expectations', 23 June, <http://www.economist.com/node/21557344>
- Economist* (2012b), 'The Lore of Ore: The Most Important Commodity After Oil Deserves More Attention than It Gets', 13 October, <http://www.economist.com/node/21564559>
- Economist* (2013), 'Flogging a Dead Cow: The Recently Nationalised Oil Company Agrees on a Big Foreign Investment', 27 July, <http://www.economist.com/news/americas/21582304-recently-nationalised-oil-company-agrees-big-foreign-investment-flogging-dead-cow>
- Egbochue, C. (2013), 'Reviewing "Knock for Knock" Indemnities Following the Macondo Well Blowout', *Construction Law International*, 7(4), pp. 7–14, <http://www.herbertsmithfreehills.com/-/media/Files/PDFs/2013/Reviewing%20knock%20for%20knock%20indemnities%20following%20the%20Macondo%20Well%20blowout.pdf>
- Eggert, R.G. (1994), *Mining and Economic Sustainability: National Economies and Local Communities* (Washington, DC: Resources for the Future).
- Eggert, R.G. (2002), *Mining and Economic Sustainability: National Economies and Local Communities* (London: International Institute for Environment and Development), <http://pubs.iied.org/pdfs/G00952.pdf#>
- Els, F. (2013), 'Queensland wants to take uranium mining applications next year', *Mining.com*, 14 September, <http://www.mining.com/queensland-wants-to-take-uranium-mining-applications-next-year-14286/>
- Emmerson, C. and Lahn, G. (2012), *Arctic Opening: Opportunity and Risk in the High North* (London: Lloyd's and Chatham House), <http://www.chathamhouse.org/sites/default/files/public/Research/Energy,%20Environment%20and%20Development/0412arctic.pdf>
- Environmental Protection Agency (n.d), 'Mining Operations as Nonpoint Source Pollution', <http://www.epa.gov/reg3wapd/nps/mining.html>
- Ernst & Young (2011), 'Business Risks Facing Mining and Metals 2011–2012', [http://www.ey.com/Publication/vwLUAssets/Business_risks_facing_mining_and_metals_2011-2012/\\$File/Metal_Mining_paper_02Aug11_lowres.pdf](http://www.ey.com/Publication/vwLUAssets/Business_risks_facing_mining_and_metals_2011-2012/$File/Metal_Mining_paper_02Aug11_lowres.pdf)
- Ernst & Young (2012), Análisis comparativo en material de carga fiscal para la minería en Colombia (Carbón y Oro), unpublished presentation, accessed from <http://www.mineria-responsable.com/media/presentacionresultadosprensa.pdf>
- Ernst & Young (2013), 'Business Risks Facing Mining and Metals 2013–2014', <http://www.ey.com/GL/en/Industries/Mining---Metals/Business-risks-in-mining-and-metals-2013-2014--The-focus-of-risk-has-swung>
- Eskeland, G. and Flottorp, L. (2006), 'Climate Change in the Arctic: A Discussion of the Impact on Economic Activity', in Glomsrød, S. and Aslaksen, Iulie (eds), *The Economy of the North* (Oslo: Statistics Norway).
- European Commission (2013), 'Statement by Commissioner Michel Barnier welcoming the agreement reached on disclosure requirements for the extractive industry and loggers of primary forests and on simpler accounting requirements for small companies', MEMO/13/323, 9 April, http://europa.eu/rapid/press-release_MEMO-13-323_en.htm?locale=en
- Expert Team of the Inter-Ministerial Committee under the Coordination of the Council for Geoscience (2010), 'Mine Water Management in the Witwatersrand Gold Fields with Special Emphasis on Acid Mine Drainage', Report to the Inter-Ministerial Committee on Acid mine Drainage, <http://www.dwaf.gov.za/Documents/ACIDReport.pdf>
- Fails, M. D. (2012), 'Inequality, Institutions, and the Risks to Foreign Investment', *International Studies Quarterly*, 56(3), pp. 516–29.
- Ferghana Information Agency (2012), 'British Gold Miner Files Suit Against Uzbekistan's Government', 21 September, <http://enews.fergananeews.com/news.php?id=2359&mode=snews>
- Fontanella-Khan, J. (2011), 'India lifts Karnataka iron ore export ban', *Financial Times*, 5 April, <http://www.ft.com/cms/s/0/fd1b30f6-5f74-11e0-bd1b-00144feab49a.html#axzz251V2jFKD>
- Ford, J.D., Pearce, T., Prno, J. and Duerden, F. (2011), 'Canary in a Coalmine: Perceptions of Climate Change Risks and Response Options Among Canadian Mine Operations', *Climatic Change*, 109(3), pp. 399–415.
- Gismatullin, E. (2012), 'Shell Says Tanzania-Zanzibar Oil Accord Will Advance Exploration', *Bloomberg News*, 1 November, <http://www.bloomberg.com/news/2012-11-01/shell-says-tanzania-zanzibar-oil-accord-will-advance-exploration.html>
- Gizitdinov, N. (2012), 'Exxon, Shell Said Seeking Control of \$46 Billion Kashagan', *Bloomberg News*, 30 August, <http://www.bloomberg.com/news/2012-08-30/exxon-shell-said-seeking-control-of-46-billion-kashagan-field.html>
- Global Water Intelligence (2009), 'A New Dawn for Desalination in Chile', *Global Water Intelligence*, 10(12).
- Global Witness (2012), *Getting to Gold: How Afghanistan's First Mining Contracts can Support Transparency and Accountability in the Sector* (London: Global Witness), http://www.globalwitness.org/sites/default/files/library/Getting%20to%20Gold_1.pdf
- Gooday, P. (1993), 'The Economics of Coal Export Controls', Australian Bureau of Agricultural and Resource Economics Research Report No. 93.8, http://adl.lbrs.gov.au/data/warehouse/pe_abarebrs99000264/rr93.8_coal_exports.pdf
- Gorst, I. (2011), 'Oil group secures Kazakh agreement', *Financial Times*, 14 December, <http://www.ft.com/cms/s/0/7e81ac82-2663-11e1-9ed3-00144feabd0.html#axzz2HEEnqoUu>
- Guj, P. (2012), CEMPC conference presentation, July.
- Gustafson, T. (2012a), *Wheel of Fortune: The Battle for Oil and Power in Russia* (Cambridge, MA: Harvard University Press).

- Gustafson, T. (2012b), 'Putin's Petroleum Problem', *Foreign Affairs*, November-December, <http://www.foreignaffairs.com/articles/138363/thane-gustafson/putins-petroleum-problem?page=show>.
- Harvey, F. (2013), 'Fracking protesters can remain at Balcombe until October, court rules', *The Guardian*, 16 September, <http://www.theguardian.com/environment/2013/sep/16/fracking-protesters-balcombe-court>.
- Healy, D. (2012), *Hydraulic Fracturing or 'Fracking': A Short Summary of Current Knowledge and Potential Environmental Impacts* (Ireland: Environmental Protection Agency), http://www.epa.ie/pubs/reports/research/sss/UniAberdeen_FrackingReport.pdf.
- Hirschman, A. (1981), 'The Rise and Decline of Development Economics', in *Essays in Trespassing: Economics to Politics and Beyond* (Cambridge, UK: Cambridge University Press).
- Hodgkinson, J.H., Littleboy, A., Howden, M., Moffat, K. and Loechel, B. (2010), 'Climate Adaptation in the Australian Mining and Exploration Industries', CSIRO Climate Adaptation Flagship Working Paper No. 5, <http://www.csiro.au/resources/CAF-working-papers.html>.
- Hogan, L. and Goldworthy, B. (2010), 'International Mineral Taxation: Experience and Issues', in Daniel, P., Keen, M. and McPherson, C. (eds), *The Taxation of Petroleum and Minerals: Principles, Problems and Practice* (Abingdon, UK: Routledge), pp. 122–62.
- Humber, Y. (2011), 'Mongolia Seeks Balanced Growth to Avoid "Dutch Disease" from Mining Boom', *Bloomberg News*, 8 March, <http://www.bloomberg.com/news/2011-03-08/mongolia-says-shifting-focus-to-balanced-growth-from-mining.html>.
- Hume, N. (2010), 'Australia mining tax revenues disappoint as global instability hits', *Financial Times*, 8 February, <http://www.ft.com/cms/s/0/cc5ba8b0-71ab-11e2-89fb-00144feab49a.html>.
- Humphreys, D. (2011a), 'Pricing and Trading in Metals and Minerals', in Darling, P. (ed.), *SME Mining Engineering Handbook*, 3rd Edition (Society for Mining, Metallurgy, and Exploration), pp. 49–64.
- Humphreys, D. (2011b), 'Mineral Pricing Regimes and the Distribution of Rents in the Value Chain', POLINARES Internal Working Document.
- International Council on Mining and Metals (2012), *Good Practice Guidance for Mining and Biodiversity* (London: International Council on Mining and Metals), <http://www.icmm.com/page/1182>.
- International Council on Mining and Metals (2013a), *The Cost of Carbon Pricing: Competitiveness Implications for the Mining and Metals Industry* (London: International Council on Mining and Metals), <http://www.icmm.com/page/92375/the-cost-of-carbon-pricing-competitiveness-implications-for-the-mining-and-metals-industry>.
- International Council on Mining and Metals (2013b), *Adapting to a Changing Climate: Implications for the Mining and Metals Industry* (London, UK: International Council on Mining and Metals), <https://www.icmm.com/page/92086/adapting-to-a-changing-climate-implications-for-the-mining-and-metals-industry>.
- Jasamie, C. (2013), 'Mining projects worth \$7.5bn delayed by Peru's environmental authorities', *Mining.com*, 10 January, www.mining.com/mining-projects-worth-7500-million-delayed-by-environmental-authorities-in-peru-79837/.
- Jensen, N. (2008), 'Political Risk, Democratic Institutions, and Foreign Direct Investment', *Journal of Politics*, 70(4), p. 1040-1052.
- Joffé, G., Stevens, P., George, T., Lux, J. and Searle, C. (2009), 'Expropriation of Oil and Gas Investments: Historical, Legal, and Economic Perspectives in a New Age of Resource Nationalism', *World Energy Law & Business*, 2(1), pp. 3–23.
- Johnston, D. (2006), *Course Workbook*, Libya Licensing Round, as cited in Tordo, S. (2007), *Fiscal Systems for Hydrocarbons: Design Issues* (Washington, DC: World Bank), http://siteresources.worldbank.org/INTOGMC/Resources/fiscal_systems_for_hydrocarbons.pdf.
- Kasongo, V. (2008), Vice Minister of Mines, Democratic Republic of Congo, speech at Mining Indaba, February.
- Katpatal, Y.B. and Patil, S.A. (2010), 'Spatial Analysis on Impacts of Mining Activities Leading to Flood Disaster in the Erai Watershed, India', *Journal of Flood Risk Management*, 3(1), pp. 80–87.
- Kazmin, A. (2013), 'Indian court deals new blow to Vedanta', *Financial Times*, 18 April, www.ft.com/cms/s/0/c7308a84-a821-11e2-b031-00144feabd0.html#axzz2Rl4rbnWh.
- Keane, B. (2010), 'Dear Julia, back down on RSPT. Or else. Love, the mining industry', *Crikey.com*, 3 October, <http://www.crikey.com.au/2010/06/29/dear-julia-back-down-on-rspt-or-else-love-the-mining-industry/>.
- Keohoe, J. (2010), 'Miners' Burden is Nation's Windfall', *Australian Financial Review*, 3 May, http://www.afr.com/p/national/miners_burden_is_nation_windfall_E4XyPo18dJVlJUPSdPOf2N.
- Kelly, T. and Matos, G. (compilers) (2013), *Historical Statistics for Mineral and Material Commodities in the United States*, US Geological Survey Data Series 140, <http://minerals.usgs.gov/ds/2005/140/>.
- Kennedy, R. and Nurmakow, A. (2010), 'Resource Nationalism Trends in Kazakhstan', RUSSCASP Working Papers, <http://www.fnri.no/russcasp/wp-nurmakov-kennedy-kazakhstan.pdf>.
- Kinross Gold and Foreign Investment Advisory Council of Russia (2011), 'Fostering Foreign Investment in Mineral Exploration and Development in Russia: Analysis and Recommendations Prepared for the Russian Government', http://www.cerbanet.org/intranet/Documents/Regional%20Office%20-%20Toronto/Events/2012_Mining_conference/PPT/kinrossWhitePaper17Oct2011_ENG.pdf.
- Knowledge at Wharton (2012), 'Indonesia's Economy Is Surging Forward, but Challenges Abound', 20 June, <http://knowledge.wharton.upenn.edu/article.cfm?articleid=3025>.
- Kosich, D. (2012), 'Environmentalists Appeal Newmont's Batu Hijau Subsea Gold Mine Tailings Sposal Permit', *Mineweb*, 11 April, www.mineweb.com/mineweb/content/en/mineweb-sustainable-mining?oid=149117&sn=Detail.
- Kozlova, M. (2006), 'Uzbekistan Cracks Down on Foreign Firms', *Bloomberg News*, 5 September, <http://www.businessweek.com/stories/2006-09-05/uzbekistan-cracks-down-on-foreign-firms>.
- Liberum Capital (2012), 'Miners: They Think It's All Over?' (note), 14 May.
- Lintner, B. (2012), 'Burma: Trouble Brewing for China', *Yale Global Online*, 5 November, <http://yaleglobal.yale.edu/content/burma-trouble-brewing-china>.
- MacNamara, W. and Thompson, C. (2011), 'Rio strikes deal on Guinea mine', *Financial Times*, 23 April, <http://www.ft.com/cms/s/0/cf5f9886-6d35-11e0-83fe-00144feab49a.html>.
- MacNamara, W. and Wheatly, J. (2010), 'Vale snaps up concession in Guinea', *Financial Times*, 30 April, <http://www.ft.com/cms/s/0/c10fc0ee-5481-11df-8bef-00144feab49a.html#axzz2S3LSmN19>.
- Maher, S. and David, U. (2010), 'Wayne Swan hits miners with \$38m advertising blitz', *The Australian*, 29 May, <http://www.theaustralian.com.au/politics/wayne-swan-hits-miners-with-38m-advertising-blitz/story-e6frgczf-122587272129>.
- Mander, B. (2013), 'Argentina vs Repsol: a game of chicken', *Financial Times*, 18 September, <http://blogs.ft.com/beyond-brics/2013/09/18/argentina-vs-repsol-a-game-of-chicken/#axzz2fQDdKLCs>.

- Mattangkilang, T. (2012), 'Miners blamed for flooding in East Kalimantan', *Jakarta Globe*, 12 July, www.thejakartaglobe.com/news/miners-blamed-for-flooding-in-east-kalimantan/530040
- Marcel, V. (ed.) (2013), *Guidelines for Good Governance in Emerging Oil and Gas Producers* (London: Chatham House), http://www.chathamhouse.org/sites/default/files/public/Research/Energy,%20Environment%20and%20Development/0913pp_marcel.pdf
- McPherson, C. (2010), 'State Participation in the Natural Resource Sectors: Evolution, Issues and Outlook', in Daniel, P., Keen, M. and McPherson, C. (eds), *The Taxation of Petroleum and Minerals: Principles, Problems and Practice* (Abingdon, UK: Routledge), pp. 263–89.
- Mead, W.R. (2012), 'Game of thrones: Laos & Cambodia stay close to China', *The American Interest*, 25 October, <http://blogs.the-american-interest.com/wrm/2012/10/25/game-of-thrones-laos-cambodia-stay-close-to-china/>
- Minor, M. (1994), 'The Demise of Expropriation as an Instrument of LDC Policy, 1980-1992', *Journal of International Business Studies*, 25(1), pp. 177–88.
- Morse, E.L. (1999), 'A New Political Economy of Oil?', *Journal of International Affairs*, 53(1), pp. 14–29.
- Moscow Times (2012), 'Russian technologies selling titanium maker', 28 November, <http://www.themoscowtimes.com/business/article/russian-technologies-selling-titanium-maker/472068.html>
- Muttitt, G. (2008), *Hellfire Economics Multinational Companies and the Contract Dispute over Kashagan, the World's largest Undeveloped Oilfield* (London: Platform), http://www.carbonweb.org/documents/hellfire_economics.pdf
- Natural Resource Charter (n.d), *Botswana – Partnership as a Strategic Choice*, <http://naturalresourcecharter.org/sites/default/files/Botswana%20strategic%20partnerships.pdf>
- Nehring, R. (2009), 'Traversing the Mountaintop: World Fossil Fuel Production to 2050', *Philosophical Transactions of the Royal Society B*, 364, pp. 3067–79.
- Nelson, J. and Schuchard, R. (2011), 'Adapting to Climate Change: A Guide for the Mining Industry', BSR Industry Series, http://www.bsr.org/reports/BSR_Climate_Adaptation_Issue_Brief_Mining.pdf
- New York Times (2012), 'Mongolia', updated 16 July, <http://topics.nytimes.com/top/news/international/countriesandterritories/mongolia/index.html>
- Ng'wanakilala, F. (2012), 'Zanzibar says Reaches Deal with Tanzania on Oil, Gas Revenues', Reuters, 25 October, <http://uk.reuters.com/article/2012/10/25/tanzania-zanzibar-exploration-idUKL5E8LP0KK20121025>
- Noorani, J. (2011), *Hajigak – the Jewel of Afghan Mine* (Kabul: Integrity Watch Afghanistan), http://www.iwaweb.org/Reports/PDF/Hajigak-The_Jewel_of_Afghanistan-2011.pdf
- Ogilvy, R.D., Kuras, O., Palumbo-Roe, B., Meldrum, P.L., Wilkinson, P.B., Chambers, J.E. and Klinck, B.A. (2009), 'The Detection and Tracking of Mine-Water Pollution from Abandoned Mines using Electrical Tomography', *International Mine Water Conference Proceedings Pretoria*, http://www.imwa.info/docs/imwa_2009/IMWA2009_Ogilvy.pdf
- Oil and Gas Journal* (2013), 'Tribunal Supports Chevron in Ecuador Case', 18 September, <http://www.ogj.com/articles/2013/09/tribunal-supports-chevron-in-ecuador-case.html>
- Ok Tedi Mining Ltd (2013), 'PNG Sustainable Development Program Ltd', http://www.oktedi.com/index.php?option=com_content&view=article&id=61&Itemid=70
- O'Neill, P. (2013), 'Ok Tedi: facts from fiction', *Post Courier*, 3 April, <http://ramumine.wordpress.com/2013/04/03/ok-tedi-facts-from-fiction/>
- Otto, J. (2004), 'International Comparative Tax Regimes', 50 *Rocky Mountain Mineral Law Institute*, 17, pp. 1–45.
- Otto, J. (2007), *Mining Royalties: A Global Study of Their Impact on Investors, Government, and Civil Society* (Washington, DC: World Bank).
- Otto, J. (2012), interview, June.
- Paxton, R. (2012), 'Kazakhstan Sets Eyes on ConocoPhillips Kashagan Stake', Reuters, 2 October, <http://www.reuters.com/article/2012/10/02/us-oil-kazakhstan-kashagan-idUSBRE89104J20121002>
- Pay, J., Edjua, T., Lewis, D., Honeywood, K., Giustini, T. and Barry, A. (2011), 'Guinea's new mining code: Significant changes in a key mining jurisdiction', Clifford Chance Client briefing, http://www.cliffordchance.com/publicationviews/publications/2011/09/guinea_s_new_miningcodesignificantchangesi.html
- Pearce, T.D., Ford, J.D., Prno, J. and Frank, D. (2011), 'Climate Change and Mining in Canada', *Mitigation and Adaptation Strategies for Global Change*, 16(3), pp. 347–68.
- Pearson, S. and Webber, J. (2013), 'Vale doubles cost of potash project', *Financial Times*, 18 March, <http://www.ft.com/cms/s/0/cd0ce46a-8ff4-11e2-ae9e-00144feabdc0.html>
- Pirani, S. (2011), 'Liberalisation Heralds Change in Russian Gas Market', *Russian Analytical Digest* No. 100, <http://www.css.ethz.ch/publications/pdfs/RAD-100.pdf>
- Platts (2012), 'Indonesia's Nickel Export Restrictions to Support Prices: Citigroup', 31 May, <http://www.platts.com/latest-news/metals/London/Indonesias-nickel-export-restrictions-to-support-8347036>
- Poteete, A. (2009), 'Is Development Path Dependent or Political? A Reinterpretation of Mineral-Dependent Development in Botswana', *Journal of Development Studies*, 45(4), pp. 544–71.
- Price, A. and Nance, S. (2010) 'Export Barriers and the Steel Industry', in OECD, *The Economic Impact of Export Restrictions on Raw Materials* (Paris: OECD Publishing).
- Price, A., Brightbill, T., Weld, C., Capito, C. and Morgan, R. (2008), 'Raw Deal: How Governmental Trade Barriers and Subsidies are Distorting Global Trade in Raw Materials', American Scrap Coalition report, <http://legacy.steel.org/AM/Template.cfm?Section=Home&CONTENTID=26678&TEMPLATE=/CM/ContentDisplay.cfm>
- PwC (2013), *Mine, a Confidence Crisis: Review of Global Trends in the Mining Industry*. <http://www.pwc.com.au/industry/energy-utilities-mining/assets/Mine-May13.pdf>
- Quan, L. (2004), 'Democracy, Autocracy, and Tax Incentives to Foreign Direct Investors: A Cross-Border Analysis', *Journal of Politics*, 68(1), pp. 62–74, http://people.tamu.edu/~quanli/research_papers/reprint_files/JOP_2006_fdiincentive.pdf
- Reddall, B. (2013), 'Tribunal Presses Ecuador to Halt Chevron Case Enforcement', Reuters, 24 October, <http://www.reuters.com/article/2013/02/09/chevron-ecuador-idUSL1N0B8FBB20130209>
- Reprisk (2011), 'Most Controversial Mining Companies of 2011', <http://uk.reuters.com/article/2012/10/25/tanzania-zanzibar-exploration-idUKL5E8LP0KK20121025>
- Reuters (2012), 'Indonesia Digs Hole for Itself with New Mining Laws', 1 October, <http://www.reuters.com/article/2012/09/30/indonesia-mining-explorers-idUSL4E8K03WT20120930>
- Reuters (2013), 'Argentina Set to Offer Repsol \$1.5 bln for YPF – Report', 18 September, <http://www.reuters.com/article/2013/09/18/argentina-repsol-idUSL2N0HEOTE20130918>

- Roberts, J. (2011), 'Uzbekistan: Diversified Gas Exports', *Platts Energy Economist*, July.
- Robertson, H. (2011), 'France revokes all shale permits', *Petroleum Economist*, 11 October, <http://www.petroleum-economist.com/Article/2911785/France-revokes-all-shale-permits.html>.
- Sexton, R. (2012), *Natural Resources and Conflict in Afghanistan: Seven Case Studies, Major Trends and Implications for the Transition* (Kabul: Afghanistan Watch), http://www.watchafghanistan.org/files/Natural_Resources_and_Conflict_in_Afghanistan/Natural_Resources_and_Conflict_in_Afghanistan_Full_Report_English.pdf.
- Shanahan, D. (2010), 'Tax hits ALP in marginals', *The Australian*, 7 June, <http://www.theaustralian.com.au/news/mining-tax-hits-alp-in-marginals/story-e6frg6n6-1225876227892>.
- Shaxson, N. (2009), 'Nigeria's Extractive Industries Transparency Initiative: Just a Glorious Audit?', Chatham House Programme Paper, http://eiti.org/files/NEITI_just%20a%20glorious%20audit.pdf.
- Shimkus, J. (2011), 'New Mining Act to Make India Highest Taxed Country', *Energy Digital*, 12 August, http://www.energydigital.com/global_mining/new-mining-act-to-make-india-highest-taxed-country.
- Shirley, M. (1992), 'The What, Why, and How of Privatization: A World Bank Perspective', *Fordham Law Review*, 60(6), pp. 23–36, <http://ir.lawnet.fordham.edu/cgi/viewcontent.cgi?article=2976&context=flr>.
- Smith, J. (2013), 'Issues in Extractive Resource Taxation: A Review of Research Methods and Models', *Resources Policy*, 38(3), pp. 320–31.
- Solomon, M. (2012), 'The Rise of Resource Nationalism: A Resurgence of State Control in an Era of Free Markets or the Legitimate Search for a New Equilibrium?' (Cape Town: Southern African Institute of Mining and Metallurgy), <http://www.saimm.co.za/Conferences/ResourceNationalism/ResourceNationalism-20120601.pdf>.
- Stevens, M. (2010), 'Xstrata stunned by Wayne Swan's committee', *The Australian*, 13 May, <http://www.theaustralian.com.au/business/xstrata-stunned-by-wayne-swans-committee/story-e6frg8zx-1225865738215>.
- Stevens, P. (2008), 'National Oil Companies and International Oil Companies in the Middle East: Under the Shadow of Government and the Resource Nationalism Cycle', *World Energy Law & Business*, 1(1), pp. 5–30.
- Stevens, P. and Kooroshy, J. (forthcoming), *The Resource Curse Revisited* (London: Chatham House).
- Stroebel, J. and von Benthem, A. (2010), 'Resource Extraction Contracts under Threat of Expropriation: Theory and Evidence', USAEE Working Paper No. 10-042, http://knowledge.wharton.upenn.edu/papers/download/11192012_Oil_Contracts_Paper.pdf.
- Sutela, P. (2012), *The Political Economy of Putin's Russia* (London: Routledge).
- Swint, B. and Shiryayevskaya, A. (2013), 'Rosneft Tops Exxon With 5% of World Oil in Soviet-Era Wells', *Bloomberg News*, 22 March, <http://www.bloomberg.com/news/2013-03-22/rosneft-overtakes-exxon-with-5-of-world-oil-in-soviet-era-wells.html>.
- Taverne, B. (1999), *Petroleum, Industry and Governments* (London: Kluwer Law International Ltd).
- Taylor, L. (2010), 'A tinder-dry mood and the sparks fly', *Sydney Morning Herald*, 24 June, <http://www.smh.com.au/federal-politics/political-opinion/a-tinderdry-mood-and-the-sparks-fly-20100623-yz8t.html>.
- Thomas, H. (2012), 'Mining Industry Braced for Pullback', *Financial Times*, 6 May, <http://www.ft.com/cms/s/0/05645a82-960e-11e1-a6a0-00144feab49a.html#axzz2dpoTBmz>.
- Tilton, J. (2013), 'The Terms of Trade Debate and the Policy Implications for Primary Product Producers', *Resources Policy*, 38(2), pp. 196–203.
- Titman, S. (2010), 'More Thoughts on the Value of Saudi Aramco', *Energy Insights Blog*, 10 March, <http://blogs.mcombs.utexas.edu/titman/2010/03/01/more-thoughts-on-the-value-of-saudi-aramco/>.
- Tompson, W. (2006), 'A Frozen Venezuela? The Resource Curse and Russian Politics', in Ellman, M. (ed.), *Russia's Oil and Natural Gas: Bonanza or Curse?* (London: Anthem), pp. 189–212.
- Tordo, S. (2007), *Fiscal Systems for Hydrocarbons: Design Issues* (Washington, DC: World Bank), <http://elibrary.worldbank.org/doi/pdf/10.1596/978-0-8213-7266-1>.
- Townsend, D. (2012), 'Australian Uranium Law Update: Queensland Lifts its Uranium Mining Ban', Norton Rose briefing, www.nortonrose.com/knowledge/publications/72029/australian-uranium-law-update-queensland-lifts-its-uranium-mining-ban.
- UNCTAD (United Nations Conference on Trade and Development) (2011), *World Investment Report 2011: Non-equity Modes of International Production and Development* (Geneva: UN), <http://www.unctad-docs.org/files/UNCTAD-WIR2011-Full-en.pdf>.
- United Nations, Department of Economic and Social Affairs, Population Division (2008), 'World Population Prospects: The 2008 Revision', Working Paper No. ESA/P/WP.210, http://www.un.org/esa/population/publications/wpp2008/wpp2008_highlights.pdf.
- Vedanta Resources (2013), 'Annual Report and Accounts 2013', <http://www.vedantaresources.com/media/126374/vedantafy2013ar.pdf>.
- Vernon, R. (1980), 'The Obsolescing Bargain: A Key Factor in Political Risk', in Mark, B. (ed.), *The International Essays for Business Decision Makers*, 5th edition (Winchester, Houston: Centre for International Business).
- Vines, A., Wong, L., Weimer, M. and Campos, I. (2009), *Thirst for African Oil: Asian National Oil Companies in Nigeria and Angola* (London: Chatham House), http://www.chathamhouse.org/sites/default/files/r0809_africanoil.pdf.
- Voorhees, D. (2011), 'Extractive Sector Companies Listed on Global Stock Exchanges Revisited', Revenue Watch Institute briefing, <http://www.snap-undp.org/DemocraticGovernanceTempDocumentLibrary/RWI%20Global%20Listings%20Report%20June%202011.pdf>.
- Wade, P., Woodbourne, S., Morris, W., Vos, P. and Jarvis, N. (2002), 'Tier 1 Risk Assessment of Radionuclides in Selected Sediments of the Mooi River', WRC Report 1095/1/02 (Pretoria: Water Research Commission), <http://www.wrc.org.za/Knowledge%20Hub%20Documents/Research%20Reports/1095-1-02.pdf>.
- Webber, J. and Crooks, E. (2013), 'Chevron back in Argentina with \$1.2bn deal', *Financial Times*, 17 July, <http://www.ft.com/cms/s/0/cb5d67de-ee5e-11e2-a325-00144feabdc0.html?siteedition=intl#axzz2fLpSftt2>.
- Webber, J. and Miles, J. (2012), 'Repsol warns rivals over investing in YPF', *Financial Times*, 7 May, <http://www.ft.com/cms/s/0/a401e746-9860-11e1-8617-00144feabdc0.html>.
- Williams, G. (2013), 'Global Corporate Capital Expenditure Survey 2013', Standard & Poor Ratings Direct, 10 July, <http://www.ft.com/cms/a71a3892-f5cb-11e2-a55d-00144feabdc0.pdf>.
- Wilson, S. (2013), 'Australian Prime Minister-elect Tony Abbot vows to revive mining boom', *The Daily Telegraph*, 8 September, <http://www.telegraph.co.uk/news/worldnews/australiaandthepacific/australia/10294043/Australian-Prime-Minister-elect-Tony-Abbott-vows-to-revive-mining-boom.html>.
- Wiśniewska, I. (2012), 'Natural Resources on the Russian Continental Shelf: Foreign Investors Sought ... on Russian Terms', *Centre for Eastern Studies*, 9 May, <http://www.osw.waw.pl/en/publikacje/osw-commentary/2012-05-09/natural-resources-russian-continental-shelf-foreign-investors-s>.

- World Bank (2009), *Global Economic Prospects: Commodities at Crossroads* (Washington, DC: World Bank), http://siteresources.worldbank.org/INTGEP2009/Resources/10363_WebPDF-w47.pdf.
- World Wildlife Fund (2013), *Arctic: The Threat*, www.wwf.ca/conservation/arctic/threat/.
- Xstrata (2011), 'Transformation through Organic Growth and Operational Excellence', Investor presentation by S. de Kruijff, slide 18, <http://www.glencorexstrata.com/assets/Uploads/xcu-speech-201104052.en.pdf>. Xstrata (2011),
- Yap, C. (2013), 'Mongolia is feeling friendlier toward foreign investors', *Wall Street Journal*, 28 August, <http://www.reuters.com/article/2013/09/05/indonesia-mining-divestment-idUSL4N0H116D20130905>.





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