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Multinational Corporations, Business Groups, and Economic Nationalism: Standard Oil (New Jersey), Royal Dutch-Shell, and Energy Politics in Chile 1913–2005

MARCELO BUCHELI

This article analyzes the long-term strategies employed by multinational oil corporations in a late industrializing country with powerful business groups when faced with economic nationalism. I study the case of Royal Dutch-Shell in Chile from 1913 to 2005, where two oil multinationals controlled 100 percent of the Chilean market until forced by the government to accept a domestic private company, COPEC, into a new three-member cartel. The multinationals accepted this arrangement reluctantly, but in the long term it proved beneficial. COPEC's involvement in Chilean business groups protected the multinationals from hostile actions by the government and gave legitimacy to the cartel.

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These benefits ended when Chile abandoned its import substitution industrialization strategy in the 1970s.

How does a small country with a growing economy but no domestic oil production and no international political influence develop a nationalist policy for the oil sector? And how do the oil multinational corporations operating in that country react to this policy? The economies of most underdeveloped countries with a relatively successful industrial sector are dominated by so-called "business groups,"[1] defined as a "multicompany firm which transacts in different markets . . . under a common administrative and financial control [in which] participants are linked by relations of interpersonal trust, on the basis of similar personal, ethnic, commercial background."[2] Characterized by roots in family business, a portfolio of investments in a wide variety of sectors, including banking, manufacturing, and trade, and close relationships with policy-makers, business groups have been crucial in the industrializing process of the major Latin American and Asian countries.[3]

Examining the case of Chile between 1913 and 2005, I argue that business groups can be an important tool for governments in industrializing, net-oil-importing countries seeking to increase domestic control of the oil industry without expropriating foreign property. The Chilean State forced the multinationals to create a local/regional cartel that included them and a nationally based organization, a move the foreign companies initially opposed. In the long term, however, the multinationals benefited from the domestic firm's affiliation with local business groups, for it gave them protection against hostile actions from the government, strong influence within the government, and legitimacy of a kind that would have been hard to achieve were the cartel solely in foreign hands. This arrangement collapsed when the Chilean government abandoned its protectionist economic policy and the business groups lost their traditional political power.

Studies of nationalism and oil in the developing world have traditionally focused on conflicts between oil-producing countries and multinational corporations. Furthermore, most of the literature on politics and oil in importing countries focuses on wealthy countries.[4]

1. Khanna and Ghemawat, "The Nature of Diversified Business Groups," 35–61.
2. Leff, "Industrial Organization," 663.
3. Granovetter, "Business Groups."
4. The number of articles and books on oil and politics in producing countries and rich consumer countries is too vast to summarize it in a single footnote. A rather incomplete list of works that provide an overview of these conflicts includes: Falola and Genova, *Politics of the Global Oil*; Penrose, *Large International Firm*; Yergin,

The majority of the world's population, however, does not live in either oil-exporting or wealthy countries. Most live in poor countries that have to import most of their oil, and are politically exposed to external forces. Countries undergoing rapid industrialization after World War II, including Japan, South Korea, and the "emerging economies" of India and China, have been constantly constrained by their lack of domestic energy sources. During the period I study, Chile shared many characteristics with these countries: an economy dominated by powerful business groups, government and private sectors strongly engaged in industrialization, an increasing urban population, extensive poverty, and dependence on imported oil. My study makes a contribution to the extant literature by analyzing the complex long-term historical relationship between Chilean business groups and foreign oil companies in the context of government policies, focusing on the Standard Oil Company of New Jersey, Royal Dutch-Shell and the *Compañía de Petróleos de Chile* (COPEC).[5] Table 1 summarizes the general trends of these relationships over time.

The historical literature on direct foreign investment in Chile has overwhelmingly focused on the mining sector, which makes sense given the importance of nitrate and copper exports in the Chilean economy and Chile's significance as a producer of these goods in the global market.[6] Nonetheless, despite its economic importance, historians have largely neglected Chile's energy sector in twentieth century.[7] Until very recently, the only works were the twenty-three page *Historia de la Energía en Chile*, the book *El petróleo chileno* (1964), and eight pages in George Philip's classic *Oil and Politics in Latin America*.[8] Philip's study, largely based on documents from the British Foreign Office, is the best among the three. Recent studies by Yáñez, Rubio, Folchi, and Carreras have also made important contributions by studying the relationship between oil consumption and industrialization in Chile between the late nineteenth century and

Prize; Brown, *Oil and Revolution*; Meyer, *Mexico*; Philip, *Oil and Politics*; Tarbell, *History of Standard Oil*; Jones, *State*; Nowell, *Mercantile States*.

5. Hereafter I refer to Standard Oil of New Jersey simply as "Jersey" for its international operations, and Esso for its Chilean operations and to Royal Dutch Shell as Shell.

6. The most important works are Blakemore, *British Nitrates*; Greenhill, "The Nitrate and Iodine Trades;" Mayo, *British Merchants*; Monteón, *Chile in the Nitrate Era*; Monteón, "John T. North;" O'Brien, *The Nitrate Industry*; O'Brien, "Rich beyond the Dreams." For foreign investments in Chilean agriculture, see Jones, *Merchants*, 64, 171, 256.

7. Luis Ortega contributed with his studies on the coal industry, but focused on the nineteenth century. See Ortega, "The First Four Decades of the Chilean Coal Mining Industry;" Ortega, *La industria del carbón*.

8. Villalobos, *Historia de la energía*; Puga Vega, *Petróleo Chileno*; Philip, *Oil and Politics*.

Table 1 Chile: Economic policy in the oil sector, business elite's strategies, and multinational corporations' strategies, 1908–2005

Period	State policies	Business elite's strategies	Multinationals' strategies
Early industrialization, 1908–1918	First attempts to change the export-led growth model. First policies of welfare spending	Early organization in sectoral associations.	First operations of Shell and Esso with total control of the market.
Post–World War I growth, 1918–1929	Consolidation of politics of welfare spending. Increase in taxation to mining companies. Increasing protectionism.	Business associations created as a defense mechanism against pro-labor policies.	Multinationals organize the Chilean market in a cartel composed by Shell and Esso.
Depression, 1929–1932	Beginning of direct state interventionism in the economy. State confronts oil multinationals. State approaches USSR for oil. State declares the nationalization of the still unproven Chilean oil reserves.	Business groups create umbrella organization (i.e., CPC). Business groups start advocating for protection of local industry.	Multinationals seek help from home countries and challenge government regulations by increasing sales prices.
State-led industrialization (first phase), 1932–1937	Import substitution industrialization becomes the official long-term economic policy. Government wants to incorporate foreign capital in industrialization effort. Government approaches business groups for partnership in industrialization.	Close relationship between the business groups and the governments. Creation of COPEC.	Multinationals oppose creation of COPEC.

Table 1 Continued

Period	State policies	Business elite's strategies	Multinationals' strategies
State-led industrialization (second phase), 1937–1958	Government protects COPEC and cartelizes the oil sector. Government creates CORFO an official agency to finance industrialization. CORFO invests in exploration for domestic oil resources through an oil production state company (i.e., ENAP).	Business groups begin direct participation in economic policy-making decisions by being included in CORFO. Business groups protect COPEC from political challenges (especially anti-trust accusations).	Multinationals accept partnership with COPEC, reaping benefits from COPEC's board of directors' political influence and representation in CORFO. Cartel permits multinationals to work in contracts with the government.
State led industrialization (third phase), 1958–1970	Government criticizes the oil cartel, but does not attack business groups in general.	COPEC highlights the cartel's role in the economy in defense against government accusations.	Multinationals passively enjoy COPEC's defense of the cartel.
Socialism, 1970–1973	Government plans to nationalize the oil industry. Government creates the marketing company ENADI.	Business groups oppose the government's measures and conspire against the president. COPEC conspires against the president.	Multinationals join COPEC, the U.S. embassy, and the business groups in the conspiracy against Allende.
Privatization and globalization, 1973–2005	Government tries to decrease the power of the business groups. Government ends the oil cartel.	Business groups cannot oppose the government and redefine their operations for an open economy. COPEC competes in the open market.	Multinationals compete in the open market. New multinationals come to operate in Chile.

1925 but do not analyze the strategies followed by firms working in that sector.[9]

This article draws upon the internal documents of Standard Oil of New Jersey collected by the U.S. Department of Justice. They have allowed me to track the strategies used by the foreign corporations in their dealings with the Chilean government. Complementing these sources are the recently declassified documents of the Central Intelligence Agency (CIA) relating to the government of Salvador Allende and its overthrow by General Augusto Pinochet. To date, no other study of the Chilean energy sector has drawn upon these documents. I have also used COPEC's reports and reports of the Chilean, U.S., and British governments.

Business Groups, Multinationals, and Nationalism

Business groups are an organization for collective action by the private sector. Economist Mancur Olson has defined two kinds of collective action groups: the "inclusive groups," which best achieve their goals by including a large number of members, such as groups seeking to lower taxes or raise tariffs; and "exclusive groups," which benefit from having only a few members, to achieve such goals as restricting output in order to increase prices. The groups are not necessarily mutually exclusive: firms may belong to both simultaneously. Olson argues that the smaller, exclusive groups are more effective than the larger ones, because each member is sensitive to the others and aware that a hostile action against others will be perceived and potentially punished by the group. Olson also predicts that exclusive groups minimize the problem of "free-riding" and suggests that they work best when members control 100 percent of the market.[10] In this paper, the Chilean business groups are inclusive groups and the oil cartel an exclusive one. The multinationals benefited both from the economic policies promoted by business groups, which advocated industrialization and protected national industries, and from their membership in a cartel, which limited competition.

The Chilean oil cartel's actions followed the course predicted by Olson: after initially resenting the presence of others, members came to see one other as collaborators rather than rivals. Olson, however, assumes that groups are created freely, on the initiative of their members. This did not happen in the Chilean oil sector. Rather, the Chilean government gave the multinationals no option but to join a cartel with

9. Rubio, Yáñez, Folchi, Carreras, "Energy;" Yáñez and Jofré, "Chile."
10. Olson, *The Logic*, 37–43.

COPEC. My findings are partially consistent with those of Ben Ross Schneider, who found that Latin American business groups were either created as a reaction against a government's pro-labor policies or encouraged by a government that needed a partner in the import substitution industrialization (ISI) process.[11] Schneider thus recognized that actions of the State could lead to the creation of collective action groups, a factor not considered by Olson. However, in Chile, not only did the government encourage the oil cartel, it also sided with one of the members and forced other firms to accept the arrangement. Accepting a new member, albeit reluctantly, gave legitimacy—also neglected by Olson—and political influence to the multinationals.

In his studies of the relationship among economic policy, multinational corporations, and business groups in emerging economies, Mauro Guillén argues that ISI policies lead multinationals to collaborate with local business groups, thereby enhacing the groups' power: "In an import substitution environment," he writes, "multinational enterprises prefer to manufacture or distribute their products in collaboration with local entrepreneurs who know how to navigate through the treacherous conditions created by economic and political populism, including powerful labor unions, import competing interests, and idiosyncratic credit allocation practices ... As long as [these policies] remain in place, entrepreneurs and firms ... will continue utilizing them to enter new industries in association with multinationals forming business groups in the process."[12] My findings are consistent with this assertion, but, I must emphasize, in this case multinationals collaborated with domestic business groups only when forced to do so.

The ISI process that framed the development of the Chilean oil industry fits Harry Johnson's definition of economic nationalism "as a political sentiment that attaches value to having property in this broad sense owned by members of the national group. [As an economic program] nationalism seeks to extend the property owned by nationals."[13] As I show in the case of its oil policy—and in line with Rawi Abdelal's studies of different kinds of nationalism—Chile's oil nationalism did not mean "statism," that is, the creation of policies that increased the role of the State in economic development but rather the empowerment of a national actor as opposed to foreign ones.[14] In this paper I show that because Chile did not have domestic

11. Schneider, *Business Politics*, 10–14.

12. Guillén, "Business Groups," 367. See also, Kock and Gullén, "Strategy and Structure," 78–80.

13. Johnson, "Economic Nationalism," 237, 238.

14. See, Abdelal, *National Purpose*, 39–42.

sources of crude oil, nationalist policies focused on the other stages of the industry's value chain: refining and distribution. As the following sections demonstrate, foreign corporations' control of crude sources and imported oil led the government to support a nationalist policy of compromise rather than confrontation.

Nationalism and the Cartelization of the Oil Sector

Conflicts between foreign corporations and governments over ownership of oil resources are almost as old as the industry itself. When, in the early twentieth century, several poor and "peripheral" countries suddenly found themselves with enormous underground sources of wealth, they also found foreign investors eager to exploit them. Oil resources became a source of domestic and international conflict and the political development of these oil-producing countries became strongly tied to their role in the global oil industry. The most dramatic conflicts between governments of producing countries and foreign multinationals took place when governments took aggressive steps to increase their control over production sources, sector, the most extreme cases being expropriations in Bolivia (1937), Mexico (1938), Iran (1951), Peru (1968), and the "friendlier" Venezuelan nationalization in 1975.[15] Capital-exporting, non-oil-producing countries with political power internationally have also managed to gain significant control over both domestic sources of crude resources and internal marketing. The governments of France, Holland, and Great Britain, for example, played important roles in promoting the creation of vertically integrated companies that assured a flow of oil from foreign sources and refineries to distribution at home.[16]

Net oil importing countries with insufficient capital to invest abroad or very limited political influence faced greater difficulty controlling the oil they consumed. Spain made the first attempt in 1927, when its government expropriated private property in the oil sector and created a local monopoly, the *Compañía Arrendataria del Monopolio de Petróleos* (CAMPSA), jointly owned by the government and local businessmen. The companies primarily affected by this policy, including Shell, Jersey, and several French operations, immediately

15. Calcan, "Sur la nationalisation de l'industrie pétroliere;" Yergin, *The Prize*, 274–77, 450–78, 648–50; Karl, *The Paradox*, 116–38; Tugwell, *Politics of Oil in Venezuela*; Betancourt, *Venezuela*; Pinelo, *Multinational Corporation*; Spencer, "Oil, Politics, and Economic Nationalism in Bolivia." As early as 1920, Shell complained about the South American states' requirements in terms of loans in exchange for concessions. See Royal Dutch Company, *Report 1920*, 15.

16. Nowell, *Mercantile States*, 170–91.

protested to their home governments. Although the Spanish market was insignificant, they were concerned about possible precedents. Spain, meanwhile, unsuccessfully attempted to attract other companies such as Anglo-Persian to provide CAMPSA with crude. In 1928, diplomatic pressure resulted in Jersey and the French securing an acceptable indemnity from Spain, while Shell got only a payment below what it considered fair.[17] Shell then decided it was futile to aggressively resist nationalist initiatives in host countries. A better strategy would be "to offer dogged resistance, to keep talking and play for time, hoping for a change in official policy."[18]

By the late 1920s, growing nationalism and increased regulation created an uneasy environment for oil companies throughout the world. They had already lost their properties to the Bolsheviks in Russia, were under political attack in many other countries, and suffered depressed prices as a result of stiff interfirm competition and the flood of Soviet oil. To avoid destructive price wars, in 1928 the major companies, led by Shell and Jersey, agreed to an international division of markets based on market share, in what became known as the Achnacarry (or "As Is") Agreement. Other major oil companies eventually accepted its terms, thereby creating an oligopolistic structure in which signatories agreed not to increase production unless demand increased.[19] The Agreement survived until 1938.[20] During this period Shell and Jersey operated in several joint ventures in Latin America, particularly in Colombia and Venezuela.[21]

Chilean Exceptionalism

Chile is an exception within Latin America in several ways relevant to this study. At the beginning of the twentieth century, it was among the most developed countries in Latin America. Between 1920 and 1972, Chile had the highest level of social spending as a percentage of its GDP in all of Latin America and, as a result, its citizens enjoyed a relatively high standard of living[22] Between 1913 and 1929, it ranked fourth in literacy levels and fourth in GDP per capita, behind Uruguay,

17. Schubert, "Oil Companies and Governments," 706.
18. Jonker and Van Zanden, *From Challenger*, 452.
19. Moran, "Managing an Oligopoly of Would-Be Sovereigns," 583–84; Larson, Knowlton, and Popple, *New Horizons*, 303–12.
20. Yergin, *The Prize*, 268–69.
21. Wilkins, *The Maturing*, 217–18.
22. Arellano, *Políticas sociales*, 19–52.

Argentina, and Cuba.[23] Simultaneously, public works projects significantly improved the country's infrastructure, setting the basis for industrial development.[24] These developments were funded through taxes, initiated in 1925, on the booming nitrate and copper exports controlled by foreign companies. Individual citizens and the private sector, however, were minimally taxed.[25]

Despite taxation, mining attracted many companies between 1913 and 1929, making Chile second only to Argentina in per-capita foreign investment in Latin America.[26] By 1927 the country trailed only Argentina in both overall oil consumption, with an annual rate of about 800,000 tons, and in per capita oil consumption.[27] Nonetheless, despite efforts by the State, by 1929 Chile's industrial production still lagged behind other Latin American countries: in that year manufacturing accounted for 23 percent of Argentina's GDP, 14 percent of both Mexico's and Brazil's, but only 8 percent of Chile's GDP. Until 1929, the country's economy depended mostly on copper exports,[28] which were in the hands of United States and British corporations.

The State's assumption of a larger role in the Chilean economy paralleled the rise of the organized political Left. With 40 percent of its population living in urban areas by 1914 and 16 percent of all workers employed in the manufacturing sector, Chile saw an early rise of labor unionism. The Chilean Workers Federation (FOCH, in its Spanish acronym) debuted in 1909, and the Socialist Party established itself in 1912.[29] In 1920, after being elected president with very strong left-wing support, Arturo Alessandri created a series of national institutions to benefit the working class. Chile went from an average of nine strikes a year between 1890 and 1925, to forty-five a year between 1925 and 1935,[30] while membership in labor unions quadrupled between 1932 and 1940.

The rise of the Left led the business community to organize as well. During the 1920s, several business leaders created sectoral associations that grouped together under the umbrella *Confederación de la Producción y Comercio* (CPC) in 1933. While initially a response to the Left, these organizations eventually became partners with the

23. Cárdenas, Ocampo, and Thorp, *Economic History*, 26.

24. Reynolds, "Development Problems in an Export Economy," 207–32; Monteón, *Chile and the Great Depression*, 22–23; Mamalakis, *Growth*, 73–74.

25. Meller, "Una perspectiva de largo plazo," 56.

26. Twomney, "Patterns of Foreign Investment in Latin America in the Twentieth Century," 182–83.

27. Vaughn Scott, *Report*, 45; Yáñez, Rubio, and Carreras, "Economic modernization," 8.

28. Mamalakis, *Growth and Structure*, 31.

29. Arellano, *Políticas*, 26.

30. Meller, "Una perspectiva," 71.

government in developing economic policy; many of their members participated directly in government economic agencies.[31] By the late twentieth century, the Chilean business groups were among the largest and strongest in Latin America.[32] In short, in the first decades of the twentieth century, Chile consolidated as a welfare State with a protectionist economy. Leftist labor unions played an important political role and the business community, organized as a defensive bloc against labor demands, influenced the State without undertaking direct political campaigns. These social arrangements took place within a framework of political stability and economic growth.

Chile's Early Attempts to Control Oil Resources, 1908–1928

The story of the oil sector in Chile before the 1930s is one of unrealistic hopes and constant frustrations. Since the late nineteenth century, geologists had claimed that Chile's Patagonia had rich untapped oil resources, which many local entrepreneurs tried unsuccessfully to exploit. The first Chilean oil rush took place as early as 1899, when speculators acquired Patagonia lands. Although not much oil was discovered, some locals created the *Compañía de Petróleo del Pacífico* in 1908. Big hopes for the still unproven reserves led some politicians in 1917 to propose nationalizing all oil resources. The failure to discover oil caused the debate to drag on until 1926 when, after recognizing that Shell and Jersey had a modest interest in acquiring lands in Southern Chile, President Emiliano Figueroa approved a law reserving all oil deposits to the State.[33] The British Chamber of Commerce criticized this law, arguing that it did not serve Chile well: it scared foreign investors away for oil that did not exist.[34] Still, the legislation remained in place even though no significant oil was discovered in the county until 1946.[35] Because of the apparent lack of crude, most political conflicts through mid-century revolved around refining, marketing, and distribution.

Figueroa's initiative reflected broader changes in Chilean politics that had been initiated by his predecessor, Arturo Alessandri. Alessandri had been elected with promises of a social program to benefit the lower classes and had assumed power in the midst of

31. Schneider, *Business Politics*, 152–60.
32. Schneider, *Business Politics*, 3–10.
33. Law 4109 of December 29, 1926.
34. Vaughn Scott, *Report 1927*, 35.
35. Wilkins, "Multinational Oil Companies," 442–43.

an economic crisis generated by a post–World War I fall in nitrate exports. The Conservative Party and the landed oligarchy opposed Alessandri's government and overthrew him in 1924. Alessandri, however, soon returned to power after a countercoup led by some followers in the Army. He lost no time writing a new constitution that decreased the power of the traditional landowning class, gave more power to the urban middle and working classes, supported unionism, and gave the president powers to enlarge the State and protect national industry, marking the beginning of sustained expansion of the State over the next five decades.[36] Despite his alliance with the Left, Alessandri also approached the increasingly powerful Chilean industrial elite, which he considered a crucial player in his ISI project. In his presidential message of 1924, he even praised the *Sociedad de Fomento Fabril* (National Manufacturers Association, or SOFOFA) and gradually started raising protectionist tariffs.[37]

Jersey and Shell had started operations in Chile before Alessandri's political changes. Jersey had arrived in the county in 1913, through its affiliate—the West India Oil Company (WICO), later known as Esso. The company opened storage facilities in 1921 and its first gas station in Valparaíso the same year.[38] Shell had arrived in 1919, opening storage facilities in Viña del Mar and importing various oil products, with the expectation that the increasing importation of cars would result in an expanding market.[39] From then until 1935, Shell and Esso controlled close to 100 percent of the importation and distribution of both crude oil and oil products in Chile.

The oil multinationals faced their first challenges in the early 1920s, in a confrontation with Chilean coal miners. The miners had experienced the impact of coal's gradual replacement by oil in the nitrate mines in the Chilean North: while in 1908 the mines had used 663,327 tons of coal and 36,855 tons of oil, in a reversal, by 1914 they were consuming 488,802 tons of oil and only 268,313 tons of coal.[40] Over time, the nitrate mines of the North became the Chilean oil industry's largest consumers.[41] Relations between the multinationals and Chilean coal miners were further strained when, after a series

36. Blakemore, "From the War of the Pacific to 1930," 73–79.
37. Kirsch, *Industrial Development*, 132–33.
38. Villalobos, *Historia de la Energía*, 22.
39. Car imports increased from 741 in 1924 to more than 5,300 in 1928. See, Harvey, *Economic Conditions*, 47. For information on the number and location of the storage and crude plants see Mcleod, *Report*, 25.
40. Fernández, "El enclave salitrero," 27.
41. Federal Trade Commission, *International Petroleum Cartel*, 337.

of strikes in 1920, the strapped coal-mining sector requested, albeit unsuccessfully, higher tariffs on imported oil products.[42]

The Chilean State Attempts to End the Shell–Esso Cartel, 1929–1932

The Great Depression increased both unionization and government intervention in the Chilean economy and created further incentives for business groups to organize. It also generated the State's first attempt to limit Shell's and Esso's control of the Chilean oil market. President Carlos Ibáñez del Campo, who governed in an authoritarian style, had come to power in 1927. The country was then enjoying a revived economy following the post–World War I slump. Agricultural production reached its historic peak in 1928 and U.S. foreign investment, which had been a mere $1,000,000 in 1900, reached $625 million in 1929, most of the increase occuring during Ibáñez's tenure.[43]

The euphoric 1920s came to an abrupt end in 1929. In no Western country was the economic crisis of the Great Depression worse than in Chile.[44] In 1932 exports fell to less than 12 percent of their 1929 value and imports to 20 percent, while between 1929 and 1932, the government's budget shrank 50 percent. The mining sector, which represented 88.3 percent of total exports in 1929, was worst hit: the value of copper and nitrate exports fell 89 percent between 1927 and 1932, and mining production in general fell by half.[45] Between 1929 and 1932, mine employment decreased from 104,000 to 42,000 workers, thereby increasing unemployment.[46] Real wages fell 40 percent during the same period. Within agriculture, the second most important sector of the Chilean economy, prices fell 50 percent.[47] The economic crisis also badly affected the petroleum sector. Whereas the country imported 27.6 million tons of crude oil in 1930, one year later it imported only 13.1 million tons.[48]

The growing economic crisis led to confrontations between Ibáñez and foreign companies. Ibáñez threatened the British-owned Chilean

42. Guajardo, *Tecnología, estado y ferrocarriles*, 25–26; Vaughn Scott, *Report 1924*, 29.

43. Blakemore, "From the War of the Pacific," 82–83.

44. The League of Nations classified Chile as the hardest hit country during the Depression among countries with available data. See Pinto, *Chile*, 168; Ffrench-Davis and Muñoz, "Desarrollo económico," 127.

45. Osorio, *Raíces de la democracia*, 36.

46. Osorio, *Raíces de la democracia*, 37.

47. Drake, "Chile, 1930–1958," 93–94.

48. Pack, *Economic Conditions*, 47.

Electric Company with expropriation, if it did not give him a $2 million loan. He also tried to attract the British firm Antony Gibbs to invest in Chilean oil distribution in partnership with a State oil company, but Gibbs refused.[49] In February 1931, Ibáñez asked Congress to allow government involvement in oil exploration, an endeavor for which he had high hopes.[50] Congress refused, and this, coupled with his failure to attract Antony Gibbs, forced Ibáñez to continue Chile's dependence on Shell and Esso imports.

The economic crisis also created social unrest and, in July 1931, unable to repress the wave of anti-government demonstrations, Ibáñez resigned. Juan Esteban Montero, a right-of-center politician committed to further ISI, was elected provisional president.[51] Montero inherited a country in deep economic and political crisis. Between September 1 and 9, 1931 in the middle of campaigning for the October presidential election, Montero faced a naval mutiny. The mutineers demanded both public spending for the general welfare (to be financed by forced loans from the wealthy) and land redistribution to poor peasants. Core military forces defeated the mutiny; Montero claimed Communists were behind it. The Left was immediately repressed, but in order to reduce social unrest Montero also established some price controls and reduced tariffs on utilities, an action that alienated the business community.[52]

Despite his strong anti-Communist position, Montero approached the Soviet Union in a pragmatic effort to reduce Chile's dependence on Shell and Esso. In 1931, the USSR offered to supply Chile with oil and to provide technical assistance to build a refinery in exchange for Chilean nitrates,[53] which no other country or private firm had expressed interest in buying at any price.[54] This offer permitted the government to seriously consider developing a local oil company, a possibility that encouraged the Chilean House of Representatives to pass a bill permitting an oil monopoly in which the concessionaire would pass 75 percent of the profits to the State. Although the proposal needed Senate approval, eventually not received, the international press speculated that such a policy would mean the expulsion of the

49. Monteón, *Chile and the Great Depression*, 29–30, 36.

50. "Chilean President Asks Broad Powers," *New York Times*, 22 Feb. 1931, 47.

51. Drake, "Chile," 95–96.

52. Monteón, *Chile and the Great Depression*, 73–75.

53. This year, the government also approved a law that obliged foreign corporations to get government approval before building or establishing a refinery. See Burbach, "The Chilean Industrial Bourgeoisie," 108.

54. Philip, *Oil and Politics*, 182–83.

multinationals.[55] The multinationals strongly opposed the importation of Soviet oil. Consistent with the general terms of the Achnacarry (As-Is) Agreement, Shell and Esso quickly announced they would refuse to process or handle any Soviet oil.[56] Unable to sign an agreement with the Soviets, the Chileans let this project gradually die.[57]

The Chilean government also considered developing an alternative energy source by producing gasoline through the hydrogenation of coal. Chile produced significant amounts of coal, and given the lack of domestic oil crude and Shell and Esso's control of oil imports, coal seemed a good alternative. In 1930, the government initiated coordination of coal production while allowing ownership to remain in private hands.[58] An Esso official writing from London to the New York headquarters urged the company to convince the Chilean government that coal hydrogenation was economically unfeasible. However, he added that if the attempt failed and the government proposed a monopoly, Esso should consider partnering with it to create an oil refining and coal hydrogenation plant, financed by the government. The multinationals for their part would provide services and then distribute the gasoline through its own installations.[59] The correspondent also noted that he had talked to "our friends in Shell," who had agreed to propose to the Chileans the development of a plant to manufacture gasoline made of ¾ of imported crude and ¼ of hydrogenated coal. This project, however, never materialized and the country remained dependent on imported oil.[60]

Some of the Montero government's policies to promote industrialization clashed more directly with the interests of the multinationals. In 1932 it increased tariffs and devalued the currency in an effort to promote domestic production and discourage imports. In addition, it reduced the supply of dollars and pounds paid to Shell and Esso, rationed gasoline, and controlled prices.[61] For the multinationals, buying imported oil in dollars and selling it in devalued pesos was not a good deal, so in March they responded by deciding to increase the retail price of oil products. Afraid of the social unrest this move could generate, the government requested they not do so, and the companies

55. "Chilean Advance Oil Monopoly Bill," *New York Times*, 31 Oct. 1931, 27.

56. Philip, *Oil and Politics*, 183–84.

57. Philip, *Oil and Politics*, 184.

58. Wenzel, "Combustibles," 225–26.

59. Illegible to Clark, 20 March 1931, Case 7, Petroleum Industry Anti-Trust Collection, Baker Library, Harvard Business School (hereafter PIATC).

60. As late as 1936, there were still reports about the oil from coal project, but there were still doubts of its economic feasibility. See, Mitcheson, *Report*, 20.

61. "Gasoline Rations Decreed in Chile," *New York Times*, 11 Mar. 1932, 8; Monteón, *Chile and the Great Depression*, 76.

agreed to postpone the increase. A few weeks later, however, the companies announced again they were going to increase prices, this time with the political support of the U.S. embassy. In contrast, the British ambassador warned Shell that price increases would generate social unrest to which the Chilean government could respond with accusations of foreign "banditry."[62] Nonetheless, despite a series of negotiatins in which the Chilean government requested American political support, the companies increased the retail price of gasoline by 25 percent, sparking the expected protests from bus and cab drivers.[63] Montero threatened the oil companies with expropriation if they did not roll back the increase, but the companies considered it a bluff and refused to comply. Losing this battle, Montero accepted an agreement that made it possible for taxis and buses to buy gasoline at lower prices than private car owners could.[64]

Having lost this battle with the multinationals, in May 1932 Montero signed into law a bill that empowered the government to create a State monopoly on imports, distribution, and sales. The multinationals immediately opposed the legislation.[65] While Montero did not act on it because some important Chilean firms depended on the multinationals' distribution activities, the law nonethless remained on the books as a tool that could be used to expel the multinationals.[66]

Chilean internal politics created additional uncertainties for the international oil companies. In June 1932, Montero fell before a military coup led by Air Force commander Marmaduque Grove, who declared Chile a Socialist Republic and announced the expropriation of foreign oil companies. This experiment (and sudden panic among foreign investors) was short-lived, however, as a second coup ended the Socialist Republic a few days later, and former president Arturo Alessandri was once again elected to head the country. Still, the brief Grove Socialist Republic left a legacy. In the 1932 elections, Grove's Socialist Party, with 16 percent of the vote, finished second to Alessandri, marking the beginning of the Left's gradually increasing influence in Chilean politics.[67]

62. Philip, *Oil and Politics*, 184–85.
63. "Chile Urged to Use Navy to Import Oil," *New York Times*, 26 Mar. 1932, 24.
64. Monteón, *Chile and the Great Depression*, 76.
65. "Oil Firms in Chile to Fight Monopoly," *New York Times*, 27 Mar. 1932, 8.
66. "Gasoline Monopoly Authorized in Chile," *New York Times*, 19 May 1932, 30; U.S. Senate, *American Petroleum Interests*, 82.
67. Drake, "Chile," 96.

COPEC and the Entry of the Business Groups in the Oil Industry, 1932–1937

Returned to power, Alessandri strengthened and consolidated the protectionism, ISI, and welfare spending he had earlier promoted. He also sought partnership with the business organizations created years before as a response to his own pro-labor policies. In 1933, he increased tariffs on all goods by 50 percent and in 1934 increased them again by 100 percent.[68] That same year, he attended the CPC business confederation's inaugural convention.[69] He also devalued the currency (a protectionist measure maintained by subsequent presidents) and increased direct subsidies to local industry. The effects were immediate: these policies stopped the spreading crisis and Chile became one of the Latin American countries that industrialized the most in the ensuing decade.[70] Alessandri not only restored confidence within the private sector; he also reduced unemployment through deficit-financed public works.[71]

Moreover, Alessandri made foreign companies feel safe. He permitted oil companies to raise the price of gasoline, except for that used by buses, and announced that Chile was not going to buy Soviet oil. Many believed that the economic and political stability the country had achieved by 1933 obviated threats of expropriation. Explaining Chilean economic nationalism, the British commercial secretary in Chile reported that the government was not doing anything worse or better than what worldwide general trends indicated.[72] Chile's economic recovery in the 1930s initiated a steady increase in per capita income and per capita oil consumption, trends that lasted until the 1970s. Figures 1 and 2 chart the growth in oil consumption in relation to the economic policies pursued by the multinational corporations and the Chilean elite. The increase in consumption helps explain why the Chilean elite showed interest in participating in the oil sector in the 1930s.

Among the most important consumers in Chile's oil market were the mining companies. Copper companies consume large amounts of diesel fuel and, as table A2 shows, imports of diesel were disproportionately high in the mining ports of Antofagasta and Tocopilla in the first decades of the century.[73] In 1933, copper mines consumed

68. Palma, "Chile 1914–1935," 79.
69. Schneider, *Business Politics*, 155.
70. Brubach, "Chilean Industrial," 32–33.
71. Mamalakis, *Growth*, 90–91.
72. Pack, *Economic Conditions*, 57–58.
73. Alvarado, et al., "Long Term Energy-related," 183–96.

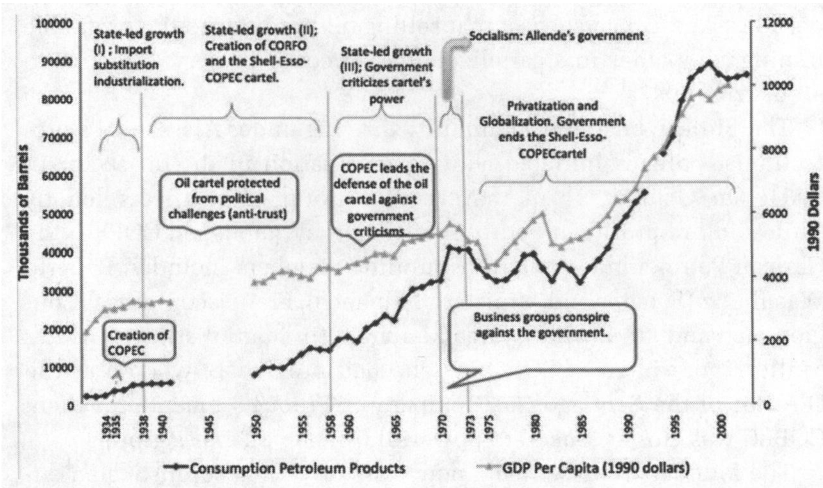

Figure 1 Chile: Consumption of petroleum products vs. GDP per capita (1990 dollars), 1932–2003.
Source: Table A1.

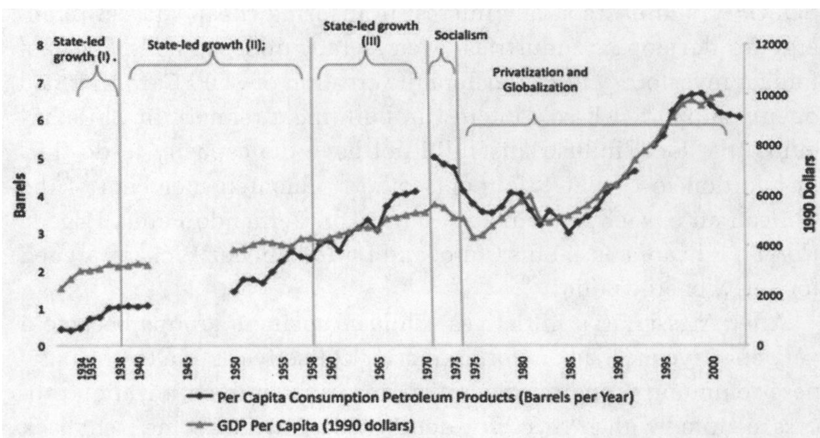

Figure 2 Chile: Per-capita consumption of petroleum products vs. GDP per capita (1990 dollars).
Source: Table A1.

17 percent of Chile's total oil imports and nitrate mines consumed 15 percent; in 1934 copper mines consumed 24 percent.[74] Table A3a shows the continuing increase of imported diesel oil in the following

74. Author's calculations with information from Chile, *Anuario 1933*, vol. 4, 16, and vol. 7, 4; Chile, *Anuario 1934*, vol. 4, 16; Chile *Anuario 1934*, vol. 7, 4. The *Anuarios* do not specify the percentage of diesel oil consumed by the mining sector.

decades. These data suggest that selling oil products to the profitable mining companies in a cartelized market could be very attractive to all distributors.

The Chilean business community thriving under Alessandri's protectionist policies initiated active participation in the oil sector in 1934. On October 31 of that year, a group of engineers led by Chile's future president Pedro Aguirre Cerda established COPEC (the Chilean Petroleum Company). Founding members included Roberto Wachholtz (Senator and Minister of Finance), Francisco Bulnes (Congressman and landowner), Jorge Marchant (industrialist), and Walter Müller,[75] president of SOFOFA who had previously worked as the Director of the Santiago Gas Company.[76] From its inception , then, COPEC was closely linked to powerful Chilean business groups.

The founders represented a new class of young, sophisticated engineers who had emerged in the 1920s and 1930s. They embraced Keynesian economics and agreed that Chile's economic development depended on its control of imports through devaluation and the ISI process.[77] Most were members of business associations like SOFOFA, and had a strong interest in insuring cheap sources of energy for developing industries, even as they opposed action against foreign investors.[78] In fact, before the creation of COPEC, Müller had openly supported Esso's interest in building a refinery in Chile, arguing that local industrialists did not have the capacity to do this. In addition to COPEC's founders other influential members of the Chilean elite, such as Reinaldo Harnecker, Fernando Palma Rogers, Hernán Edwards, José Luis Claro, and Darío Sánchez Vickers, argued for a new energy policy.[79]

After Alessandri's initiatives, Chilean business groups became a very effective mechanism for promoting collective action by the business community. Their consultative role in the industrialization process, coupled with a "revolving door" through which some went back and forth between positions in government development agencies and the private sector, gave these businessmen opportunities to use State resources to serve their own interests.[80] In studying Chile's elite in the 1960s, Maurice Zeitlin, Lynda Ewen, and Richard Ratcliff demonstrated that even though none of COPEC's shareholders controlled a very large percentage of company shares, their connections to the

75. Zeitlin, Ewen, and Radcliff, " 'New Princes' for Old?" 114–20.

76. I thank Guillermo Guajardo for sharing with me Müller's biographical information.

77. Corbo and Meller, "Antecedentes empíricos," 6–7.

78. Ibáñez, *Herido en el ala*, 86–95, 118–24; Burbach, "Chilean Industrial," 60.

79. Burbach, "Chilean Industrial," 26.

80. Schneider, *Business Politics*, 154–56.

government and influence in other sectors of the economy gave them not only strong decision-making power within the company but also significant influence in the government.[81] Thus, it is not surprising that the national government endorsed COPEC and that it enjoyed government support in dollar exchange imports on a favorable rate.[82] (Table A4 lists COPEC's directors and managers for 1936 through 1963; table A5 shows the top shareholders from 1938 though 1947. Table A6 presents profiles of the company's principal shareholders and directors, illustrating their strong connections with—and hence influce on—both various sectors of the economy and the government. These relationships came to benefit the multinationals.)

Esso and Shell initially opposed COPEC and tried to kill it in a price war, but the enterprise survived thanks to government protection. In 1935, Gustavo Ross, Alessandri's Minister of Finance, informed the multinationals that, in order to avoid oil scarcities in the future, the government would subsidize COPEC to assure it a market share of at least 20 percent.[83] The Chilean government could afford to provide this subsidy because of the high income generated by the recovering copper industry.[84] The multinationals realized the political cost of trying to "drive COPEC out of the market" through price wars and retreated from their goal of maintaining 100 percent of the market share.[85] An Esso official also admitted privately that COPEC's creation could have been the result of the "high handed methods of doing business then used by Jersey [Esso] and Shell."[86] The British and American embassies, on the other hand, did not oppose COPEC (Müller in particular had good relations with U.S. firms), but distrusted its capacity to operate efficiently. While the U.S. embassy warned American corporations not to do business with COPEC unless paid in full in advance, the British embassy believed that the domestic market was not large enough to support the operations of three companies.[87]

Encouraged by growing State support, COPEC's leaders, Aguirre and Wachholtz, suggested that president Alessandri declare an oil monopoly under COPEC. Finance Minister Ross, however, firmly

81. Zeitlin, Ewen, and Ratcliff, "New Princes," 113–17.
82. U.S. Senate, *American Petroleum Interests*, 328; Philip, *Oil and Politics*, 187.
83. Philip, *Oil and Politics*, 187.
84. "Division of Markets: Chile," 1952, Case # 5, PIATC: 4–5.
85. "Division of Markets: Chile," 1952, Case # 5, PIATC: 4.
86. "Division of Markets: Chile," 1952, Case # 5, PIATC: 3.
87. Burbach, "Chilean Industrial," 66; Mitcheson, *Report 1936*, 19–20.

opposed such a move,[88] and went as far as proposing that Shell and Esso lobby their governments to prevent it.[89] Thus began a debate between Ross, who believed that the country's long-term development required foreign capital, and Aguirre, who believed in a nationalist policy that excluded foreign participation in the country's economic affairs.[90] Resenting Ross's intervention, Aguirre and Wachholtz expressed opposition to his tenure as minister.[91]

In fact, part of Alessandri's constituency perceived his ameliorative approach to the business community as a shift to the right. In response, in 1936 the Socialists and the center-left Radical Party joined forces to create a new movement, the Popular Front, an eclectic group whose members included FOCH, left-wing intellectuals like Pablo Neruda, Vicente Huidobro, and Volodia Teitelboim, and nationalists from the Conservative Party. Aiming to displace Alessandri, COPEC's Aguirre became one of the new party's leaders and its candidate in the presidential elections of 1938.[92]

Business Groups, Developmentalism, and the Creation and Growth of the COPEC–Shell–Esso Cartel, 1937–1945

Conflict between the multinationals and COPEC was not advantangeous to either party, so on April 6, 1937, under Ross's leadership, COPEC, Esso, and Shell agreed to divide the market into thirds to avoid a possible price war.[93] The agreement also required foreign companies to reinvest profits in Chile.[94] While this kind of deal with foreign corporations was contrary to Aguirre's economic views, it nonetheless was approved during his tenure as COPEC's president. He and Wachholtz firmly believed in the benefits of a monopoly; Müller, however, defended cooperation with foreign capital. COPEC's board allied with Müller, leading to Wachholtz's resignation and Aguirre's acquiesence to the agreement with Esso and Shell.[95]

88. "Division of Markets: Chile," 1952, Case # 5, PIATC: 5; "Chile Debates Oil Decree," *New York Times*, 26 Nov. 1936, 21; Philip, *Oil and Politics*, 187.
89. Monteón, *Chile and the Great Depression*, 150.
90. Fermandois, *Abismo y cimiento*, 103.
91. Ross did not have the same attitude toward other multinationals operating in other sectors. Regarding electricity he clashed with the British-owned Chilean Electric Light and Power Company. See Monteón, *Chile and the Great Depression*, 151–54.
92. Drake, "Chile," 102–5.
93. "Division of Markets: Chile," 1952, Case # 5, PIATC: 5.
94. Larson, Knowlton, and Popple, *New Horizons*, 329.
95. Burbach, "Chilean Industrial," 67; Philip, *Oil and Politics*, 188.

Creating the official cartel decreased the multinationals' market share, but also ended their conflicts with the Chilean State and COPEC. As predicted by Olson, in a group in which only three members control the entire market, the chance of internal conflict was minimal. Esso officials expressed the view that joining the cartel was the only realistic option available to them:

> While it cannot be definitely stated that Esso Chile could or could not have continued in business without having entered into the marketing agreement with COPEC in 1937, it obviously could not have continued marketing in Chile without suffering disastrous losses . . . It is a fact that had we not done so the monopoly would have been installed or we would have been driven out of the market.[96]

The situation Esso and Shell faced in Chile was far from unique. During the late 1930s, most European countries with a State-owned company proposed "voluntary" cartel agreements to foreign corporations.[97] In addition, the Achnacarry agreement was about to expire and by 1937 Shell and Esso were considering ways to complement each other in different markets in the future.[98]

In 1938, Chile again held presidential elections; Aguirre, the candidate for the Popular Front, ran against his former oil policy rival and Finance Minister, Gustavo Ross. In a very close election, Aguirre, with strong support among the urban working and middle classes, won with 50.46 percent of the vote; Ross received 49.53 percent.[99] Shortly after his victory, Aguirre considered nationalizing the entire Chilean oil industry. In January 1939, Wachholtz, whom Aguirre had appointed as Finance Minister, proposed nationalization to congress and suggested the foreign companies sell their properties voluntarily.[100] To consider such action just one year after Mexico's expropriation of the industry was a delicate matter. Despite strong differences between Aguirre's government and the revolutionary government in Mexico, the U.S. Department of State quickly drew parallels between them.[101] Foreign companies rejected Wachholtz's proposal, but said they would be willing to sell their assets after their agreement with COPEC legally expired in 1942. Taking this reply as a challenge to the government, Wachholtz pursued plans to build a refinery. The Chilean government applied to the U.S. for a loan, but the American

96. "Division of Markets: Chile," 1952, Case # 5, PIATC: 5.
97. Wilkins, *The Maturing*, 235–37.
98. Jonker and Van Zanden, *From Challenger*, 444.
99. Monteón, *Chile and the Great Depression*, 228–29; Drake, "Chile," 105.
100. Philip, *Oil and Politics*, 188–89.
101. Monteón, *Chile and the Great Depression*, 262–63.

government refused any loan if foreign property were expropriated. Under these circumstances, plans for expropriation gradually died.[102]

In 1939, Aguirre moved to strengthen the already close relationship between the State and business groups creating CORFO (*Corporación de Fomento*), a semi-independent agency aimed at funding the country's industrialization process. CORFO became so crucial to Chile's industrial development that between 1939 and 1954, its investments in machinery and equipment accounted for 30 percent of the country's total. Overall, between 1940 and 1954, Chilean industrial production grew by 246 percent, American investments in the mining sector grew 80 percent, and urban population increased 42 percent.[103]

COPEC's founders enthusiastically supported CORFO, as did the business and technocratic elite. Its first president was Reinaldo Harnecker, a leading advocate of industrialization.[104] After 1939, most of the crucial economic decisions in Chile were made, not by the Senate but by CORFO in closed-door meetings.[105] The business elite participated directly in these decisions, giving them enormous power in shaping economic policy. Aguirre died in office in 1941, but his successors continued his State-directed ISI policies and CORFO continued to play a central role in economic development.[106]

CORFO's creation and the industrialization it aimed to stimulate did not clash with the interests of Chile's landowning aristocracy because many of the country's most important industrialists were also landowners. In fact, when the Senate debated CORFO, the right-wing parties successfully demanded that the government withdraw a bill to permit trade unions in the countryside in exchange for their votes. During the Popular Front government, when CORFO consolidated, the government also agreed to provide farm subsidies.[107] In 1941, the Chilean government attempted again to debilitate foreign corporations. It approached Esso officials with the proposition that they eliminate Shell from the cartel and create a new cartel in which COPEC and Esso shared the market 50–50.[108] However, because World War II dramatically decreased oil imports, Esso had no incentive to break the arrangement and refused the deal.[109]

102. Monteón, *Chile and the Great Depression*, 263; Philip, *Oil and Politics*, 188–89.

103. Douyon, "Chilean Industrialization," 87–89. The information of U.S. investment in mining sector covers the period 1940–1960.

104. Ibáñez, *Herido en el ala*, 96.

105. Schneider, *Business Politics*, 155.

106. Loveman, *Chile*, 199; Mamalakis, *Growth*, 91–96.

107. Muñoz, *Chile*, 81–84.

108. "Division of Markets: Chile," 1952, Case # 5, PIATC: 9–10.

109. COPEC, *Memoria 1941*, 4.

Throughout the 1940s, one of CORFO's primary goals was to end Chile's dependence on foreign oil. Imported oil and oil products had increased from 5.8 percent of total imports in 1925–1929 to 10.9 percent in 1940–1945.[110] Between 1941 and 1942, CORFO also financed explorations for oil in the Chilean South, facilitated by a 1942 law that permitted foreign companies to particiate in production as contractors.[111] The U.S. and British embassies, however, discouraged their companies' participation. Esso's lawyers deemed the terms of the new legislation unacceptable and the company made clear that it would not risk capital in either exploration or production.[112] Nonetheless, when oil was discovered in the south in 1945, CORFO enthusiastically continued its explorations.[113] Meanwhile, in 1944, COPEC had purchased (at a loss) its first tanker in order to ship oil directly from Peru.[114]

CORFO's efforts to develop its oil resources continued to face U.S. opposition. After the discoveries in the Chilean south, CORFO applied to the U.S. Export Import Bank (EXIM Bank) for a loan to develop a national oil company. John Suman, an Esso vice-president, wrote Spruille Braden, Assistant Secretary of American Republics Affairs at the U.S. Department of State and son of the founder of the Braden Copper Company of Chile, stating that private capital was available to do the job. Although Braden himself strongly opposed the loan and pressured EXIM Bank not to approve it, some Department of State officials disagreed. In their view, it would be better to allow the Chileans to create a State company, rather than to continue support for the U.S. companies and then face the sort of nationalization problems they had encountered in Mexico and Bolivia. These discussions were leaked to the Associated Press, causing an uproar in Chile. The American ambassador in Santiago himself requested that Braden reconsider his opposition, but Braden remained firm. Chile did not get the loan and wound up negotiating with two American corporations, Livermore and Kellogg Pan-American, to provide the necessary capital and technical assistance without claiming any rights to ownership. In this way, Chile managed to create its State-owned oil exploration company (the *Empresa Nacional de Petróleo*, ENAP) with mostly domestic resources.[115]

110. Pinto, *Chile*, 176; Table A3a.
111. Philip, *Oil and Politics*, 189 (the Senate passed this law in 1944).
112. "Report of Mr. E. E. Soubry on the trip which he made with Mr. G. H. Michler through Latin American countries, January–February 1944: Brazil, Argentina, Uruguay, Paraguay, Chile, Peru, Ecuador, Colombia," Case # 6, PIATC: 17.
113. Philip, *Oil and Politics*, 189.
114. COPEC, *Memoria 1944*, 4.
115. Burbach, "Chilean Industrial," 108–10.

Meanwhile, the COPEC–Esso–Shell cartel was facing strong criticism from various nationalist political groups. When the cooperative agreement expired on January 1, 1942, Esso and Shell agreed to allow COPEC a higher percentage of market share in order to molify their sensibilities. COPEC's share was to increase gradually over the next ten years to 50 percent of the gasoline market and 33 percent of the market for all other products. In addition, COPEC was to buy all products from Shell and Esso in proportion to their previous market shares. Any excess could be sold but again in proportions equal to those in place before the agreement. The agreement also established that Esso and Shell's shares in the foreign quota could be changed at any time, but COPEC's percentage would remain stable.[116]

Oil companies in Chile were highly dependent on the mining sector, which consumed about a third of all oil imports.[117] According to Stephen Randall, the U.S. government's interest in the Chilean oil products market was based not on supporting the oil multinationals, which had higher-return production sites and markets elsewhere in the world, but on maintaining the profitability of U.S. mining companies such as Kennecott or Anaconda. These companies needed a constant, smooth, and reliable flow of oil to support their operations and Chilean attempts to control the market indirectly threatened this supply.[118] When an Esso official inspected the nitrate mines in the North in 1944, mining officials informed him that they anticipated the demand for their products would decrease after World War II. As table A3a has shown, the percentage of imported deisel also had been gradually decreasing. These circumstances discouraged Esso from fighting for better contractual conditions in Chile.[119]

The Cartel's Legitimacy in the Face of Anti-Trust Actions, 1945–1958

Events between 1945 and 1958 demonstrate how the multinationals benefited from participation in an exclusive cartel in which one member was strongly connected to the mechanisms of collective action created by the Chilean elite. COPEC's presence in the cartel gave it a legitimacy it would not have enjoyed had it remained exclusively

116. "Division of Markets: Chile," 1952, Case # 5, PIATC: 5. In the final agreement, the division was: Esso 41.77 percent, Shell 24.9 percent, COPEC, 33.33 percent, see Federal Trade Commission, *International Petroleum*, 337.

117. Instituto de Economía de la Universidad de Chile, "Balanza de Pagos," 5; Federal Trade Commission, *International Petroleum*, 338.

118. Randall, *Foreign Oil*, 75.

119. "Report of Mr. E. E. Soubry," Case # 6, PIATC: 21–22.

in the hands of foreign firms. It also opened a door for the multinationals to do business with the government. The multinationals were increasingly aware of these political benefits. In 1951, as the renewal deadline approached, officials in Esso's New York headquarters had advocated an end to the agreement, arguing in a letter to Chilean officials that "the fundamental policy of Esso [is] to operate on a free competitive basis."[120] Esso officials in the field, however, renewed the agreement in 1952 for two more years and then again until the 1960s.

COPEC's membership in the cartel protected the multinationals from anti-trust actions, even after the promulgation of the first Chilean anti-trust legislation in 1959—the same year in which the government declared its support for a country's right to expropriate foreign property.[121] On the few occasions when the legality of the cartel was challenged, the Anti-Trust Commission affirmed that as long as a Chilean company benefited from the arrangement, the government would not take action against it. Thus, protecting COPEC also meant protecting Shell and Esso.[122]

The creation of the State-owned ENAP also benefited, rather than threatened the multinationals. Between 1939 and 1952, oil became the leading source of energy in Chile. Its use had increased from 22 to 30 percent (during the same period, coal consumption decreased from 27 to 25 percent and wood from 29 to 20 percent), and ENAP had legal authority to contract with foreign companies for exploration and production.[123] Shell and Esso did not engage in exploration, but in 1950, the three companies invested in a new jointly owned tanker and in 1956, Esso, COPEC, and ENAP signed a deal to construct a pipeline.[124] The Chilean State also infused COPEC with capital when in 1954 CORFO purchased almost 15 percent of its shares. CORFO also financed the construction of a refinery in Concón to process ENAP's as well as Shell's and Esso's oil,[125] although ENAP's oil production remained insignificant.[126] Nonetheless, unlike the government's control of ENAP and the general trend toward greater State participation

120. "Division of Markets: Chile," 1952, Case # 5, PIATC: 7.

121. "Chile Backs Right of Expropriation," *New York Times*, 20 May 1959, 4.

122. Furnish, "Chilean Antitrust Law," 477–78; COPEC, *Memoria 1961*, 5.

123. Instituto de Economía de la Universidad de Chile, *Desarrollo Económico*, 163; Odell, "Oil and State," 662–63. Some Chilean intellectuals considered the possibility of foreign participation as a giving the potential Chilean oil wealth. See, Baltra, *La desnacionalización*.

124. COPEC contributed with 50 percent of the tanker's capital and Shell and Esso with 25 percent each. See, COPEC, *Memoria 1950*, 5; COPEC, *Memoria 1956*, 5.

125. COPEC, *Memoria 1954*, 4.

126. Douyon, "Industrialization," 267.

in the economy, COPEC always remained controlled by private shareholders.

Social Changes and Threats to the Cartel, 1958–1970

While the cartel remained stable during the 1960s, by the end of the decade it was facing certain challenges, the result of a shift in Chilean economic policy away from a focus on production and toward consumption. Between 1958 and 1964, Chilean president Jorge Alessandri, son of former president Arturo Alessandri, tried to reverse the existing economic model and make companies compete without State support. The attempt failed both because the Chilean industrial class did not want to abandon its oligopolistic power and because an increasingly powerful and organized Left opposed such a policy shift.[127]

Patterns of oil consumption were also changing, reflecting broader transformations in Chilean society. In the 1950s expenditures on auto gasoline, primarily by the middle class, represented about a third of all oil product sales, while expenditures on kerosene, used mostly by the lower class, represented about 10 percent (see table A1 and figures 1 and 2). In 1964, Chile elected Christian Democrat Eduardo Frei as president; his base of support lay in the middle class. Frei continued protectionism, increased welfare spending, and encouraged foreign investment, but criticized the anti-consumer bias of existing economic policies.[128]

COPEC faced difficulties during Frei's presidency. First, while ENAP sold products to COPEC using rising international oil prices as its baseline, the government did not allow COPEC to increase its prices to consumers.[129] Second, Frei proposed the nationalization of gas distribution, worrying COPEC's directors.[130] In its 1969–1970 annual report, COPEC passionately defended its role in the Chilean economy, arguing that it was a nationalist project led by the private sector, which was now being challenged by a different kind of nationalism, one that advocated "statization" of the oil sector.[131] Interestingly, this defense did not mention COPEC's foreign cartel partners. Frei's social programs did not bear the fruits the working class had

127. Stallings, *Class Conflict*, 78–88; Lundahl, "El camino a la dictadura," 16–20.

128. Lundahl, "El camino a la dictadura," 27–29.

129. COPEC, *Memoria, 1967–68*, 3–6; COPEC, *Memoria 1968–69*, 8–9; COPEC, *Memoria 1969–70*, 4.

130. COPEC, *Memoria 1969–70*, 3.

131. COPEC, *Memoria, 1968–69*, 1–4.

expected, and by the end of his term he faced an economic crisis that made his party unpopular.[132] In the 1970 presidential election, Chile elected Socialist candidate Salvador Allende.

Allende, Socialism, and New Threats to the Cartel, 1970–1973

The literature on conflicts between Allende and foreign multinationals has focused overwhelmingly on Chile's copper industry; the crucial energy sector has barely been mentioned. This is so both because the oil multinationals were a less significant element of the Chilean economy than the mining sector, and because Anaconda and International Telephone and Telegraph Company (ITT) were more openly hostile to Allende than was foreign oil. Nonetheless, declassified CIA documents contain evidence that Shell, Esso, and COPEC felt threatened by Allende and actively supported groups conspiring against his government. The conflict between the business elite and the Allende regime had become apparent when Allende reduced SOFOFA's representation in CORFO, thereby depriving the business class of an important means of influencing economic policy.[133] More generally, during his brief but very tumultuous administration, Allende faced fierce opposition from the Chilean upper classes, foreign corporations, and the U.S. government, whose interests converged to overthrow the regime in 1973.[134]

Allende realized that in order to exercise stronger State control over the economy, he needed to control the oil sector. Although the government claimed it did not want to completely expropriate foreign property, but rather to create a new kind of relationship with foreign corporations, it nonetheless moved to control 100 percent of refined petroleum and 89.2 percent of petroleum and coal derivates.[135] Allende's first step toward State control occurred in March 1971, when he created the *Empresa Nacional de Distribución* (ENADI),[136] one of several State agencies charged with supervising goods distribution in order to control prices.[137] Given the brevity of Allende's

132. De Vylder, *Allende's Chile*, 20–22; Lundahl, "Camino," 30–34.
133. Schneider, *Business Politics*, 163.
134. Sigmund, *The Overthrow of Allende*; Sigmund, *The United States and Democracy in Chile*, 48–84; Uribe, *El libro negro*; Vuskovic, *Acusación al Imperialismo*, 79–121.
135. De Vylder, *Allende's Chile*, 148; Ramos, "Chile: ¿Una economía en transición?" 1442–45.
136. Garretón, et al., *Chile*, 397.
137. World Bank, "Chile," 66.

presidency and the enormous challenges his administration faced, ENADI never posed a serious threat to the cartel's control of the oil sector.

The CIA had planned to sabotage Allende's government even before his election, as did elements of the Chilean opposition. Contrary to the venerable tradition of democratic elections, many among the elite, the armed forces, and the U.S. Department of State clearly believed that Allende should be prevented forcibly from taking power. Some among the Chilean opposition even planned terrorist attacks to provoke a military coup before Allende's inauguration.[138] The U.S. embassy, however, planned to sabotage him economically. Allende's triumph had generated panic among private investors, a response the embassy found useful.[139] In the interim between Allende's elecction and inauguration, Edward Korry, U.S. Ambassador to Chile, wrote to Secretary of State Henry Kissinger: "[During the first] six to nine months... Allende will be most vulnerable. If economic and administrative problems are sufficiently severe, [Allende's] Popular Unity [Party] could crumble."[140] During the same period, a representative of Esso, Shell, and COPEC wrote to Korry that "the economic situation is bad, but it would be good if it got worse," and offered the ambassador the cartel's cooperation to damage the economy.[141]

Conspirators from the military also approached the oil companies. In October 1970, Major Ricardo Palma informed Esso officials of the army's plans to oust Allende. Palma requested detailed information about the company's installations, employees, and contractors in order to protect them when the coup came, noting that shielding gas stations and storage facilities from harm would be crucial to the coup's success.[142] Even though the coup didn't occur for three more years, these communications show very early collusion between army and the oil companies.

Financially, 1971 and 1972 were the worst years in COPEC's history. The company blamed its huge losses on government price controls[143] and included in its 1972–1972 annual report a document proving the government had intentionally tried to bankrupt it.[144] Given that the company itself had intentionally tried to sabotage

138. CIA Intelligence Telegram, 26 Sept. 1970. CIA Chile Declassification Project Tranche III (1979–1991), U.S. Department of State, Washington (hereafter, CIA Chile).

139. From Korry to Kissinger and Johnson, 5 Oct. 1970, CIA Chile.

140. From Korry to Kissinger, 25 Sept. 1970, CIA Chile.

141. From Korry to Kissinger, 25 Sept. 1970, CIA Chile.

142. From Korry to Johnson, 5 Oct. 1970, CIA Chile.

143. COPEC, *Memoria 1971–72*, 1–3.

144. COPEC, *Memoria 1972–73*, 1–2.

the economy, it is hard to know what were the real roots of this poor financial showing, but it certainly alarmed the investment community. Allende's political enemies also used oil policies to oppose him. In February 1972, opposition senator Juan Hamilton proposed a constitutional amendment that would exempt the oil sector from expropriation. Allende considered this a provocation, so he did not take any action against oil corporations.[145]

Nonetheless, the United States and its Chilean allies succeeded in sabotaging the economy, in part by cutting off new U.S. investment and limiting international credit and financing assistance. By the second half of 1973, Chile faced rampant inflation and a scarcity of basic goods, which led to political chaos. On September 11, 1973, Allende was overthrown in a coup led by General Augusto Pinochet, who remained in power until 1989. During the coup, the Army raided ENADI's stores to get access to materials useful for the manufacture of explosives. ENADI's union boss was arrested and tortured, and the company was privatized the following year.[146] Overall, at the end of Allende's government, the multinationals' positions in the market remained unaltered.[147]

Pinochet's Pro-market Policies and the End of the Chilean Oil Cartel

Ironically, the cartel came to an end not because of Allende's socialist policies but because of Pinochet's free-market ones. Unlike the heads of State who had preceded Allende, Pinochet did not ally with business groups. Demonstrating the validity of Guillén's predictions, his moves to end an import substitution policy decreased the power business groups had traditionally exercised in the development of Chilean economic policy.[148]

Upon taking office, Pinochet acted aggressively to end Chile's protectionist tradition and liberalize the economy.[149] He purged representatives of business associations from CORFO's boards and replaced them with technocrats interested in reducing SOFOFA's protectionist power.[150] Even COPEC lost some independence when it was forced

145. Rojas, *The Murder of Allende*, 103–4.
146. Loveman and Lira, *Las ardientes cenizas*, 343; Chile, *Informe Comisión Privatizaciones*, 34.
147. Wall, *Growth in a Changing Environment*, 391.
148. Guillén, "Business Groups," 367.
149. De Vylder, "Chile 1973–1987," 55–100; Loveman, *Chile*, 261–307.
150. Schneider, *Business Politics*, 164.

to accept a military official as a member of its board.[151] By 1975, the Chilean State owned more than 50 percent of the country's eight largest companies; ENAP was entirely government owned. Among the country's top 100 companies, COPEC ranked tenth, and Esso and Shell twenty-fifth and forty-second, respectively.[152] Also in 1975, the government opened the exploration and exploitation sector to private capital, ending ENAP's monopoly over these ventures.[153] In 1977 the government announced it would gradually sell its minority interests in COPEC, and in 1978 new legislation finally killed the COPEC–Shell–Esso cartel.[154] With this action, the Chilean government initiated policies related to the energy sector that were later taken up by other Latin American countries in the 1990s.[155]

After 1978, the leading Chilean business groups organized during the dictatorship acquired control of COPEC.[156] The Cruzat-Larraín group controlled 40 percent of COPEC's shares, the Schiess group 19 percent, and the Patricio García Vela group 5 percent.[157] The Cruzat-Larraín group had been organized by Javier Vial, son of Carlos Vial Espantoso, for years COPEC's top shareholder and director; Manuel Cruzat, COPEC's director in 1968; Jorge Ross, its president in 1977; Pablo Baraona, its director in 1977; and Guillermo Schiess, its director after 1981. See tables A4, A5, and A6 for further details on COPEC's leadership. In 1982, Chile's richest man, Anacleto Angelini, purchased CORFO's participation in COPEC, acquiring 14 percent of the company's shares. Angelini continued to buy COPEC stock, and by 1986 he owned a controlling 42 percent of its shares.[158] This takeover occurred in the context of the 1982 economic crisis, marked by unprecedented street protests, during which Pinochet sought to reestablish links to business groups.[159]

Pinochet's deregulation altered the market shares of previous cartel members. COPEC's share fell from 51.6 percent in 1982 to 39.5 percent in 1991, and Esso's from 28.1 percent to 21 percent. Shell's share,

151. COPEC, *Memoria 1975*, 2.

152. CORFO, "Chile's 100 Largest Companies," *Chile Economic News* (March 1977): 6–7.

153. Chile, *Licitación*, 8.

154. CORFO, "CORFO continues to sell its industry holdings," *Chile Economic News* (August 1977): 2–3; Fuentes, Paredes, and Vatter, "Desregulación y competencia," 2; Hachette and Lüders, *Privatization*, 182.

155. Campodónico, "Gestión mixta."

156. For the development of Chilean business groups under Pinochet see Lefort, "Business Groups in Chile."

157. Dahse, *Mapa*, 27, 36, 96.

158. "José Tomás Guzmán: Un Angelini visto muy de cerca," *El Mercurio*, 2 September 2007 (online edition). The Angelini group controlled 40 percent of Chilean exports between 1987 and 1989. See, García, "Cambios industriales," 130.

159. Schneider, *Business Politics*, 165.

however, rose from 18.6 percent to 22.3 percent, during the same period.[160] Overall, Pinochet's deregulation sought to increase competition, but this did not occur in the oil marketing sector. By 2005, the only company other than the three former cartel members that played any signifiant role in this sector was Argentina's YPF. It controlled 12.8 percent of the Chilean gasoline market, compared to COPEC's 40 percent, Esso's 19.8 percent, and Shell's 26.5 percent.[161] In spite of all of ENAP's efforts, Chile entered the twenty-first century highly dependent on imported oil, now coming primarily from neighboring Argentina.[162]

Conclusion

This paper considered the long-term strategies of two multinational oil corporations and the Chilean State in the context of a late industrializing country with powerful indigenous business groups. I have demonstrated that the presence of these business groups shaped the actions of both the government and the multinationals in Chile between 1908 and 2005. The multinationals, Shell and Esso, controlled 100 percent of the Chilean oil products market between 1913 and 1937 and entered into a global agreement not to compete with each other. Their complete control of the Chilean oil market came to an end in 1937, when the Chilean State forced them to accept a local private company, COPEC, into their cartel. COPEC reflected changes taking place in Chilean society in the 1920s and 1930s, as the government gradually adopted more protectionist policies in order to promote industrialization within the country. These policies strengthened local corporations, which organized into business groups to influence policy and protect themselves from pro-labor initiatives.

The multinationals initially opposed COPEC. In the long term, however, COPEC proved to be not a free rider in Olsonian terms, but rather an asset for the multinationals: as long as the ISI process continued, business groups, including those with connections to COPEC, became the government's primary consultants in the development of economic policy and their members came to occupy influential positions in the government's development agencies. This revolving door between government and the private sector benefited

160. Fuentes, Paredes, and Vatter, "Desregulación," 21–25.
161. Balmaceda and Soruco, "Asimetrías," 6.
162. Stanganelli, *Las Fuentes*, 275.

the multinationals working with COPEC. During the 1940s and 1950s, for example, this partnership permitted the multinationals to do business with the government as subcontractors. After more than three decades, however, the COPEC–Shell–Esso cartel faced challenges as successive governments developed new economic policies. The first serious threat occurred during the Allende administration, which created a State-owned oil distribution company and planned a total nationalization of the industry. The cartel defended itself as a bloc, and the three companies actively conspired against the government. The second challenge came during the first years of the Pinochet regime. Cartels did not figure in Pinochet's open market, free trade policies, and in 1978 the cartel was dismantled. Subsequently, the companies competed in the open market.

Overall, the Chilean oil sector changed between the 1930s, when the government used business groups to develop and implement nationalist economic policies, and the 1970s, when the groups joined with multinationals to oppose nationalist policies that threatened their property rights. The cartel enjoyed its best relationship with the government during times of unchallenged ISI and when business groups participated in creating economic policy. Because the local cartel member, COPEC, also participated in Chilean business groups, the multinationals were able to benefit from nationalist policies.

In the traditional Olsonian analysis, members of an exclusive group are aware of the benefits of creating the group and make a rational decision to form it. My study, however, shows the crucial role of the State in this process, for members of the oil cartel did not create it of their own accord; rather their participation was secured only by government pressure. Ironically, in the long term the cartel was useful in members' defense against the State. In addition, while the multinationals initially opposed COPEC's participation on the grounds that the Chilean company was going to be an Olsonian "free-rider," again in the long term the multinationals were "free-riders," in that COPEC's involvement in Chilean business groups protected them from State actions. COPEC also benefited from the multinationals' political connections during the Allende government, when the U.S. embassy conspired against the government.

The oil multinationals' long-term strategy cannot be understood without considering the protectionist economic policies that led to the creation of powerful business groups. Business groups remain dominant in net oil importing industrializing nations in the early twenty-first century. In a world economy with increasingly integrated markets, institutions like business groups will continue to influence the terms under which nations acquire energy resources.

Appendix

Table A1 Chile: Consumption of petroleum products. Thousands of barrels (selected years)

	Total petroleum products	Gasoline	Kerosene	Lubricants	Fuel oil	Distillate fuel oil	Per capita consumption total petroleum products (barrels per year)	GDP per capita (Maddison calculation, 1990 dollars)
1932	1,939	410	64	32			0.43	2,274
1933	1,813	389	65	32			0.4	2,652
1934	2,151	619	56	37			0.46	2,976
1935	3,338	622	55	69			0.71	2,987
1936	3,575	650	60	75	2,550		0.75	3,056
1937	4,870	650	60	70	4,000		1	3,241
1938	5,020	740	60	80	4,100		1.02	3,139
1939	5,260	750	70	80	4,300		1.05	3,178
1940	5,235	900	60	95	4,100		1.03	3,259
1941	5,465	910	65	100	4,300		1.06	3,205
1950	7,491	2,236	340	116	4,056	743	1.43	3,821
1951	9,385	2,357	478	190	5,355	1,005	1.75	3,833
1952	9,508	2,725	617	158	5,008	1,000	1.75	4,024
1953	9,244	2,975	832	149	4,215	1,073	1.66	4,159
1954	10,992	3,198	1,161	184	5,023	1,426	1.95	4,101
1955	12,890	3,390	1,320	170	6,300	1,710	2.24	4,016
1956	14,549	3,862	1,324	190	6,820	2,353	2.49	3,954
1957	14,115	3,885	1,210	172	6,070	2,778	2.36	4,269
1958	13,964	4,355	1,290	267	5,292	2,760	2.3	4,282
1959	16,799	4,529	1,525	217	7,820	2,112	2.7	4,155
1960	17,540	4,884	1,672	230	7,180	2,227	2.78	4,320
1961	16,252						2.51	4,418
1962	19,759						2.98	4,518

Table A1 Continued

	Total petroleum products	Gasoline	Kerosene	Lubricants	Fuel oil	Distillate fuel oil	Per capita consumption total petroleum products (barrels per year)	GDP per capita (Maddison calculation, 1990 dollars)
1963	21,161						3.11	4,694
1964	23,180						3.33	4,693
1965	21,866	7,013	2,393	214	6,949	3,513	3.06	4,631
1966	27,116	7,756	2,590	249	9,657	4,494	3.7	5,042
1967	29,973	9,094	3,392	181	9,643	4,194	4	5,105
1968	30,523	9,021	2,911	–	8,801	5,091	4.02	5,188
1969	31,786	10,145	3,560		8,799	5,214	4.09	5,281
1970	32,292	10,557	3,660	388	9,074	4,951		5,293
1971	40,666	11,683	4,452	349	12,397	6,003	4.99	5,633
1972	40,071	11,933	4,768		11,336	5,431	4.81	5,492
1973	40,096	10,413	4,748	279	10,954	5,802	4.71	5,093
1974	35,684	8,001	3,376	395	12,466	5,624	4.11	5,050
1975	33,354	7,760	3,280	217	8,162	6,206	3.77	4,323
1976	32,129	7,535	3,720	135	7,877	6,341	3.55	4,398
1977	32,395	7,978	3,792	86	9,316	6,535	3.52	4,755
1978	34,550	8,594	3,863	86	10,183	6,736	3.68	5,069
1979	38,690	9,125	4,015		10,585	8,030	4.05	5,407
1980	39,055	9,125	4,015		10,220	9,125	4.02	5,738
1981	35,405	9,855	2,920		9,125	8,030	3.6	5,956
1982	32,120	9,125	2,555		8,030	8,395	3.2	5,017
1983	36,500	9,855	2,190		8,030	9,855	3.57	4,898
1984	35,040	9,125	2,555		7,665	10,220	3.37	5,125
1985	31,755	8,395	1,460		6,570	9,125	2.99	5,168

(continued)

Table A1 Continued

	Total petroleum products	Gasoline	Kerosene	Lubricants	Fuel oil	Distillate fuel oil	Per capita consumption total petroleum products (barrels per year)	GDP per capita (Maddison calculation, 1990 dollars)
1986	35,405	8,760	365		6,205	10,950	3.27	5,375
1987	37,595	9,490	1,460		5,840	11,680	3.42	5,590
1988	40,515	10,220	1,460	730	6,570	13,140	3.63	5,901
1989	45,990	11,315	1,460	365	8,030	15,330	4.05	6,377
1990	48,910	11,315	1,460	365	8,760	16,790	4.24	6,402
1991	52,560	12,775	1,825	1,095	9,125	16,790	4.48	6,753
1992	55,115	14,235	1,825		8,760	17,520	4.62	7,374
1993								7,738
1994	65,335	16,425	2,190		12,410	21,535	5.29	8,010
1995	69,715	16,425	2,555		15,695	23,360	5.55	8,612
1996	79,205	18,615	2,555		14,600	26,280	6.21	9,080
1997	85,045	18,980	2,190		14,600	28,835	6.56	9,586
1998	87,235	19,710	2,190		13,870	29,200	6.65	9756
1999	89,060	20,075	1,825		12,775	31,755	6.68	9539
2000	86,140	20,440	1,460		12,775	29,930	6.36	9841
2001	84,862.5	18,578	1,387		12,045	30,623.5	6.16	10,001
2002	85,410.0	18,469	1,277.5		10,037.5	31,536	6.1	
2003	86,067.0	17,775.5	912.5		11,643.5	31,536.0	6.05	

Sources: Calculations with information from: 1932–1968: American Petroleum Institute. *Petroleum Facts and Figures*; 1969, 1971: DeGolyer and MacNaughton. *Twentieth Century Petroleum*; 1972–1978: U.S. Bureau of Mines, *International Petroleum Annual*; 1979–2001: U.S. Department of Energy, *International Petroleum Annual*; 2002–2003: U.S. Energy Information Administration (www.eia.doe.gov); Oxford Latin American Economic History Database (http://oxlad.qeh.ox.ac.uk); Maddison, *World Economy*, 144.

Table A2 Chile: Participation of ports in imports of diesel, 1931–1958

	Iquique	Tocopilla	Antofagasta	Valparaiso	Talcahuano
1931	2	66.6	4	5.2	0.2
1932	2	75.2	6.4	3.4	0.3
1933	4	10	56	5	1.2
1934	11	9.1	37	26	0.6
1935	11	19.8	42.5	18.1	0.6
1936	15	22.6	23.4	2	1.3
1937	13	11.3	30.6	20	0.7
1940	5.6	43.7	4.9	26	0.17
1946	4		5.2	56	1.7
1948	2	51	7.5	27.5	2.8
1950	2.6	0	11	48.5	20.6
1952	8.9	0.6	3	49.3	21.6
1953	5.4	0	18	43.4	21.2
1956	13.7	1.2	17	11.6	33.6
1958	8.6	70	12.3	0.2	3.4

Source: Author's calculations with information from Chile, *Anuario* (various years).

Table A3a Chile: Imports of crude oil and diesel. Thousands of metric tons and millions of pesos 6d gold (selected years), 1938–1966

	Crude petroleum weight	Crude petroleum value	Diesel weight	Diesel value	Total imports value	Total exports value	Imports of crude and diesel as percentage of total imports
1938	574	23.89	40	2.87	498.7		5.3
1947	803	60.25	76	9.06	1,287.68	1,351.8	5.4
1948	881	93.23	163	23.85	1,300	1,596.1	9
1949	838	68.33	105	14.96	1,474	1,437.5	5.6
1950	496	38.34	88	12.2	1,200.44	1,374.7	4.2
1951	905	78.19	132	20.76	1,594.64	1,802.56	6.2
1952	677	64.84	103	17.88	1,795	2,207	4.6
1953	801	70.26	118	19.64	1,624.81	1,995.37	5.5
1954	917	84.66	210	32.08	1,665.41	1,957.33	7
1955	1,049	91.27	174	26.3	1,826.9	2,304.28	6.4
1956	789	81.15	105	17.7	1,715.85	2,641.98	5.7
1957	690	81.72	121	19.44	2,142.64	2,224.38	4.7
1958	766	83.58	241	14.72	2,012.44	1,885.83	4.9
1959	1,834	206.95	161	20.49	2,003.04	2,411.57	11.3
1960	1,652.3	164.99	108.8	14.33	2,425.48	2,378.84	7.4
1961	1,123	77.86	156	20.81	2,866.53	2,466.82	3.4
1962	974.6	84.17	112.9	17.12	2,483.85	2,582.92	4
1963	954.4	72.92	142.6	18.25	3,092.08	2,630.88	3
1964	804.1	58.73	281.6	21.61	2,947.5	3,037.53	2.7
1965	1,073	79.21	116.1	14.98	2,929.99	3,339.12	3.2
1966	2,413	149.57	120	15.28	3,674.07	4,275.39	4.5

Source: United Nations, *Yearbook of International Trade*, various years; Chile, *Boletín Mensual*, various years.

Table A3b Chile: Imports of crude petroleum and petroleum products. Thousands of metric tons and millions of dollars, 1967–2002

	Crude petroleum weight	Crude petroleum value	Petroleum products weight	Petroleum products value	Total imports value	Total exports value	Imports of crude and products as percentage of total imports
1967	2,265	42.9	147.4	9.7	722.5	907.7	7.3
1968	1,978.9	25.1	–	16.7	743.6	935.9	5.6
1969	2,299.6	35.8	531.6	17.9	907.9	1,067.9	5.9
1970	1,976.2	28.5	1,137.5	19	930.1	1,233.6	5.1
1971	2,930.5	57.3	598.1	22.6	979.8	961.2	8.1
1972	3,484.18	63.8	355	12.7	941.2	855.4	8.1
1973	2,930.6	50	233,869	18.8	1,079.9	1,230.5	6.4
1974	4,747.13	213	274,459	32.9	1,681.4	1,247.5	14.6
1975	3,320.77	287	55,889	9	1,338.2	1,552.1	22.1
1976	1,552.3	160.6	102,197	14.8	1,683.8	2,082.6	10.4
1977	2,825.02	333.3	–	14.2	2,414	2,190.3	14.4
1978	3,563.9	77.3	69,214	17.7	3,002.4	2,447.7	
1979	–	811	–	40	4,217.6	3,894.2	20.1
1980	3,271.9	810.4	112,544	49.5	5,123.7	4,671	16.8
1981	2,673.5	704.7	341,465	145.2	6,363.8	3,906.3	13.3
1982	–	–	–	–	–	–	–
1983	1,867.4	406.5	474,505	146	2,754	3,835.5	20
1984	1,940.1	420.6	495,915	137.7	–	–	–
1985	2,116.5	445.6	158,311	55	–	–	–
1986	2,731.9	315.7	457,549	90.2	–	–	–
1987	2,866.9	378.9	–	54	4,023.3	5,101.9	10.7
1988	4,010.6	457.4	330,092	73.6	4,924	7,048.3	10.8
1989	4,373.2	572.6	587,077	116.9	6,535.1	8,190	10.5
1990	5,575.7	818.3		134.1	7,272.1	8,580.3	13
1991	5,077.9	814.9	611,889	156.9	7,424	8,924	13
1992	4,546.8	832.9	511,598	155.3	10,129	9,986	9.7
1993	4,861.0	779.7	440,093	134.4	11,125.4	9,198.7	8.2
1994	5,127.7	747.9	–	187.8	11,824.6	11,604.1	7.9
1995	5,649.08	905.6	793,895	200.3	15,914.1	16,038.6	6.9
1996	6,085.0	1,158.8	1,255,400	349.6	16,810	15,406.8	8.9
1997	7,964.1	1,132.2	1,633,030	343.4	18,110.8	16,678.2	8.1
1998	6,883.4	845.2	1,091,784	267.4	17,082.4	14,841.6	6.5
1999	–	1,099.9	–	264.7	13,891.5	15,619.2	9.8
2000	–	2,428.8	–	419.7	16,619.7	18,214.5	17.1
2001	–	2,111.9	–	348.5	16,136.2	18,745.4	15.2
2002	–	1,939.5	–	385	15,383.4	17,430.2	15.1

Source: Same as Figure 4a.

Table A4 COPEC: Directors and management, 1936–1963

Year	General Manager	President	Vice-President	Directors
1936	Manuel Zañartu	Pedro Aguirre Cerda	Francisco Bulnes	Fernando Lira, Hector Marchant, Arturo Matte, Walter Müller, Eulogio Sánchez, Roberto Wachholtz
1937	Manuel Zañartu	Héctor Marchant	Francisco Bulnes	Domingo Durán, Arturo Matte, Walter Müller, Hernán del Rio, Eulogio Sánchez
1938	Manuel Zañartu	Francisco Bulnes	Hector Marchant	Carlos Alessandri, Domingo Durán, Walter Müller, Hernán del Río, Eulogio Sánchez, Ricardo Yrarrázaval
1939	Hector Marchant	Francisco Bulnes	Manuel Zañartu	Same as previous year
1940–1953	Manuel Zañartu	Francisco Bulnes	Hector Marchant	Carlos Alessandri, Domingo Durán, Walter Müller, Hernán del Río, Eulogio Sánchez, Carlos Vial Espantoso, Carlos Vial Infante
1954–1955	Manuel Zañartu	Francisco Bulnes	Walter Müller	Carlos Alessandri, Domingo Durán, Manuel Zañartu, Hernán del Río, Eulogio Sánchez, Carlos Vial Infante
1956–1957	Manuel Zañartu	Francisco Bulnes	Walter Müller	Pablo Aldunate, Carlos Alessandri, Domingo Durán, Manuel Zañartu, Hernán del Río, Eulogio Sánchez, Carlos Vial Infante, Ricardo Yrarrázabal
1958	Antonio Baeza	Francisco Bulnes	Walter Müller	Pablo Aldunate, Carlos Alessandri, Antonio Baeza, Julio Durán, Manuel Zañartu, Eulogio Sánchez, Carlos Vial Infante, Ricardo Yrarrázabal
1959	Antonio Baeza	Francisco Bulnes	Manuel Zañartu	Pablo Aldunate, Carlos Alessandri, Antonio Baeza, Julio Durán, Alvaro Orrego, Ramón Salinas, Ricardo Yrarrázabal
1960–1961	Antonio Baeza	Francisco Bulnes	Manuel Zañartu	Pablo Aldunate, Carlos Alessandri, Antonio Baeza, Julio Durán, Alvaro Orrego, Jenaro Prieto Vial, Ricardo Yrarrázabal
1963	Antonio Baeza	Francisco Bulnes	Manuel Zañartu	Pablo Aldunate, Carlos Alessandri, Antonio Baeza, Eliodoro Matte, Alvaro Orrego, Jenaro Prieto Vial, Walter Müller

Source: COPEC, *Memoria*, various years.

Table A5 COPEC: Top shareholders, 1938–1947

	Total shares owned by institutional investors	Top individual shareholders	Number of shares owned by individuals	Total shares owned by individuals
1938	311,152	Roberto Wachholtz	73,742	488,848
		Enrique Costabal	38,800	
		Sergio Larraín-Garcia	31,619	
		Carlos Vial	18,228	
		Domingo Durán	12,214	
		Alfredo Duhalde	10,714	
		Manuel Grez	10,500	
		Hernán Rojas	10,500	
		Andrés Prado	10,000	
		Emilio Sánchez	8,800	
1939	320,944	Roberto Wachholtz	65,242	481,146
		Enrique Costabal	38,700	
		Carlos Vial	38,428	
		Ruperto Marchant	14,286	
		Emilio Sánchez	13,000	
		Benigno Saa	10,800	
		Domingo Durán	10,214	
		Héctor Marchant	10,200	
		Rafael Errazuriz Quesney	10,000	
		Jorge Marín	8,100	
1940	632,552	Ricardo Yrrarazaval	56,000	967,448
		Enrique Costabal	54,400	
		Carlos Bulnes	44,000	
		Francisco Bulnes	40,130	
		Carlos Vial	38,428	
		Beningno Saa	21,600	
		Manuel Grez	21,200	
		Hernán Rojas	20,000	
		Pedro Despouy	20,000	
		Héctor Marchant	19,400	
1941	938,295	Enrique Costabal	63,100	1,448,714
		Carlos Vial	57,642	
		Ricardo Yrrázaval	32,000	
		Francisco Bulnes	30,695	
		Pedro Despouy	30,000	
		Germán Claro	28,000	
		Ricardo Valdés	26,350	
		Carlos Alessandri	21,000	
		Ruperto Marchant	20,143	
		Roberto Gellona	19,150	
1942	953,053	Enrique Costabal	62,900	1,446,947
		Carlos Vial	57,642	
		Eduardo Marinot	30,050	
		Pedro Despouy	30,000	
		Germán Claro	28,000	
		Francisco Bulnes	25,695	
		Ricardo Yrrázaval	25,400	
		Gustavo Rivera	20,000	
		Ruperto Marchant	18,243	
		Carlos Vial	16,600	

Table A5 Continued

	Total shares owned by institutional investors	Top individual shareholders	Number of shares owned by individuals	Total shares owned by individuals
1943	950,414	Enrique Costabal	62,900	1,449,586
		Carlos Vial	45,342	
		Pedro Despouy	30,000	
		Eduardo Marinot	20,050	
		Francisco Bulnes	20,000	
		Gustavo Rivera	20,000	
		Domingo Durán	17,742	
		Augusto Yver	16,900	
		Carlos Vial	16,600	
		Oscar Ossa	16,100	
1944	1,439,529	Enrique Costabal	94,350	2,160,471
		Carlos Vial	68,013	
		Ricardo Valdés	48,023	
		Pedro Despouy	45,000	
		Raúl Yver	40,000	
		Carlos Vial	36,700	
		Luis Yver	30,000	
		Manuel Grez	29,100	
		Domingo Durán	26,634	
		Gumecindo Claro	26,047	
1945	1,436,743	Enrique Costabal	94,440	2,163,257
		Carlos Vial	68,013	
		Raúl Yver	50,000	
		Pedro Despouy	45,000	
		Carlos Vial	36,700	
		Delorme Ahumada, Alexis	32,100	
		Domingo Durán	26,634	
		Gumercindo Claro	26,047	
		Francisco Bulnes	25,800	
		Juan Gioch	25,750	
1946	1,399,870	Enrique Costabal	94,440	2,200,130
		Carlos Vial	66,513	
		Pedro Despouy	45,000	
		Carlos Vial	36,700	
		Domingo Durán	26,634	
		Francisco Bulnes	25,800	
		Juan Goich	25,750	
		Augusto Yver	25,250	
		Maximiliano Errázuriz	24,675	
		Luis Izquierdo	24,400	2,894,726
1947	1,905,264	Enrique Costabal	125,920	
		Carlos Vial	48,933	
		Carlos Vial	41,046	
		Pedro Despouy	40,200	
		Domingo Durán	35,512	
		Francisco Bulnes	34,400	
		Juan Goich	34,333	
		Augusto Yver	30,033	
		Luis Izquierdo	29,733	
		Eduardo Marinot	27,433	

(*continued*)

Table A5 Continued

	Total shares owned by institutional investors	Top individual shareholders	Number of shares owned by individuals	Total shares owned by individuals
1948	2,751,867	Enrique Costabal	188,880	4,448,133
		Carlos Vial	73,399	
		Domingo Durán	52,768	
		Carlos Vial	51,819	
		Francisco Bulnes	51,600	
		Pedro Despouy	50,800	
		Eduardo Marinot	46,768	
		Juan Goich	46,204	
		Ricardo Valdés	45,211	
		Luisa Guzmán	45,000	
	2,870,004	Enrique Costabal	154,680	4,329,996
		Carlos Vial	62,218	
		Domingo Durán	53,268	
		Pedro Despouy	50,000	
		Luisa Guzmán	50,000	
		Ricardo Valdés	45,951	
		Eduardo Marinot	40,201	
		Carlos Bulnes	40,000	
		Nicanor Senoret	39,999	
		Carlos Alessandri	36,000	

Source: COPEC, *Memoria*, various years. Information not available after 1947.

Table A6 COPEC: Selected biographies of main shareholders, directors, and presidents

Carlos Alessandri	Partner of the firm Alessandri and Wachholz. Relative of president Arturo Alessandri.
Roberto Wachholz	Senator and Minister of Finance (1938–1939, 1946–1947), landowner, mining entrepreneur.
Héctor Marchant	President of Chilean trade missions abroad in the 1930s.
Arturo Matte	Minister of Finance (1943–1944), senator (1951–1957), founder of Compañía Acero del Pacífico, presidential candidate (1952), large landowner.
Francisco Bulnes	President Seguros Sudamérica, lawyer of Grace and Company.
Enrique Zegers	Representative of General Motors in the 1940s
Domingo Durán	Congressman (1926–1930), Minister of Justice (1924, 1932–1934)
Alfredo Duhalde	Founder of the Agrarian Mortgage Bank, Congressman (1945–1953), Minister of Defense (1940), Minister of the Interior (1945), Chile's vice-president (1945).
Eulogio Sánchez	Aviation pioneer. President Compañía Minera Cerro Negro. Founder of the right-wing paramilitary group "Milicias Republicanas" in the 1930s.
Ricardo Yrarrázabal	Large landowner, president of Chile Banking Association, member of Santiago's Archbishop board.
Carlos Vial Espantoso	President of Santiago Stock Exchange (1923–1927), Founder of Banco Sudamericano, Minister of Finance (1950), and senator (1957–1965). His son-in-law was first-cousin of Francisco Bulnes and brother in law of a first cousin of Carlos Alessandri.
Julio Durán	Founder Radical Party, ambassador under Pinochet to the Organization of American States.

Sources: Chile, *Diccionario biográfico*; Bizzarro, *Historical Dictionary*; Empresa Periodística, *Diccionario Biográfico*, various years; Zeitlin, Ewen, and Ratcliff, "New Princes"; Partnership for Democratic Governance, "Right-Wing Paramilitary;" COPEC, www.empresascopec.cl; Genealogías, www.genealog.cl.

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