30
THE GLOBAL OIL INDUSTRY

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Introduction

The first big multinational companies of the modern era emerged from Europe’s growing need for raw materials in the late nineteenth century (Jones 2005: 20, 45). One of those raw materials was oil. The modern oil industry started simultaneously around the mid-nineteenth century in Eastern Europe, the US, and Russia. Demand for lighting oil drove the industry’s initial growth. As electricity substituted oil for lighting, the internal combustion engine sustained the industry’s growth into the twentieth century. By 1914, the oil industry had given birth to multinational companies that roamed the globe searching for oil and markets. Military demands for fuels, lubricants, additives, and explosives during World War I, however, truly propelled the oil industry onto the global stage (Winegard 2016: 4; Yergin 1993: 167–8). Oil’s strategic importance fostered technological innovations in exploration and production, transportation and refining in the 1920s and 1930s despite protectionism, economic nationalism, and depressed oil prices (Jonker and Zanden 2007: 334; Homburg 2006b, 2006a; Williamson 1963: 508–10). After World War II, oil displaced coal in most developed economies and became the vital resource it remains today.

The oil industry is uniquely global. It is the biggest of the internationally traded primary commodities (UN 2015: 221–8, 235). Oil companies, publicly traded, private, or state-owned, rank among the biggest companies in the world. Oil is above all an indispensable resource for modern economic life. But oil also has a dark side. Its strategic importance and value has fueled interstate conflicts as well as civil wars and insurgencies (Winegard 2016: 15; Adunbi 2015: 2). The global struggle over oil resources has concentrated wealth in the hands of national and global elites, creating massive global financial flows as well as horrendous inequality (Gray 2016; Devlin 2014: 43–4). Oil is also linked to authoritarian regimes and slower development in oil producing countries (Patey 2014: 6–7; Ross 2012: 553–4; Karl 1997: 16). The most pressing issue today, however, is the industry’s future given climate change and the transition to low carbon energy sources (Berghoff 2017: 25–6; Haug 2011; Yergin 2011: 1369–71).

How did oil develop into the world’s most controversial and prized resource and who were the actors shaping this giant global industry? By and large, the industry has been shaped by entrepreneurs and enterprises and the competitive forces and cooperative relations between them. However, the state has been highly influential too: as owner of subsoil resources, regulator
of domestic industries and markets, or as entrepreneur. The interplay between business and the state was a recurrent source of change, particularly since 1914. These relations were interdependent (Penrose 1968: 252–3). Oil companies controlled the technologies to explore and exploit oil, but oil producing countries controlled the access to oil. Government–business relations typically pivoted around control over oil reserves, rates of production, markets, and prices. There were no equilibrium outcomes in these disputes. Countries that nationalized their oil reserves and industries faced declining investments, falling production rates, and outdated technology. Oil-consuming countries that intervened in the domestic market often burdened consumers with higher prices or inflexible supply systems during oil crises.

Many of the disputes between states and companies hinged on prices being either too low for producers or too high for consumers. Whether the oil market was monopolistic, cartelized, oligopolistic, or competitive, the price of oil has been a persistent bone of contention. Without some kind of coordination of production levels, oil is prone to boom–bust cycles (McNally 2016: 57–8). Because price levels also determine the discovery of new oil reserves and long term supply (Radetzki 2008: 111–25; Sorrell et al. 2010: 5290–5; Adelman 1995: 11–17), the industry’s central issue was and remains the problem of striking a price level that allowed for steady new investment while securing a reasonable profit to producers without imposing harmful costs on consumers.

Energy consultant Robert McNally (2016), argues that pricing regimes have alternated between competitive and coordinated market systems, creating three periods of boom–bust cycles and three periods of relative price stability since the 1860s (Figure 30.1).

Boom–bust cycles were prevalent between the 1860s and 1890s, between 1911 (after the break-up of the Standard Oil Trust) and the mid-1930s, and after 2004 when the Organization of Petroleum Exporting Countries (OPEC) was unable to ward off the run-up in prices in the

![Figure 30.1 Crude oil price, 1861–2015](Source: BP Statistical Review of World Energy 2016.)
The global oil industry

2000s. Prices were relatively stable from the 1890s to 1911 during Standard Oil’s monopoly in the US, between the mid-1930s and 1972 when the Texas Railroad Commission effectively regulated US, and indirectly world, oil prices and between 1973 and the early 2000s when OPEC attempted to manage the price of oil. McNally’s periodization of alternating periods of coordination and competition encompasses the business and state forces that have jointly shaped the industry.

The chapter is organized in three sections. The first section gives a short overview of the main strands in the historiography. The second section chronologically examines the history of the industry from the 1860s to the present and highlights the relevant actors and historiographical debates connected to the industry’s development. The third section concludes with a reflection on the role of the state in the industry and opportunities for future research.

**Historiographical themes**

Oil’s central role in global affairs is reflected in its historiography; it touches virtually every subject imaginable. Here I examine the literature on the industry’s globalization. The oil industry has been a core sector for studies on business organization (Chandler and Hikino 1994) as well as foreign direct investment, internationalization, and the formation of multinational enterprises (Jones 2005; Wilkins 1974a, 1970; Wilkins and Schröter 1998). Although the history of oil is littered with collusive business behavior, it was not very different from most other industries, especially before 1939. As such it doesn’t figure particularly prominently in the historical cartel literature beyond the OPEC cartel (Fear 2008: 280).

The historiography of the industry itself has few comprehensive overviews (with the notable exception of Yergin 1993) and is spread across a broad range of literatures. A first, well-established genre is the company history – commissioned or not – starting with the critical study of the Standard Oil Trust by Ida Tarbell (1904). The major companies have by and large opened their archives for commissioned or condoned company histories (Pratt and Hale 2013; Jonker and Zanden 2007; Howarth and Jonker 2007; Sluyterman 2007; Bamberg 2000a, 1994; Ferrier 1982; Hidy and Hidy 1955; Larson et al. 1971; Gib and Knowlton 1956; Gerretson 1953). There are fewer histories of the state-owned oil companies of the producing countries that became prominent after the 1970s. A trailblazer could be the commissioned history of the Norwegian state-owned oil enterprise Statoil.¹ The state-owned enterprises of France (Total) and Italy (Ente Nazionale Idrocarburi, ENI) have exceptionally well-developed archives and an established body of work on their history (Labbate 2016; Bini 2016; Cricco 2014; Beltran 2010; Pozzi 2010).

Government–business relations and the role of the state are core themes in the industry’s history. One subset studies the oil industry as an expression of British and US informal empire and geopolitics (Kuiken 2014; Dietrich 2014; Jones 2012; Painter 2012; Priest 2012; Galpern 2009). A critical strand questioned whether the oil companies were in fact more powerful than nation-states. This question started appearing when the government–business relations in the producing countries became increasingly strained in the 1960s (Penrose 1968; Hartshorn 1962), gained global attention in the wake of the 1973 oil embargo (Turner 1978; Engler 1977; Sampson 1975), and continues to inspire new scholarship today (Musso 2017; Bini et al. 2016; Glässer 2016; Petrini 2016; Graf 2018; Parra 2004).

A third major theme is the strategic and military use of oil. From World War I onwards, oil was an indispensable resource for waging war. Poor in domestic oil reserves, Nazi Germany pursued various strategies to achieve oil independence, including fuels from coal (Boon and Wubs 2016; Scherner 2008: 103–38; Stokes 1985), establishing a state-owned oil industry
(Toprani 2014; Overy 1994: 68), and capturing foreign oil fields (Klemann and Kudryashov 2012: 348; Karlsch and Stokes 2003, 213–23). Japan’s dependence on foreign oil supplies also fueled its Southeast Asian campaigns (Yergin 1993: 325–6). Moreover, denying the Axis powers access to oil was vital to the Allied victory in 1945. During the Cold War, Soviet energy interference in the Middle East and Western Europe was a constant concern to Britain and the US (Perovic 2017; Cantoni 2017b, 2017a, 2015; Högseiℓus 2012; Lippert 2011; Jensen-Eriksen 2007).

The globalization of oil

As in other extractive industries, oil started out as a domestic industry exploiting domestic deposits in the mid-nineteenth century. In the early nineteenth century, growing demand for lighting oil – known as petroleum or kerosene – spurred geologists, chemists, entrepreneurs, and adventurers to exploit oil deposits on a growing scale. Advances in drilling and refining started almost simultaneously in the US, Canada, Galicia, and Russia around the mid-nineteenth century but grew nowhere as rapidly as in the US and Russia (Frank 2009: 48; May 1998: 28–9; Tolf 1976: 44; Williamson 1959: 101–4).

From competition to monopoly

In the decade after Edwin Drake struck oil in the Pennsylvanian hills in 1858, the US oil industry boomed and busted repeatedly. The US regime of private natural resource ownership was based on the rule of capture, stipulating that whatever quantities of oil could be extracted from a patch of land belonged to the landowner, irrespective of the actual boundaries of the reservoir being drilled (Mommer 2002: 105; Skeet 1988: 35; Tugendhat and Hamilton 1975: 16–17). This incentivized drillers to produce as fast as possible because the neighbors were drilling in the same reservoir, resulting in a highly fragmented industry, incapable of stabilizing prices and production. More advanced techniques would much later rationalize the exploitation of wells, but it was John D. Rockefeller’s Standard Oil that brought this initial period of volatile prices to an end by rationalizing, integrating, and concentrating the industry (Chandler 1977: 321–2). First establishing control over transportation (midstream) and refining (downstream), Rockefeller used his control over outlets to force production discipline on the drillers, before finally integrating backwards into crude production (upstream) in the 1880s (Hidy and Hidy 1955: 15–23).

From monopoly to oligopoly

Between 1860 and 1900, oil had grown into an internationally traded commodity centering on European markets. Standard Oil was the dominant player, but met with increasing competition from Russia, Galicia, Mexico, Romania, and the Asian colonies of the Dutch and the British empires (Brown 1987; Bud-Frierman et al. 2010; Yergin 1993: 132). Foreign capital and entrepreneurs opened these new oil areas. The Swedish Nobel brothers and the French Rothschilds invested heavily in Russian oil, establishing companies – Branobel and Bnito – in the Caspian town of Baku, in present-day Azerbaijan, in 1879 and 1884 respectively. In Galicia, French and Belgian capital, Canadian drillers, and laborers from across Central and Eastern Europe fueled the oil industry. In the British empire, Scottish merchants, London capital, and Canadian drillers explored the Indian subcontinent, establishing the Burmah Oil Company in 1886, which developed into a major British oil company by the early 1900s (Jones 2000: 281; Corley 1983b). Canadian
The global oil industry

drillers also traveled the Dutch East Indies, where Dutch entrepreneurs and mining engineers struck oil on the island of Sumatra in the 1880s (Poley 2000: 103) and established the Royal Dutch Petroleum Company in 1890. The British engineer Weetman Pearson obtained a concession in Mexico in 1889 while constructing a railroad (Brown 1987), establishing the Mexican Eagle Petroleum Company, although major oil finds would not materialize until 1909.

Standard Oil began to feel the sting of Russian competition when the Nobel brothers used economies of scale from their innovations in the bulk shipping of oil to challenge Standard’s position in European markets (Tolf 1976: 50–60). Standard Oil responded by establishing foreign subsidiaries for distribution and marketing across Europe (de Goey 2002: 57). The British merchant Marcus Samuel picked up the Nobels’ bulk innovation and subsequently managed to join together a number of British trading companies that marketed US and later Russian oil in Asia, to form the Tanker Syndicate in 1892 (Henriques 1960: 164). The syndicate, in 1897 incorporated into Shell Transport and Trading, established a major tanker fleet that shipped Russian kerosene to Asia and took Asian oil on the return trip to Europe. Although strong in transportation, the Shell company was weakly organized and lacked its own sources of supply. These were found in the Dutch East Indies, where Royal Dutch quickly grew during the 1890s. Royal Dutch’s need for international marketing and Shell’s lack of proprietary sources led to increasing cooperation between the two companies, culminating in the merger in 1907 (Jones 2000: 281).

The formation of Royal Dutch Shell as the principal international competitor of Standard Oil marked the industry’s ‘coming-of-age’. The lighting oil market declined with the ascent of electricity and town gas, but a new market for gasoline grew strongly with the introduction of the internal combustion engine. Royal Dutch was quick to recognize the opportunity, which strengthened its competitive position vis-à-vis Standard Oil (de Goey 2002: 60–4). The merger also illustrated the industry’s early tendency for vertical integration to defend markets and stabilize production and prices. Moreover, the merger showed the superior organizational talents of the Group’s skillful and mercurial CEO, Henri Deterding, who strengthened Royal Dutch’s position considerably vis-à-vis the weaker organized Shell Company leading up to the merger in 1907 (Jonker and Zanden 2007: 63–5). Although later controversial because of his Nazi sympathies, Deterding was the mastermind behind Royal Dutch’s rapid growth as Standard Oil’s only global challenger by 1914 (Jonker and Zanden 2007: 475–86). The company rapidly expanded through the acquisition and establishment of companies in Egypt, Venezuela, and the US (Jones 1981: 77).

On the eve of the Great War, oil had grown into a vital fuel for propulsion, leading the British Navy to switch the fleet from steam coal to fuel oil. Subsequently, the British government sought to strengthen British control over foreign oil supplies (Jones 1981: 249–50), harnessing British capital and entrepreneurs in global oil ventures. The British coup de grâce came in Persia, where the Shah had invited British gold magnate William Knox D’Arcy to bankroll oil exploration in 1901. Persia’s inhospitable interior was uninviting of foreign investment, but its pivotal role in the Great Game and the lure of profits stimulated private British investors to finance the venture. Additional funding came when Burmah Oil, desperately in need of new oilfields, decided to buy D’Arcy’s concession in 1905 and floating a new company, Anglo-Persian Oil Company (APOC) on the Glasgow stock exchange in 1909 (Yergin 1993: 148; Corley 1983a: 98–103). The company’s managing director Charles Greenway sought the favor of the British government to secure government contracts and funding to build the company’s downstream business and reduce its reliance on competitors. But Greenway did not solely rely on the British state and set out to build “an absolutely, self-contained organization”: a vertically integrated oil company in the image of Royal Dutch Shell and Standard Oil (Ferrier 1982: 160).
In 1914, the British government took a 51 percent stake in APOC to secure oil supplies for the Navy but also to strengthen Britain’s position in the development of oil reserves in the Ottoman Empire through the Turkish Petroleum Company (TPC), a joint venture between APOC, Royal Dutch Shell, Deutsche Bank, and the British National Bank of Turkey. Deutsche Bank’s share in TPC reflected imperial Germany’s designs to control foreign oil (Nowell 1994: 59). Established in 1911, TPC was financed with British and German capital and designed to coordinate the two rivals’ interests in the region (Scazziere 2015; Ferrier 1982: 197). After World War I, Deutsche Bank’s foreign oil holdings were divided between the French state-owned Compagnie française des pétroles (1928) and APOC (Toptani 2017: 62). TPC illustrates well the interdependence between European empires and the oil companies.

British capital and entrepreneurs drove the internationalization of the oil industry until the 1920s. The examples of Burmah Oil, Shell Transport and Trading, and later APOC illustrate just how important British merchants and entrepreneurs were and how backward integration into oil production served to protect their positions in marketing (Jones 2000: 251). Strategies for establishing strong integrated companies differed, with Shell Transport and Trading choosing to merge with Royal Dutch, while Burmah Oil/APOC opted to shelter under the protective wing of the state. In both cases, however, consolidating, expanding, and diversifying a successful international oil business proved a task not for nimble traders but for capable administrators and technically skilled managers in the tradition of John D. Rockefeller, such as Standard Oil’s Walter C. Teagle, Royal Dutch’s Henri Deterding, or Anglo-Persian’s John Cadman (Jonker and Zanden 2007: 491; Jones 2000: 252; Jones 1981: 170, 225; Wall 1974).

As Standard Oil was challenged by new competitors, its position further deteriorated with the breakup of the Trust in 1911 by the US Supreme Court – an event that still is one of the most powerful examples of how national legislation and jurisprudence can affect multinational enterprise. Nevertheless, by the 1920s, Standard Oil of New Jersey – the largest of the successor companies – had regained its dominant position. It expanded particularly abroad, such as in Venezuela (Wilkins 1974b: 414, 445–6) and Iraq, where it joined the Iraq (previously Turkish) Petroleum Company (IPC) in the Red Line Agreement of 1928 (Toptani 2017; Yergin 1993: 204). The agreement coincided with the famous As-Is or Achnacarry agreement of the same year, in which Royal Dutch Shell, Jersey Standard, and APOC formed a global oil cartel to defend their markets against competition from other Standard Oil successor companies and the rise of technologies to produce synthetic fuels from coal pioneered by the German chemical conglomerate IG Farben (Yergin 1993: 227–8; Nowell 1994: 236–51). Achnacarry marked the high point of a process of concentration and integration that had taken the industry from the Standard Oil Trust monopoly, to a fiercely competitive, and finally an oligopolistic market.

**The Seven Sisters**

The Great War had alerted states that it was imperative to control access to oil. During the post-war settlement of Middle Eastern oil interests, the US feared a British–French monopoly of the region’s oil reserves and the US government supported US oil companies to gain a foothold in the Middle East (Painter 2010: 496–7). The ascent of US companies to the IPC signaled that the US too had joined the global race for oil. US companies went abroad driven by post-war fears over declining domestic oil production. Their attention focused on the vast unexplored deserts of the Arabian Peninsula. New prospecting techniques developed by geologists such as Everett DeGolyer aided their search for new oil reserves both at home and in the Middle East (Doel 2013: 401; Yergin 1993: 391–3).
Up to the 1920s, the Arabian Peninsula had failed to attract attention because the prospects of finding oil were deemed bleak. Initially, the British government blocked US companies in the region but Standard Oil of California (Socal), Gulf Oil, and Texaco were eventually allowed to acquire oil concessions from the rulers of Bahrain, Kuwait, and Saudi Arabia after 1929 (Yergin 1993: 282–3). Their international expansion into the largely untested Arabian Peninsula was a huge gamble and it illustrates how crucial crude oil supplies were to the survival and growth of oil companies.

Major oil finds were made in Kuwait and Saudi Arabia in the late 1930s, establishing the Middle East as the new epicenter of global oil. The new oil wealth was shared among the two Anglo-Dutch and five US companies, i.e., the so-called Seven Sisters that controlled the global oil market between the 1930s and the early 1970s. Although APOC, by then known as the Anglo-Iranian Oil Company (AIOC), exclusively controlled production in Iran, the Arabian concessions were run by joint ventures between these Seven Sisters. The IPC, jointly owned by CFP, AIOC, Royal Dutch Shell, and the American companies, controlled production in Iraq. In Saudi Arabia, Socal and Texaco jointly owned the concession through the California (later American) Arabian Oil Company, to which Jersey Standard and Socony were added in 1948. The Kuwait Oil Company, jointly owned by AIOC and Gulf Oil, was established in 1934 to develop the Kuwait concession.

Through the cross-ownership of the concessions, the majors informally coordinated prices and production rates, which, short of a formal cartel, allowed the companies a remarkably large degree of control over the world oil market (Adelman 1995: 48; Linde 1991: 60). This made for a new period of exceptionally stable prices lasting until the 1970s. The international price stability was considerably aided by the Railroad Commission of Texas (RTC), which from 1933 onwards regulated the output of the gigantic Texas oil fields that had been developed in the 1920s (Yergin 1993: 258–9).

The companies did not operate like a formal cartel; the US anti-trust laws cast a global shadow over the foreign operations of the US oil companies (Adelman 1995: 49). Rather, they attempted to maintain a price that allowed for stable downstream margins and a stable return on investment in new oil reserves, while being careful not to allow too much room for competitors. In retrospect, the oil price between 1945 and 1973 (Figure 30.1) appears low compared to the price hikes in the 1970s but because the development costs in the Middle East were (and still are) the world’s lowest, even the prevailing “low” prices allowed for returns on investment that in some cases exceeded 400 percent (Adelman 1995: 19). Such rates of return allowed for the price of oil to decline in real terms over the course of the 1960s in response to increasing competition (Howarth and Jonker 2007: 180). The returns also allowed for a seemingly effortless expansion of production to keep up with the unprecedented growth in demand for oil during the post-war golden age of growth in Western Europe, the US, and Japan (Smil 2010: 31; Chapman 1991: 211).

**The OPEC era**

Despite stable prices and rapidly growing production, oil producing countries became increasingly displeased with the concession system. The Persian D’Arcy concession of 1901 was the first and it became the global standard in the following decades, giving oil companies near complete control over production rates and prices and reducing sovereigns to mere tax collectors with very little means to influence production policies or revenues.

Latin American states were the first to challenge the concession system. Oil became a rallying cause for democratic movements as well as national economic development projects (Mitchell
Whereas earlier dictatorships in the region had invariably chosen the side of foreign investors (Bucheli 2008: 438–43), Mexico and Venezuela, among others, increasingly challenged the foreign companies (Wilkins 1974b: 445–6; Bucheli 2010: 341; Maurer 2011). The most radical expressions of resource nationalism were the nationalizations of foreign oil assets in Bolivia and Mexico in 1937–8. In Iran, the state disputed AIOC’s concession since the 1920s (Ferrier 1982: 588, 628–31), culminating in the nationalization of AIOC assets in 1951. These nationalizations invariably provoked boycotts by the expropriated companies and their home governments – in the Iranian case even leading to an Anglo-American engineered coup d’état (Marsh 2007; Abdelrehim and Toms 2017; Heiss 1994) – highlighting the problems of asserting state ownership and control over industries that depended on foreign technology, capital, and markets.

The efforts of Latin American countries in the interwar period were a crucial step toward more state control over the oil industry. When Mexico chose to nationalize the assets of the foreign companies in 1938, it scared the Anglo-American companies and their home governments stiff. When Venezuela subsequently wanted better terms on its concessions, the companies granted a fifty–fifty split of profits in 1948 to stave off nationalization (Yergin 1993: 432–7). Fifty–fifty was a major improvement in the concession terms and quickly became the new standard for oil concessions across the globe.

Latin American state activism spilled over to the Middle East and fostered cooperation among oil producing countries, resulting in the founding of OPEC in 1960. OPEC developed into a powerful cartel that took control over oil reserves and domestic oil industries in the 1970s (Rubino 2008: 198; Yergin 1993: 583–8). Increasing Arab nationalism in the 1950s (Bamberg 2000b: 83; Stevens 2000) had prepared the minds in the Arabian Gulf to cooperate with the unknown Venezuelans and the deeply distrusted Persians to form OPEC.

The history of OPEC exemplifies how hard it was for oil producing states to regain control over the international oil regime and the infrastructures – pipelines, tankers, refineries – that the oil companies had managed to build in protection of their interests. The British political economy scholar Timothy Mitchell recently argued that this transnational regime had thwarted nation building and democratization processes in oil producing countries (2013: 9, 108, 237). Indeed, reasserting sovereignty over oil resources in many oil producing countries since the interwar period was essentially a drive for nationhood, development, and, in some cases, democratization. As such, OPEC was an expression of the wider processes of decolonization and resource nationalism in the non-Western world, which fostered a movement for a fairer distribution of the gains from trade under the auspices of the UN Conference on Trade and Development in the early 1970s (Schenk 2011: 63–7).

Initially OPEC was ignored by the companies and the West, but when Libya and then Iran managed to extract higher taxes, royalties, and prices from the companies, OPEC gained strength and eventually forced the oil companies to negotiate with the organization itself in 1971 (Yergin 1993: 577–85). OPEC’s ultimate goal was not higher revenues but control through participation in, or outright ownership of, production, refining, and marketing by state-owned oil companies (Parra 2004: 146). Some states opted to participate in the existing concession companies, such as in Saudi Arabia, Kuwait, and the other Arabian Gulf states (Al- Chalabi 1980: 22–7). Other countries chose to nationalize foreign assets, such as Algeria (1971), Iraq (1972), Libya (1973), and Venezuela (1975) (Parra 2004: 150–4).

By the early 1980s, the oil companies had lost their concessions and most of their assets in the OPEC member countries, with national oil companies taking over ownership and operations. OPEC’s position was greatly enhanced by the evaporation of spare capacity in the US in 1972 (McNally 2016: 105). Surging demand in the late 1960s had left spare capacity only in the
Middle East. The OPEC revolution thus shifted pricing power to the OPEC countries, which used the Yom Kippur War of 1973 as a political excuse for an oil embargo against the Western allies of Israel to drive up the price of oil. Official OPEC prices more than quadrupled between 1972 and 1974 (Figure 30.1). The OPEC revolution ushered in an era of state control over the oil industry after four decades of disputing the powerful oligopoly of the Seven Sisters. The majors lost their powerful position and were forced to adjust their organizations and strategies, and to look for new sources of supply, pushing the frontier of oil exploration.

After OPEC

To contemporary observers of the oil industry, OPEC had stepped into the all-powerful position once occupied by the major oil companies (Tétreault 1985: 38). However, the OPEC revolution did not simply reverse the roles of company and state. It separated the majors from their most profitable oil fields, and forced them to adjust their tightly integrated businesses to acquire the majority of their crude supplies through the market, in most cases from the National Oil Companies (NOCs) of the producing countries. The disintegration also established the NOCs as emerging global companies. Not all NOCs succeeded in their integration and internationalization strategies, but Kuwait Petroleum International, Saudi Aramco, and PdVSA (Venezuela) were relatively successful integrating forwards into refining, transportation, and marketing in the 1980s (Tétreault 1995; Victor et al. 2011: part III).

The major oil companies had already started oil exploration in non-OPEC regions in the 1960s, especially in Alaska and the North Sea, where oil was struck in 1967 and 1969 respectively (Kemp 2012: 236; Ryggvik 2015). Production costs were high in these new oil frontiers but OPEC’s price hikes accelerated activity in the 1970s as oil companies reinvested inflated profits into increased exploration activity (Petrie 2014: 49). Other non-OPEC countries saw an opportunity to give their oil industries a shot in the arm (Adelman 1995: 195–200; Yergin 1993: 569–74, 667–70; Linde 1991: 105–15). As a result, exploration and production in non-OPEC countries rose rapidly in the 1980s.

Increasing production and a dramatic reduction of demand after the second oil crisis of 1979 (Adelman 1995: 190) led to an oil price crash in 1986. As the biggest producer with most spare capacity, Saudi Arabia was the swing producer and attempted to maintain OPEC’s high cartel price by continuously lowering its production between 1981 and 1986. In 1986, however, the kingdom ramped up production again to regain its lost market share, precipitating the price crash of 1986–7. This countershock brought many oil producing countries into financial distress, resulting in the partial retreat of the state. Privatization, balanced budgets, and foreign direct investment were the new recipes to revitalize domestic oil industries (Hartshorn 1993: 138–40). Especially where new oil reserves depended on high-cost and high-risk exploration, the state tended to retreat in favor of private enterprise and foreign investment (Nolan and Thurber 2012: 161–7; Stevens 2008: 27–8). However, this process was not linear because the rapidly rising oil prices of the 2000s enticed some of the states that had privatized their industries in the 1990s to reassert state control, particularly in Russia under Vladimir Putin and Venezuela under Hugo Chavez (Gustafson 2012: 187, 272ff.).

The multinational oil companies responded to the supply shocks of the 1970s and the countershock of 1986 with reorganizations, divestments, and mergers and acquisitions (M&As) to foster cost efficiencies and growth (Suyeterman 2007: 380–6). Two M&A waves, one in the early 1980s and another in the late 1990s, created supermajors from mergers between already exceedingly large oil companies, such as Exxon-Mobil and BP-Amoco (Petrie 2014: 52–3, 103–6). In addition, most major companies shed their diversification investments in chemicals
and non-hydrocarbon energy sources, focusing instead on natural gas as a cleaner burning alternative to oil, a strategy that was only strengthened by the challenges of climate change in the 2000s (Sluyterman 2010: 223). The restructuring also created room for smaller mini-majors as well as aggressively focused oil companies – petropreneurs – that took advantage of the divestments of the majors. Using advanced financing – increased private equity financing among others – and risk management methods, these companies developed focused businesses that specialized in a particular activity ranging from exploration and production, refining, trading, and transportation and storage (Bleakley et al. 1997).

The OPEC revolution had inadvertently helped to create a spot market for crude oil in the 1980s, which went on to develop into a global, financialized market, with myriad financial derivatives traded on futures and options exchanges in London, New York, Dubai, and Singapore as well as boutique derivatives sold in over-the-counter markets by a host of financial institutions (Gkanoutas-Leventis 2013: 77ff.; Razavi 1989). The rise of the petropreneurs and the internal decentralization of the supermajors were in many ways facilitated by this commodification of oil, not least because of its expanding range of instruments to trade oil and manage price risks. Because the majors could no longer rely on abundant proprietary supplies of crude oil, trading and supply gained a larger role in managing supply and offtake between the up-, mid-, and downstream activities of the companies. This in effect externalized the market that these majors had organized internally before the 1970s. Shell and BP, for instance, were leading the development of the North Sea spot and forward markets, used today to price over half the world’s trade in crude oil (Sluyterman 2007: 57–60; Horsnell and Mabro 1993; Mabro et al. 1986).

By the 2000s, global oil had developed into a thoroughly hybrid industry. States had taken a huge role by controlling the majority of oil reserves, but the major oil companies had not disappeared. Rather, the industry became much more varied than before the 1970s, with petropreneurs, mini-majors, supermajors, and NOCs all competing in a global market. In the 2000s, moreover, China’s giant state-owned petroleum enterprises rapidly internationalized in search of oil to fuel China’s growth (Jiang 2012: 379ff.). Today, all these different types of players cooperate and compete across the up-, mid-, and downstream stages of the value chain. None of them fully controls the world market. OPEC intermittently sets a price range by regulating production levels, while the global market facilitates price discovery within the OPEC range. Recently, the oil shale and shale gas revolution in the US – a revolution driven by specialized and nimble exploration and production companies (Hinton 2012: 234) – has indeed caused a major reversal of long-standing global production and supply patterns (Sernovitz 2016: 6; Yetiv 2015: 15–34) as well as vindicating an increased focus on natural gas as an intermediate hydrocarbon on the road to the low carbon energy transition (Petrie 2014: 181, 191). The shale revolution exemplifies how the oil industry has developed into a global industry that is neither dominated by big multinationals nor powerful states, but a hybrid industry where domestic small, focused, and private companies have as much a role to play as publicly listed integrated supermajors or giant state-owned enterprises.

**Conclusion**

The makers of the global oil industry were the entrepreneurs, bankers, merchants, managers, and geologists who organized the industry’s rapid expansion between 1860 and 1960. In the 1880s, the industry was still predominantly a fragmented industry consisting of mostly local or free-standing companies conducting exploration, production, and refining, while family-owned trading companies conducted international trade and marketing. The economies of scale and
The global oil industry

rationalization of production and prices realized by the professional and financially prudent management of John D. Rockefeller provided the organizational blueprint for the industry’s globalization in the decades after 1890. Standard Oil’s virtual global monopoly, moreover, drew out the many foreign competitors that aspired to its business model. However, the process of developing an integrated, professionally managed business was arduous and, on many occasions, determined by sheer luck (Jones 1981: 247). The British trading companies and entrepreneurs that were among the first movers in oil merchanting excelled at organizing the financial, commercial, and logistical aspects of the business but their family-ownership often limited their ability to build and manage vertically integrated empires in the image of Standard Oil. Between 1900 and the 1920s, a new generation of technically skilled and financially astute professional managers emerged that focused on building the managerial and organizational processes and capabilities required to organize integrated, multinational enterprises.

The British empire provided the umbrella for the industry to develop. British companies emerged in the Asian colonies shielded from foreign competition while gaining access to the most promising oil reserves through British mandates and diplomatic pressure in the Ottoman Empire and Persia. Before World War II, the formation of the major oil companies was therefore significantly facilitated by empire. The concession system that was established in Persia in 1901, moreover, gave the companies virtually full control over the world’s known oil reserves. First challenged in Latin America in the interwar period, however, the post-World War II era of decolonization rapidly diminished the role of empires and established the oil producing countries as the new powerful states in the oil industry. OPEC’s successful challenge of the powerful oligopoly in the 1970s, however, did not completely reverse the roles of companies and states, while the rise of China and other emerging markets established non-OPEC state-owned enterprises as multinational oil companies in their own right. The oil industry today is a thoroughly hybrid industry in which big and small companies, state-owned, and private enterprises compete and cooperate.

In terms of historiography, much of the existing research focuses on the government–business relations connected to questions of ownership, control, access, and security of supply. However, in the past three decades, the need for low carbon energy sources to ward off the effects of global warming has become increasingly apparent. The question for the oil industry is no longer how much control producing states exert over access to oil reserves but how far consuming states, if not the global community, will restrict access to markets, i.e., the opportunities and threats posed by demands for clean energy. This future has been some time in the making, particularly considering oil companies’ – often failed – investments in alternative energy sources over the past four decades. With recent pledges by, among others, Royal Dutch Shell and Exxon to invest in clean energy and improve their companies’ carbon footprint, the impact of the environmental and sustainability movements on the oil industry have been more relevant than ever. This is still largely unexplored, providing major opportunities to reassess the role of states and companies in shaping the energy transition that will fundamentally change the global oil industry.

Notes

2 Compare with Jones (2014). Jones argues that the historical development of power transport and transmission infrastructures, including oil pipelines, are a material expression of the political and entrepreneurial forces that shape energy transitions.
3 The merger was the biggest industrial merger ever at the time (“British Petroleum to Buy Amoco In Biggest Industrial Merger Ever,” Wall Street Journal, 12 August 1998).
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The global oil industry


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The global oil industry


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