1 The puzzle of oil

Oil presents governments and firms with a challenge: how to govern the market for a commodity that is crucial to growth, security, and profits. Historically, governments identified scarcity – driven by dwindling reserves or the exercise of market power – as an important risk, and the rhetoric of government intervention continues to be cloaked in the language of national security. Yet the framing of oil as a strategic resource masks an important fact: over the past three decades, governments across the advanced industrialized states have abolished barriers to trade in oil and relinquished ownership in national oil companies that were often central to national strategies to manage risk in the international oil market.

This represents an astonishing turnaround. In some countries the laws and policies used to govern oil markets were established in the interwar years. Yet over the past three decades, governments have chosen to liberalize trade in crude oil and oil products, free prices, cut subsidies, and privatize firms in order to enable them to compete internationally on an equal basis.

These changes had important distributive implications. A simple calculation shows that at one hundred dollars per barrel, global spending on oil exceeds three trillion dollars per year. The International Energy Agency (IEA) estimates that one in every twenty dollars spent in global trade total will be spent on the buying and selling of crude oil in the next two decades. Decisions made in the major economies about how to govern oil markets thus redistribute billions of dollars between firms that produce and consume oil and oil products, and affect where oil is produced globally.

The changes in oil market governance documented in this book are also puzzling. For much of its history, trade in oil was controlled by a small number of firms based in the United States and Europe. The most important long-term implication of the volatility of the 1970s was the loss by these firms of the resources they had used to dominate markets globally. Today it is national oil companies based in the Middle East and elsewhere that own the vast bulk of the world's oil. Yet the response of governments across the advanced industrialized states was to abandon attempts to actively shape oil markets, even as some remain wedded to energy nationalism as one component of their energy security strategies.

These changes in oil market governance are also puzzling because a number of important explanations we have for why governments lowered the barriers to trade and investment in other areas of the economy are not readily applicable in oil markets. The international trade regime, for example, has played an important role facilitating the abolition of restraints on trade and investment by making it easier for governments to negotiate with one another, and increasing certainty that negotiating partners will honor agreements. Yet it has had limited influence in the markets for natural resources, including oil. Falling transport and communication costs are also identified as important facilitators of trade and investment. While there have certainly been extraordinary innovations in the oil sector, these have tended to enable firms to stay at home, rather than increasing their opportunities for exit. Indeed, many of these innovations were spurred by the nationalization of oil-producing assets in the 1970s, and focused on improving imaging of the subsurface, increasing oil recovery rates, and expanding offshore drilling opportunities with the goal of enabling firms to increase production in the Gulf of Mexico, the North Sea, and elsewhere.

It is also difficult to point to the role of economic power to explain falling barriers to trade and investment in oil markets. The United States, for example, is argued to have used a mix of positive and negative sanctions to prod open the national markets of its trading partners, with perhaps the clearest example being the pressure the US government applied to Japan in the 1980s and 1990s to deregulate its economy in order to reduce the bilateral trade deficit. Yet in the case of oil, efforts by the US government to open energy markets have been sporadic. Indeed, the United States has tended towards protectionism in oil markets, promoting the benefits of autarky under the rubric of energy independence, and subsidizing oil companies in order to increase domestic production as a share of total consumption.

These are by no means the only explanations for economic liberalization. We also need to take into account the influence of Europe, for example, as well as changing ideas about the appropriate role of governments in the market. The response of policymakers to the challenge of inflation and slowing growth in Europe and the United States is also important, and I consider each of these in the chapters that follow. Yet the relative unimportance of falling transaction costs and economic power raises the question of how we can explain changes made in oil market governance.

In this book I argue that an important reason for why governments adopted more liberal forms of oil market governance, and why some continued to protect domestic interests in the name of energy security, lies in the strategies of firms, and in particular how differences in the characteristics of firms conditioned how they responded to the emergence of a global market for oil.

The importance of firm characteristics in shaping national choices about how to govern oil leaves us with the question of where differences between firms come from. One of the puzzles in the international oil market is that most advanced industrialized states have negligible supplies of oil, putting them in a weak position within the oil economy. Yet despite this there are substantial differences in firm competitiveness cross-nationally. Even in the United States we see highly competitive firms operating alongside small independent oil producers that are weak in terms of their international competitiveness. And, as I show in this book, these differences have real implications for the positions they take in debates regarding oil market governance.

Where, then, do differences in the characteristics of firms come from? While managerial acuity surely accounts for some of this variation, I argue that in order to explain patterns of oil market liberalization today we need to understand how industrial compacts negotiated between business and governments in earlier periods shaped the characteristics of firms. Historical sequence therefore mattered, "priming" some firms to better manage the risks, and take advantage of the opportunities, that emerged along with the transformation of the international oil market, while limiting the ability of others to do so.

In the case of France, for example, which I take up in Chapter 4, I describe how the industrial compact negotiated between the international oil majors, local business interests, and the French government shaped the characteristics of firms operating in the oil sector. I then show that French oil firms responded to changes in the international oil market by seeking to further diversify operations internationally. Similarly, they began to reject rather than embrace government support as an instrument for securing market share and increasing profits.

In Japan, on the other hand, I describe how governments and firms sought to limit the dominance of the international majors. Yet in contrast to France, the industrial compacts negotiated between these groups allocated market share with little regard for whether domestic firms were likely to become industry leaders. Horizontal and vertical fragmentation, and ongoing protection, was the result. While liberalization of the domestic market was implemented, for reasons I document in Chapter 5, firms continued to focus on the benefits government could provide them as they sought to increase scale and profitability.

In Chapter 6 I extend the argument to the case of the United States. At first glance the politics of oil in the United States appears qualitatively different from the cases of France and Japan. Oil from the United States represented the bulk of oil produced globally until at least World War II, and the most powerful of the international oil firms were American in origin. Today the United States remains a crucial supplier to world markets, and this role is increasing thanks to the rise of unconventional oil. The case of the United States is nevertheless useful in two ways. First, while initial conditions in France and Japan were similar, there are important differences in political institutions in the two countries that could plausibly account for differences in outcomes between them. The case of the United States, on the other hand, allows us to consider how differences in the characteristics of oil firms shape their positions towards oil market governance, unencumbered by differences in political institutions. It therefore allows us another check as to whether the strategies adopted by firms in France and Japan stemmed from their underlying characteristics.

The case of the United States is also useful because it offers an opportunity to examine how resource endowments and these industrial compacts combined to shape the characteristics of firms. In Chapter 6 I describe how the importance of US oil in the global market helped large, integrated oil majors attain a dominant position in the world oil market prior to World War II. Yet, I also show that the US government continues to promote energy independence, channeling billions of dollars to domestic firms. This reflects, I argue, the interests of thousands of small- and medium-sized producers that also exist as a result of the historically privileged position of the United States in the international oil market.

My argument is not intended to supplant other explanations for the changes in economic governance in the major economies in recent decades. In the empirical chapters I record, for example, how a shift in the strategies policymakers used to govern markets in response to poor economic performance and government indebtedness also affected choices about oil market governance. But what I also show is that a historically informed account of the development of firm capabilities is crucial if we are to understand changes in market governance over the last three decades. Indeed, it is impossible to understand changes in oil market governance without taking into account firm strategies, and how these were affected by earlier attempts of business and governments to shape oil markets in their favor.

In the rest of this chapter I introduce these ideas in more detail. In the next section I outline some important explanations for changes in forms of market governance over the past three decades, and consider how well they help us to explain the two questions that motivate this study: how can we explain the liberalization of oil markets in the advanced industrialized states, and how can we explain variation in the extent to which governments in these countries liberalized? I then preface the main argument of the book, focusing on differences in the strategies firms adopted in response to changes in the international oil market, and the role of industrial compacts negotiated in earlier periods in shaping firm characteristics.

The puzzle: explaining changes in oil market governance

A central problem in political economy lies in explaining why countries transformed the rules used to govern economic markets over the past three decades. Part of the challenge lies in reconciling this with the conventional wisdom. Studies hold that reducing the role of government in actively shaping market outcomes improves welfare but has diffuse benefits. The benefits of protection, in contrast, are argued to be concentrated within particular industries or social classes. Logic therefore dictates that protection should be overprovided relative to what is considered socially optimal.[1]

[1] Vilfredo Pareto, *Manual of Political Economy* (New York: A.M. Kelley, 1971 [1927]), 379. For an attempt to reconcile theories of regulatory capture with liberalization see Sam Peltzman, Michael E. Levine, and Roger G. Noll, "The Economic Theory of Regulation after a Decade of Deregulation," *Brookings Papers on Economic Activity* (1989): 1–59.

If this is right, then how can we explain the wave of liberalization since the 1980s? One prominent answer points to falling transaction costs. The General Agreement on Trade and Tariffs, and World Trade Organization (GATT/WTO), for example, is understood to have reshaped trade policies by making it easier for governments to reach agreements. Even in the agricultural sector, where countries typically remain more protectionist, the linking of agricultural goods with other trade issues has enabled the gradual lowering of barriers to trade.[2]

What about the case of oil? While there is no explicit exemption for crude oil in the trade regime, governments have failed to reach agreement on how to treat natural resources within it. In part this is because important exporters were not members of the original General Agreement on Trade and Tariffs, and the United States became a net importer in 1948. This meant there was little pressure from exporters to force open markets in importing states. What limited attempts we have seen to incorporate natural resources in international trade rules have largely failed, most notably the New International Economic Order (NIEO) movement of the 1970s, and the efforts of the negotiating group on natural resource-based products during the Uruguay trade round.[3] In the case of oil, Article XXI of GATT/WTO also allows exclusions for reasons of national security, which provides a rationale for maintaining discriminatory trade policies given the historical framing of oil as a strategic resource rather than a simple commodity.[4]

[2] On international organizations see Robert O. Keohane, *After Hegemony: Cooperation and Discord in the World Political Economy* (Princeton University Press, 1984), 49–64; Judith Goldstein, "International Institutions and Domestic Politics: GATT, WTO and the Liberalization of International Trade," in *The WTO as an International Organization*, ed. Anne O. Kreuger (University of Chicago Press, 1998), 133–52. On agriculture see Christina Davis, *Food Fights over Free Trade: How International Institutions Promote Agricultural Trade Liberalization* (Princeton University Press, 2003). But see Andrew Rose, "Do WTO Members have a More Liberal Trade Policy?" *NBER Working Paper* 9437 (2002).

[3] On the latter see John Croome, *Reshaping the World Trading System: A History of the Uruguay Round* (The Hague: Kluwer Law International, 1999), 42–5 and 166–7.

[4] There is also limited jurisprudence in oil and oil products. See Melaku Geboye Desta, "The GATT/WTO System and International Trade in Petroleum: An Overview," *Journal of Energy and Natural Resources Law* 21 (2003): 385–98; Melaku Geboye Desta, "The Organization of Petroleum Exporting Countries, the World Trade Organization, and Regional Trade Agreements," *Journal of World Trade* 37 (2003): 523–51; United Nations Conference on Trade and Development, *Trade Agreements, Petroleum and Energy Policies* (Geneva: United Nations, 2000).

Instead of GATT/WTO, the most important international institution facilitating cooperation between the major oil-importing states is the International Energy Agency (IEA). Its function is very different to trade facilitation, however. Instead, the IEA coordinates national policies on the drawdown of strategic petroleum reserves, and it has no authority as a platform for negotiating changes in the policies of member states. A secondary role of the IEA is providing information on energy markets globally, and peer reviews are carried out of member states' energy policies every few years as part of this process. These reports are for informational purposes only, however, and the recommendations contained in them do not bind the range of choices available to governments as they design and implement energy policy.

A second version of the transaction costs argument focuses on technological innovation. In financial markets in particular, technological change is proposed to limit the ability of governments to regulate capital flows. Digitalization has also enabled firms to relocate segments of the value chain internationally in ways that were not possible in previous decades. Both of these changes, it is argued, have increased the ability of firms to "exit" national economies, thereby increasing their bargaining power with governments.[5] In the case of oil, however, the industry has long been international in scope. Technological change has certainly had a profound effect on the oil industry. The growth in the size of tankers enables more than two million barrels to be transported in a single shipment, increasing the opportunities for international trade, and innovation in production enables firms to identify and reach oil fields at increasing depths and complexity through the use of 3D imaging, horizontal drilling, and other techniques. Many of these innovations were influenced by the nationalizations of oil production in the 1970s, however, which forced the oil majors to shift to areas such as the Gulf of Mexico and the North Sea in order to replenish reserves. In other words, they have helped firms to come home, rather than to leave.[6]

Another important explanation for the shift towards more liberal forms of market governance focuses on the role of economic power.

[5] John B. Goodman and Louis W. Pauly, "The Obsolescence of Capital Controls? Economic Management in an Age of Global Markets," *World Politics* 46 (1993): 50–82; Robert Solomon, *Money on the Move: The Revolution in International Finance Since 1980* (Princeton University Press, 1999), 110–11.

[6] See, for example, Tyler Priest, *The Offshore Imperative: Shell Oil's Search for Petroleum in Postwar America* (College Station, TX: Texas A&M Press, 2007).

Here, rather than governments using international organizations in order to achieve mutual gains, the decision to lower barriers to market entry occurs because of pressure from powerful states in the international system. In particular, the United States is argued to have played an important role in promoting trade and financial liberalization through a mixture of positive and negative sanctions.[7] One well-known example is the efforts of US officials to open Japanese markets to greater trade and investment in the 1980s and 1990s. In the case of oil, however, the United States has shown little capacity for coercing other countries in the international oil market, and has only sporadically attempted to pressure governments to open their energy markets.[8] Indeed, it is not clear that policymakers or firms in the United States are interested in opening trade in oil products in the first place.[9] Firms, for example, have often favored cartelization and protectionism rather than liberalization. The United States also implemented quotas on oil imports in the 1950s, and fixed prices in order to spur domestic production. Today the US continues to tax imports and limit exports of oil, albeit at a reduced amount, and billions of dollars of subsidies flow to firms operating in the United States in the name of promoting energy independence.

7 The argument is developed in its general form by Stephen D. Krasner, "State Power and the Structure of International Trade," *World Politics* 28 (1976): 317–47. See also David A. Lake, "Leadership, Hegemony, and the International Economy: Naked Emperor or Tattered Monarch with Potential?" *International Studies Quarterly* 37 (1993): 459–89. For an application to financial liberalization see Eric Helleiner, *States and the Reemergence of Global Finance: From Bretton Woods to the 1990s* (Ithaca: Cornell University Press, 1994). Also see Daniel W. Drezner, *All Politics is Global: Explaining International Regulatory Regimes* (Princeton University Press, 2008).

8 On the first point see Robert O. Keohane, "The Theory of Hegemonic Stability and Changes in International Economic Regimes, 1967–1977," in *Changes in the International System*, eds. Ole R. Holsti, Randolph Siverson, and Alexander George (Boulder, CO: Westview, 1980), 131–62; G. John Ikenberry, *Reasons of State: Oil Politics and the Capacities of American Government* (Ithaca: Cornell University Press, 1988). On the second, in the context of Japan, see Llewelyn Hughes, "Climate Converts: Institutional Redeployment, Industrial Policy, and Public Investment in Energy in Japan," *Journal of East Asian Studies* 12 (2012): 89–117.

9 Llewelyn Hughes and Francisco Flores-Macias, "Drill Baby Drill! The Correlates of 'Energy Independence' Policy in the United States," Institute for International Economic Policy, George Washington University Working Paper IIEP-WP-2012–4 (2012).

An answer: firms and oil market governance

These are by no means the only explanations for economic liberalization. Economic crises, for example, have been identified as an important catalyst of economic liberalization.[10] In the case of oil the transformation of the structure of supply in the international market clearly forced both business and governments to reexamine whether the existing laws governing national oil market institutions continued to match their interests. In Chapter 3, and in the empirical chapters, I examine this, as well as considering how useful explanations for oil market liberalization that focus on the role of the European Union are, and the influence of ideas. But one of the interesting characteristics of oil is that we can discount the effects of some important explanations for economic liberalization when investigating changes in oil market governance.

How, then, are we to account for changes in oil market governance over the past three decades? In particular, how can we explain the shift to more liberal forms of economic governance in oil-importing countries, and ongoing intervention in support of domestic oil firms in some of them? In this book I develop an explanation that is rooted in the interests and strategies of domestic political actors. I am particularly interested in firms, and the way differences in firm characteristics affect the strategies they adopt in oil markets. I am also interested in where differences in firm characteristics come from. Indeed, a central contention of this book is that we need to trace the origins of firm characteristics if we are to understand how cross-national differences between oil firms emerged, and then show how this went on to shape their behavior.[11] The goal of the study is to go beyond simply identifying firm interests and strategies, however; I am also interested in explaining outcomes. I therefore link the strategies adopted by firms to policy outcomes by incorporating policymakers' incentives to intervene in oil markets.[12]

[10] Dani Rodrik, "Understanding Economic Policy Reform," *Journal of Economic Literature* 34 (1996): 9–41.

[11] Hall and Thelen point to the need to focus on firms as central actors in explaining economic liberalization. Peter A. Hall and Kathleen Thelen, "Institutional Change in Varieties of Capitalism," *Socio-Economic Review* 7 (2009): 7–34.

[12] On the "supply" and "demand" model sides of government intervention see Dani Rodrik, "Political Economy of Trade Policy," *Handbook of International Economics* 3 (1995): 1457–92.

In this book I am interested in the degree to which government instruments – in the form of laws, regulations, and policies – actively shape the behavior of market participants. A liberalized market lies at one end of a continuum, in which private actors interacting through the price mechanism play the predominant role in allocating goods and services.[13] Liberalization does not imply a simple reduction in the absolute size of government. It can be associated, for example, with a transformation of the role of the government towards monitoring and enforcing the terms of competition.[14] But in product markets it implies a standard set of policies, focused on freeing prices, reducing state monopolies through privatization, abolishing restrictions on trade, and imposing hard budget constraints on firms.[15] At the other end of the continuum we can define a market in which state-owned firms monopolize the production, importation, and distribution of oil and oil products.

One challenge in conceptualizing changes in the form of oil market governance lies in the role governments play as managers of risk.[16] Today, for example, the role of government as risk manager extends from regulating finance to protecting workers against income loss, accidents, or other losses of individual welfare. It also encompasses the energy sector. Natural resources differ from manufactured products because the location of production is determined by where they

[13] This is consistent with other discussions of economic liberalization. Laoyza and Soto, for example, refer to "the competitive participation of private agents in a sector, activity, or market." Norman V. Laoyza and Raimundo Soto, "On the Measurement of Market-oriented Reforms," *World Bank Research Working Paper WPS 3371* (2004), 3. Streeck and Thelen define liberalization as a "secular expansion of market relations inside and across the borders of national political-economic systems, significantly beyond the limits that the organized capitalism of the postwar 'mixed economy' had set for them." Wolfgang Streeck and Kathleen Thelen, *Beyond Continuity: Institutional Change in Advanced Political Economies* (Oxford University Press, 2005), 2. Simmons, Dobbin, and Garrett define liberalization as "policies that reduce government constraints on economic behavior and thereby promote economic exchange." Beth A. Simmons, Frank Dobbin, and Geoffrey Garrett, "Introduction: The International Diffusion of Liberalism," *International Organization* 60 (2006): 782–3.

[14] Steven Vogel, *Freer Markets, More Rules: Regulatory Reform in Advanced Industrial Countries* (Ithaca: Cornell University Press, 1996).

[15] Keith A. Darden, *Economic Liberalism and its Rivals: The Formation of International Institutions among the Post-Soviet States* (Cambridge University Press, 2009), 104–5.

[16] David A. Moss, *When All Else Fails: Government as the Ultimate Risk Manager* (Cambridge, MA: Harvard University Press, 2002).