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TITOLO TESI

America's energy transition, the evolution of the national interest, and the Middle Eastern connection at the dawn of the Twentieth Century

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Introduction

No single commodity has been so important in delineating the frontiers American national security as oil. Concerns about the future availability (and price) of fossil fuels have factored heavily in the U.S. foreign policy-making process for the last several decades, shaping the country's objectives, political alliances, and overall engagement with the world. The notion of energy security is usually considered to have become central in the American political debate in the 1970s, when a series of tumultuous events shook the Middle East and restructured the functioning of the industry, while the emergence of Washington's real strategic interest towards oil is usually dated back to the WWII years. Yet the survival of the state and the access to petroleum had been interlinked well before. A compelling narrative about a vital and incoming "global struggle for oil" developed already at the beginning of the century, prompting a shift in the administration's attitude toward petroleum and the identification of foreign sources of supply as direct U.S. interest. The dissertation investigates the origins of Washington's interest in petroleum and the elements that originally shaped the country's foreign oil policy in the early twentieth century. The chapters center on the analysis of the American political debate and give special consideration to the international race to secure oil concessions in the Middle East that began before WWI and that culminated in the early 1920s. The study follows the establishment of a new, more assertive stance towards the securing of sources of supply in U.S. politics, and looks at the parallel evolution of concept of national interest. In examining the process of actual policy-formation, the research looks into the discussion between the various branches and departments of the administration, as well as between the federal government and the other private actors involved in petroleum exploration and production. The aim is to reconstruct the arguments that were used to support Washington's drive toward the acquisition of petroleum supply, in order to understand how the access to oil resources – both at home and abroad – was presented, justified, and pursued before the American public.

1.1 The Industry: The Spindletop Effect

1.1.1 The Shiny Well Upon a Hill

A twentieth century of oil-fuelled energy and dreams of endless growth started with a small delay on the Gregorian schedule, on January 10, 1901. Captain Anthony Lucas was the man that unwittingly inaugurated the new era when he struck oil at 1,200 foot deep, under a small hill south of Beaumont, Texas, about twenty miles from the coast of the Gulf of Mexico. The well came in around 10:30 in the morning. The first violent spurt of mud sent tons of 4-inch drill pipe shooting high over the derrick, carrying its heavy crown block into the sky before falling back ruinously to the ground. The three-man crew working on the hillock had barely the time to scamper away. Soon after, what they thought was a cannon shot anticipated a second powerful eruption. Following the rapid expulsion of high-pressure gas, an impressive 6-inch thick column of oil rose high above the top of the damaged derrick. The greenish, straight stream of oil went more than one hundred feet above the wooden structure[1]. The pressure at the head of the well was so high that petroleum flowed – and flew – uncontrolled for nine days before the drillers were able to cap it. The steady and continuous jet inundated the adjacent lands and fathered out in the sky, creating a heavy and oily mist that smeared the town. Lucas and his men tried to recapture at least part of the oil, hastily building earthen levees on the hill. The flood, however, seemed impossible to dam. Petroleum spilled over the barriers and run wild, starting to pool in ditches and pits. Sand was finally amassed to confine the oil within a close perimeter. When the flow was stopped, the final black lagoon was four to six feet deep and covered an area of almost one hundred acres[2]. There was no doubt: the Spindletop well was a "gusher" – one of gigantic proportions, too.

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[1] There are countless accounts about the Spindletop discovery, but (almost) all of them differ on this

[2] The events that took place at Beaumont on January 10, 1901, are taken and condensed here from several different accounts. Besides the works mentioned above, the story of those days at Spindletop is found also in Paul N. Spellman, *Spindletop Boom Days* (College Station, Texas: Texas A&M Press, 2001); Jo Ann Stiles, Judith Linsley, and Ellen Rienstra, *Giant Under the Hill: A History of the Spindletop Oil Discovery at Beaumont, Texas, in 1901*, (Austin: Texas State Historical Association, 2002), pp. 89-184; John S. Spratt, *The Road to Spindletop; Economic Change in Texas, 1875-1901*, (Dallas: Southern Methodist University Press, 1955), pp. 273-285; Ruth Sheldon Knowles, *The Greatest Gamblers; the Epic of American Oil Exploration* (Norman: University of Oklahoma Press, 2nd edition, 1978) pp. 21-45; Boyce House, Spindletop, *The Southwestern Historical Quarterly*, Vol. 50, No. 1 (Jul. 1946) pp. 36-43; History of the Southwestern Fields, *North American Oil & Gas – A supplement to The Oil and Gas Journal*, Vol. 18, May 1919, pp. 140-151.

Spontaneous gushes of petroleum occurred every time drillers perforated reservoirs whose overlaying strata had allowed the accumulation of gas in a compressed state – as in the case of the salt dome structure hidden below the hillock. These "fountains" or "spouters", as they were known at the time, were actually not rare. In Russia, the first gusher was recorded in 1866 in the North Caucasus region; it was the area around Baku, however, that in the late nineteenth-century became famous for its frequent black geysers. In the United States too, oil fountains – although considerably smaller than their Russian peers – became part of the petroleum culture since the very beginning. The first gusher was drilled in Pennsylvania in 1861, just two years later the Drake well, which is traditionally considered the start of the American oil industry[3]. Lucas's well, however, was different and, in many respect, unprecedented. As is often the case in an oil business obsessed with quantity, the numbers associated with the Spindletop field help to convey the scale and importance of the discovery. In 1900, in the United States produced around 64,000,000 barrels of oil, brought about by a total of about 65,000 active wells[4]. Those scattered in the Appalachian region, which included New York, Pennsylvania (the oldest oil state and the major producer until 1895), the eastern edge of Ohio, West Virginia, part of Kentucky and Tennessee, were about 36,000 and accounted for slightly less than half of the nation's output, or about 36,300,000 barrels. Ohio, whose output peaked that year, accounted for 22,000,000 barrels. California, where the petroleum industry had developed intensely in the previous ten years, contributed with another 4,000,000 barrels. The only active field in Texas was in Corsicana, where about 800,000 barrels were extracted in 1900. Louisiana had no commercial production. The first well in the Corsicana field, about 230 miles northwest of Beaumont, was completed in 1885 and yielded two and a half barrels per

[3] Edwin Drake drilled his (and America's) first commercial oil well in 1859 in northwestern Pennsylvania.

[4] Data in this section: for the number of the wells, see *The Petroleum Resources of the United States* (Washington, DC: Government Printing Office, 1909), pp. 30-51. For the regional and national production, see: United States Geological Survey (USGS), Department of Interior, *Mineral Resources of the United States, Calendar Year 1901* (Washington DC: Government Printing Office, 1902) pp. 525-584**;** Ralph Arnold and William J. Kemnitzer, *Petroleum in the United States and possessions – A Presentation and Interpretation of the Salient Data of Geology, Technology, and Economics of Petroleum in Each State and Possession Treated According to the Conventional Major Field Divisions* (New York, Harper & Brothers, 1931); Department of Energy (DOE), Energy Information Administration (EIA), *Petroleum Navigator: Crude Oil Production*, electronic database, at http://goo.gl/qzcOSL. For the world production, see: Valentin R. Garfias, *Petroleum Resources of the World* (New York, John Wiley & sons: 1923) pp. 224-225; Charles E. Bowles, *The Petroleum Industry* (Kansas City, Missouri: Schooley Stationary & Printing, 1921).

day. Considering the entire United States, the average daily production per well was just above five barrels. By these standards, an extraordinary well would have provided around 5,000 barrels per day – the level at which people in Beaumont believed the Lucas well was producing. The first educated guesses at Spindletop, however, indicated that oil was gushing freely at a rate of 30,000-35,000 each 24 hours. The amount was eventually revised and moved up to 75,000-100,000 barrels per day, bringing the estimated total production for the first nine days in which the well remained uncapped around a staggering 800,000 barrels. Looking at the production rate, this meant that Lucas gusher during that period had matched *every day* all the 36,000 eastern wells combined, or delivered at least twice as much oil as Pennsylvania, or seven times as much as California. To put it differently, the Spindletop well was able to produce every 24 hours about half the amount of oil that all the country's wells combined provided in the same period of time[5].

Even without using math, it did not take long to realize the value of the well. The morning after, *The Houston Daily Post* was already writing that on the hillock there was «*an oil well the equal of which cannot be seen elsewhere in the United States and probably in the world*»[6]. In the following days, the stunning news was confirmed to the skeptics and reached the east coast. On January 13, the New York Times reported on the new Texan well. A small article published on the front page stated that the well was «*said to be the greatest oil strike in the history of that industry*»[7]. Few days later, on January 17, the newspaper corroborated the previous account, writing that according to Col. L. J. Polk, General Manager of the Gulf Colorado and Santa Fe Railway, the gusher was «*unquestionably a world-beater*»[8]. The excitement for the unprecedented discovery brought thousands of oil drillers and entrepreneurs to Beaumont. In 1901 alone, more than 600 new oil companies were capitalized in Texas and around 140 wells were drilled just in the Beaumont area[9]. The population of the city more than doubled, going from about 9,500 to 20,000. As a consequence, land and housing prices

[5] The comparison appears, although with slightly different figures, in James A. Clark and Michel T. Halbouty, *Spindeltop*, p. 79. The values indicated here are personal elaborations based on oil production statistics.
[6] Oil Struck Near Beaumont, *The Houston Daily Post*, January 11, 1901
[7] Big Oil Strike in Texas, *The New York Times*, January 13, 1901.
[8] The Texas Oil Discovery, *The New York Times*, January 17, 1901
[9] United States Geological Survey (USGS), Department of Interior, *Mineral Resources of the United States, Calendar Year 1901*, pp. 529, 567.

skyrocketed. The town experienced a devastating speculative boom that earned Spindletop the new name of "Swindletop". The usual increase in violence, gambling, and prostitution associated with petroleum discoveries transformed the community, turning it from a placid lumber manufacturing center into a hunting ground for the «*usual swarm of boom-town vultures*»[10]. In 1902, Texas Annual book confirmed that "*The United States Geological Survey has a record of about 138,000 wells drilled in the eastern field since oil was discovered, and in that entire number, representing over forty years' work of an army of drillers, there never has been a well that produced, except for a few days, more than one-tenth as much as the Lucas gusher*»[11]. These suggestive figures, widely reported and celebrated in historical accounts about those days, offer a vivid representation of the magnitude of the field. One of the most common statistical facts about Spindletop, which is repeated in every related story in the exact same formulation (and with actually little numerical backing), affirms that, as soon as five new wells – all gushers – were completed on the hillock, the daily production of the field rose to surpass that of all the other fields in the world put together[12]. Despite the lack of precise data, it is not difficult to see how it would have been possible, given that the world output in 1900 was just above 148,000,000 barrels, which meant average of about 400,000 barrels daily – just four or five times (depending on the estimate) the quantity of oil that the first gusher alone was producing every day during the first week[13].

The specification about the production rates being daily values, recorded at the beginning of the life of the well, is important. The "mother of all gushers", and its soon-to-follow children at Spindletop did not sustain such stupendous rates of production for a long period of time – and it would have been impossible to do so. The furious assault at the hillock led by hundreds of oilmen resulted in countless punctures in the

[10] Ruth Sheldon Knowles, *The Greatest Gamblers: The Epic of American Oil Exploration* (Norman: University of Oklahoma Press, 1980), p. 76

[11] C. W. Raines, *Year Book for Texas – Public Officials and Departments under the Republic and State, Institutions, Important Events, Obituaries of Distinguished Dead, Industrial Development, Statistics, Biographical Sketches, and History Never Before Published* (Austin, Texas: Gammel Book Company, 1902), p. 294.

[12] For example, the story appears (without any production data for the other five gushers) in: James A. Clark and Michel T. Halbouty, *Spindeltop*, p. 79; Jo Ann Stiles, Judith Linsley, and Ellen Rienstra, *Giant Under the Hill: A History of the Spindletop Oil Discovery at Beaumont, Texas, in 1901*, (Austin: Texas State Historical Association, 2002), p. 3; Houston Faust Mount II, *Oilfield Revolutionary: The Career of Everette Lee DeGolyer* (College Station, Texas: Texas A&M University Press, 2014), p. 3.

[13] Department of Interior, *Mineral Resources of the United States*, Calendar Year 1901, p. 611.

reservoirs, which rapidly lost gas and pressure. As Lucas reportedly said, «*the cow was milked too hard*»[14]. Part of the problem – a major part of it, actually – was the so-called "rule of capture", which defined American oil exploration since its inception. In its basic formulation, the rule stated that the owner of a tract of land automatically acquired property rights over the oil extracted from it even if such oil was coming from a reservoir located under someone else's acreage. Since underground oil pools did not follow surface artificial divisions, and their extension was difficult to prove anyway, nineteenth-century courts had used both the common law *ferae naturae* analogy and the percolating ground waters analogy to solve the problem of oil ownership[15]. Oil, like wild animals (or water), was known to move freely. Like hunters capturing their preys, therefore, the drillers who "captured" oil could enjoy total control over their prize. This legal context evidently encouraged a quick exploitation of the reservoir, since no oilman could hope to keep the underground oil he had just discovered exclusively for himself. The rule of capture basically permitted competing drillers to siphon oil off from each other's pools by simply setting up a well on an adjacent land. It therefore forced oil operators to extract as much petroleum as they can before somebody else could use up the pool. The result was a rapid drainage of the reservoir and its transformation in a "flush field" – like Spindletop, where a quick spike in total output was followed by an equally fast decline in production[16].

Just few months after the discovery there was indeed a sharp decrease in oil extracted from the many of the new wells on the hill. Yet, the transformative power of the field was real. In 1902, Spindletop produced alone 17,420,949 barrels of crude oil, which accounted for more than 20% of the country's total output[17]. The success at Beaumont also stimulated an impressive wave of drilling along the coast and within the state borders, marking the beginning of the Texas oil industry. When Spindletop production dropped by 50% the following year, oil companies were indeed already extracting enough petroleum from elsewhere to make up for the losses and maintain the

[14] Daniel Yergin, *The Prize: The Epic Quest for Oil, Money, and Power* (New York: Simon & Schuster, 1991), p. 74.
[15] Bruce Kramer, The Rule of Capture, An Oil and Gas Perspective, Environmental Law, Vol. 35, No. 4 (Fall 2005), p. 899.
[16] C. Menezes, R. L. Andreano, H. F. Williamson, The American Petroleum Industry (chapter) in *Output, Employment, and Productivity in the United States after 1800*, U.S. National Bureau of Economic Research, Economic History Association (1966), p. 360
[17] Diana Davids Olien and Roger M. Olien, *Oil in Texas, The Gusher Age, 1895-1945*, p. 41.

same state output. In 1904, Texas went on record as the second oil producer in the nation, behind only California, after having poured more than 22,000,000 barrels in the market in just twelve months. The following year, the Gulf region (which included both Texas and Louisiana) became for the first time the major producing area in the United States and temporarily moved south the industry's center of gravity. The production in the area peaked in that same year at more than 37,000,000 barrels of oil – an astonishing 4,520% increase in output since 1900.

The fortunes of both states would have swung considerably in the following years. First new important discoveries in Oklahoma and California and then the boom of the Mexican oil industry would have reduced again role of Texas and Louisiana as national producers. What did not vanish, however, was the "Spindletop effect", which during the first decade of the century was felt well beyond the borders of those states. The tremendous overflow of cheap crude oil significantly changed the balance of forces within the American oil industry, altering the power relationships between domestic operators and ultimately leading to a restructuring of the whole industry.

1.1.2 Confounding the Giant at Home

At the end of the nineteenth century there was little distinction between the Rockefeller's Company and the American oil industry as a whole. The overlapping, both at the economic and cultural level, was almost complete. Actually, still in 1909, a Midwestern oilman complained that American Congressmen had «*no notion that oil meant anything else but Standard oil from the time it came out of the mouth of the well until it reached the consumers' hands*»[18]. Despite growing competition, which eroded some of the early advantages of the company, John D. Rockefeller's control over the American petroleum industry was firm and widespread. The domineering position of

[18] The author of the comment was Olean Franchot (member of the Mid-Continent Oil and Gas Producers' Association of Oklahoma and Kansas) during the Conference of the Independent Oil Producers and Independent Oil Refiners held in Washington in mid-1909. Small independents were trying to convince Congress to introduce a duty on Mexican oil, since imports were driving down oil prices and threatened to send them out of business. Paradoxically, the political opposition to the measure was based on the belief that a duty on oil would have helped the Standard Oil. In fact, Rockefeller's company was much better equipped than its smaller competitors to survive a period of low prices. A greater gift to Standard, as the independents were claiming, would have indeed been to leave their smaller companies exposed to a flood of cheap oil from abroad. *Report of the Conference of Conference of the Independent Oil Producers and Independent Oil Refiners Favoring a Duty on Petroleum and its Products*, Senate Document No. 88, 61st Congress, 1st Session, June 12, 1909, p. 4.

the Standard Oil group was the result of almost forty years of ingenious and aggressive business strategy. From Cleveland, Ohio, where he entered the petroleum-refining sector in the early 1860s, Rockefeller had managed to bulldoze his commercial competitors, first in the Appalachian region, then in the rest of country, and build a gigantic oil combination with international reach. It took actually just two years to the original Standard Oil Company, incorporated in 1870, to complete the acquisition of the first thirty-four rival refiners in the Mid-West[19]. A continuous and successful cycle of capital accumulation and expansion drove the company's horizontal integration. By the early 1880s, Rockefeller's associated companies controlled already more than 80% of the national refinery capacity[20].

The story of Standard's consolidation became a tale about the fast-paced growth of an unbeatable and unscrupulous company – a perfect representation of the tumultuous development of the oil business and, perhaps even more so, of the unchecked industrial transformation occurring in the United States. The vast scope of Rockefeller's operations, and the necessity to establish a stronger and more efficient managerial and communication system between parent companies, led to a profound – and innovative – administrative reorganization few years later. In 1882, the Standard Oil officially became a trust. The purpose, as Chandler noted, «*was not to obtain control over the industry's output*» (in practice, the Company already dominated the oil market) but «*to provide a legal instrument to rationalize the industry and exploit economies of scale more fully*»[21]. The trust provided the *«essential legal means to create a central or corporate office»* that could both reorganize and streamline the company's process of production and coordinate the petroleum's flow from the well up to the consumers – with a great reduction in cost per unit[22]. The move inaugurated an era of vertical integration, marked by the Trust's expansion in the producing, transportation and marketing sectors[23]. As a result, by the end of the decade, the

[19] Roger M. Olien and Diana Davids Olien, *Oil and Ideology, The Cultural Creation of the American Petroleum Industry* (Chapel Hill: University of North Carolina Press, 2000), p. 40.
[20] Melvin G. de Chazeau and Alfred E. Khan, *Integration and Competition in the Petroleum Industry* (New Haven: Yale University Press, 1959), p. 75.
[21] Alfred D. Chandler, *Scale and Scope: The Dynamic Of Industrial Capitalism* (Cambridge, Mass and London: Harvard University Press, 1990), pp. 24-25
[22] Ibid.
[23] Henrietta M. Larson, *The Rise of Big Business in the Oil Industry*, in Oil's First Century – Papers given at the Centennial Seminar on the History of the Petroleum Industry, Harvard Business School, November 13-14, 1959, Published by the Harvard Graduate School of Business Administration (1960).

Standard Oil interests not only controlled over 90 per cent of the total refining investments in the United States, but had also achieved a virtual monopoly over the transport and handling of crude thanks to the construction of the first large network of pipelines and to the profitable and extremely contested association with railroad companies[24].

Both Rockefeller's commercial competitors, whose opposition became fierce in the 1890s, and the Ohio Supreme Court, which ordered the dissolution of the trust in 1892, tried to stop Standard's commercial advances. These attacks strained Rockefeller, who began to delegate more and more responsibilities to his associates, but fell short of taming the oil giant. In 1899, after few years of official administrative separation, all the affiliated entities were incorporated as parts of a new holding company registered under the accommodating New Jersey's law: the Standard Oil Company of New Jersey. The establishment of the new business organization did not alter the pattern of the industry. Standard maintained a controlling power in both American downstream and upstream operations at the end of the century. In the refining sector, where Rockefeller's original interest laid, Standard's hold was undisputable, with the group's refineries processing about 80% of all the oil produced in the country every year. A similar situation could be found in the marketing segment of the oil industry, where the Company maintained an average share of 82.3% of the total sales of all petroleum products in home trade in the late 1890s[25]. As for oil production, the Standard Oil directly extracted respectively the 88% and 85% of the crude oil supply coming from the two most important producing areas: the Appalachian and the Lima-Indiana regions[26].

Then Spindletop oil began to flow. The opening of the Gulf region represented an unprecedented occasion for Standard's longstanding competitors and for new entrants, as the presence of high-yield wells effectively lowered barriers to entry, enabling smaller or newly created companies to obtain enough oil to cover operating costs and

[24] Rockefeller used the large volumes of (oil) shipments that Standard could guarantee to railroads' operators as leverage, asking (and obtaining) from them exclusive rebates for his companies. The cheaper transportation costs made Standard's margin of profit even higher and expanded the gap between the Trust and its competitors. The other oil companies strongly criticized Standard's association with the railroad's operators, denouncing it a proof of Rockefeller's collusive and monopolistic behavior.

[25] R. W. Hidy and M. E. Hidy, *History of Standard Oil Company (New Jersey): Pioneering in big business, 1882-1911* (New York: Harper, 1955)

[26] Harold F: Williamson and Ralph L. Andreano, *Competitive Structure of the American Petroleum Industry, 1880-1911*, in Oil's First Century – Papers given at the Centennial Seminar on the History of the Petroleum Industry, Harvard Business School, November 13-14, 1959, Published by the Harvard Graduate School of Business Administration (1960), p. 76

earn profits. More important, the discovery of new wells was so rapid, and the surge in production so strong, that not even Rockefeller's oil-thirsty apparatus could keep up. In a matter of months after Spindletop discovery there was just too much crude for Standard, or anyone else, to control. Actually, Standard did not enter *at all* the new Texan field, leaving the extraction of millions and millions of barrels to old and new competitors. The company's participation remained limited also once the petroleum was brought out of the ground, with purchases totaling just one-tenth of the Gulf crude oil output[27]. With competitors and outsiders like Sun Oil Company, Gulf Oil Company, and Texas Company gulping down the remaining 90%, American operators' relative weight in the domestic market started to change significantly. Rockefeller's grip over the industry inevitably loosened. The tendency continued and actually accentuated during the second part of the decade, when dynamics similar to those first observed at Beaumont were replicated after the discovery of new flush fields like the Humble Oil Field, in Texas, and the Glenn Pool Field, in Oklahoma (both inaugurated in 1905). The quasi-monopolistic rule enjoyed for about four decades therefore faced regional disruption and a wider, more resourceful opposition at the national level. By 1911, the year the U.S. Supreme Court ordered the Company's breakup, the percentage of petroleum distilled by Standard refineries had dropped to 64% of the country's total[28]. An even more serious decline was registered in the share of national production, which for Standard fell by more than half to stop at 13.8%[29]. It is noteworthy that the Jersey Standard experienced this commercial downturn despite continuous efforts in expanding its activities. In the first decade the Company volume of production increased by almost 70%, yet the combination «*failed utterly*» in responding to the new challenges: «*The geographical spread of producing fields was too great, profits were too attractive, and competition was too strong for even such a powerful combination as Jersey Standard to keep pace with the expansion of the industry*»[30].

The decision, back in 1911, not to participate the production in the Gulf was the result of a combination of structural factors and strategic considerations. The Texas legal climate, with strict antitrust provisions that had already been leveled in the past

[27] Ibid.
[28] Ibid.
[29] R. W. Hidy and M. E. Hidy, *History of Standard Oil Company (New Jersey): Pioneering in big business, 1882-1911*, pp. 407-408
[30] Ibid.

against Standard affiliates, was one of the elements taken into account. The almost complete lack of oil-related infrastructure in the South, and the belief that investments in other states (like California) would have eventually yielded higher returns, also influenced the company's slow, and ultimately underachieving, reaction to the American oil industry expansion in the area[31]. One of the most important considerations, however, had to do with the quality of the crude oil being extracted at Beaumont, which was sourer and heavier than the petroleum usually found in the Mid-Continent. The distinction between sweet and sour petroleum was made very early on, when drillers used to actually taste their oil to determine its quality, and depends (still today) on the sulfur content of its chemical mixture: the higher its concentration, the sourer the oil is. Sulfur, however, does not simply give oil a bitter flavor and a characteristic smell of rotten eggs, but it also makes crude more corrosive and hazardous to process[32]. The liquid's gravity, which is its density in relation to water, is instead what is used to categorize oil as heavy or light.[33] Although sweet oils are generally lighter, there is no strict correlation between these two quality characteristics, which are measured with two completely different methods. Technical aspect aside, the differentiation is important because as the quality of petroleum changes, so does the yield rate of the various products extracted from it. The reason is that, despite immense improvements in oil processing over the last one hundred and sixty years, refining operations still revolve around the basic principle of distillation. All crude oil's components have indeed different boiling temperatures, so it is sufficient to use heat in order to be able to progressively separate them by evaporation. The component with the lowest boiling point (the lightest) is, of course, the first to vaporize. The gas then is channeled into a pipe, stored, and cooled down into its liquid state. This process, which in the nineteenth-century relied mostly on experience and saw the use of very rudimentary equipment, continues until all petroleum's components, from the lightest to the heaviest, are isolated. These oil's fractions, or "cuts", correspond, once purified, to the various refined products commonly marketed by companies. At the turn of the twentieth century, those ranged from the distillates extracted from petroleum's lighter

[31] Harold F: Williamson and Ralph L. Andreano, *Competitive Structure of the American Petroleum Industry, 1880-1911*, p. 74

[32] The substance needs therefore to be removed before the oil could be processed.

[33] In the early 1920s, the American Petroleum Institute would have institutionalized an inverse and arbitrary scale to measure it (a higher degree of "API gravity" means low density, and vice versa).

fractions, like naphtha and kerosene, to gas-oil, which derived from a medium-temperature boiling cut, to the last, heavier ("bottom of the barrel") products as paraffin wax, lubricants and fuel oil. The remaining residue was used to obtain tar, asphalt, coke, etc. The different composition of light/sweet and heavy/sour crude oil therefore explains the variation in the yields of oil-refined products. In the first case, the presence of more volatile hydrocarbons – the lighter cuts – facilitates the extraction of greater quantities of their corresponding distillates, or products. The opposite, instead, happens when heavier molecules are prevalent. The proportion of petroleum's higher sections diminishes, and so does the available amount of distillates extracted from them, while the recovery of products from its lower fractions increases. These refining constrictions have a specific commercial and technological relevance in a market where not all petroleum's products have the same value. Indeed, the birth and development of the American oil industry in the second half of the nineteenth-century revolved around the practical importance of just one of them: kerosene, which was used as illuminating oil in lamps and lanterns[34]. Oil had indeed begun its commercial career as nothing but a cheaper alternative to whale oil, largely considered the best source of illumination until the first half of the nineteenth-century[35]. When, before the American civil war, a decline in the whale population increased the costs in the fishing industry and prompted the search for a replacement, a series of potential substitutes – coal oil (considered the 'original' kerosene), lard oil, and camphene from turpentine – entered the market. Petroleum-distilled kerosene, which began to be marketed in the 1860s, was therefore a latecomer in the sector of private lightening and it was not until the end of the war that it began to effectively compete with the other products. In the last thirty years of the century, however, while the market for illuminating oil expanded exponentially, kerosene emerged as its indisputable leader thanks to its greater energy efficiency, better handling, and, above all, lower price thanks to its large availability[36].

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[34] For the description of late nineteenth, early twentieth century refining procedures and products' composition, see: P. H. Giddens, *The Birth of the Oil Industry* (New York: The Macmillan Company, 1938); L. Fanning, *The Rise of American Oil* (New York and London: Harper, 1936); John McLaurin, *Sketches in Crude-oil: Some Accidents and Incidents of the Petroleum Development in All Parts of the Globe* (Harrisburg, Pa., Pub. by the author, 1898).

[35] For a description of petroleum's early uses and how it came to substitute whale oil, see for example: Brian Black, *Petrolia: The Landscape of America's First Oil Boom* (Baltimore: Johns Hopkins University Press, 2000), pp. 13-36

[36] Harold F. Williamson and Arnold R. Daum, *The American Petroleum Industry: The Age of Illumination, 1859—1899* (Evanston: Northwestern University Press, 1959)

The Spindletop oil was instead so «*thoroughly impregnated with sulfur*» that at first the experts at Beaumont had doubts that it could be of any use even as fuel, let alone as kerosene[37]. Even when skepticism dissipated, oilmen realized that, upon having purified and refined it, Spindletop oil produced just «*30% of export illuminating-oil*»; the rest was basically *«a residuum of good fuel oil»*[38]. Actually, the yield rate of illuminating oil was so small that some companies found more convenient to not distillate the oil's higher fractions at all; they preferred to make those light cuts evaporate under the sun before simply treating the oil as a fuel. The (supposed) low quality of Spindletop oil was exactly one of the main reasons why Standard Oil decided not to enter the field, despite the fact that it was the company that had by far with the largest expertise in the purifying, refining, and marketing of sour oils[39]. At the end of the century, the Trust – like the rest of the American oil industry at the turn of the century – was still mainly focused on the production and distribution of illuminating oil and lubricants. The prospect of having to market a large, additional quantity of fuel oil, which was one of the least marketable petroleum's products, was problematic and eventually considered unattractive – an aspect that hints both at the magnitude of the change that was about to come and at Standard's strategic limits. As one of the most renowned oil business historians wrote, the company's manufacturing «*system was occupied with its traditional product lines. Standard was suffering from the fate that has normally overtaken pioneers in industrial development, that of being tied by earlier investments and operations*»[40].

1.1.3 Driving the Change

[37] Robert T. Hill, The Beaumont Oil Field, with Notes on Other Oil Fields of the Texas Region; Mining and Metallurgical Section, Joint meeting of the Section and the American Institute of Mining Engineers held Wednesday, May 14, 1902, at the Manufacturers' Club, Philadelphia; published in *Journal of the Franklin Institute*, Vol. 154, No. 3 (September 1902), p. 231.
[38] Ibid. p. 232.
[39] Standard had struck sulfurous oil in 1885 in one of its main field: Lima, in Ohio. Since then, the Company led the industry in the treatment of sour oil and in the development of possible applications for fuel oil, as discussed in the following section. For the story of the Standard Oil Company of Indiana – one of the biggest Standard's affiliate, operating in the mid-continent – and how it learnt to refine sour oil, see: Paul Henry Giddens, *Standard Oil Company (Indiana): Oil Pioneer of the Middle West* (New York, Appleton-Century-Crofts, 1955).
[40] Henrietta M. Larson, *The Rise of Big Business in the Oil Industry*, in Oil's First Century – Papers given at the Centennial Seminar on the History of the Petroleum Industry, Harvard Business School, November 13-14, 1959, Published by the Harvard Graduate School of Business Administration (1960).

The idea of kerosene as oil's most valued derivate raised the question, since the very beginning of the industry, of what to do with all the other inevitable by-products of petroleum refining operations. Even with the lightest quality of petroleum available at the time in the United States, the Pennsylvania crude, the yield rate of kerosene did not surpass the 70%[41]. This meant that, for every single barrel refined, at least 30% of the oil remained in the hands of the producers in the form of other distillates – or waste. Petroleum-derived lubricants, waxes, and fuels, were all completely new products for American merchants and consumers. Oilmen's path to prosperity and profits, therefore, had to be paved not only with beaten competitors but also with innovative solutions, registered patents, and technological advancement. Oil companies, in order to be successful, needed to create new market outlets, convincing people to adopt the recently developed products and often to embrace different, unfamiliar habits altogether. The task, of course, turned out to be easier for some petroleum's derivatives than for others. The usefulness and effectiveness of oil lubricants, for example, became quickly clear, so much so that they achieved in few years a global reach. As a product used almost everywhere in the industrialized, and recently mechanized, world, it became integrated in large distribution networks side to side with kerosene. By 1899, almost 40% of the entire American output in lubricating oils was sold abroad[42]. Naphtha (used also as anesthetic) and paraffin wax (key element in candles manufacturing) had instead a more limited appeal and for decades they remained essentially regional goods, traded locally without the support of a large supply chain. Gasoline, the distillate of petroleum's most volatile fraction, had a similar fate until the turn of the century. Today's most important petroleum by-product was initially used in air-gas machines for lightening, then sold as solvent or as fuel for household stoves. In 1899, it accounted for no more than 13% of the total of refined products and it was mainly sold within the country[43].

Heavier fractions like fuel oil – the petroleum's distillate that today is broken up in a variety of diesel fuels – had an even more difficult path to industrial recognition. Indeed, it took time for the idea that petroleum could be a valid alternative to coal (and

[41] Nuno Luis Mudureira, Oil in the Age of Steam, *Journal of Global History* Vol. No. 5 (March, 2010) 5, p. 79

[42] Harold F. Williamson and Arnold R. Daum, *The American Petroleum Industry: The. Age of Illumination, 1859—1899* (Evanston: Northwestern University Press, 1959), p. 678.

[43] Report of the Commissioner of Corporation on the Petroleum Industry (Government Printing Office, 1907-09 Part 2, Prices and Profits, p.232.

wood) as energy source to take roots. Early attempts to burn fuel oil in ad-hoc modified boilers failed soon, as the distillate was considered both dangerous (extremely flammable) and expensive. The fact that the first oil region, in Pennsylvania, was also a coal mining area did not help. The accessibility to cheap coal diminished the incentive for finding alternative energy sources and the possibility of develop profitable economies of scale, differently from what was happening with other oil derivatives. The industry was so focused on kerosene that little effort was made to create an outlet for fuel oil, which was considered a residue of the refining process more than anything else. Until 1880s, its commercial production remained insignificant and it was either re-used by the oil company itself for internal consumption or «*run to waste, form[ing] lakes of liquid petroleum, which were often set on fire to get rid of them, or carried off by pipes into the sea*»[44]. The situation improved only after 1885, when a quality of heavy, black and highly sulfurous oil was struck at Lima, in Ohio. Given its characteristics, it was clear since the beginning that there was no chance to distill large quantity of illuminating oil from its higher fractions. In fact, the Lima oil was so sour that it was impossible to process with traditional methods. The Standard Oil, which soon came to control the main part of new field, therefore faced two equally challenging tasks. With thousands of barrels waiting to be marketed, it needed not only to find a way to purify sourer petroleum, but also to create an outlet for its refined products, which – given the oil's composition – would have been composed mainly of low fractions' distillates like fuel oil. In the following fifteen years, the Trust invested significantly in the development of new refining methods for sulfurous, heavy oils and pushed for the adoption of fuel oil as alternative source of energy to coal. The wonders of fuel oil were presented also to the visitors of the World's Columbian Exposition in Chicago in 1893, where a boiler house of unprecedented dimension was built to power the majestic exposition's Machinery Hall. Standard's fuel, coming from the near field of Whiting, Indiana, burned with a pace of 12,000 gallons per hour without emitting «*the smell, dirt, or smoke*» usually experienced when using coal[45]. The innovations introduced by Standard opened the path to further improvements in refining technology for sour oils

[44] Bryan Donkin, *A Text Book on Gas, Oil, and Air Engines* (London: C. Griffin and Company, 1896), p. 278.
[45] Chaim M. Rosenberg, *America at the Fair: Chicago's 1893 World's Columbian Exposition* (Mount Pleasant, SC: Arcadia Publishing, 2008), p. 194.

and introduced the American people to the qualities of fuel oil as energy source in transportation and industrial manufacturing. Indeed, the continuous growth of American infrastructures and the spectacular increase in the national production capacity, which in the 1890s finally surpassed Great Britain's, created the perfect avenues for the dissemination of new energy solutions[46]. In this respect, the spread of Thomas Edison's electric bulb represented a different but converging, and equally important, force toward the modification of industrial and consumers' preferences. Invented in 1879, the device had rapidly entered the market of private and public lightening, putting pressure on the oil industry's main product: illuminating oil. A transition was therefore already visible by 1899, when the percentage of illuminating oil in the total of refined products went down from 80% registered in the mid-1880s to almost 60%, while the share of fuel oil and residuum, which just over ten years before was close to zero, rose to almost 15%[47].

These changes did not completely convince American oilmen. By the end of the century few of them had in fact «*grasped the implications of the development of the internal combustion engine as an outlet for the lighter fractions, nor had they fully recognized the potentials of extending the use of petroleum fuels to ships, locomotives, and even home furnaces*»[48]. However, as Ralph and Muriel Hidy noted, at that point all the country really needed for «*a spectacular expansion in the adoption of petroleum as fuel was the inexpensive production, in large quantities, of a suitable type of crude oil which would be so located as to be capable of transport at low cost to big consuming centers*»[49]. The gigantic Spindletop field, just 20 miles from Port Arthur, overflowing with one of the heaviest oil ever seen soon ready to be sold at a price so low as 10 cents per barrel, nicely met, and even overcame, these expectations. In the years following the discovery in Beaumont, fuel oil's use skyrocketed. In 1909, fuel oil accounted for almost 40% of all refined products. Five years later, in 1914, *seventy percent* of all the petroleum extracted in the United States was sold as fuel oil and, more important, only around one-twentieth of it left the country, while the rest was used to (literally) fuel American industrial and economic growth in the decade that preceded the beginning of

[46] For the importance of transportation networks in energy production and distribution, see: Christopher F. Jones. *Routes of Power: Energy and Modern America* (Cambridge: Harvard University Press, 2014)
[47] *U.S. Twelfth Census of Manufactures: 1900*, p. 688.
[48] Harold F. Williamson and Arnold R. Daum, *The American Petroleum Industry: The. Age of Illumination, 1859—1899*, p. 730
[49] R. W. Hidy and M. E. Hidy, *History of Standard Oil Company (New Jersey): Pioneering in big business, 1882-1911*, p. 301

the war[50]. Brick, pottery, and cement manufacturing; steel and iron production; heating in houses, schools, stores, offices, hotels; railroad and marine transportations: the uses of fuel oil multiplied as its availability increased. With a growing and seemingly endless supply available, the only limit to its diffusion was the relative price of coal, which remained a formidable opponent (and the indisputable leader) as energy source. The penetration of fuel oil was therefore slower in some northwestern regions, while took place rapidly both in the coal-poor/oil-rich California and, of course, in the Southwest[51]. In fact, the country's energy transition to oil remained relatively limited at the beginning of the twentieth century – still in 1914, petroleum accounted for only less than 10% of American total energy supply, with coal taking care of more than 80% of the remaining needs – and it would have actually taken decades to be completed[52]. More important that the rapidity of the conversion, however, were the particular dynamics that the new industrial mindset set in motion. The adoption of the internal combustion engine as power generator in factories and, more important, in private and public transportation – a choice intimately connected with the idea of using oil like energy source – led indeed to some of most transformative developments in the twentieth century history. The Diesel engine, which ran (and still runs) on fuel oil, was the first to experience an increase in popularity thanks to the early twentieth century petroleum boom. Invented by the German Rudolph Diesel in 1895, however, the new engine remained primarily confined to factories, where it was used as static power unit, due to its weight. Even more significant would have been instead the parallel evolution of the Otto engine, which ran on gasoline, and the decision to mount it on wheeled vehicles. Engineers had soon realized that petroleum's lightest distillate, although more expensive, made a better fuel than heavier fractions thanks to its higher volatility and energy yield. It was not until 1893 that Henry Ford assembled its first prototype and

[50] Harold F. Williamson, Ralph L. Adreano, Arnold R. Daum, Gilbert C. Klose, *The American Petroleum Industry: The Age of Energy 1899-1959* (Evanston: Northwestern University Press, 1963)

[51] California was «*a ready market*» for fuel oil since the 1890s thanks to the high price and relative unavailability of coal. The geology of the region made the state unique in the history and development of the U.S. oil industry. For an account of the California early oil industry and the state transition to oil, see for example: Gerald T. White, *A Formative Years in the Far West: History of Standard Oil Company of California and Predecessors through 1919* (New York, Appleton-Century-Crofts, 1962), p. 134

[52] Petroleum overtook coal as major source only in the 1960s. Data on the share of energy produced from coal and oil in 1914 are from: *Historical Statistics of the United States 1789-1945*, United States Department of Commerce (1949), p. 155

tested it in its kitchen sink[53]. The first car prototypes were completed in the late 1890s. Yet the challenges in building a properly functioning gasoline-fuelled automobile could be finally surpassed only well into the first decade of the following century. The appearance of safer and more efficient models on American roads accounted for a revolution. Their success was immediate; so much so that in 1909 there were already more than 120,000 cars in the United States[54]. In the following years, American growing demand of gasoline as fuel would have been met mainly through improvements in refining techniques, proving once again the reactivity and flexibility of the petroleum industry. In order to overcome gasoline low yield, especially from heavy oils, refiners began to "crack" their crude, i.e. to break down the long, heavier chains of hydrocarbons that composed petroleum's bottom fractions into simpler, lighter molecules such as those of gasoline (or kerosene). The chemical reaction, which is the result of the application intense heat or pressure, was actually known since the nineteenth century. At that time, however, operators did not really command the process, which was often the unintended result of petroleum's overheating. The method, called indeed "cracking", was perfected only in 1910s when refiners started to systematically use it to convert heavier, less valuable fractions into premium products, therefore improving the latter recovery rates. The diffusion of motorized vehicles that begun in the early twentieth century would have led to a further transformation in the petroleum industry and to the creation of an all-new country with a faster, more mechanized and more oil-depended society. The real impact of cars would have not been fully felt, or understood, before the end of the war. Already in 1909, however, the overall value of gasoline sales matched, and actually slightly surpassed, that of fuel oil, kerosene, and lubricating oils, with each product accounting for about 25% of the total[55].

1.1.4 Going Abroad

The Spindletop discovery, and the boom in production it stimulated, had repercussion not only within the country but also at international level. The biggest oil

[53] Steven Watts, *The People's Tycoon: Henry Ford and the American Century* (New York: Knopf) p. 37.
[54] *Historical Statistics of the United States 1789-1945*, United States Department of Commerce (1949), p. 223
[55] Harold F. Williamson, Ralph L. Adreano, Arnold R. Daum, Gilbert C. Klose, *The American Petroleum Industry: The Age of Energy 1899-1959*

producer in the world at the end of the nineteenth-century was not the United States but Russia, whose output in 1900 accounted for more than half of the world's total. The Russian oil industry had reached global prominence after a very unpromising start. Oil extractions and refining activities began roughly at the same time in the United States and in the tsarist empire. The two national oil industries, however, followed two very different trajectories. American oil operators showed since the very beginning a high degree of dynamism and organization. Helped by the presence of skillful entrepreneurs and the growth of a more stable financial system, oil companies worked rapidly to expand through an increasingly connected country. The birth of the Russian oil industry, instead, was plagued by a series of structural problems that limited its development until at least the 1880s. One of the most important was the remoteness of the Baku region and the total lack of any transportation and distribution network. Oil had to travel hundreds of miles, often in inadequate containers and on even more inadequate roads, just to reach Moscow or Saint Petersburg. European countries' markets, of course, were even more difficult to reach. Even worse, the Czarist administration ran the «*minuscule*» and «*primitive*» petroleum industry as a state monopoly, effectively denying the possibility to private investors[56]. As a result, the Baku oil region remained isolated for decades, not only geographically but also in terms of trade, posing no threat to American exports. There was also another important factor limiting the reach of Russian products. Contrary to the Pennsylvanian crude, the petroleum from the Baku region was heavy and sour and consequently less suited for the distillation of kerosene – let alone lighter fractions. Russian operators therefore focused on fuel oils (and lubricants) since the very beginning, leaving the production of other distillates as secondary. The abundance of fuel oil did prompt an early energy transition in industries and in railroad transportation[57].

The situation improved in the latter part of the nineteenth-century thanks to the opening of the field to private enterprises and the arrival of two brothers, Ludwig and Robert Nobel, who settled in Baku in the late 1870s with the intention to enter the oil

[56] Daniel Yergin, *The Prize: The Epic Quest for Oil, Money, and Power* (New York: Simon & Schuster, 1991), p. 57. For the characteristics of the Russian oil industry, see also: Leonardo Maugeri, *The Age of Oil, The Mythology, History and Future of the World's Most Controversial Resource* (Westport, Connecticut: Praeger, 2006), pp. 11-14

[57] Nuno Luis Mudureira, Oil in the Age of Steam, *Journal of Global History* Vol. No. 5 (March, 2010) 5, pp. 75-94

business. In a relatively limited number of years, they managed to build one of the biggest companies in the world – Branobel – and turn the region's structural limits into Russian oil industry's strong points. The lack of infrastructures indeed worked as an incentive for the Noble brothers to improve transportation methods, while the necessity to process heavy oils led them to devise significant innovations in refining techniques. The only aspect that probably did not change was the environmental one. The Baku region, whose population in the nineteenth-century climbed more rapidly than many European and American cities as a consequence of the oil boom, was renown for its abysmal living conditions. Many historical accounts described its oil-blackened landscape and the contaminated lives of the inhabitants of the "Black City", as the Baku oil district was called[58].

Workers' terrible condition did not slow down the Russian production. On the contrary, once the original, structural constraints on the industry were lifted, Russian companies' operations grew quickly, sustained by the immense size and strength of Baku petroleum reservoirs. Thanks also to the large financial investments made in the development of Russian fields by the Rothschild family, the country's oil business expanded to become competitive also in Europe during the late 1880s and the 1890s, when kerosene, fuel oil, and lubricants from Baku began battling with Standard's products in large markets like Great Britain and France. By the end of the century, Russian production had largely surpassed American output. In 1900, on the eve of the Beaumont discovery, operators in Russia extracted almost 76 million barrels of oil, while the American production stopped short of 64 million barrels. Lucas gusher however quickly reversed the trend, handing back to the United States the title of major oil producer in the world already in 1902. In the following years, the flush fields in the

[58] A vivid description of the situation at Baku can be found in Abraham Valentine Williams Jackson, *From Constantinople to the Home of Omar Khayyam* (The Macmillan Company, 1911), p. 25-26. An even more famous (and appealing) account of the life and working condition in Russia could be found instead in Essad Bey, *Blood and Oil in the Orient* (London: Nash & Grayson Limited, 1931). The book, which is supposed to tell the personal life story of the author, has however been criticized for lack of historical accuracy. Tom Reiss has written about the book that «*it's often hard to tell where Lev's [the author real name] experiences leave off and his fervid imagination begins*». Tom Reiss, *The Orientalist: Solving the Mystery of a Strange and Dangerous Life* (Random House Publishing Group, 2005), p. 36. For a different, and actually more positive, perspective on Baku, see instead: James Dodds Henry, *Baku: An Eventful History* (London: Archibald Constable & Co. Limited, 1905); For a more contemporary account, see Steve Levine, *The Oil and the Glory: The Pursuit of Empire and Fortune on the Caspian Sea* (Random House Publishing Group, 2007). In Levine's work, a description of early life at Baku is, for example, in pp. 11-12

Gulf Region and the oil rush in California inflated American production. In 1905, the United States climbed to an impressive total of 134 million barrels, which translated into a 110% growth since 1900[59]. The rate of production increase was of course unprecedented. This tremendous surge of American oil was not, however, the only explanation for the widening gap in total output between the two most important oil countries. In fact, internal political unrests led to an actual *decrease* of Russian production after 1901. As a consequence, by the end of the first decade of the twentieth century, the oil extracted every year in the United States accounted for more than 60% of the world's total.

The expansion in production effected American exports, too. After 1900, the domestic abundance of heavy oils impacted not the compositions of American shipments directed abroad, but also their destination. Kerosene, once the dominant product, remained the most exported item but became less and less significant. Its share among the total of distillates sold abroad dropped throughout the first part of the century, going from about 75% in 1899 to about 45% in 1914. Similarly to what happened within the United States, the contraction had to do also with the spread of electricity and natural gas for public and private lightening in major European cities. As the sales of illuminating oil winded down, those of lubricants and fuel oil rose to offset them. Between 1899 and 1914, the latter share among the total of the petroleum products sold abroad boosted from 2% to over 30%. Most important, the exports of fuel oil gained to American operators new markets. As European economies evolved towards a more diversified use of petroleum, products like fuel oil became highly attractive for less industrialized countries, whose late mechanization could be now powered directly by oil, skipping (or in any case reducing) the coal-phase. An increasing portion of those exports was as a consequence directed to Central and South American countries during the first part of the century, strengthening the United States continental marketing operations. The slow transition from coal to oil in marine transportation, too, significantly helped American companies to expand their activities and find new outlets abroad, as they started refueling bunkering stations around the world. The increasing availability of fuel oil and the gradual energy switch in merchant

[59] For world production, see: Valentin R. Garfias, *Petroleum Resources of the World* (New York, John Wiley & sons: 1923) 224-225; Charles E. Bowles, *The Petroleum Industry* (Kansas City, Missouri: Schooley Stationary & Printing, 1921), 48-49

ships became two mutually reinforcing developments, destined to profoundly alter the commercial and political outlooks in the United States as well as in Europe. The shift in exports' composition and distribution could be considered complete as soon as the new uses for gasoline began to take roots also overseas. Similarly to what happened in the United States, the spread of automobiles and gas-burning vehicles in Europe was indeed changing the landscape and the working dynamics of any major city, and drove up the demand of the highly volatile distillate.

The changes in the use of petroleum's products were the result of the evolving interaction between available oil supply, technology and society. As the first forty years of oil industry demonstrated, petroleum's role as major power and energy source was not predetermined. Rather, it took a combination of individual resolve and scientific advances to turn oil into something more valuable than the blackish, smearing and uninviting substance it had been for centuries. Buried thousands of feet under the ground, petroleum had to be actively sought, deeply transformed, and aggressively promoted before even being considered as a tradable good. Petroleum market, especially in its first phase, was indeed largely driven by supply, as no demand was present for distillates whose usefulness, or even existence, people was not aware of. Since the very beginning of the industry, oil pioneers and entrepreneurs had to work tirelessly to build and expand the needs for petroleum products, in the United States and elsewhere. The process of oil commodification had different stages, but they were all associated with, and facilitated by, oil's increasing availability[60]. More oil meant basically more accessible, and cheaper, oil, which translated into a further incentive to expand its uses and industrial application.

Discoveries like the one at Spindletop, with the surge in production and the enthusiasm they generated, marked therefore the transition to the "Age of Energy*"* The technological progress that marked the tempo of the industry's evolution should however not be considered as an exogenous element in assessing oil's political, economical and cultural dimension. When not actively sought by the companies themselves, technical improvements represented the efforts of an increasingly connected and integrated community of engineers and inventors, whose work produced an

[60] On the early process of oil commodification, see: Brian Black, *Petrolia: The Landscape of America's First Oil Boom* (Baltimore: Johns Hopkins University Press, 2000), pp. 13-36

extremely powerful synergy of communication and transportation systems. The results was the emergence of a different society, based on the combination of «*scientific advances, technical innovation, aggressive commercialization, and intensifying, and increasingly efficient, conversions of energy*»[61]

[61] Vaclav Smil, *Creating the Twentieth Crntury, Technical Innovations of 1867–1914 and Their Lasting Impact*, (New York: Oxford University Press, 2005), p. 13

1.2 The Country: The Rooseveltian Era

1.2.1 Trust-busting and Soul-Searching

President Theodore Roosevelt delivered his first annual message to Congress on December 3, 1901, less than two months after his inauguration[62]. More than a simple statement of purpose, the twenty thousand words speech addressed to the legislative was instead an already fairly detailed programmatic document and presented the president's positions on a number of sensitive issues. The status of government-industry relations – or, better, the legitimacy of large corporations and the extent of federal authority in regulating them – was among the subjects addressed and also one of the most pressing concerns in American contemporary society. The three previous decades of rapid and unchecked industrial growth had indeed not only generated an exceptional commercial expansion and an equally impressive technological progress, but also facilitated the spread of corruption and economic inequality. The popular backlash against the accumulation of corporate wealth and the emergence of monopolistic tendencies in the domestic market had eventually prompted the creation of the Interstate Commerce Commission (ICC; 1887), specifically designed to regulate railroads operators, and the passage of the Sherman Act (1890), which prohibited the adoption of anticompetitive practices by U.S. corporations, but both measures had proved unsatisfactory during the last decade of the century. The Commission had soon realized that it did not have the means – or, according to revisionist historians like Gabriel Kolko, the intention – to

[62] Theodore Roosevelt was sworn in as the twentieth-sixth President of the United States on September 14, 1901, in the house of his friend Ansley Wilcox, in Buffalo, New York. The choice of the unusual location followed the news of the unexpected death of William McKinley, who passed away from undetected medical complications a week after being shot by an anarchist at the city's Pan-American Exposition. Once the hastily arranged inauguration ceremony was completed, Roosevelt, who was forty-two, became the youngest president of the United States – a title he still holds today. Despite his relatively young age, the Manhattan-born new president had already a remarkable career as civil servant behind him, both at the state and national level, in the ranks of the Republican Party. During the previous twenty years, he had fought cronyism and corruption in New York first as Party representative at the state assembly (1882-1884), then as head of the Board of Police Commissioners (1895-1897), and later as Governor (1899-1900); served as a member of United States Civil Service Commission (1888-1884); held the cabinet position as Assistant Secretary of the Navy under President McKinley (1897-1898); led a U.S. regiment in combat during the Spanish-American War (1899), and acted as Vice President (1901). Those feats gained Roosevelt a reputation for integrity, toughness, and resolve that carried him directly to the White House in 1901 and would have shaped his leadership style during the presidency. On Roosevelt life and presidency, two classic reference works are for example: L. Gould, *The Presidency of Theodore Roosevelt* (Lawrence: University Press of Kansas; 1911); William H. Harbaugh, *Power and Responsibility: The Life and Times of Theodore Roosevelt* (New York: Farrar Straus and Cudahy, 1961)

really discipline railroads' operators[63]. As for the anti-trust law, since the very beginning the Supreme Court had interpreted it in such a permissive way as to still allow not only industrial agglomeration but also the *de facto* existence of cartels and collusive agreements in the market. At the turn of the century, industrial and financial influence in politics, especially at the local and state level, remained widespread and instances of what would have later been called "regulatory capture" were common[64]. The U.S. lawmakers – and the country at large – faced the choice between allowing the expansion of an unbridled and disordered form of capitalism and pushing for government intervention. Roosevelt, who had fought to stop corruption and reform local politics for years, tackled the issue directly[65]. He acknowledged that the «*captains of industry who have driven the railway systems across this continent, who have built up our commerce, who have developed our manufactures, have on the whole done great good to our people*», but also stated that there were «*real and grave evils, one of the chief being over-capitalization because of its many baleful consequences; and a resolute and practical effort must be made to correct these evils*»[66]. The speech was actually a balancing act between the defense of free enterprise and the support for government regulations, as he admitted that the «*mechanism of modern business*» was so delicate that «*extreme care*» must have been taken in order «*not to interfere with it in a spirit of rashness or ignorance*»[67]. Cautiousness aside, there was however little doubt in Roosevelt's mind about who should have gotten the upper hand in the relationship between private business and public administration. He strongly advocated further regulatory powers for the federal government and in particular the «*the right to inspect and examine the workings of the great corporations*». As a matter of fact, the «*old laws, and the old customs*» were «*no longer sufficient*» to interact with the evolved world of

[63] Specifically on this issue: Gabriel Kolko, *Railroads and Regulation, 1877-1916* (Princeton, N.J.: Princeton University Press, 1965).
[64] About "regulatory capture" and its history in U.S. politics, see: Richard A. Posner, The Concept of Regulatory Capture: A Short, Inglorious History and William J. Novak, A Revisionist History of Regulatory Capture, both in Daniel Carpenter and David Moss (editors), *Preventing Regulatory Capture: Special Interest Influence and How to Limit it,* (New York, Cambridge University Press, 2013), p. 25-57.
[65] For the importance of Roosevelt's early political battles in New York in shaping his reformist stance, see: Edward P. Kohn, Theodore Roosevelt's Early Political Career: The Making of an Independent Republican and Urban Progressive, in Serge Ricard (ed.), *A Companion to Theodore Roosevelt* (Chichester: Wiley-Blackwell, 2011), pp. 27-44
[66] Theodore Roosevelt, First Annual Message (December 3, 1901)
[67] Ibid.

industrial and economic forces[68]. To restrain industrial speculation and place the policy-making process out of the reach of private and corporate interests, there was therefore only one solution: the authority over business needed to be transferred from the states' legislatures to Washington D.C. and, more specifically, to the executive branch and its centralized administrative agencies[69]. To enforce his vision, Roosevelt called for the immediate establishment of a new department and secretary of Commerce and Industries, tasked with the authority to investigate and regulate American corporation. The Congress initial unresponsiveness on the matter, however, prompted the president to work directly through the Justice Department. In early 1902, Roosevelt instructed the U.S. Attorney General Philander Knox to file an antitrust suit against the Northern Securities Company, a gigantic holding company created by financial titans James J. Hill, E. H. Harriman, J. P. Morgan, and John D. Rockefeller in order to control a large share of American rail transportation.

In 1904, the Supreme Court ruled to dissolve the Company under the Sherman Act of 1890, partially reversing its previous, more accommodating position on the legality of corporate organizations. The Court had in fact sanctioned price fixing for the first time at the end of the nineteenth century (*Trans-Missouri* in 1897; *Joint Traffic* in 1898)[70]. After the Court decisions, however, companies had simply switched to a different strategy to try to corner the market: instead of colluding as separate entities, they merged to create single companies large enough to influence prices in their relative market sectors[71]. The shift, from cartel behavior to monopolistic regimes, made little difference for consumers and small manufacturers. The 1904 sentence, which

[68] Ibid.

[69] On Roosevelt's «*nationalist, majoritarian*» idea of the Republic, centered «*on the executive rather than on Congress*», see: Joshua D. Hawley, Roosevelt's Republic, in Serge Richard (ed.), *A Companion to Theodore Roosevelt*, pp. 94-111. For an analysis of the shift of regulatory powers away from old (and often local) political government offices and towards federal central administration see: Skowronek, Stephen, *Building a New American State: The Expansion of National Administrative Capacities, 1877–1920* (Cambridge: Cambridge University Press, 1982)

[70] The Court's shift on the interpretation of the Sherman Act is also at the center of M. Sklar's (and G. Kolko's) narrative about the Progressive Era. Sklar contends that the 1897 decision represented a deviation, an anomaly from the traditional interpretation of the Sherman Act supported also by U.S. industrialists. This original "understanding" between the judiciary and corporate power returned after 1911, when the Court reasserted the legality of Trust and Corporation with the decision of the Oil and Tobacco Trusts. M. Sklar, *The Corporate Reconstruction of American Capitalism, 1890-1916* (New York: Cambridge University press, 1988)

[71] G. Bittlingmayer was among the firsts to fully articulate the idea that a more severe application of the anti-trust legislation actually encouraged the merger movement. George Bittlingmayer, Did Antitrust Policy Cause the Great Merger Wave? *Journal of Law & Economics*, Vol. 28 (April 1985), pp. 77-118.

interpreted the creation of the corporation as a clear attempt to control a specific business segment, basically implied that the sole existence of such an organizational structure could constitute a market violation. The case therefore resulted in the first real major anti-monopoly decision. It halted the great "merger movement" developing in American business and marked the beginning of an intense political and judiciary activity against American corporations. In the following four years, the Department of Justice initiated more than forty prosecutions – more than twice the number (18) of those initiated by the U.S. government in the ten years between the passage of the Sherman Act 1890 and the Roosevelt's arrival at the White House in 1901[72].

Among the litigations started by the new administration, there was also the one against the Standard Oil of New Jersey. Launched in 1906, the federal suit accused the company of engaging in price-cutting to eliminate local business rivals, of setting up shell companies to simulate competition among affiliates, and of threatening smaller industrial buyers into ordering their products. The legal proceeding was however more than the long-awaited investigation into American petroleum industry's business practices. Rather, it represented the culmination of a protracted cultural and political battle against the American oil giant. Rockefeller's company had been attracting public hostility since the 1870s and it had quickly became the favorite targeted not only of the other operators within the industry, which felt that they were being denied the possibility to compete fairly, but also of the American public at large, which believed that Trust had amassed too much power and influence. Indeed, the amount of criticism that Standard had to face at the beginning of the twentieth was comparable only to the extent of its business success. The allegations leveled in Court accusing the Jersey Standard of being a predatory and monopolistic corporation simply mirrored the critics outside the tribunal hall. In fact, in the street, as well as in books, newspapers, and popular publications, that Rockefeller's Company had received even heaviest charges. Throughout its first forty years as leader of the oil market, The Standard Oil was repeatedly pointed to as the quintessential symbol of corruption and iniquity present in the United States and became the main focus of the diffuse, anti-big business sentiment that characterized American culture at the turn of the century.

[72] Felix H. Levy, The Federal Anti-Trust Law and the "Rule of Reason", *Virginia Law Review*, Vol. 1, No. 3 (Dec., 1913), pp. 207

There were at least two strands of thoughts that contributed to shape both the common representation of the Standard Oil in American society and the public discourse surrounding it. The first was a populist-religious thought, which took inspiration from the country's traditional values and questioned the Company's ethic; the second was based instead on an economicist perspective, which analyzed Standard's market role and focused to its socio-economic consequences. These intellectual threads were deeply intertwined and developed symbiotically in the last decades of the nineteenth century. Then, as popular, widespread ideas, they coalesced during the Roosevelt's presidency – and actually *through* Roosevelt's political activity and rhetorical message – assuming a new shape, and weight, in the country's public debate. By the beginning of the second decade of the century, as the progressive movement reached its maturity, these long-standing political and economical considerations and their "reformed" versions would have contributed to the dismantling of the Rockefeller's company and the development of a new role for the federal state vis-à-vis the nation's industry.

The Standard Oil: The Octopus

The first and very popular characterization of the Standard Oil identified the oil giant as «*soulless corporation*» with a despotic attitude[73]. Along this lines, Rockefeller, who remained the public face of the company despite having delegated most of the managing responsibility after the creation of the holding company, became the epitome of the greedy "robber baron", ready to use any available mean to crush his opponents. This narrative developed on the works of journalists and commentators who began investigating on American emerging big businesses – railroads, steel, and oil industry –

[73] How the expression became popular at the turn of the century is described in Roland Marchand, *Creating the Corporate Soul: The Rise of Public Relations and Corporate Imagery in American Big Business* (University of California Press, 2001), pp. 7-11. «*Soulless corporation*» was of course used in several instances to refer specifically to the Standard Oil. See, for example, H. H. Tucker Jr., *Standard Against Uncle Sam* (Kansas City: Kansas, 1907), pp. 97, 276. Tucker was the ex-general manager of the Uncle Sam Oil Company and, in 1907, was in jail for fraud. In his book he basically accused the Standard Oil of having driven his company out of business and brought about its arrest. In his memoirs, he also asked the American people to «*throw the yoke of the most vicious, unscrupulous, greedy, and tyrannical trust ever organized by man, and whip from place and power every henchman of the Standard Oil Company of the United States*», p. iv. See also: *The Voter – A Monthly Magazine of Politics*, No. 52 (August, 1907) p. 22; published in Chicago, the magazine was known mainly because of its editor: Henry Barrett Chamberlin, who later became the director of the Chicago Crime Commission that eventually brought about the arrest of Al Capone in 1931.

in the attempt to expose their business practices. Their writings obtained tremendous success with the American public. Within a rapidly evolving society, which suffered from two heavy economic setbacks (in the early 1870s and 1890s) crushing the hopes and the savings of many rural and urban Americans, the corporate steady accumulation of fortunes became indeed suspicious, even unwarranted, and was quickly associated to bribery and political maneuvering. In 1881, a radical (later populist, later socialist) New York journalist Henry Demarest Lloyd vividly captured this kind of allegation – and disdain – against Standard when he wrote that the «*Standard [had] done everything with the Pennsylvania legislature except refine it*»[74]. The expression appeared in a long piece written for *The Atlantic*, where Lloyd criticized Standard's «*conspiracy with the railroads*» that led the Rockefeller's company to control the oil market[75]. The article, "*Story of a Great Monopoly*", which became widely popular, represented the first "reportage" on Standard's practices. Few years later, in 1889, Lloyd published *Wealth Against Commonwealth*. The book presented a vehement critique of Rockefeller's company, whose behavior was seen as a distortion of the American life, and, more in general, of the whole category of American industrialists and the world they created:

> «*Our bigness – cities, factories, monopolies, fortunes, which are our empires, are the obesities of an age gluttonous beyond its powers of digestion…Captains of Industry "do not know" whether the men in the ranks are dying from lack of food or shelter…*
>
> *If our civilization is destroyed…it will not be by his barbarians from below. Our barbarians come from above. Our great moneymakers have sprung in one generation into seats of power kings "do not know"…. Without restraints of culture, experience, the pride, or even the inherited caution of class or rank, these men, intoxicated, think they are the wave instead of the float, and that they have created the business that has created them. To them…government [is] but a fountain of franchises, the nations but customers in squads… They are*

[74] Henry Demarest Lloyd, Story of a Great Monopoly, *The Atlantic,* 1881.
[75] *Ibid.*

gluttons of luxury and power, rough, un-socialized, believing that mankind must be kept terrorized»[76].

Ida Minerva Tarbell, teacher, writer, and daughter of one of the Pennsylvania oilmen that Rockefeller coldly put out of business in the 1870s, read Lloyd's book while in Paris and later recalled that it helped her "crystallize" a «*clutter of recollections, impressions, indignations, perplexities*» about the situation of the American oil industry. Few years later Tarbell wrote what is still today the most famous indictment of the oil giant: *The History of the Standard Oil Company*. Published first as a series of articles (between 1902 and 1904, in the McClure's Magazine) and then as a book in 1904, Tarbell's work perfectly represented this type of investigative journalism of the time, aimed at revealing political corruption and corporate malpractices. She was for this one of the first journalists to earn the title of "muckraker" coined by Roosevelt to indicate those reporters who dug deep into the dirt in order to prove their stories. Indeed, digging into the Company's history is exactly what Tarbell did. She analyzed numerous corporate documents and spoke directly with Standard's officials. The final picture of the Trust and his founder was a negative one[77]. Tarbell actually worked hard to prove that the Standard Oil was «*determined, not to compete against, but to destroy, all competition and thereby monopolize a basic commodity and necessity of life at the well, at the refinery, and in the marketplace*»[78]. Despite her sober tone in reporting, her disdain against the «*unctuous logic of the Mother of Trusts*» emerges from the text[79]. What vexed Tarbell the most was Standard Oil's "unfairness" – the idea that, by using dishonest and deceitful schemes to ruthlessly suppress competition, Rockefeller had betrayed the original spirit of economic rivalry and the strong ethic standards that characterized American life. «*As I saw it*», Tarbell wrote after reading Lloyd's book, «*it was not capitalism but an open disregard of decent ethical business practices by*

[76] Henry Demarest Lloyd, *Wealth Against Commonwealth*, New York, Harper, 1899, pp. 2, 510
[77] In fact, she did acknowledge the extraordinary managerial skills of Rockefeller. However, the negative traits she associates with his personality – selfishness, greed, and ruthlessness –, and the emphasis she puts on them, largely surpasses the admiration for Rockefeller qualities as industrialist and entrepreneur.
[78] Cecelia Tichi, *Exposes and Excess: Muckraking in America, 1900 / 2000* (University of Pennsylvania Press, 2013) p. 89
[79] Ida Tarbell, *The History of the Standard Oil Company* (New York, Mc Clure, Phillips & Co., 1904), p. 255

capitalists that lay at the bottom of the story»[80]. In targeting the Trust's commercial strategy, therefore, what pundits and observers really came to contest were its business nature and its intentions in relation with the society on which it operated. To be condemned, more than Standard's corporate strategy, was its morality – of the lack thereof. Rockefeller rising profits contrasted with the economic distress experienced by farmers, craftsmen, and small manufacturers during the cyclical economic downturns that characterized the era. Similarly, Standard's continuous consolidation – through suspicious merges and acquisitions, whose goal was to shield the company from competition in an increasingly disordered and unregulated market – seemed to remove Rockefeller from the uncertainties of a society struggling to cope with the challenges brought by the country's formidable industrialization, rapid urbanization, and rising immigration[81]. The Company's insulation was indeed the mark of its perceived extraneousness to the real American community. At stake, then, according to the popular (and later populist) discourse, were not (only) the rejection of Standard's industrial dominance, but (also) the preservation of the original values of the Republic. Indeed, the Trust's new organizational structure – and the methods of accumulation of wealth associated with it, which included overcapitalization and the use of dependent work – shunned the traditional, frugal model of identity of Jeffersonian origin. The diminishing importance of self-employment in the newly established industrial system threatened the culturally constructed ideal of American "manhood", built around the notions of freeholding and self-reliance[82]. If the epic of the first oil pioneers well epitomized the honest and masculine ethos of the American adventurer, the greedy, cheating, and ruthless conduct attributed to the soulless giant did not – at all. As Tichi noted, «*"Manhood" and "fair play" are synonymous in this all-male story of Rooseveltian strenuous life*»[83]. Rockefeller's profit, as a consequence, came to be considered as disproportionate and morally inexcusable. Dishonestly built at somebody

[80] Ida Tarbell, *All in the Day's Work: An Autobiography* (Urbana and Chicago: University of Illinois Press, 2003, but originally published in 1939 by New York: MacMillan), p. 204

[81] R. H. Wiebe discusses at length these transformations and their consequences on U.S. politics and society in his work. Robert H. Wiebe, *The Search for Order 1877-1920* (New York: Hill and Wang, 1967). Samuel Hays addresses similar issues (and maintains a similar perspective) in Samuel Hays, *The Response to Industrialism, 1885-1914* (Chicago: University of Chicago Press, 1995). Both interpret the rise of the reformist-progressive movement as a reaction to the destabilizing forces of modernity present in the late nineteenth century America.

[82] Roger M. Olien and Diana Davids Olien, *Oil and Ideology, The Cultural Creation of the American Petroleum Industry*, p. 1-20

[83] *Exposes and Excess: Muckraking in America*, 1900 / 2000, p. 95

else's expenses, it also defied the common rules of thriftiness and moderation. As any other excess, in communities dominated by puritanism, self-discipline and restraint, extreme wealth was indeed linked to vice and moral degradation – a connection that in the case of the petroleum industry seemed particularly appropriate, given the disruption that befell any community that happened to strike oil. Reckless speculation, violence, pollution, and decadence were common experiences in the "oil towns" – over which the corporate giant profited nonetheless. More than with Cornelius Vanderbilt's transportation empire, Andrew Carnegie's and later J.P. Morgan's gigantic steel enterprise, or Russell Sage and Jay Gould's railroad interests, Rockefeller's Standard Oil public standing suffered from a devastating moral judgment that described the Company, as embodied by its creator, as selfish, rapacious, and merciless.

The dominant religious sentiment in the country (and the dramatic evolution it underwent at the turn of the century) was a crucial determinant of the value-loaded critique addressed to the Standard Oil. Traditional evangelical Protestantism, which tended to delineate «*social problems in moral terms*», turning «*offenders into sinners, against the social, if not the divine, order*», had infused early popular critics against the oil trust[84]. Then, by the end of the century, it combined with new theological disposition that asked for social reform and criticized the ethics of Rockefeller's enterprise in an equally forceful way. The Social Gospel, as the new religious teaching was eventually called, preached that societal change was not only possible but also necessary to achieve individual salvation, basically reversing the notion that redemption was a personal affair. The uplift of the community, which was judged as a whole, was therefore a necessary step to save the souls of its members. The amelioration of living and working conditions, the achievement of widespread economic progress, and the elimination of social-disrupting behavior – or better: vices, like drunkenness, prostitution, gambling, etc. – were all crucial prerequisites for human fulfillment[85]. Part of the spiritual energy to the movement came from protestant postmillennialism – a Christian eschatology, according to which God's return to heart would have taken place only after a long era (a

[84] Ibid. p. 4

[85] For Ahlstrom, American puritanism, with its sense of social responsibility, was in important part of the «*moral and religious heritage*» that led to the development of the Social Gospel. At the same time, however, what the Social Gospel had to combat was above all the «*American's basic contempt for poverty…fostered by the Puritan ethic in both its pious and secularized form*», Sydney E. Ahlstrom, David D. Hall, *A Religious History of the American People* (New Haven and London: Yale University Press, 2004, 2nd Ed.) pp. 789, 787

"millennium", although not *literally* a thousand years) of devoted preparatory activities, consisting of missionary work, conversion efforts, and, of course, popular redemption[86]. Postmillennialists therefore promoted active change in the community, as both proof and precondition of Christ's future coming. This desire for collective betterment is what indeed drove also Social Gospelers. The latters, however, maintained a worldlier – if not practical, materialistic – perspective, caring more about the daily transformation of the people's lives than about the construction of the Kingdom of God on earth. This focus on tangible progress, and the attempt to emphasize ethics over religious dogmas, reflected the precepts of theological liberalism – another important theoretical constituent of the movement – that attempted to incorporate modern thinking and scientific development into the Christian faith[87]. During the 1890s the Social Gospel's leading intellectual became the pastor Washington Gladden, whose «*message skillfully fused the new liberal theology from the European continent with the evolutionary cult of progress rampant in the United States, joining both to the crusading mentality of mid-century Protestantism*»[88]. Gladden's elaborate thought stressed how social improvements led to individual salvation. The crucial passage in the process was the possibility, through a communal effort, to develop a «*sound personal character*»[89]. He elaborated on the matter in his writings and explained what American individual character and moral virtue were based on, if not directly equated to: manliness. Indeed, only the acquisition of a «*manly independence*» could have helped man resist terrestrial temptations[90]. Manhood, with its close association to the notion of rectitude and respectability, persisted throughout the years as a fundamental tenet of American identity. As life-ordering concept, it remained at odds with the nature of dependent work and questioned the moral legitimacy of disproportionate and ostentatious wealth – both essential features of the new industrial system in general, and of the oil business in particular. The life in the American towns, especially in those organized according to

[86] For a brief analysis on the influence of millennialism on Social Gospelers and progressive politics, see: Gary North, Millennialism and the Progressive Movement, *Journal of Libertarian Studies*, Vol. 12, No. 1 (Spring, 1996): pp. 121–142. Gary's article was a response to Murray N. Rothbard, World War I as Fulfillment: Power and the Intellectuals, *Journal of Libertarian Studies*, Vol. 9 (Winter 1989), p. 81.

[87] For a survey on liberal theology and social gospel, see for example the corresponding chapters on: Ahlstrom, *A Religious History of the American People*, pp. 763-874

[88] Hawley, Joshua David, *Theodore Roosevelt, Preacher of Righteousness* (New Haven: Yale University Press, 2008), p. 126

[89] Ibid. p. 128

[90] Roger M. Olien and Diana Davids Olien, *Oil and Ideology, The Cultural Creation of the American Petroleum Industry*, p. 19

unrestrained (and consequently unfair and immoral) capitalism, was ultimately sinful and needed to be reformed. This conviction that a change in society was necessary in order for everyone to live up to his/her own potential led in turn to another, even more crucial understanding: «*salvation…ultimately required the state*», since «*only the state could remedy the structural circumstances that led to the degradation of personal character. Only the state could create new conditions and better circumstances to get better men*»[91].

The Standard Oil: The Monopoly

The notion that the state needed to assume a new role in the society was a crucial contact point between the muckrakers' popular critique of the Standard Oil, rooted in the American moral and spiritual tradition, and the new socio-economic theories that developed simultaneously at the end of the nineteenth century. The appeal for a more present and interventionist government put forward by the Social Gospel indeed was picked up, elaborated, and expanded by non-clerical thinkers in American society during those years. Among those, mostly university professors, who worked to substantiate the reformist case in economic and political terms, the most influential was Richard T. Ely – a German-educated American economist, close friend of Gladden, who became an advocate for social change and a leading social scientist at the University of Wisconsin. Through the American Economic Association (AEA), which he cofounded in 1885, Ely and his colleagues worked to promote a progressive theory of regulation and oppose the strict laissez-faire orientation dominant in American politics and economy[92]. The economist Henry Carter Adams, in particular, put forward an articulate revision of Jeremy Bentham and John Stuart Mill's utilitarian theories, questioning the notion that happiness and prosperity in American society could be reached simply through the individualistic search of personal benefit. The unbridled exercise of private rights could lead to abuse, and hence it could interfere with the collective welfare,

[91] Hawley, *Theodore Roosevelt, Preacher of Righteousness*, p. 129

[92] For an ample discussion about the transformations in economic thinking during this period, see for example: Barbara Fried, *The Progressive Assault on Laissez Faire: Robert Hale and the First Law and Economics Movement* (Cambridge, Mass. and London: Harvard University Press, 2009). For separate reviews of how progressive era's thinkers, from Ely to Wilson, reinterpreted specific concepts like liberty, natural rights, individualism, and even the idea of property rights, see: Ellen Frankel Paul, Jeffrey Paul, Fred D. Miller, Jr, *Natural Rights Individualism and Progressivism in American Political Philosophy* (Cambridge University Press, 2012)

which was considered as indivisible. The Gilded Age capitalist and laissez-faire economy, where monopolies and large concentrations of powers were allowed to prosper and harm smaller and weaker market participants, came therefore under scrutiny. Following this line of reasoning, regulation and government intervention were required in order to prevent socially damaging economic developments like the imposition of higher prices to consumers, the suppression of competition, or the decline of industrial efficiency. In fact, Ely and Adams believed that the presence of a monopolistic equilibrium in the market was not always wrong, as they saw an important theoretical distinction between "natural" and "artificial" monopolies. In some circumstances, the presence of structural (natural) limits favored the development of large economies of scale for first comers, making very difficult for any other competitor to operate with profit (like, for example, according to Ely, in the railroads' business, as well as with telegraphs, telephones, and canals)[93]. In these specific cases, the presence of multiple players could actually be considered inefficient from a market perspective, since the particular characteristics of the business would have made it impossible for all the participants to succeed. Even in these sectors of the economy, however, there was space (in fact, need) for an enhanced role of the state, since the (commercial) service provided by the "natural" monopolistic actor would have been then considered a "public utility" and therefore would have needed to be regulated as such. Artificial monopolies, instead, took place every time a dominant company was able to maintain its privileged position only by virtue of specific market restrictions and political arrangements. The Standard Oil, as Ely made clear already in 1890, was one of them, since the Trust could secure its monopolistic position only thanks to its unfair collaboration with the railroads and the exclusive rebates it enjoyed. «*Standard's competitors*», noted Ely, had «*never complained of the superior skill or superior business ability of the Standard men, but of the favoritism which has been shown them by the railroads*»[94]. The introduction of stricter federal laws and regulatory reforms were therefore necessary not because

[93] In Ely's list there were «*railways, telegraphs, telephones, canals, irrigation works, harbors, gasworks, street-ear lines, and the like. Experience and deductive argument alike show that in businesses of this kind there can be no competition, and that all appearances which resemble competition are simply temporary and illusory*». Richard T. Ely, Natural Monopolies and the Workingman. A Program of Social Reform, *The North American Review*, Vol. 158, No. 448 (Mar., 1894), p. 294. Those were all natural monopolies, i.e. «*arising from properties inherent in the business*», in Richard T. Ely, *Monopolies and Trusts* (New York, The Macmillan Company; 1900), p. 117.

[94] Richard T. Ely, *Problems of to-day* (New York: T. Crowell & Co., 1890), p. 206

industrialists like Rockefeller were immoral and ruthless man, and their companies an example (and a force of) moral degeneration, but because of the market inefficiencies and economic distortions associated to the presence of profit-driven, self-interested monopolies like Standard's and, more in general, to the corporate accumulation of wealth. Although Ely always maintained a same moral compass and inspiration of his contemporaneous Social Gospelers, his analysis remained primarily at the "scientific" and economic level – as was the critique to corporates' riches that he put forth[95].

In regulating business activities, the state was simply fulfilling its social obligation since, as Ely specifically argued, the government was «*created to promote the general welfare, and when it is used to advance special interests which are not at the same time general interests, it is perverted from its original purpose*»[96]. This stance, which rhetorically was simply an echo of the traditional republican principles of government, actually entailed an important conceptual shift regarding the notion of liberty. The conventional, liberal, and "negative" idea of individual liberty as freedom *from* the state had been indeed first reworked and then reversed. The result was a new, "positive" interpretation that demanded an active protection of rights *by* the state and envisioned a larger redistributive role for the federal government. Economic justice (equality) became an important component to social justice. Following this reasoning, since the welfare of the society depended on the achievement of higher and "general", collective goals, the common (i.e. public and national) good was not – and could not be – the simple sum of private, particular interests. Believing that American society needed to express and maintain certain ethical standards automatically invested the state of new responsibilities in the attempt to attain them.

These ideas – and the arguments about the oil giant that directly derived from them – were central in the American public debate at the beginning of the century and remained very much so as the decade reached an end and the progressive rhetoric became more pronounced. Their spread, consolidation, and further development in U.S.

[95] Ely was, indeed, deeply influenced by religious thinking. He actually founded the Christian Social Union of the Episcopal Church in association with prominent Social Gospelers and referred to the problems cause by monopolistic behaviors as "evils". For a more ample and elaborate analysis on the impact of religion on Ely, see: The Impact of Liberal Religion on Richard Ely's Economic Methodology, Donald E. Frey, *History of Political Economy* 2008 Volume 40, Number 5: 299-314

[96] Ely, *Problems of to-day*, p. 210

politics during that period was actually possible also, and specifically, thanks to Roosevelt's activism and rhetoric while at the White House. Since the very beginning, as his first annual message demonstrates, the President voiced and combined popular and economic concerns about the Gilded Era's corporate hypertrophy, advancing specific reform proposals grounded on both moral and market considerations. As Hawley noted, Roosevelt had indeed grew up «*in the future heartland of the social gospel and had absorbed many of its basic premises*» long before becoming President[97]. His connection with the late nineteenth-century protestant revival – and his rhetorical attachment to many of its topoi (the values of manhood, the importance of self-reliance, the existence of a superior common good) – went therefore well beyond partisan calculations and mere political opportunism to rest on a more personal level. «*Gladden's gospel*», Hawley wrote, «*meshed with Roosevelt's conception of righteousness beautifully, the works-righteousness of action and deed and high ethical standards*»[98]. Similarly, Roosevelt showed to be familiar with the new socio-economic thinking articulated by Ely and his colleagues. The President made clear since the beginning that not all trusts were created equal and expressed the willingness (and the political necessity) to differentiate between "good" and "bad" monopolies. His Bureau of Corporations, established within the new Department of Commerce and Labor in 1903 and tasked with the responsibility to investigate corporate behavior, accepted and confirmed this distinction, therefore marking a difference, especially during Roosevelt's second term (1904-1908), from the strictly legalistic anti-trust interpretation of the Sherman Act endorsed by the Court since 1904[99]. The president indeed believed that the «*Nation*» deserved the «*power of supervision and regulation over all corporations*»[100]; yet, he never automatically contended that large industrial combinations were, by definition, illegitimate. Roosevelt held on this position until the very end of the decade, skillfully keeping tied together a strong popular/populist anti-business rhetoric – in 1907 he accused the «*malefactors of great wealth*» for the first financial panic of the

[97] Hawley, *Theodore Roosevelt, Preacher of Righteousness*, p. 129
[98] Ibid.
[99] In 1903, Congress had finally accepted Roosevelt's request to create the Department of Commerce and Labor. For a brief analysis of Roosevelt's stance on regulation, see: Gary Murphy, Theodore Roosevelt, Presidential Power and the Regulation of the Market, in Serge Ricard (ed.), *A Companion to Theodore Roosevelt*, pp. 154
[100] Theodore Roosevelt, First Annual Message (December 3, 1901)

century[101], in 1908 he talked about the existence of an «*irresponsible*» business power that needed to be «*controlled in the interest of the general public*»[102] – with a practical acknowledgment of the economic role of American corporations.

In doing this, Roosevelt was helped in the second half of the decade by the work of a new array of progressive thinkers that in those years further articulated and developed these ideas. Herbert Croly's reformist manifesto, *The Promise of American Life*, published in 1909, combined the classic accusations against «*the corruption of American public life*», the «*glaring inequalities of condition and power*», and the «*excessive and corrupt influence*» of big-businesses with a strong support for the federal "recognition" of American corporations. The impression was that the large combinations in U.S. industry, willingly or not, were there to stay. It therefore became important not to destroy or punish them, but to put them under federal jurisdiction (and, in a sense, protection) in order to make the best use of them within a greater framework of national growth and development.

The progressive reassessment of the long-standing arguments about trusts and corporations significantly contributed to shape the role of the federal government in its relationship with private businesses in general, and with the oil industry in particular, as the country moved on into the second decade of the twentieth century. Making specific reference to the Standard's example, Croly explained that American industrialists, too, had to realize that, given the public pressure on them, they would have been better off collaborating with the federal government:

> «*Doubtless they have not exhausted the evasive and dilatory methods that have served them so well in the past; but little by little the managers of these corporations…are coming to realize that the only way in which their businesses can obtain a firm legal standing is by means of Federal recognition and exclusive Federal regulation. They would like doubtless to continue to escape any effective regulation at all; but without it they cannot obtain effective recognition, and in the existing ferment of public opinion recognition has become more important to them than regulation is dangerous*»[103].

[101] Theodore Roosevelt, Address of President Roosevelt on the occasion of the laying of the corner stone of the Pilgrim memorial monument (August 20, 1907). Roosevelt used the expression «*wealthiest malefactor whose crime was one of greed and cunning*» also few months later, during his Seventh Annual Message (December 3, 1907).
[102] Theodore Roosevelt, Eighth Annual Message (December 9, 1908)
[103] Herbert Croly, *The Promise of American Life* (New York: The Macmillan Company, 1909), p. 355

Croly's vision for a centralizing and overachieving federal government provided the intellectual base for Roosevelt's "New Nationalism", the full-fledged progressive agenda that he presented in 1910 and on which he would have run against both the incumbent Republican president William Howard Taft and the Democratic opponent Woodrow Wilson in 1912. The program condensed many of the (increasingly pressing) demands for social, economic, and political reforms that had already grouped under the large banner of progressivism. The coalition itself was actually as vast as loosely knit. It cut through class, gender, and party lines and included Social Gospelers, Christian social economists like Ely, but also more secularized elements in American politics, like trade unionists, women's rights advocates, academics, muckrakers, political descendants of the late nineteenth-century populist movement, and, according to important historiographical interpretations, actually "middle class" Americans and small manufacturers who were simply trying to react to new possible extremisms[104]. Despite the regional, class, or party differences, however, all those who defined themselves progressive sought, in one variant or another, increased federal regulation to solve the mutually recognized problems, especially in business competition[105].

Roosevelt rode this reformist wave from his pulpit during his presidency and he would have done even more so after the end of his second term, with ruinous consequences for the Republicans. The rift that Roosevelt's activism had opened in the Party, pitting the most reformist elements against the old guard leaders, would have grew only larger during the presidency of William Howard Taft. The new president's half-hearted commitment to the policies and ideals of his predecessor would have indeed convinced Roosevelt to re-enter American public life in 1910 and to side openly with the progressives. In 1912, Roosevelt would have lead the newly established Progressive Party into the presidential election fighting against both the Republican

[104] Richard Hofstadter (*The Age of Reform: From Bryan to FDR*; New York: Alfred Knopf, 1955) for example described eastern progressives as prudent and mild more than as bold reformers. There were in fact so many and profound ideological differences between Democratic and Republican progressives (on tariffs and foreign policy, for example), as well as between northeastern reformers and southern agrarian crusaders, that the idea of the very existence of a progressive "coalition" has been repeatedly challenged at the historiographical level. See for example: Daniel T. Rodgers, In search of progressivism, *Reviews in American History* Vol. 10 (1982), pp. 113–32. For a "standard" synthesis of progressivism see instead: Arthur S. Link and Richard L McCormick, *Progressivism* (Arlington Heights, Ill.: Harlan Davidson, 1983)

[105] Glen Gendzel, What the Progressives Had in Common, *Journal of the Gilded Age and Progressive Era*, Vol. 10 (2011), pp. 331-339. Gendzel calls it a shared «*faith in the democratically directed power of government to shape America's destiny*».

conservatism and the Democratic version of progressivism represented by Woodrow Wilson. By the time American people went to vote to decide which type of progressivism should have led the country forward, however, the Supreme Court had already taken its decision about the fate of the Standard Oil. The sentence, pronounced in 1911, well represented the contemporary progressive evolution of the original, late nineteenth century arguments about the oil Trust: it condemned Standard's business practices while acknowledging the economic and industrial relevance of American corporations. The Court found the holding company responsible of having supported monopolistic practices in the national and international commerce of crude oil and refined products. As a sanction, Jersey Standard (its management) was prohibited from holding stocks in any of the other 33 affiliates found guilty under the Sherman Act. «*The intent of the court*», as Sweet and Knowlton noted, was not to punish the individual companies, but to break down the «*unified control*» of the combination – «*to destroy the concert of command, casting the specified affiliates loose, not only from the parent company, but from each other as well*»[106]. The sentence was definitely a victory for the original, popular and populist anti-big business sentiment, which had specifically targeted the oil industry since the late nineteenth century and eventually succeeded in taking down the most powerful symbol of the influence of private interests in public life: the Standard Oil of New Jersey. The moral crusaders did get the head of the oil giant after forty years of fight. With the 1911 sentence, however, they won the battle and lost the war. The Court's decree dismantled the Standard at the corporate level (i.e. in its role of parent company) but neither damaged the various affiliated companies and their industrial assets nor diminished their role as economic actor. In a late vindication of Roosevelt's original position, the ruling that brought down Rockefeller's company served also to assert the "rule of reason" as guiding principle in judging the legality of corporate behavior: merges and monopolies (intended simply as possible market outcomes) were not to be considered illegal per se; in evaluating their rationality, even before the law, it was instead necessary to take into consideration the broader economic context in which they emerged and to measure them against the yardstick of economic efficiency. An even more effective victory was therefore that of those economists and

[106] George Sweet and Evelyn H. Knowlton, *History of the Standard Oil Company (New Jersey): The Resurgent Years* (New York: Harper and Brothers, 1956), p. 6

intellectuals who had complained about the Standard Oil but who regarded American corporations – if properly regulated – as an element of national strength and not as a sin.

Roosevelt's popular and populist vision of progressivism was eventually rejected at the ballot box in 1912 in favor of Wilson's less antagonistic program of reform. Roosevelt and the strand of reformism he put forth failed in both eliminating corruption and economic imbalances, as well as in creating an absolute federal regulatory authority over businesses. His presidency nonetheless significantly contributed in shaping the future development of the relationship between the private businesses (including the oil industry) and the government. The statist discourse that emerged from a unique combination of spiritual, moral, and economic aspirations in the late nineteenth century, and consolidated during the Roosevelt's years at the White House, did succeed in elevating American trade and market to a new, national dimension. From a state-regulated activity, commerce – even oil commerce – became a national and federal concern. At the rhetorical level, both in politics and in the public debate, the notion of a public and national interest that needed to be safeguarded and promoted through the state became increasingly common and clearly defined. As Schlesinger wrote discussing Croly's ideas and their impact, the goal was now to «*transform the national attitude toward social development, to convert the old unconscious sense of national destiny into a conscious sense of national purpose, to replace drift by management*»[107].

1.2.2 Conservation and Professionalization

Big business, and how to thwart its influence, was not the only focus of Roosevelt's first State of the Union Speech. The situation of American forests, too, was examined in his first address to Congress, in late 1901. The president went indeed to great lengths in explaining «*the great part played by them in the creation and maintenance of the national wealth*»[108]. The subject, which could seem unrelated the discussion about industrial regulation, was in fact strictly connected with the broader argument that Roosevelt and many progressives were trying to make concerning the powers of the federal government. The case for an expansion in the administration's supervising and controlling responsibilities was based on a logic that went well beyond

[107] Arthur M. Schlesinger, *The Crisis of the Old Order: 1919-1933, The Age of Roosevelt* (Boston: Houghton Mifflin, 2003 – Mariner Books edition), pp. 20-21.
[108] Theodore Roosevelt, First Annual Message (December 3, 1901)

the rejection of corruption in politics, or the protection of a fair economic competition. The idea that the central government deserved a new agency in American society came from the belief, put forward by Social Gospelers and early reformers, that a common good – a higher, overarching public interest – actually existed. The federal government – or in Rooseveltian terms: the presidency and so the executive – as sole true representative of the people's will had inevitably a major role as interpreter and steward of such public and national interest. Interstate commerce represented one crucial area where Washington's jurisdiction needed to be extended, but it was not the only one. In any other domain where there was an evident, collective benefit to be reaped, the government had to be given the necessary means to act. It was a moral duty – and, in fact, a *right* – of the federal government. The country's forests, for example, were so important for mining, grazing, and irrigation that they needed to be properly preserved and administered. This could be achieved, in Roosevelt's opinion, through centralization and the implementation of new managerial standards. In particular, the president planned to task a newly created agency within the Department of Agriculture, the Bureau of Forestry, with the control and supervision of national forests. The administrative reform would have transferred most of the powers from the Department of Interior, whose agencies were dealing with the mapping and protection of the country's wood reserves, eliminating a «*diffusion of responsibility*» that the President considered «*bad from every standpoint*»[109]. The specifics are important because Roosevelt's decision to empower the Department of Agriculture over the Department of Interior was not taken out of necessity or by chance. On the opposite, the selection represented an ideological and political endorsement to the man who had envisioned such transfer of power: Gifford Pinchot, the "father" of American conservationism. By the end of the decade, his ideas would have transformed ethos and practices of American bureaucracy and instilled a new sense of purpose in managing national resources – and, among them, oil.

[109] Ibid.

U.S. Forestry between Agriculture and Interior: the rise of Scientific Administrators

Pinchot was the head of the Division of Forestry in the agricultural department since 1898. Despite his origins (Pinchot was not a "son of the wilderness"[110]; he was born in Connecticut in 1865 from a wealthy northeastern family and grew up in New York), he made forestry first his passion and then his job, with incredible success. Since the late nineteenth-century, he «*spearheaded a drive to convert public land policy from one that sought first and foremost to disperse public holdings to private interests to a policy that sought to retain, conserve, and manage the public land*»[111]. For Pinchot, «*marrying science with state power was the prerequisite for governing nature and assuring national greatness*»[112]. To this end, he actively promoted an innovative, scientific management of natural resources and a new meaning to role of national foresters. He envisioned, and eventually run, a highly specialized cadre of professionals, trained to use empirical evidence to produce technical and impartial knowledge. These efforts perfectly exemplify the great transformation occurring in American culture. Pinchot recounted attending every day the revivalist sermons of Reverend J. Aitken as a child[113]. Like Roosevelt and countless other Americans, he had been directly exposed to the precepts of the social gospel. Furthermore, like Ely and several other emerging social scientists that were reforming American educational system, Pinchot had spent years of studying and training in Europe, accustoming himself to the rigorous method of scientific investigation extensively practiced overseas and in German institutions in particular[114]. He, like many other American intellectuals, scholars, and engineers, brought home his admiration for the European organizational and operational standards applied in both natural and social sciences[115]. These experiences significantly

[110] The expression is usually used in reference to John Muir, the great American naturalist and early environmentalist, "founder" of preservationism in the United States. See: Linnie Marsh Wolfe, *Son of the Wilderness: The Life of John Muir* (Madison: University of Wisconsin Press, 2003, 2nd Edition – Originally published in 1945).

[111] Brian Balogh, *The Associational State: American Governance in the Twentieth Century* (Philadelphia: University of Pennsylvania Press, 2015), p. 41-42

[112] Bruce J. Schulman, «Governing Nature, Nurturing Government: Resource Management and the Development of the American State, 1900-1912*», Journal of Policy History*, Vol. 17, No. 4, (2005), p. 379.

[113] Ibid. 46

[114] On Pinchot's early life, see in particular: Char Miller, *Gifford Pinchot and the Making of Modern Environmentalism* (2001), p. 89

[115] Pinchot actually thought that the «*painstaking minuteness*» of the Prussian forestry practices were even "too much" for the American context. After few years in Europe, he indeed believed that he had

contributed to shape their vision of development. The soundness and seemingly universal applicability of empirical research persuaded social engineers and administrators like Pinchot that a common, public good was not only recognizable but also, and more important, measurable through to the correct application of scientific criteria to the study of the country's situation. The longstanding, liberal, and optimistic faith in progress, filtered through the new sense of social responsibility developing in the United States, became an all-powerful scientism that contributed to raise the nation's ambitions and recast the country's role in the late nineteenth-century. The introduction of stricter knowledge-based qualifications for expert positions in the public service, as well as in private businesses and in the academia, represented the first practical step in the attempt to fulfill a broader reformist and modernizing mission and ascertain the nation's real potential.

The movement towards professionalization represented the ideological counterpart to the ongoing technical revolution within the American industry, whose increasing mechanization promised to make every step of the productive process faster, more precise, and less costly – in a word: more efficient[116]. Pinchot was indeed one of the first and most fervid preachers of this "gospel of efficiency"[117]. He actively promoted the implementation of a businesslike approach, which focused on the elimination of waste and the rationalization of available resources, in the management of the U.S. natural patrimony. Pinchot's conservationism considered natural resources as critical but limited assets, whose returns needed to be maximized over time to the continuous benefit of the national community. As Roosevelt explained already in 1901, «*Wise forest protection does not mean the withdrawal of forest resources… The fundamental idea of forestry is the perpetuation of forests by use. Forest protection is not an end of itself; it is a means to increase and sustain the resources of our country and the industries that depend upon them. The preservation of our forests is an imperative business necessity*»[118]. The focus, therefore, was on the sustainable use of the resource in order to make possible its long-term consumption, not on preservation

learnt enough to reform the resources management in the United States. Char Miller, *Gifford Pinchot and the Making of Modern Environmentalism* (2001), p. 89.

[116] The "efficiency movement" within the industry was led Frederick W. Taylor. His ideas, which became known as "Taylorism", were summarized *The Principles of Scientific Management*, published in 1911.

[117] Samuel Hays, *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, 1890-1920* (Cambridge: Harvard University Press, 1959).

[118] Theodore Roosevelt, First Annual Message (December 3, 1901)

per se. Pinchot introduced an element of temporality in the management of natural resources that seemed completely absent in the minds of those Americans used to the continent's plentitudes. As he himself reported, when he came back from Europe in 1890, «*not a single acre of Government, state, or private timberland was under systematic forest management anywhere on the most richly timbered of all continents.... When the Gay Nineties began, the common word for our forests was "inexhaustible." To waste timber was a virtue and not a crime. There would always be plenty of timber and everything else in American for everybody, world without end… And as for sustained yield, no such idea had ever entered their heads*»[119]. The adoption of new professional standards, and therefore the use of technical expertise, would have instead helped to understand the optimal number of trees that could be cut (or needed to be replanted) every year to foster their economic use without endangering the nation's timber reserve. «*The job was not to stop the ax, but to regulate its use*»[120]. This form of "utilitarian conservationism" advanced by Pinchot differed from the romantic, aesthetic preservationism – equally present in the United States – that advocated the federal withdrawal of lands in order to totally shield them from human intrusion[121]. Pinchot's seemingly spurious environmentalism would have indeed attracted increasing criticism from later twentieth century naturalists. Historians, however, have repeatedly tried to downplay the negative and simplistic characterization of his pragmatic conservationist ideas, stressing how they evolved during the course his long and complex career, but also noting an inescapable truth: Pinchot was a man of his time. Relevant to his vision was his «*certainty that social justice was partly secured through economic expansion, and that this was keyed to the nation's ability to protect and to use in a sustainable fashion Earth's bounty*»[122].

Pinchot had focused on revolutionizing the personnel, the administrative objectives, and the operational methods of the USDA Division of Forestry since his

[119] Gifford Pinchot, *Breaking New Ground* (New York: Harcourt Brace Jovanovich, 1947), p. 27. The book is an autobiography, published posthumously.
[120] Ibid. p. 29
[121] The preservation philosophy, which supported the complete safeguard of wildlife and natural areas, had a long tradition in the United States, rooted in the writing of authors like Ralph Waldo Emerson and Henry David Thoreau. Muir was one of the strongest advocates of preservation and ended up battling with Pinchot on different occasions. The most famous dispute regarded the status of the Hetch Hetchy valley in California. Pinchot supported the damming of the valley, which was part of the Yosemite Park, in order to provide water to the growing city of San Francisco. Muir strongly opposed the measure. In 1913, President Wilson eventually signed the bill that authorized the building of the dam.
[122] Miller, *Gifford Pinchot and the Making of Modern Environmentalism*, p. 12

arrival, in 1898. Thanks also to the work of Pinchot's friend Clinton Hart Merriam, who shared the same reformist ideals and had been the head of the USDA Biological Survey since 1889, by the turn of the century their Department was already *«an organization center (perhaps the center) of American environmentalism»* with a vast expertise in forestry[123]. In 1901, Roosevelt's request to delegate additional responsibilities to the USDA represented therefore the president's approval and support of their reformist and conservationist strategy[124]. The president had known the two men for years, so his commitment to the bureaucratic restructuring was neither superficial nor incidental. The relationship between Pinchot and Roosevelt would have indeed only grown stronger after 1901, with the former unofficially serving as one of the president's closest advisors for the rest of the decade.

Pinchot's political leverage, his accomplishments in forestry management, and his ability to publicize them, brought him further administrative victories. In 1905, the Congress finally granted Roosevelt's (and so Pinchot's) requests, approving the complete transferring of authority over American forests from the Department of Interior to the USDA. At that point, «*Department of Agriculture was the most modern, well-developed bureaucracy within the national government. It maintained a highly professional staff with a clear policy agenda. The Interior Department, on the other hand, possessed no such rigorous organization; its field offices were particularly unprofessional, lacking skilled employees and even necessary office equipment*»[125]. The

[123] Daniel P. Carpenter, *The Forging of Bureaucratic Autonomy: Reputations, Networks, and Policy Innovation in Executive Agencies, 1862-1928* (Princeton: Princeton University Press 2001), p. 208

[124] In fact, the real nature of the President's environmentalism is disputed. In the 1880s, before and after his term as representative in Albany, he had spent months as bison-hunter and rancher in North Dakota and the voluntary training experience had not only forged its characteristic combative spirit, but also infused him with «*an abiding reverence for a spectacular wilderness that must not be lost to future generations*» (H. W. Brands, *T.R.: The Last Romantic*, New York: Basic Books, 1997, p. 23). His early years therefore would frame him as preservationist. Yet, during his presidency he repeatedly followed Pinchot's advice, supporting his conservation policies. At the historiographical level, the debate has not settled yet and it is clear that there is no simple one-sided answer. Brinkley (Douglas Brinkley, *The Wilderness Warrior: Theodore Roosevelt and the Crusade for America*, New York: Harper Collins, 2009), for example, said he was both and called him a "Darwinian naturalist" while acknowledging that it is difficult (and useless) to categorize the president's environmentalism, since he was an eclectic and multifaceted thinker. Fishman tries to reconcile Roosevelt's preservationism and conservationism saying that he was, more than anything else, simply a "prudent" leader, trying to «*combine ideals and practical concerns*». Ethan Fishman, *The Quality of Theodore Roosevelt's Environmentalism*, in Serge Ricard, A Companion to Theodore Roosevelt, p. 176. The relevant aspect here is that Roosevelt, whatever his ultimate beliefs were, during his presidency did support Pinchot's vision of administrative reform and resource management without reservations, effectively promoting their implementation.

[125] Bruce J. Schulman, Governing Nature, Nurturing Government: Resource Management and the Development of the American State, 1900-1912, *Journal of Policy History*, Vol. 17, No. 4, 2005, p. 384

Department of Interior's bureaucratic failures were sentenced and publicly exposed during the second part of the decade by the Keep Commission. Official named Committee to Investigate the Executive Business of the Government, it was commonly known after its chairman, Assistant Secretary of the Treasury Charles Keep. Roosevelt established the committee in 1905, tasking it with the administrative review of the executive branch. Until 1909, the year Roosevelt left the White House and the commission was disbanded, it worked to report widespread malpractice and inefficiency in many different government units. Its first report, presented in 1907, specifically targeted the Department of Interior for its outmoded practices – especially in the management of public lands through the Land General Office, considered inattentive and wasteful. One of the five members appointed by Roosevelt to the Commission was, of course, Gifford Pinchot, who had actually inspired the whole idea of an internal investigation. With him there was the fellow conservationist James R. Garfield, who had been a member of the U.S. Civil Service Commission (one of the first governmental unit to implement merit-based hiring and promotion criteria) and who in 1905 was serving as Commissioner at the Bureau of Corporation – the agency of the Department of Commerce created during Roosevelt's first term to investigate U.S. corporations. Garfield's credentials and reformist ethos (he, as Pinchot, had been pushing for an administrative review for years) made him in Roosevelt's eyes the right man for what seemed a very challenging task of remodeling the management of the Interior Department along professional, scientific, and conservationist lines. Garfield was hence appointed Secretary of the Interior soon after the Committee presented its first remarks and recommendations for reform.

Improving the Nation, Surveying Oil

In the last two years of the Roosevelt's administration, both Pinchot and Garfield worked hard to turn the personalistic, scarcely organized, and locally-oriented federal system overseeing trees, water, and public lands into the «*resource management state*» they envisioned[126]. The change was at the practical and organizational level as much as at the cultural one. The new administrative regime rested on the belief that a close relationship (if not actual overlapping) between conservation and efficiency existed: to

[126] Ibid.

save resources meant to use them better, reducing their wastage and increasing their relative productivity. Even more important, both concepts assumed a new and exclusive national dimension. A more efficient use of resources did not mean higher and faster profits for private owners, but just the opposite: conservation was meant to serve the long-term benefit of the community as opposed to the short-term gain of specific individuals. Pinchot explained it clearly in 1910: «*Conservation means the greatest good to the greatest number for the longest time…it demands the complete and orderly development of all our resources for the benefit of all the people, instead of the partial exploitation of them for the benefit of a few*»[127]. The practical application of conservational criteria through the adoption of new organizational and administrative standards was therefore closely associated with what was considered the real public and national interest. These considerations ensured that the implementation of conservationist measures was invoked not only in the attempt to preserve the trees, rivers, and soil. As the past mode of exploitation appeared more and more mindless and wasteful, especially when compared with the growing industrial needs of the country, the specific category of "national resource" – which called for the state's interest, if not intervention – came naturally to include not only lumber, waterways, and soil, but also metals, like iron or gold, as well as minerals, coal, oil, and natural gas. The situation of minerals and metals was particularly problematic from a conservationist perspective. The law regulating prospecting and mining rights was the Mining Law of 1872 (officially known as the General Mining Act), passed after gold was discovered in California and designed to encourage the development of western territories. The legislation allowed U.S. citizens to explore for minerals (excluding coal) on federal public lands without need for authorization. Prospectors could then file a mining claim as soon as a deposit was located and patent the land, therefore gaining title to both subsurface and surface resources[128]. In order to obtain and retain the government deed, the claimants simply had to prove that there was enough material to be profitably marketed and pay a registration fee. At that point, miners (individuals but also private companies or corporations) could enjoy their economic rights regardless of any possible

[127] Gifford Pinchot, *The Fight for Conservation* (New York: Doubleday, Page & Company, 1910), pp. 48, 80

[128] U.S. National Research Council, *The National Research Council in 1979: Current Issues and Studies* (National Academies of Sciences, 1979), pp. 201-202

alternative use or value of the land. The legislation regarding coal (Coal Land Acts of 1864 and 1873) was not much better, as it simply required federal coal-bearing lands to be sold at public auction[129]. This legislative regime clearly favored a private, and completely discretional, use of public land and its resources and assigned the government almost no regulatory or controlling authority. In this respect, oil's specific situation was even worse since the permissive criteria of Mining Law coupled with the effects of the "rule of capture". The result was a context in which the rapid exploitation was not only encouraged but also the only actual way to guarantee profit from oil drilling. This outcome was of course the complete opposite of what conservationists were preaching. Roosevelt recognized this already in 1907, claiming that: «*the nation should retain its title to its fuel resources, and its right to supervise their development in the interest of the public as a whole*»[130].

From forests, lands, and waterways to minerals and livestock, in those years the use of conservationist rhetoric «*became ubiquitous*» in the United States, spreading rapidly among the variegated group of social scientists, reformists, experts and politicians that populated the progressive era[131]. The conservation claims fit indeed perfectly with the progressive discourse of collective improvement and reform. As society was given a new temporal, economic, and moral horizon to reach, efficiency became a national issue – a public, shared goal, with significant implications also at the personal and (even) physiological level. By the end of the decade, increasing the "national efficiency" through conservation meant both to produce timber without wasting trees and to avoid illness, both to divert torrents for irrigation and to strengthen U.S. citizens by improving hygiene, eliminating alcohol – or practicing eugenics[132]. The

[129] Mark Squillace, The Tragic Story of the Federal Coal Leasing Program, *Natural Resources & Environment*, Vol. 27, No. 3 (Winter 2013)

[130] Message from the President of the United States Relating to Certain Phases of the Public Land Situation in the United States, Senate Document No. 310, 59th Congress, 2nd Session (February 13, 1907), p. 1

[131] Yan Tyrrell, *Crisis of the Wasteful Nation: Empire and Conservation in Theodore Roosevelt's America* (Chicago and London: University of Chicago Press, 2015), p. 8. Several books were published at the time about the issue of conservation. For a contemporary example, see: Rudolf Cronau, *Our Wasteful Nation; the Story of American Prodigality and the Abuse of our National Resources* (New York, M. Kennerley, 1908)

[132] Works as Mary Huston Gregory's *Checking the Waste; a Study in Conservation* (Indianapolis, The Bobbs-Merrill company, 1911) makes clear that conservation should have been intended as a broader guiding principle for American society. Conservation criteria indeed applied to all the areas of life: forests and minerals were to be preserved as much as human health and "beauty". This reasoning had of course important implications for the society as a whole. She wrote, for example, that «*the greatest of all wastes*

country was, indeed, «*gradually awakening to the fact of its own improvability*»[133]. A crucial passage for the transmission and dissemination of these ideas was the Conference of Governors, held in May 1908 in Washington DC. The meeting was Pinchot's brainchild. It was organized to discuss the proper use of American resources and had an impressive list of attendees, which included state governors, numerous experts in natural resources, delegates from more than fifty national organizations (mostly concerned in the development and use of natural resources, but there were also economic and scientific associations), then Senators, U.S. Representatives, Supreme Court justices and member of the executive. The geologist and Wisconsin progressive Charles R. Van Hise wrote two years later that «*never before in the history of the nation had so representative an audience gathered together…never before in the history of the nation had the scientific men of the country met upon equal footing with those engaged in politics*», stating that the Conference was «*a meeting of the first importance in reference to the future of the nation*»[134].

In his opening address, Roosevelt condensed the latest evolutions of conservationist and progressive thinking, calling the management of natural resources «*the gravest problem of today*» and connecting it to the greater, underlying "efficiency issue" present in the country as a whole[135]. He also underscored the presence of an overachieving national community – a superior body whose very existence was at stake (and whose protection rested on the state). As for the natural resources, Roosevelt stated that they were «*the final basis of national power and perpetuity*». He fully acknowledged the role these natural elements played in the industrial growth of the nation, as he said that the «*vast wealth of lumber in our forests, the riches of our soils*

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is the waste of time and labor. The waste of time by drunkenness, by poor work that must be done over and by idleness, makes a large item of loss in every line of business», p. 317. Similarly, in the 1908 report prepared for the National Conservation Commission (addressed later in this section), the (renown) American economist Irving Fisher discussed various methods to improve the national welfare and general "efficiency". He explained, for example, how alcohol, tobacco, and long workdays could cause undue fatigue and provoke economic waste. Similarly, he mentioned the importance of «conserving» life through public and personal hygiene, and improving it through the application of eugenic measures. Irving Fisher, *Bulletin 30 of the Committee of One Hundred on National Health, Being a Report on National Vitality, its Wastes and Conservation* (Government Printing Office, 1909).

[133] Ibid., p. 14

[134] Charles Richard Van Hise, *The Conservation of Natural Resources in the United States* (New York, The Macmillan Company, 1910), p. 6.

[135] Theodore Roosevelt, Conservation as a National Duty (May 13, 1908), *Proceedings of a Conference of Governors in the White House, May 13-15, 1908* (Washington, D.C.: Government Printing Office, 1909). All the following quotes from Roosevelt in this paragraph are from the same speech.

and mines, the discovery of gold and mineral oils, combined with the efficiency of our transportation, [had] made the conditions of our life unparalleled in comfort and convenience…[they] promoted to an extraordinary degree the complexity of our industrial and social life». The regret for the «*lavish use*» of the past, however, directly turned into concern for the future of American resources. In fact, the president seemed to have little doubt about the dramatic status of American resources: «*the enormous stores of mineral oil and gas are largely gone. Our natural waterways are not gone, but they have been so injured by neglect…that there is less navigation on them now than there was fifty years ago. Finally, we began with soils of unexampled fertility and we have so impoverished them by injudicious use and by failing to check erosion that their crop-producing power is diminishing instead of increasing*». Moreover, if it was still possible to work to restore the status of renewable resources as forests, waterways and soils, nothing could instead be done to improve the reserves of coal, oil, gas, iron, and metals generally. Therefore, «*in dealing with [them], all that we can do is to try to see that they are wisely used*. *The exhaustion*», he said in a fatalist fashion, «*is certain to come in time*».

The conference lasted three days, where private owners and corporations (especially in the mining and oil industry) were repeatedly bashed for their extravagant use of resources and exclusive focus on making profits. More important, however, was the follow-up of the conference. The meeting indeed resulted in the creation of the National Conservation Commission (NCC), consisting in forty-nine renowned personalities, about one-third of whom engaged in politics, one-third in the industries, and one-third in scientific work. Four sections were created: minerals, water, forest, and soil. The chairman was – again – Pinchot. The task of the Commission was to make an «*estimate of the existing available resources, what proportion of these resources have already been utilized or exhausted, the rate of increase in their consumption, and if this rate continues how long these resources will last*»[136]. This incredibly ambitious project, which had the president's direct approval and backing, was a scientific endeavor as much as a political mission. The results, published in 1909 in three large volumes, accounted for what Roosevelt's called «*one of the most fundamentally important documents ever laid before the American people*» and contained the first inventory of

[136] Charles Richard Van Hise, *The Conservation of Natural Resources in the United States*, p. 8

the natural resources of the nation – «*or ever made by any nation*», according to his letter of transmittal[137]. The report furnished indeed «*a basis of quantitative and therefore scientific discussion of the future of our resources*», which could be considered an immense step forward in terms of technical knowledge available on the issue – at least in theory[138]. The project was so ambitious that its main goal – the production of scientific and reliable knowledge on which to build an informed public debate – could not be considered completely fulfilled, especially in the case of oil.

Among the dozens of reports prepared for the study, which covered issues as diverse as «*the influence of droughts on corn crops*» and the «*shrinkage in animal products due to injurious insects*», or as «*fisheries*» and «*phosphate reserves*», there was indeed also the USGS assessment of the country's petroleum situation[139]. Established in 1879, the USGS was formally an agency of the Department of Interior and had among its responsibilities the «*examination of the geological structure, mineral resources, and products of the national domain*»[140]. His director, George Otis Smith, was very closely associated with Roosevelt's circle of «*arch-conservationists*»[141]. It was actually J. R. Garfield to select him for the job in 1907. The newly appointed Secretary of Interior had spent the previous two years as member of the Keep Commission, a position that allowed him to get directly in contact with Otis, who was serving as chairman in of one of the subcommittees. As soon as he became head of the Department of the Interior, Garfield promoted Otis. The very timely decision allowed Otis to addend the Conference of the Governors as new director of the USGS. Then, in accordance with the NCC's objectives, he asked a member of his staff, David Talbot Day, to write the report about the American oil resources.

Day was a chemist turned into a petroleum expert and was affiliated with the U.S. Geological Survey (USGS) since 1895. His study – The Petroleum Resources of the United States – represented the first official federal publication on the matter. The USGS did not indeed consider oil as a major interest until the beginning of the twentieth

[137] Theodore Roosevelt, Special Message To the Senate and House of Representatives Transmitting Report of the National Conservation Commission, January 22, 1909
[138] Charles Richard Van Hise, *The Conservation of Natural Resources in the United States*, p. 8
[139] Report of the National Conservation Commission, February, 1909 (Government Printing Office, 1909), Vol. 3, p. III
[140] Mary C. Rabbitt, *The United States Geological Survey: 1879-1989*, USGS Circular 1015 (United States Government Printing Office: 1989), p. 1
[141] Roger M. Olien and Diana Davids Olien, *Oil and Ideology, The Cultural Creation of the American Petroleum Industry*, p. 121

century. For the first twenty years of its institutional life, the agency busied itself mainly with the preparation of topographic maps and the study of American water supplies. The situation changed after 1901, when Lucas' discovery at Spindletop initiated a cascading effect that would have brought the country directly into a new energy and industrial era[142]. The Division of Mining and Mineral Resources, created in 1900, began therefore investigating the presence and extent of coal and oil reserves at a time when the professional and managerial transformation of the U.S. administration had just started. When Day assembled its report, less than a decade later, the Pinchot's revolution was instead in full swing. The reformist wave that had eventually hit the Department of Interior was visible in Day's work, too, which perfectly served the scientific-conservationist narrative dominant at the time. Day described the country's oil situation with an authoritative tone and a candid, dispassionate voice, making abundant use of figures and statistics to show the text's scientific credentials. Despite the detached language used to express them, Day's findings could however hardly be more dramatic: there was little oil left underground and the country was quickly running out of it. According to his calculations, given the increasing rate of production, all the petroleum resources of the United States could actually be exhausted in less than twenty years. The only way in which American oil could last up to ninety years was to freeze the production level – basically denying the industry and the national economy the use of one of its very engine of growth, i.e. the availability of a constantly increasing quantity of petroleum. After being submitted to the NCC, Day's work was quickly popularized and became a landmark for early U.S. petroleum studies. Experts, government officials, and commentators would have made reference to both technical and theoretical aspects of Day's study in the following years, indicating the tremendous influence it had in setting the terms of the discussion on American oil resources.

The elements that made the analysis so appreciated at the time – i.e. its technical approach and its conservationist ethos – are also those that shaped its later historical assessment, which underscored the study's scientific flaws and its ideologically driven design. Day estimated that the total amount of oil left in the United States was a figure comprised between 10 and 24.5 billion barrels. To reach this conclusion, he relied on

[142] Mary C. Rabbitt, *The United States Geological Survey: 1879-1989*, p. 22

different methods of investigation with various degrees of accuracy[143]. For the fields about which very little information was available, Day inferred the capacity of the reservoir from the analysis of volumetric parameters: he looked at average thickness and porosity of the field's pay sand (the section of the reservoir that contains recoverable oil) to come up with an estimate of its yield by cubic foot. At that point, he made projections about the entire oil-pool based on its reported size. This kind of calculations evidently implied a (large) amount of approximation about the extent of the fields, the geology of the reservoirs, and the characteristics of the petroleum-bearing strata. For other areas, instead, he simply relied on the analysis of the field's known declining production curve, which expressed each future year's yield as a declining percentage of the first year of output. In any case, as Day himself admitted, to determine the amount of oil obtainable from American known fields was «*a matter largely of conjecture*»[144].

A large part of these technical problems were, in fact, essentially unavoidable. To estimate with a high degree of precision the volume of country's petroleum reservoirs, and therefore the total amount of its oil reserves, is a very difficult (if not actually impossible) task even today. To determine how much oil was still underground in the United States at the beginning of the twentieth century, when petroleum geology was still in its developing stage, was therefore simply out of the realm of possibility. The ability to locate oil was indeed still considered more an art than a learnt knowledge. Frenher calls oil finding throughout the nineteenth and early twentieth century «*a socially constructed process*», since charisma, personal intuition, and local authority were often more valued in an oil expert than his understanding of dry geological and topographic notions[145]. Finding oil was basically a matter of luck, since even "scientific" prospecting relied simply on surface indicators. Even the most advanced formulation of the only credited theory of oil accumulation present at the time – the anticlinal theory – offered little practical assistance in finding petroleum besides generally suggesting oilmen to look for anticline structures or little domes in the

[143] Several historians have discussed the technicalities of Day's study; see for example: R. Olien, Running Out of Oil: Discourse and Public Policy, 1909-1929; in *Business and Economic History* (Vol. 22, no. 2, Winter 1993) pp. 40-42

[144] David T. Day, *The Petroleum Resources of the United States*, United States Department of the Interior, United States Geological Survey, Bulletin No. 394 (Washington, 1909), p. 34

[145] Brian Frehner, *Finding Oil: The Nature of Petroleum Geology, 1859-1920* (Lincoln and London: University of Nebraska Press, 2011), p. 22. On the same topic, see: Paul Lucier, *Scientists and Swindlers: Consulting on Coal and Oil in American, 1820-1890* (Baltimore, MD: The Johns Hopkins University, Press, 2008).

landscape[146]. As the USGS itself recognized in 1902, in several areas the «*geologic structure makes it extremely difficult to determine the localities where oil and gas should accumulate in accordance with the theory. To an extent not general realized the flexures of the strata are irregular and discontinuous, and the development of one oil pool affords little, if any, assistance in locating others on the same or adjacent anticlines*»[147]. The lack of consensus (and understanding) of the principles of petroleum accumulation actually forced for decades (and well into the twentieth century) American geologists to compete with dowsers and their divining rods for real authority on the fields.

Day's was therefore facing an impossible task; the way he decided to carry it out, however, made things worse. A national standardized survey of American oil regions had not been completed yet by 1908. Day, probably pressed by the tight five-months deadline for the completion of his study, lost the opportunity to carry out one. Instead, he chose not only to rely on different investigation methods, but also on different criteria in the measurement of the field's parameters. The data that he aggregated to come up with a national estimate were indeed the result of separate regional USGS surveys, completed throughout the years by different geologists with different observation skills and levels of technical expertise. In using the same simplified calculations for all the areas, he therefore greatly overlooked local specificities and possible discrepancies, allowing himself to a large margin of error. Even more important, the nine previous USGS reports on oil were just a collection of production data from the various areas, with no specific discussion about the possible presence, location, or size of new fields. In basing his calculation on the available data, Day ended up calculating only the amount of recoverable oil present in *known* fields, or «*proved territory*», without including prospective and untapped reserve[148]. In estimating the oil left underground, Day not only discounted the probability of finding new reservoirs but also excluded the possibility of such event, failing to acknowledge the role (and common occurrence) of oil discoveries in the development of the industry – a (missing)

[146] The anticlinal theory was first proposed in the 1860s and it was not until its successful application at Spindletop that it gained general recognition.
[147] W. T. Griswold, *The Berea Grit Oil Sand in the Cadiz Quadrangle, Ohio*, Bulletin of the USGS No. 198, (Government Printing Office, 1902), p. 11

[148] David T. Day, *The Petroleum Resources of the United States*, p. 30

element that undermined, if not the descriptive value of the study, at least its prescriptive power about the end of petroleum resources. This exclusive focus on oil's proved fields seems peculiar especially if compared with what was the usual procedure in similar investigations about another non-renewable resource like coal. Geological surveys, in that case, tried not only to determine the amount of coal that could be recovered through the improvement of mining and extraction practices (another important factor that Day did not take into consideration), but also to find seams with "hidden coal" - and so to catalog not only the proven quantity available but also probable and possible reserves[149].

The limits of Day's study, when not strictly technical in nature, were closely connected, if not directly due to, the original research design. Since the very beginning, the goal was not to investigate oil as much as to prove the value of conservation *as applied to* oil. This was exactly what Day did, with a report whose alarming findings about oil scarcity underscored only the need for its more attentive and restrained use. Indeed, the only way to save petroleum for future generation was to actually save it, not to find more of it. As Madureira noted, «*not only did the conclusions agree with the premises but the conclusions were, to a certain extent, also part of the premises*»[150]. The report therefore represented as a static representation of the petroleum situation in the country, not a dynamic analysis of the resource. More than as a non-renewable resource, oil was treated as a fixed capital. The only valuable variable for ascertaining its duration became the rapidity at which it was used, or extracted. Similarly, the notion of "reserve" was not elaborated as to accord with the specific characteristic of the oil industry. *«"Reserves" were understood as a stock; a finite stock that had to be economized, held back and set aside for future uses or contingencies. By adopting terminologies with familiar nontechnical meanings furthermore colored by the moving debate on presidential powers and federal forest "reserves", geologists ascribed the meaning of the concept to an observable fixed asset*»[151].

The politically loaded message of the report is visible also in Day's conclusions. In order to preserve oil, he not only advocated for the federal withdrawal of oil-bearing

[149] N. L. Madureira, The anxiety of abundance: William Stanley Jevons and Coal Scarcity in the Nineteenth Century. *Environment and History*, (Vol. 18, No. 3, 2012), pp. 395-421
[150] N. L. Madureira, Estimating Oil Reserves: History and Methods, in Khan, S. (2011), *Fossil Fuel and the Environment,* InTech, p. 162
[151] Ibid.

lands – just as conservationists were doing for public land – but also stated that some specific uses of petroleum (illumination and lubrication) were more valuable than others, therefore suggesting the possibility of extending governmental control over both the production of oil and its utilization. The idea of a federal authority able to restrict access to oil-bearing lands and even to direct companies and consumers' choices on petroleum's uses was definitely far from the actual condition of the oil industry: rampant, free form government intervention, and totally private and market-oriented. The report, designed as such, actually served not only the political aims of the conservationists but also the bureaucratic ambitions of the governmental agency that created it, in this case the USGS. In the interdepartmental competition for the redistribution of both administrative responsibilities and federal funds, the "need" to conserve oil was an organization opportunity before than a national tragedy. Once oil conservation was established as national policy, it would have fallen completely under the jurisdiction of the USGS and, at large, of the Department of Interior. Just like Pinchot had the national forests under his authority, the USGS and the Department of Interior would have had petroleum – a seemingly fundamental resource for national prosperity. Geologists like Day and Otis Smith, as other progressive era's experts, were therefore acting as «*policy and administrative entrepreneurs*», seizing the opportunity to increase both the regulative powers and the federal appropriations assigned to their agency[152]. Day, for example, in his final recommendations called for two specific actions – «*a general investigation of the conditions of accumulation of petroleum and its geographic distribution*» and a «*fundamental scientific study of the nature of petroleum…*» – that only the USGS could have undertaken[153]. This attempt to expand not only the authority but also autonomy of the executive branch through the promotion of conservationist measures was exactly what Roosevelt was pushing for. In building a unique expertise within the administration, the president, in his statist vision, saw the possibility to claim for it exclusive jurisdiction over the nation's affairs.

This ongoing effort to establish a politically insulated, expert-oriented, efficient administration dedicated to the management and protection of the nation's natural

[152] Roger M. Olien and Diana Davids Olien, *Oil and Ideology, The Cultural Creation of the American Petroleum*, p. 143.
[153] David T. Day, *The Petroleum Resources of the United States*, p. 50

resources would have actually suffered a sudden blow soon after Roosevelt left the White House. The idea to develop a centralized and independent bureaucracy, which could autonomously dictate the terms on which national, public interest would be defined, was however not as appealing to Roosevelt's successor. On the (literal) battleground of national land and its resources, Taft pushed back. One of the first previous decisions that he reversed was exactly the appointment of Garfield at Interior. At his place, the new president nominated Richard Achilles Ballinger, who upon assuming office decided to revoke the status of millions of acres of public land previously put under federal protection during the Roosevelt's administration. Large territories with commercial value, especially for the mining industry, were reopened for private leasing. The move initiated a national controversy that significantly contributed to the weakening and eventual breakup of the Republican Party in 1912. Ballinger was not anti-conservationist, but he adhered to the strict constructionist view shared also by the President and favored legislative authority over bureaucratic prerogatives[154]. Ballinger's decision, however, looked as a political blow to environmentalists and progressives alike, since it meant granting large economic interests the opportunity to exploit for private benefit what was considered to be a national (public, collective) patrimony. Pinchot, who liked neither the theory behind Ballinger's idea nor its practical results, used exactly that argument to attack him. The forester not only opposed the decision on conservationist ground, but also because it was a direct attack to his kingdom: the Bureau of Forestry, whose jurisdiction over the country's lands was de facto being reduced by the Secretary's decision. Pinchot therefore led personally the charge against the Secretary's policy during the latter half of 1909, publicly denouncing his actions and accusing him of colluding with corporate interests. Taft stood firm and actually fought back, basically firing Pinchot for insubordination. Roosevelt, who was travelling in Africa at the time, was evidently upset. When, in 1911, the dusts settled and Ballinger finally resigned over the scandal, the damage to the Party's unity was already done.

Despite the abrupt end to their careers, Garfield and Pinchot did succeed, with Roosevelt's support, in pushing their respective departments towards a modernization of their operational standards. More important, they won the public debate, effectively

[154] James Penick, *Progressive Politics and Conservation: The Ballinger-Pinchot Affair* (Chicago and London: University of Chicago Press, 1968)

shaping the national discourse around conservation and pushing it into the political agenda. Their era marked indeed the shift towards a new administrative regime – a «*custodial*» management of national resources, where the U.S. government is not just the (provisional) owner of the land, waiting for someone willing to pay for it and then ready to forgo any right, but also its steward and caretaker, ready to impose rules in order to preserve its bounty for future generations[155]. This "rational" planning served to actually promote the use and development of *all* national resources. As Hayes wrote, an underlying idea of efficiency «*drew these federal scientists from one resource task to another, from specific programs to comprehensive concepts*»[156]

[155] The expression «*custodial management*» is used in Jacqueline Vaughn, *Conflicts Over Natural Resources* (Santa Barbara, CA: ABC-CLIO, 2007), pp. 16-21. This new managerial regime, according to Vaughn, started in the U.S. in 1897 and lasted until1950.
[156] Samuel P. Hays, *Conservation and the Gospel of Efficiency; The Progressive Conservation Movement, 1890-1920,* p. 2

2. Fuel Oil and Empire

2.1 ***Going Global***

Theodore Roosevelt made his priorities clear since the beginning of his administration. The unexpected accession to the presidency after McKinley's assassination did not seem to have found him unprepared. Quite the opposite, as he demonstrated less than three months after his inauguration, when he proceeded to lay before Congress his vast and comprehensive agenda for the country. His many previous political appointments and its adventurous life had provided him with a vast experience and solid beliefs. The new role represented an opportunity to implement a vision for government developed long before setting foot in the Oval Office. The presidential pulpit empowered him as statesman and broadened his audience; it amplified his voice rather than transform his message.

If this was true in domestic politics, where Roosevelt had already expressed reformist tendencies in the past, it was even truer in international affairs. Before becoming president, he had actively sought the adoption of a muscular and expansionist foreign policy for years and, in the late 1890s, he had contributed in words and deeds to the creation of McKinley's imperial legacy. It is not a surprise then that, once at the White House, he began immediately pushing for the protection (and possibly the expansion) of American commercial prerogatives and territorial possessions abroad. In doing so, he was not only repeating and developing policies already presented before to the American public, but also trying to make lawmakers and the nation at large fully aware of what the United States had become: an empire, competing for commercial opportunities and political influence on a larger, global scale. By 1901, indeed, the list of the major extra-continental territories under American jurisdiction had already grown to include Cuba, the Philippines, the Hawaiian archipelago, Puerto Rico, Guam, and part of the Samoa islands – a network of islands stretching from the western Pacific Ocean to the Caribbean, covering a straight distance of about ten thousand miles, more than twice the distance between England and India. The remoteness of some of the new acquisitions was even greater when actual travel routes were considered. At the beginning of the century, with the Panama Canal still far from being completed, any American (battle) ship sailing off the country's East Coast and travelling to Manila

would have needed go round Cape Horn, covering more than eighteen thousand miles to reach the Philippine capital, which is more than five times the distance from London to Boston. To get a sense of scale, it suffices to say that reaching the same destination by travelling *East* across the Atlantic would have actually been faster if opposing currents and supply needs were not considered, since both the alternative itineraries – the one through the Suez Canal and the other round the Cape of Good Hope – were shorter.

Transoceanic crossings were in fact neither new nor technologically prohibitive. Maritime explorations had after all been a crucial component of growth for colonial empires since the fifteenth century. Starting from the 1870s, furthermore, a series of technical innovations had greatly improved long-distance navigation and shipping, driving (or mirroring, depending on the economic and statistical interpretations) the boom in seaborne commerce and international trade registered in the forty years preceding the outbreak of WWI[157]. American merchants and shippers, who had been

[157] Between the 1870s and 1913, global trade increased by more than 400 percent. See Antoni Estevadeordal, Brian Frantz and Alan M. Taylor, The Rise and Fall of World Trade, 1870-1939, *The Quarterly Journal of Economics*, Vol. 118, No. 2 (May, 2003), p. 394, and David S. Jacks, Christopher M. Meissner, and Dennis Novy, Trade Costs, 1870–2000, *American Economic Review: Papers & Proceedings*, 2008, 98:2, pp. 533, 534 Scholars have studied at length the relationship between the growth in world trade and maritime transportation. The decrease in shipping costs and freight rates at the end of the nineteenth century is usually considered the main reason behind the trade boom of the late nineteenth century. In the last decade, however, economists have review and refined the data supporting this causal relation, arriving at more nuanced (if not opposite) conclusions. Jacks and Pendakur (2008), for example, decided to treat freight rates as an endogenous variable in bilateral trade flows (i.e. influenced by the demand level itself, rather than as a factor exogenously determined by technological improvements – like the introduction of the steam engine). In this case, the explanatory power of the "maritime transport revolution" is lost and its role as prime driver of the global trade booms (pre-WWI and post-WWII) diminishes in favor of other factors, as income growth and price convergence. See, David Jacks, Krishna Pendakur, Global Trade and the Maritime Transport Revolution, *National Bureau of Economic Research Working*, Paper No. 14139, June 2008. Yet in a more recent work Jacks & others provided further observations on the issue. After having defined and calculated trade costs in a "broad sense", including obvious barriers such as tariffs and transport costs but also many other barriers that are more difficult to observe such as the costs of overcoming language barriers and exchange rate risk, they confirmed that they had "overriding role" in promoting trade in the pre-WWI trade boom. When their effect on global trade was minimum was *after* WWII. They thus claimed that the role of trade costs in explaining trade has diminished over the long run. David S. Jacks, Christopher M. Meissner, Dennis Novy, Trade Booms, Trade Busts, and Trade Costs, *Journal of International Economics*, Vol 83, No. 2 (March, 2011), pp. 185–201. For a completely different approach, see Michel Fouquin & Jules Hugot, Back to the Future: International Trade Costs and the Two Globalizations, *CEPII Working Paper*, No 2016-13, May. Fouquin & Hugot show instead that trade costs had already begun to fall in the 1840s, thus contradicting altogether all the previous studies claiming that late nineteenth century technological improvements in shipping and communication were responsible for sparking globalization and trade. Factors as the introduction of the steamship and the telegraph did have an impact on world trade during the second half of the century, but they simply reinforced a pre-existing trend that began under (and by) other circumstances. For a more general presentation of the economic developments of the late nineteenth century, see for example: Larry Neal, Rondo E. Cameron, *A Concise Economic History of the World: From Paleolithic Times to the Present*, (Oxford: Oxford University Press, 2015, Fifth Edition), Ch. 12.

successfully competing with European traders for market opportunities in Asia since the 1790s, had little left to learn about Pacific freight routes at the end of the following century and, if the volume of American commerce with the Far East was still limited, the business interest for the region was not[158]. China, Hong Kong, and Japan were already considered as future crucial outlet for American products[159]. American commercial and financial ties were even stronger with the countries across the Caribbean Sea and, more generally, with the southern part of the Western Hemisphere, over which Washington had tried to project his authority since the early 1820s. In 1895, about seventy years later President James Monroe's declaration, which had actually failed to impress the European chancelleries at the time, Washington's successful diplomatic intervention in the Venezuelan crisis effectively established the American ascendency over its neighboring countries. Meanwhile, the numerous contacts and contracts that American bankers and businessmen had developed in the Far East and in those states below the U.S. southern border represented an even more immediate measure of the country's success in extending its financial clout far from its continental shores in those years.

United States' activities, if not presence, overseas could therefore be considered already substantial at the end of the century, before the conflict of 1898. Yet the «*splendid little war*» against the dilapidated Spanish fleet precipitated the establishment of a series of military, strategic, and political interests in the Caribbean and in Southeast Asia that were unprecedented, both in nature and in extent. The quick and resounding victory over the once-invincible Armada established the predominance of the United States in the Americas and projected its power across the Pacific, securing Washington new territories and prestige. It also, however, loaded the country with new tasks and responsibilities. Roosevelt had already emphasized the expanding responsibilities of the federal state in domestic affairs, arguing for an increase in executive authority. The

[158] The first ship to sail from the United States to China was the Empress of China, in 1784. For an account of the early American contacts and exchange with the Far East, and their economic implications, see James R. Fichter, *So Great a Proffit: How the East Indies Trade Transformed Anglo-American Capitalism* (Cambridge: Harvard University Press, 2010).

[159] The words of John Banett Moore, ex United States minister to Panama and Siam and delegate of the United States to the International Congress of American States, before the New York Chamber of Commerce are an example of the late-century enthusiasm about the American business prospects in China: «*China presents the greatest undeveloped field for American commerce and trade. The future of our trade with Europe, South American, and Africa will show no such per cent of growth as that with China and the Far East*». *Monthly Summary of Commerce and Finance of the United States*, Vol. 8, Bureau of Statistics, Treasury Department (Washington: Government Printing Office, 1901), p. 2874.

government's duties appeared even greater if measured by American new aims and commitments abroad. Winning business contracts in foreign countries – as private American citizens had been doing for decades, either with or without the help of the Department of State – was different from officially organizing and administering distant territories, subduing hostile populations, building, operating, and securing communication and transportation infrastructures all while defending the newly acquired lands from foreign intrusion and commercial encroachment.

What Roosevelt did, as soon as he entered the White House, was therefore to accept and embrace this change, emphatically acknowledging the country's new political and diplomatic status. Whether Americans «*desired or not*» - he stated – they must have recognized that they now had «*international duties no less than international rights*»[160]. In the president's expansionist and racially biased discourse, this meant that the United States had to carry the burden of civilization and bring it to places like Cuba, Porto Rico, and the Philippines. It meant, above all, joining the other great powers, and England in particular, in "policing the world" to ensure the maintenance of peace and stability – a concept which Roosevelt would have elaborated on in 1904-1905, but that was already present in his public speeches at the beginning of his administration[161]. In fulfilling these new responsibilities, experience offered no actual guide. The previous pattern of contiguous continental expansion was of little practical help to the federal government. During the nineteenth century, the central authority had followed rather than led the westward movement of white settlers and pioneers. The new lands became instead U.S. soil by political compromise, through an administrative decision that preceded the introduction, let alone the establishment, of any actual American custom or community there. In order to govern them, Washington would have had to impose its rule over their peoples and actually organize the territories, not just vote to accept their request of incorporation. With the scope of operations stretching thousands of miles away from the nation's coasts and in an increasingly competitive international arena, the colonial power needed to muster, and master, an extraordinary amount of resources. In

[160] Theodore Roosevelt, First Annual Message, December 3, 1901

[161] Already in 1901, Roosevelt spoke about a «*regrettable but necessary international police duty which must be performed for the sake of the welfare of mankind*», to avoid wars with «*barbarous or semi-barbarous peoples*». Holmes has specifically traced back to Roosevelt, and to his past experience as police Commissioner in New York, the theory and early practice of an American global "interventionism" aimed at maintaining peace and order. See James R. Holmes. *Theodore Roosevelt and World Order: Police Power in International Relations*, (Washington: Potomac Books, 2006).

order to perform well on a global stage, the United States must however have been ready to play its new role. In this regard, nation preparedness required also a more general reconfiguration of the country's security and defense paradigm. The state, in particular, had to further develop its fighting capabilities and acquire new expertise to confront possible challenges from foreign powers. It had to learn how to operate effectively on the only element whose military control really matters from the perspective on national aggrandizement and commercial expansion: blue waters.

This was, at least, the gospel that Roosevelt and other American naval supremacists had been preaching since the 1890s and that, after the war against Spain, gained ground and visibility in the political debate. The President reaffirmed since the very beginning his position on the issue, referring to the American «*naval expansion as the most important item on the executive agenda*». «*The work of upbuilding the Navy must be steadily continued*», he wrote in his first message to Congress, making clear that «*no one point of our policy, foreign or domestic*» was «*more important than this to the honor and material welfare, and above all to the peace, of our nation in the future*»[162]. A stronger navy would have served Washington's commercial aims, revitalizing overseas trade routes and protecting the rights of U.S. citizens abroad – a duty that had always been one the most, if not *the* most, important among those assigned to the nations' navies. It would have also, and equally important, satisfied the country's growing defensive needs, guarding the American long coastlines and making the United States feel more secure at home and abroad. When Roosevelt's became president, the U.S. navy was still a dwarf among giants. The English, French, German, Russian, and Japanese fleets were all way superior to the American naval forces and therefore capable, at least in theory, to frustrate any further territorial and commercial ambition, disrupting Washington's operations in both the Atlantic and the Pacific Ocean[163].

For a country like the United States, naturally shielded by the Oceans, a heavier and more effective presence at sea was presented as an ultimate and definite guarantee

[162] The quoted passages are all from Roosevelt's First Annual Message (1901)

[163] For a concise presentation of Roosevelt's foreign policy vision and the crucial role of the Navy see for example J. Simon Rofe, Preparedness and Defense: The origins of Theodore Roosevelt's Strategy for the United States on the International Stage. And Carl Cavanagh Hodge, The Global Strategist: The Navy as the Nation's Big Stick, both in Serge Ricard (ed.), *A Companion to Theodore Roosevelt* (Chichester: Wiley-Blackwell, 2011).

against aggression. Furthermore, even if the continental integrity was not really at stake, the security of the new colonies still needed to be assured. With marine superiority in the hands of a foreign country, the argument went, none of the U.S. territorial, commercial, and diplomatic interests could really be considered safe. As president, Roosevelt clearly (and repeatedly) expressed this view, stressing the political importance and practical value of an investment in naval power:

> «*So far from being in any way a provocation to war, an adequate and highly trained navy is the best guaranty against war, the cheapest and most effective peace insurance. The cost of building and maintaining such a navy represents the very lightest premium for insuring peace that this nation can possibly pay*»[164].

The Navy would have indeed been Roosevelt's "Big Stick", a practical tool with which to keep friends and foes in check in an ever-challenging international environment[165]. One of the direct consequences of such a navalist and globalist approach to American security and economic growth was the prioritization of the construction of the Panama Canal, which went from being considered as a convenient development at the end of the nineteenth century to being treated as an strategic concern just few years later. The waterway would have allowed greater speed and flexibility, and thus providing a better area control to the American fleet while reducing the country's double exposure in the two oceans. The passage, however, could have similarly facilitated the movements of enemy fleets. If not confronted – or at least threatened to be meet – with actual and superior strength, both in the Atlantic and Pacific theatres, foreign powers could have easily taken advantage of it. The creation of a powerful navy, which had to be «*put and kept in the highest state of efficiency*», became thus inextricably linked with the control of the Canal Zone and the protection of

[164] Roosevelt restated the same concept in many other occasions. The following year (1902), for example, he put it even more clearly: «*a good navy is not a provocative of war. It is the surest guaranty of peace*». Theodore Roosevelt, Second State of the Union, December 2, 1902.

[165] For a more detailed analysis of the Rooseveltian praxis of gunboat diplomacy, and of the ideas behind it, see for example Henry Hendrix, *Theodore Roosevelt's Naval Diplomacy: The U.S. Navy and the Birth of the American Century* (Naval Institute Press, 2014).

the newly acquired overseas outposts. For Roosevelt, the two projects were interconnected – and their implementation equally imperative[166].

For the rest of the decade, the president would have lobbied incessantly for a naval buildup, pushing for the production of larger, heavier, and more expensive vessels to match (and surpass) European powers' fleets, all while the construction of the Panama Canal was underway. By the time he left the White House, neither project could in fact be considered complete. Although the U.S. Navy improved greatly in terms of tonnage during the first decade of the century, not even the four additional years of Republican presidency under Taft were sufficient to make the American naval forces "second to none", al later Wilson would have claimed. Institutional rivalries within the Navy and political opposition in Congress delayed innovation and prevented a more comprehensive growth of the American fleet. The obsession with the construction of always more «*heavily armored and heavily gunned*» battleships – a race that the United States would have lost anyway in favor of England and Germany in the decade preceding the outbreak of the War – would have actually led to the unbalanced development of the American fleet, too skewed towards capital ships, especially in the later years[167]. The completion of the inter-oceanic canal remained even more distant. It would have not been attained before 1914.

Yet Roosevelt's vision brought the country into the new century of power politics, in which military and commercial competition took place at the global level and, more importantly, in what was considered to be an increasingly "closed" world, where any territorial or commercial gain must have had come at the expenses of some other nation. The president's long-standing emphasis on the Navy marked a reassessment of the country's foreign policy objectives and defense needs. New concerns about American duties and responsibilities, as well as a heightened attention to business opportunities abroad, came to characterize the political and public debate during the decade and remained always strictly connected to the navalist discourse about the appropriate size and composition of the American fleet. The discussion about

[166] Roosevelt's First Annual Message (1901)

[167] Theodore Roosevelt, Fourth Annual Message (December 6, 1904). In 1900, only around five percent of the active ships of the U.S. Navy were battleships (eight out of a total of one hundred and forty). In 1912, the percentage had more than tripled (thirty two battleships out of 188 surface vessels, i.e. submarines excluded), one of the highest levels ever. Data on the American naval forces are from the official records of U.S. Navy, accessible online through the website of the Naval History and Heritage Command: https://goo.gl/CVYjDh

the Navy's mission was indeed part of a larger one about the role of the United States itself in world affairs – two debates that Roosevelt tried to steer, dominate, and in fact merge, during his administration.

As a consequence, by the time Wilson gained the presidency, the country had acquired, if not the best Navy in the world, at least a new awareness about its international role and its implication in terms of internal organization of the state and centralization of power. Equally important were the effects of the naval revolution that Roosevelt actively sponsored (before and) during his presidency. The buildup of American naval forces set in motion political, institutional, and industrial dynamics with long-term effects on country's politics and foreign affairs. The redesign that the fleet underwent during those years was indeed technological as much as organizational and operational. It required the development of mechanical innovations, new logistical solutions for long-range maneuvers at sea, and a different strategic thinking. These changes would have not only lead to institutional and administrative readjustments within the Department but also, for example, to an unprecedentedly close relationship between the Navy's private component suppliers and ship manufacturer – the American steel and ammunition industries – and the sovereign public buyer – the federal state –, in what has been defined as an early (and actually the original) version of the military-industrial complex[168]. Lastly, the expansion and progress of the American fleet would have meant an increasing preoccupation – which would have soon turned into a fixation – for a specific aspect of naval operations that never had to be addressed before the advent of coal- and oil-burning boilers aboard the Navy's vessels: the security of fuel supply.

[168] This had been specifically Cooling's thesis. See: Benjamin Franklin Cooling, *Grey Steel and Blue Water Navy: Formative Years of America's Military-industrial Complex, 1881-1917* (Hamden, Connecticut: Archon Books 1979).

2.2 The Nation and its Navies

Sailors and shippers shaped the course of the country's history since its very beginning. The first English colonies in the American continent were first of all commercial outposts. They throve on the expansion of transoceanic market routes and ended up fighting their motherland over (maritime) trade rights. Despite its seafaring origins, however, the American Republic decided not to maintain an established navy. The national government did assemble a fleet of ships (mostly converted merchantmen) to fight England during the Revolution, but demobilized it soon after the war and did not authorize the construction of new vessels before the very end of the eighteen-century, when the Department of the Navy was also formed. Congress needed another half a century to found the first Naval Academy at Annapolis in 1845, a good *forty years* after the establishment of the military academy at West Point. Despite limited resources and an even more limited professionalization, until the second half of the nineteenth century the U.S. Navy duly accompanied and assisted the country's continental expansion and commercial growth. From the declaration of independence to the Civil War, American warships fought to defend both the country's territorial and political unity and its merchant marine. They faced the formidable English fleet twice (in 1775-1783 and in 1812-1815); engaged in combat with the French frigates (in the Quasi-War of 1798-1800); drove off pirates along the cost of North Africa (during the Barbary War, 1801-1805); roamed the Pacific coast and the Gulf of Mexico during the conflict with the southern neighbor (1846); and worked to disrupt Confederates' supply and commerce during the Civil War (1861-1865). Since the creation of the original fleet during the revolution – the "Continental Navy" –, American sailors and commanders had proved their skills in many different scenarios. The fleet was used to open new trade routes, as Admiral Matthew Perry did with his historic visit in Japan in the early 1850s; to patrol of distant seas to "show the flag", as in the Mediterranean and along the South American coasts; to blockade (or avoid the blockade) of strategic ports, as during the Civil War[169]. The U.S. Navy was relatively small, but "respectable"[170].

[169] On the early history and development of the American navy, see for example: Harold & Margaret Sprout, *Rise of American Naval Power, 1776-1918 Princeton* (Princeton university press, 1939); Kenneth J. Hagan, *This People's Navy: The Making of American Sea Power* (Simon and Schuster, 1992); Stephen Howarth, *To Shining Sea: A History of the United States Navy 1775 – 1998* (Norman: University of Oklahoma Press, 1999); James C. Bradford, *America, Sea Power, and the World* (Wiley-Blackwell, 2016).

In the twenty years that followed the end of the American internecine war, the country's naval readiness and operational standards changed significantly – for the worse. The fleet continued to have two main purposes, international diplomacy and the protection of merchant shipping, but served them with a degrading quality of men and material. The downfall was determined to a large extent by the structural limitations that the war, and its aftermath, imposed to naval operations. The reconstruction period brought a reassessment of the country's priority and a renewed focus on domestic issues. The size of the Navy, which swelled during the war, inevitably shrunk (together with the amount of funds available) as soon as the state of emergency ended. The number of officers and enlisted man dropped from over 58,000 in 1865 to around 15,000 in 1868. During the same period, 433 ships of the 671 active during the war were decommissioned[171]. The reduction of the naval fleet was connected with the decline of the national merchant marine that the Navy was bound to protect. Confederate riders had severely damaged the Union's commercial fleet during the war, forcing northern manufacturers to rely more and more on other countries' hulls to carry their goods at sea[172]. When the conflict ended, U.S. merchants and shippers found little incentive to revert this trend. To build, insure, and operate new ships under American flag was expensive – especially at a time in which iron was substituting timber as chief

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[170] The Navy's attempts at "respectability" begin early. One of the most famous references to the notion that the United States needed to have a decent-sized and honorable navy was that of Captain John Paul Jones who, in a letter to Robert Morris, wrote on October 17, 1776 that «*...without a respectable Navy, alas America!*». William James Morgan (ed.), *Naval Documents of the American Revolution*, Vol. 6 (Washington: Naval History Division, 1972), p. 1303

[171] Stephen Howarth, *To Shining Sea,* Pag. 218

[172] The Southern historian Frank Owsley wrote in the 1930s that there was a «*complete destruction of the American merchant marine*» and that it was «*virtually extinct*» after the war. Since his book, *King Cotton diplomacy: foreign relations of the Confederate States of America* (Chicago: University of Chicago Press: 1931), historians have offered slightly less dramatic accounts of the events. The Confederate raiders destroyed between 240 and 260 ships (depending on the estimate), which actually represented only a small percentage of the total. The real problem was that the conflict forced U.S. ship-owners to sell their vessels abroad or to transfer them to foreign registry, as to avoid both the high risk of losing them at sea and the incredibly higher cost to insure them in the United States. Ships under British, French, or Dutch flags were instead protected by the neutrality status of their countries and could continue to operate in American waters. This was, of course, an expedient to prevent U.S. ships from being seized as sea, but led to the severe divestment of the American merchant marine, with more than half of it that went "lost to the flag". The ships sold to foreign owners accounted for around 800,000 tons and, as the military historian Spencer Tucker noted, those «*were the best ships. The one left were those that foreigners did not want*». The actual number of ships transferred was between 700 and 1000. See Spencer C., *A Short History of the Civil War at Sea* (Lanham, MD: Rowman & Littlefield Publishers, 2001), p. 135. Allen C. Guelzo, *Fateful Lightning: A New History of the Civil War and Reconstruction* (Oxford: Oxford University Press, 2012), p. 310. Rodney Carlisle, Flagging-Out in the American Civil War, *The Northern Mariner/le Marin du Nord*, Vol. 22, No. 1 (January 2012), pp. 53-65.

material in vessel construction. The transition, which would have been costly *per se*, was made even costlier in the United States by the post-war focus on the domestic transportation and communication networks. During the second half of the century, the realization of iron-hungry projects (as national railroad lines and oil pipelines) drove the price of the metal up, making the investments in the new class of vessels not only politically unattractive but also economically unsustainable. The new global trend in naval technology that promoted the passage from wood to iron (later steel), and therefore from sail to steam-powered vessels, turned out to be particularly painful to follow for American shipbuilding industry, which failed to adjust to a market that was quickly moving towards the use of larger and stronger ships for oceanic crossings[173].

As the country lost its edge in the sector, the U.S. merchant marine grew old and unable to keep up with the expansion of American commerce. Indeed, its status kept deteriorating until the end of the century, with important repercussions on the structure and organization of the country's trade. In 1860, more than sixty-five percent of U.S. foreign trade was carried in American ships[174]. By the end of the century, despite the fact that the country's overseas commerce had almost quintuplicated in value since the Civil War, less than ten percent of its external commerce was still conveyed in American vessels[175]. In 1898, the U.S. registered tonnage for trans-oceanic shipping fell to around 725,000 gross tons – a historic low for the country. To put numbers in perspective, in the same year the total tonnage for the British vessels engaged in foreign commerce was more than ten times bigger, just below 8,000,000 tons[176].

The war with Spain did expand the country's commercial network and stimulate shipbuilding. The presence of vessels flying the American flag in deep waters, however,

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[173] An early account of the post-Civil War difficulties of American shipbuilding can be found in in the 1900 *Monthly Summary of Commerce and Finance of the United States*, Bureau of Statistics, Treasury Department (Washington: Government Printing Office, 1901), pp. 1378-1383

[174] Stephen Howarth, *To Shining Sea,* Pag. 218

[175] Overseas trade increased from $281 million in 1865 to $1.4 billion in 1900. John H. Schroeder, Expanding and Defending a Maritime Republic, 1816-95, in James C. Bradford (ed.), *A Companion to American Military History,* Vol. 2, Wiley-Blackwell, p. 528.

[176] The aggregated data in this paragraph are elaboration from those provided in: *Merchant Marine of Foreign Countries, Reports from Consuls of the United States, in Answer to instructions from the Department of State*; Bureau of Foreign Commerce, Department of State (Washington: Government Printing Office, 1900). *Review of the World's Commerce, Introductory to Commercial Relations of the United States with Foreign Countries during the year 1898*; Bureau of Foreign Commerce, Department of State (Washington: Government Printing Office, 1899), *Statistical Abstract of the United States*, Department of Commerce, Bureau of Foreign and Domestic Commerce, No. 23 (1900; pp. 437-452) & No. 41 (1918, pp. 353-355), Washington: Government Printing Office. John B. C. Kershaw, *Trade and empire: a Pamphlet for the Times* (London: P.S. King & Son, 1903).

remained extremely limited. In 1900, for example, the total capacity of the U.S. merchant marine rose again above 5,000,000 gross tons *for the first time since the Civil War*[177]. Yet the portion destined to foreign trade was still relatively small. American ships employed in foreign trade accounted for just above 800,000 tons (a carrying capacity almost three times smaller than the one boasted by the German merchant marine at the time), while all the remaining tonnage was confined to national coasting and internal trade. When these figures are translated in numbers of actual vessels, the picture is even bleaker. In 1900, the English Board of Trade reported that «*for serious competition with foreign nations for ocean-carrying trade*» the United States could only count on 97 steamships and 125 square-rigged sail vessels (a sailing configuration that dated back to the fifteenth century, adopted by Christopher Columbus himself to cross the Atlantic in 1492), of which more than half were over 20 years old. According to the British institution, these were the only active U.S. ocean-crossing merchantmen that could carry over 1,000 tons – therefore able to offer a real option to long-haul shippers around the world – out of a total of more than 23,000 American-registered ships[178].

The decrease in ocean-going hulls transporting goods under American flags inevitably diminished also the number of war crafts necessary to protect and assist them. For the Navy, it meant a progressive reduction of responsibilities, and therefore a loss of relevance, if not prestige. With no formal colonies to protect, escorting operations had represented one of the naval forces' most important missions. The scaling down of these activities, combined with the period of peace enjoyed by the country, justified the general disinterest for the Navy in the decades following the civil war. As for the other important role, the defense of the nation's maritime borders, there was, after all, literally an ocean of water separating the country's coasts from the European powers. The threat of a major direct attack was remote. Indeed, given the still limited level on naval weaponry and equipment, it was difficult to imagine any part of the American territory as running a serious risk. U.S. naval security strategy, which had always been limited to basic coastal defense, seemed more than appropriate.

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[177] In 1861, at its maximum, the tonnage of the American merchant marine was around 5,500,000 gross tons.

[178] *The Board of Trade Journal*, Vol. 31, December 6, 1900 (London: Printed for Her Majesty's Stationery Office by Jas Truscott & Son, 1901), p. 522. According to the U.S. census the total number of American vessels over 1,000 tons in 1900 was in fact much higher. In this case, however, there seem to be no differentiation between oceangoing vessels and those reserved for American coastal trade.

As Americans grew unconcerned about the status of the fleet, the Congress became unresponsive to its financial needs. Small appropriations and widespread indifference thus condemned the Navy to a period of relative decay. Those, however, were not the only factors that impeded the development and renovation of the fleet throughout the second part of the century. Equally important was the attitude of American naval officers, who actively tried to resist technological change and mechanization – both direct consequence of the introduction of the steam engine. In doing so, more than simply rejecting modernity and innovation, they were fighting to maintain their traditional superior status within the Navy ranks. Steam powered warships were complex machine that required a different kind expertise to be operated – a new technical knowledge that younger naval constructors and engineers had and that many older officers, trained in wind sailing, lacked[179]. It was not just a matter of ship navigation and maintenance. In order to integrate and implement the new technology in maritime operations, Navy planners needed to have proper understanding of the advantages and liabilities of its use. Steam engines, for example, offered greater speed and versatility. At the same time, however, they reduced the vessel's autonomy at sea. If ocean winds were inexhaustible, the coal available on board was not – a limit that forced ships to start planning for refueling stops. Coal dependency represented an unprecedented organizational constraint, which would have made calculations like the ones about the average fuel consumption, the time required to tank up, or the distance from the next coaling station a crucial component of the sailing profession in the second half of the nineteenth century. In ship management as well as in naval planning, the role and expertise of naval engineers and technicians was thus bound to become more and more important – a development at which line officers looked with distrust. Indeed, they actively tried to reverse the transition from sail to steam, worried, and actually dismayed, that the technological determinants of naval construction were about to become more relevant in defining naval policies and strategy than leadership and experience. The Vice Admiral David D. Porter had ordered all the Navy ships to revert to sail as early as 1869, threatening to make the captains personally pay for any unnecessary coal burned at sea. Porter, who was serving as the adviser of the Secretary

[179] On the internal dispute between line officers and engineers, see for example William McBride, *Technological Change and the United States Navy, 1865-1945* (Baltimore & London: The Johns Hopkins University Press, 2000).

of the Navy but was the *de facto* head of the Department, had the authority to issue such a directive and see it implemented, as indeed it was. There was a series of tactical and economical considerations that could explain such a decision, which sounded anachronistic already in the 1860s. First, steam-propelled ships were still inefficient and unreliable machines and since the range of activities assigned to the fleet was destined in any case to recede after the war, their use may have seemed unnecessary. Second, and perhaps even more important, coal was not free and the money spent to buy it represented another line of expenses in the already strained budget of the U.S. Navy. Porter cannot, therefore, be scoffed at as a Luddite. He did have, however, a deep resentment for the degradation of the Navy's warrior ethos and profession brought by the growing importance of the engineer corps. For seagoing officers like him, steam-related technology and its practitioners added to naval operations an element of science and impersonality impossible to control and that needed therefore to be subdued. Porter's ban was reversed in the following decade, but this kind of conservative attitude did have an important consequence: it significantly contributed to open the gap between the most powerful European navies, which embraced the technological transition instead of rejecting it, and the U.S. fleet, which quickly fall into obsolescence. In the 1880s the American navy ranked not better than twelfth in the world, behind Britain, France, Russia, Germany, Holland, Spain, Italy Turkey, China, Norway-Sweden, and Austria.[180]

The parallel, downward trajectories of the American naval forces and the country's merchant marine began somewhat to diverge exactly in those years. Between 1886 and 1889 the first steel-hulled warships were assembled. With the American naval industry still in a state of dismal, the completion of the vessels – four hybrid sail-steam cruisers still (very) far from the European state of the art naval architecture – represented the first sign of recovery after decades of apathy, and an indication that American officers had finally started to acknowledge the importance of steam and steel

[180] It was the Secretary of the Navy himself, Benjamin H. Tracy, to present the grim status of the U.S. Navy and its international ranking (based on the number of ships in service). *Annual reports of the Navy Department, Report of the Secretary of the Navy* (Washington: Government Printing Office, 1889), p. 3. A number of scholars and naval historians, however, have reported a slightly different classification for those years, one in which the American fleet is still twelfth but behind (also) the Chilean navy. See for example: Miller, *The U.S. Navy: A History*, p. 144 and James Bradford, *Admirals of the New Steel Navy: Makers of the American Naval Tradition, 1880-1930* (Annapolis: Naval Institute Press, 2013**).**

technology in naval activities[181]. While American commercial shipbuilding continued to suffer foreign competitions, the U.S. Navy began to turn abroad looking for best practices to reproduce in order to regain some ground. The humbling and unavoidable comparison with the European fleets, which risked becoming a serious embarrassment for the United States, was one of the main reasons that prompted American officials to (re)act. It would have taken however at least another decade for the "New Navy" to develop and for its corps of engineers to get at least part of the recognition it deserved. The first U.S. battleship, whose design was already outmoded the moment it touched water, was launched only in 1892, while the American Society of Naval Engineers and the Society of Naval Architects and Marine Engineers were founded respectively in 1888 and 1893[182].

These latest developments proved that the process of mechanization and professionalization had finally started, although slowly, also within the Navy – a progression that mirrored (or better trailed) what was already happening within the American industry, university, and government administration[183]. These early adjustments simply anticipated further and deeper reforms that would have taken place in the following two decades. Steam and steel technologies were so revolutionary that their adoption presupposed indeed an overall modernization of the Navy's organizational structure and culture. The U.S. Navy that emerged at the beginning of the century would have therefore been more than the simple sum of a series of finite improvements in shipbuilding and design. It would have been the product of transformational change, a general metamorphosis entailing the acceptance and adoption of both a new naval strategy and a different defense paradigm.

The ideas that informed this transition were those of Captain Alfred Thayer Mahan, a «*reluctant seaman*» turned lecturer in naval history and strategy at the U.S Naval War College (founded in 1884 at Newport, in Rhode Island) and whose writings

[181] They were the *USS Atlanta*, the *USS Boston*, the *USS Chicago*, and the *USS Dolphin*. The cruisers later became known as the "ABCD" ships because of their names.
[182] On the late nineteenth century development and the emergence of the new Navy, see for example: Paul H. Silverstone, *The New Navy, 1883-1922* (Taylor & Francis, 2006); James C. Bradford (ed.), *Admirals of the New Steel Navy: Makers of the American Naval Tradition, 1880–1930* (Annapolis: Naval Institute Press, 1990); George W. Baer, *One Hundred Years of Sea power: the U.S. Navy, 1890-1900* (Stanford, CA: Stanford University press, 1994); H. P. Willmott Kenneth, *The Last Century of Sea Power: From Port Arthur to Chanak, 1894–1922*, Volume 1 (Bloomington: Indiana University Press, 2009)
[183] See, for example: William H. Thiesen, Professionalization and American Naval Modernization in the 1880s, Naval War College Review, Vol. 49 (Spring 1996), pp. 33–49.

quickly gained praise and popularity in the last decade of the century[184]. To an American Navy struggling to adjust to the rapid pace of technological progress, Mahan offered guidance. Although many of the concepts he used and the considerations he made about the role of naval power were not new at all, the Captain was nonetheless one of the firsts to offer a coherent and systematic interpretation of the country's naval past and present condition[185]. His strategic thinking provided direction for future policy; it eliminated the ambiguities surrounding the role of the Navy, imparting operational clarity and restoring a sense of purpose to the institution.

The Captain's approach to naval warfare became public in 1890, when his most famous work to date, *The Influence of Sea Power upon History*, was published. The book – a collection of his lectures – analyzed the rise of Great Britain during the preceding two centuries and postulated the existence of a direct connection between the command of the seas and national greatness. The historical example of the British Empire was presented as undisputable evidence of the importance of naval supremacy in the acquisition, and maintenance, of the great power status[186]. Any other state sharing

[184] The expression appeared for the first time on the pages of an American magazine, *American History*, in 1997. Many different scholars have reported on his idiosyncrasy to sea duty. Mahan had been called a «*mediocre seagoing naval officer*», while his service had been defined as «*particularly uneventful*». It was actually Mahan himself who (ironically) made clear his distaste for the new, late nineteenth-century steel-hulled and steam-powered. Recalling his late stint as commander of the *USS Chicago*, he later wrote: «*I had forgotten what a beastly thing a ship is, and what a fool a man is who frequents one*». As many of older officers, Mahan preferred sail to steam. References respectively from: Donald Lankiewicz, Alfred Thayer Mahan: The Reluctant Seaman, *American History*, American History. Jan-Feb, 1997, Vol. 31 Issue. 6, p. 24; David Jablonsky, *Roots of Strategy*, Vol. 4, (Stackpole Books, 1999); Craig C. Felker, *Testing American Sea Power: U.S. Navy Strategic Exercises, 1923-1940* (Texas A&M University Press, 2006), p. 10. Robert Seager II and Doris D. Maguire (eds.), *Letters and Papers of Alfred Mahan*, Vol. 2 (Annapolis 1975), p. 114.

[185] On the early transformation of the naval culture see for example: Seager, Robert, II. Ten Years before Mahan: The Unofficial Case for the New Navy, 1880–1890, *Mississippi Valley Historical Review*, Vol. 40 (December, 1953), pp. 491–512; Benjamin L. Apt, Mahan's Forebears: The Debate over Maritime Strategy, 1868–1883, *Naval War College Review*, Vol. 50 (Summer 1997), pp. 86–111; Kenneth J. Hagan, *American Gunboat Diplomacy and the Old Navy, 1877–1889* (Westport, CT: Greenwood Press, 1973). Hagan argues that a pretty definite idea (or policy), directly connected the expansion of the country's commerce with the national greatness, developed within the navy since the early 1880s.

[186] The Bibliography on Mahan and his intellectual legacy is immense. Among the most representative and comprehensive on the subject, there are the writings of John B. Hattendorf. See, for example, *Mahan on Naval Strategy* (Annapolis, MD. Naval Institute Press, 1991); Alfred Thayer Mahan And American Naval Theory, in Keith Neilson, Elizabeth Jane Errington (eds.), *Navies and Global Defense: Theories and Strategy* (Greenwood Publishing Group, 1995), pp. 51-68; and the vast collection of essays that he edited: *The Influence of History on Mahan* (Newport, RI: Naval War College Press, 1991). On Mahan strategic thinking, see also Philip A. Crowl, Alfted Thayer Mahan: The Naval Historian, in Peter Paret, Gordon A. Craig, Felix Gilbert (eds.), *Makers of Modern Strategy from Machiavelli to the Nuclear Age* (Princeton, NJ: Princeton University Press, 2010), pp. 444-480. The equally important comments of Walter LaFeber on Captain's thought and historical significance will be instead specifically addressed later on.

similar ambitions should have therefore focused on building up the navy, since superiority at sea would have both reduced the risk of aggression and allowed for the control seaborne commerce – the real source of a nation's wealth and prosperity in a world still dominated by mercantilist views of commerce and economy. Both in peacetime and in war, a country's naval forces needed therefore to be ready to protect the free circulation of goods, as well as prevent and repel any attempts by foreign countries to disrupt or obstruct the routes of its merchant marine[187]. At the practical level, according to Mahan, it meant having not only a larger fleet but, and more important, a *different* fleet, formed by a different class of warships and maneuvered according to a different strategy. The United States would have had to turn to the production of heavily armored and armed battleships and practice the *guerre d'escadre* (squadron warfare) instead of the traditional *guerre de course* (cruiser warfare, or commerce raiding). Such interpretation of the war at sea, which revolved around the use of newly designed battleships for «*single, Jominian-style*», *decisive engagements*» between large fleets, implied the transformation of the U.S. Navy into a "fighting" force, able not only to roam along the American coasts to guard the country's borders, but also equipped and trained to battle with the enemy and operate comfortably in blue waters[188]. The evolution of naval strategy proved the close and mutual relationship it had, and that it will always have, with technology. As practical improvements in navigation – like those connected with the use of steam and steel – were made, naval doctrine evolved to accommodate and make use of them. The establishment of advanced operational methods and objectives, in turn, spurred the further development of original engineering solutions to better serve newly created strategic needs, in a continuous cycle of mechanical and theoretical refinement.

Presenting the naval buildup as the only secure path to reach international prominence, Mahan forced the country to restate the centrality of the Navy as institution

187 Jon Tetsuro Sumida has reinterpreted Mahan's writing of Mahan in the last twenty years, arguing that the Captain presented a far more complicated intellectual profile than the one with which he usually identified. Mahan's views indeed evolved over time. According to Sumida, for example, the Captain believed that, as far as the protection of international trade was concerned, collaboration between great powers – not naval supremacy – would have been more effective. *Inventing Grand Strategy and Teaching Command: The Classic Works of Alfred Thayer Mahan Reconsidered* (Woodrow Wilson Center Press, 1999)

188 The reference to Antoine Henri Jomini, the Swiss general who served in the French army during the Napoleonic War, is from McBride, *Technological Change*, p. 38. Jomini, one of the most successful and celebrated war theorist and strategist, advocated the use of large, concentrated forces to destroy the enemy in decisive battle to be held in specific point of the war theater.

and its importance as instrument of power. His ideas, however, did not automatically turn into policy. Mahan himself was relatively unknown at the moment when his writings were published[189]. The work of translating words into action – to transform his theory of sea power into government legislation and naval practice – was thus carried on by an small but ever growing group of congressmen and government officials that began reproducing and enriching the Captain's conceptualizations. Benjamin F. Tracy, president Benjamin Harrison's Secretary of the Navy, was among the firsts to present the navalist cause before the U.S. Congress. His 1889 annual report explicitly called for the construction of a «*fighting force*», a «*fleet of armored battleships*» able not only to defend but also to threaten the enemy, «*for a war, though defensive in principle, may be conducted most effectively by being offensive in its operations*»[190]. The Secretary had completed his assessment of the country's naval needs after months of consultation with Mahan and ended up in fact publicizing many of the Captain's theses even before he himself could do it. The report, which would have remained as one of the most forceful documents in U.S. naval history, was submitted *before* the Mahan's *Influence of Sea Power upon History* was sent to print.

Tracy's stance was repeated and actually reinforced by his successor, Hilary A. Herbert, who ran the Department of the Navy from 1893 to 1897 under President Grover Cleveland. Despite his affiliation with a Democratic Party whose platform rejected the navalist claims and his past opposition to the construction of large warships, Herbert became a strong advocate of the naval buildup. He directly credited Mahan's for his conversion, a 180-degree change that turned him into an enthusiast of sea power. As Secretary of the Navy, he urged U.S. lawmakers to view the fleet as the spearhead of the country's diplomatic growth and commercial development abroad, and to fund such vision by investing in bigger, better armed battleships.

The popularity of Mahan and his thesis grew in the second latter of the decades, along with the general enthusiasm for the possibility of a military intervention in Cuba. As the national yellow press and the expansionists in Congress began beating the war drums, the case for a naval rearmament and mobilization grew inevitably stronger. Pressured by mahanian acolytes and fellow imperialists inside and outside Washington, the U.S. Congress did authorize the construction of new (modern) battleships in 1895

[189] Sprout, *Rise of American Naval Power*, p. 220
[190] *Annual reports of the Navy Department*, 1889 p. 4

and 1896. The "statutory" role of the Navy, however, remained a matter of dispute. The legislation that approved their construction had them listed as «*coastline*» vessels, therefore implying that no real change had been recognized in the mission of the fleet[191]. The U.S. Navy was still considered as defensive force, operating mainly in home waters and close to the borders. It was, of course, not just an issue of terminology. The different perception about the true operational duties (and limits) of the fleet was destined to have a profound impact also on the technological and strategic development of the American Navy. If American ships were intended to fight near to the American coasts, Navy's planners and engineers could continue to avoid working on logistical and technical solutions to solve problems that were outside the familiar scenario – like those related to the lack of continuous supplies (of manpower, food, shells, fuel) in a fleet maneuvering in blue waters far from home.

During the previous two decades, as coal became the primary means of propulsion at sea, the United States had actually tried to set up a network of naval stations both in the Pacific and in the Atlantic. This attempt, however, had been largely unsuccessful. Not only Washington failed to put together anything resembling the web of fortified, strategically located, and easily defensible sites created by Great Britain, but also fell short of securing a series of agreements that would have allowed both American commercial and military vessels to use storage space on other nation's coastal territories[192]. Worse, even in the cases where arrangements were eventually made with other countries, the lease of foreign lands turned out to be of very little use to the Navy. In the Samoa Islands, for example, the United States had acquired rights to build a coaling and naval station as early as 1872. Coal however was not delivered at Pago Pago until 1880 and, once there, sat outside on the assigned lot for almost a decade, since no actual construction work had ever taken place on site apart from the erection of

[191] Fifty-Fifth Congress, Third Session, March 3, 1899, as reported in the: *Navy Yearbook, Embracing all Acts Authorizing the Construction of Ships of the "New Navy" and Résumé of Annual Naval Appropriation Laws From 1883 to 1917* (Washington: Government Printing Office: 1916), p. 147

[192] For a more ample discussion on, and more detailed account of, the early American attempts to secure coaling post in the Pacific, see: Peter A. Shulman, *Coal and Empire: The Birth of Energy Security in Industrial America* (Baltimore: Johns Hopkins University Press, 2015). Shulman's thesis suggests that the U.S. fixation with energy security began well before the end of WWII and was connected with the early American commercial and territorial expansion, a claim that, although in different terms and with a different purpose, is expressed in this dissertation too.

a «*light wooden wharf*»[193]. No further plan was made to erect a naval station until 1889, when a dispute with Germany over the islands stirred again the Congress' interest in them. Even at that point, the whole project was considered too expensive and ultimately not worth the effort. The site was indeed far from the usual patrolling routes. It would have been costly to maintain and difficult to defend in case of war. In the end, a naval base was built, but not before in 1899, almost thirty years later the original concession and only *after* the sovereignty over half of the Samoan territory had been formally transferred to the United States and definitive duty to protect the islands had arisen[194]. A very similar story took place in the long-cherished Hawaiian archipelago, where Washington had tried to obtain special access since the 1870. The first American coaling station in Honolulu actually dated back to 1860, but was a very short-lived experiment[195]. The site fell into disuse immediately, as first the Civil War first and then the Porter's directive forcing American warships to return to sail eliminated such a distant coal deposit from the Navy's priorities. The interest towards Hawaii grew anew in the following decade, while U.S. vessels slowly reverted to coal. Exclusive rights to establish and maintain a coaling station and repair station at Pearl Harbor were granted to the United States in 1887, but – again – not a single stone was laid down until 1898[196]. In this case, too, it was the war with Spain that, causing the annexation of the islands, prompted also the setting up of a coal shed in Honolulu. About three thousand

[193] «United States Coaling Station on Pago-Pago Harbor», *San Francisco Call*, 3 September 1898. On the events surrounding the coaling station in Pago-Pago and the American interests on the island, see Kees van Dijk, *Pacific Strife: the Great Powers and their Political and Economic Rivalries in Asia and in the Western Pacific* (Amsterdam: Amsterdam University Press, 2015), pp. 80-96.

[194] The base, actually, was not completed until 1902. Gordon L. Rottman, *World War II Pacific Island Guide: A Geo-military Study* (Westport, Connecticut: Greenwood Publishing Group, 2002), p. 85.

[195] The American Pacific Mail, a postal steamship line with service to the Far East, began making stops in Honolulu in 1867 for coal. The route however proved to be too expensive and needed governmental subsidy to operate. It was finally suspended few years later. A similar project to create a coaling station in the Midway Island in the mid-1860s failed even more miserably. It was immediately abandoned as soon as the real costs involved appeared clear. The events surrounding the coaling post could be found, for example, in David M. Pletcher's *The Diplomacy of Involvement: American Economic Expansion Across the Pacific, 1784-1900* (Columbia & London: University of Missouri Press, 2001) pp. 67-70. Pletcher's work does not focus on this relatively minor anecdote. It offers instead a much broader interpretation of the American expansion in the Pacific, arguing that the U.S. involvement in the region was more the result of a tentative, improvised and often disorganized search for commercial gains than of a carefully planned, centralized attempt to (economically) conquer the Far East.

[196] *The U.S. Navy in Hawaii, 1826-1945: An Administrative History* (Part 1: «Pearl Harbor: Its Origin and Administrative History Through World War II», section 26), Administrative History of the Fourteenth Naval District and the Hawaiian Sea Frontier. Vol. 1 (manuscript written in Hawaii in 1945 and identified as United States Naval Administrative History of World War II #121-A, located in the Navy Department Library's Rare Book Room and now accessible online at https://goo.gl/B6DvuA.

miles southwest of the Hawaiian coast, in the Kingdom of Tonga, where Washington had obtained a lease for a coaling station at about the same time of the one in Pearl Harbor (1886), there was instead no construction at all[197]. The United States lost indeed soon interest in the site and, after acquiring part of the neighboring Samoa (just five hundreds miles away), forewent any right over the island, so much so that it quietly became a British protectorate in 1900.

These late nineteenth-century efforts to establish coal deposits on distant lands had indeed more to do with the economic considerations of those American investors willing to expand their interests into the Pacific and the Caribbean than with the country's naval necessities or with Washington's political design. For all those interested in facilitating the use of specific transportation routes and encouraging the commercial exchanges with the far eastern territories, the first step was indeed to make sure that coal was readily available along the way so as to make places were easily reachable. In order to direct the government's attention towards such business ventures and secure its support in negotiating with foreign countries, the possession of refueling stations in the middle of the Ocean was repeatedly presented as an indispensable asset for the United States and for its Navy. As the fate of those sites during the last decades of the century demonstrated, the claim proved actually groundless. Even when presented with the opportunity, the United States ended up not establishing any overseas base. The reason was simple: the U.S. Navy did not need them. The country's defense perimeter was so narrowly defined and so close to the nation's continental coasts, there was no need to possess distant naval outposts. No real technical or strategic reason to explain such an investment in money and resources. American coal-powered battleships were able to sail for as long as their normal duty required them to do. Furthermore, any naval station that was too far or too difficult to defend given the existing condition of the fleet would have been more a liability than a resource in case of war.

[197] Edward M. Douglas, a civil Engineer and geological surveyor of the USGS, wrote as late as 1923 that «*so far as can be ascertained no use has yet been made by the United States of the privilege thus acquired*» to build a coaling and repair station in Tonga. Edward M. Douglas, *Boundaries, Areas, Geographic Centers and Altitudes of the United States and Several States*, (Washington: Government Printing Office, 1932 - 2nd Ed), p. 57-58. For a more comprehensive discussion the (typically "imperial") practice of land acquisition, purchase, and transferring and the territorial and diplomatic issues associated with it, see Michael J. Strauss, *Territorial Leasing in Diplomacy and International Law* (Leiden: Brill Nijhoff, 2015).

As long as the framework of continental defense continued to be the dominant one, there was no room to justify imperial acquisition on the basis of the Navy's practical, material requirements (which were a function of that very same defense paradigm). In the 1890s, the advocates of American territorial and commercial expansion worked specifically in this direction, often relying on the use of navalist rhetoric to try to shift the common perception of the country's security – that is, how far the United States should have stretched itself just to defend its borders and its closest interests. The possession of overseas territories, the argument went, was important as it denied to other countries – Great Britain, Germany, Japan – the possibility to seize them first, thus preventing them from overcoming one of the major obstacles to directly challenging American national integrity and intruding into the country's affairs (i.e. the lack of resupply points of their way across the Ocean). This type of strategic analysis presented very clearly the case for the establishment of coaling stations far from American continental shores. Yet such an argument was not self-evident. It was based on a very strategic vision that American expansionists had for the country, instead of reporting or reflecting any actual fuel-related, technical operational concern that the Navy was having at the time. Its validity was in fact theoretically and rhetorically constructed, projecting American defensive fears and territorial aspirations to a much larger scale than before.

The ambivalence between the Navy's (and the country's) mission and capabilities resisted until the very end of the century. The length of the debate demonstrated that the transition from the present of a strictly defensive Navy and the future of a blue-water fleet with regional, if not global, reach was slow and, more important, that it was a politically driven process. The coal-centered, technological deterministic reasoning that was used to shore up the expansionist project – the idea that the adoption of coal as naval fuel somehow forced the country to compete for, secure, and maintain overseas stations in order to thrive – was exactly that, a reductionist argument that downplayed the importance of political intent in determining the country's actual policy. It was a truism that steam engines necessitated coal, like to say that a country, if it wanted to keep its fleet moving, had to be sure that fuel was available. The use of such principles to steer the country into the acquisition of overseas territories, and so to rationalize their annexation, represented no more than an attempt to

obfuscate the real point of debate: the existence of a clear political willingness to engage in power politics. Indeed, it was not the need for coal that warranted the annexation of foreign lands as refueling stations. Quite the opposite: it was the acquisition of colonies – and the decision maintain them – that forced Washington to eventually establish naval bases and coaling deposits overseas in order to protect its new possessions. American territorial expansion and its high-powered Navy would have been not simply the unintended and inevitable result of the late nineteenth century technological innovations, but the product of a specific desire of national growth and development abroad.

For the United States to finally, and fully, embrace such an expansionist project, two things however had to happen: a hastened war against Spain and the rise of Theodore Roosevelt within the administration.

2.3 Liquid Fuels and Solid Bureaucracy

Roosevelt's enthusiasm for Mahan's writings was immediate. In 1890, right after reading *The Influence of Sea Power upon History*, the then U.S. Civil Commissioner sent a note to the Captain to express his admiration for what he called «*the clearest and most instructive general work of the kind with which I am acquainted*»[198]. The friendship between the two would have greatly developed in the following years. Roosevelt repeatedly (and privately) shared views with Mahan on the development of the Navy and the future course of the country, injecting his own imperialist convictions into the discussion. Who really influenced the other is still a matter of debate[199]. What is certain is that by the end of the decade many of their ideas overlapped, brining the two to have very similar positions about what needed to be done to lift the nation. First as Assistant Secretary of the Navy, then as Vice-President, and later as President, Roosevelt would have laid down a series of political and strategic objectives that both the Navy and the country would have had to achieve on their path

[198] Roosevelt to Mahan, May 12, 1890. In Elting E. Morison, *The Letters of Theodore Roosevelt – Vol. 1: The Years of Preparation, 1868-1898* (Cambridge: Harvard University Press, 1951), p. 221. Quoted also in H. W. Brands, T. R.: The Last Romantic, p. 236.

[199] See for example Peter Karsten, The Nature of 'Influence': Roosevelt, Mahan, and the Concept of Sea Power, *American Quarterly*, Vol. 23 (October, 1971), pp. 585–600; Richard W. Turk, *The Ambiguous Relationship: Theodore Roosevelt and Alfred Thayer Mahan* (New York: Greenwood Press, 1987). This analysis conveniently leaves out (for the moment) the influence that a third figure, Henry Cabot Lodge, had on both, together with the role that he had in defining the U.S. late-nineteenth century expansionist vision.

to greatness. The professionalization of the Navy's personnel, vowing to turn every officer commanding an American warship in an engineer[200]; the creation of a two-ocean navy through growing investment in shipbuilding and the development of first-class battleships; the construction of the interoceanic canal and the acquisition of control over territories and military bases far from American continental shores: by fighting for the implementation of a specific set of practical measures directly derived from the navalist playbook, Roosevelt substantiated Mahan's claims and those of many other American imperialist like himself. He turned the sea-power doctrine into an instrument of government, one with which he was able to «*dominate American naval policy for nearly a generation*»[201].

Roosevelt began to bring actual change to the Navy as soon as he was in position to do so. In 1897, the Personnel Board produced a study under the chairmanship of the new Assistant Secretary recommending the integration of engineers, naval constructors, and other staff officers into the same career path reserved to seagoing officials, formally eliminating any distinction between the two groups. The Personnel (or Amalgamation) Act passed two years later, in 1899 – while Roosevelt was back in his home state for his short stint as governor, and assimilated the Navy technical personnel into the line (although on an inferior basis), *de facto* forcing also the most traditionalist officers to relinquish their sense of moral superiority over the corps of engineers. Between the presentation of the Board's findings and their legislative approval, the United States fought and won a naval war against Spain that Roosevelt himself had much contributed to ignite and prepare for. The conflict, and the victory it bestowed, brought enormous publicity to Mahan's works. To a degree, it vindicated the Captain's view, after a decade in which the philosophy of sea power, although increasingly popular, had faced continuous opposition in the Democratic part of the Congress and in the more traditionalist sectors of the Navy.

The war showed how important the ocean could be as theater of confrontation between the United States and the European powers. It also demonstrated the

[200] «*On the modern war vessel, every officer has to be an engineer, whether he wants to or not*». These were the words of Roosevelt on the issue, as reported by the Rear Admiral and Engineer of the Navy, George W. Melville, in a lecture delivered in 1909 in occasion of Spring meeting of the American Society of Mechanical Engineers in Washington DC. The text of the address is among the Papers of George H. Melville (Manuscript Division, Library of Congress, Washington DC) and reported also in the *Transactions of the American Society of Mechanical Engineers*, Vol. 31, 1910, p. 253.
[201] Sprout, *Rise of American Naval Power*, p. 225

superiority of the steam and steel technology that had been recently and finally implemented in American shipbuilding. In combat, after all, equipment and preparation do matter, and the warships built in the United States during the last decade of the century, although still not the cutting edge of naval industry, were already way more efficient to Spain's outmoded ironclads. Marine superiority, like the one that the U.S. Navy easily enjoyed over its opponent in 1898, proved to be really the gateway to territorial aggrandizement and international recognition, as Mahan and Roosevelt had been saying for almost a decade.

As the consensus for the new Navy grew, Congress seemed finally to fall in line. In the two years that followed the war, lawmakers authorized the construction of fourteen ships between battleships and armored cruisers – more than those commissioned between 1890 and 1897[202]. They also approved the construction of sixteen destroyers, a new class of vessels altogether. The debate over the annexation of the Philippines did give fresh visibility to those who opposed a naval buildup, but Roosevelt's accession to the White House in 1901 virtually settled the issue over the role, size, and design of the U.S. Navy. From then on, his administration coherently moved toward the declared objective of building a world class fleet able not only to defend the country close to its continental coasts, as the old cruisers and frigates allowed to do, but also to *fight* in blue waters, extending the U.S. power far in the Caribbean and far into the Pacific.

The realization of such a project required more than an increase in the number of ships or the introduction of faster engines and heavier ordnance. It depended on the acceptance of a broader role of the United States in international politics and the recognition that, as a consequence, the country's naval forces had new and bigger responsibilities to bear. Either more by design or by "accident", the acquisition of jurisdiction and control over Spain's ex-colonies represented in this respect a crucial juncture. The necessity to oversee and defend the new territories forced American officers, even before than the American public and the congressmen on Capitol Hill, to acknowledge that the practical duties of the Navy grew more complex and larger in scope. The fleet had an expanded mission, which went well beyond the usual blockading and included the direct assistance to the ground operations of the U.S.

[202] Between 1890 and 1897 the Navy got permission to build ten ships between battleships and armored cruiser (nine battleships and one armored cruiser).

Army. American ships had now acquired new strategic and tactical needs, which required a different management, policy, training, and equipment in order to be met. Indeed, the inadequacy of the U.S. Navy for large-scale operations was one of the first practical lessons of the war of 1898 and of the protracted armed struggle that ensued in the Philippines. The squadrons on active duty both in the Caribbean and in the Pacific needed ready access to fuel, supplies, and ammunitions. Also, the new battleships commissioned at the end of the century were complicated devices whose mechanical parts had often to be repaired or replaced. Yet the Navy had no coaling station, magazine, dry dock, or shipyard close to Manila – the nearest naval base was in San Diego, CA, more than 7,000 miles away – and even in the Gulf of Mexico refueling and repairing vessels became problematic, given the lack of a sufficiently large and organized convoy of service boats and colliers[203]. The difficulties in logistics were so evident that prompted the establishment of the General Board in March of 1900. The committee, which had only an advisory role to the civilian head of the Department, was the first permanent agency dedicated to war planning – a skill that the senior officers sitting on the Board had to practice immediately. The squadron operating along the North China coast, deployed there to support the international expedition against the Boxer rebellion, was experienced similar resupply problems to those encountered in the Pacific after 1898[204]. The timing of the Board's institution, which took place roughly two years *after* the war, was itself a proof of the lack of coordination within the Department and of the delay that the Navy had accumulated in this kind of naval planning.

One year later, as a President, Roosevelt capitalized soon on both the Navy's fighting successes – the result of the end-of-the-century technological improvements – and its organizational deficits, which pointed to all that still needed to be done to have an efficient and powerful fleet. Together with the Navy General Board, he easily pushed through the construction of overseas naval bases. The President had barely to fight for

[203] Thomas A. Bailey reported that at the end of the century there were «*only two ships in the Navy that could steam from San Francisco to Manila without recoaling*». Thomas A. Bailey, *Essays Diplomatic and Undiplomatic of Thomas A. Bailey* (Appleton-Century-Crofts, 1969), p. 98.

[204] Richard D. Challener, *Admirals, Generals, and American Foreign Policy, 1898-1914* (Princeton: Princeton University Press, 1973), pp. 3-6. Challener makes a brief and initial reference to the logistic problems of the Navy in China around 1900. His work in fact specifically focuses on the relationship that American naval and military leaders had with the civilian heads of the administration in Washington, and the role the formers had in shaping particular set of foreign policy choices.

them, as the war and the difficulties in keeping the fleet afloat while fighting Emilio Aguinaldo's insurrection had basically won the argument by itself. Construction work along the along the coast of Honolulu, for a start, took place immediately. The U.S. Congress had authorized the expansion of the Navy facilities in the Hawaiian capital and the dredging of the entrance channel to Pearl Harbor even before Roosevelt's arrival at the White House. His administration then oversaw the enlargement project and seconded the gradual transfer of the naval activities to the latter site, which welcomed the first American gunboat in 1905[205]. Roosevelt also signed the original "lease" that gave «*complete jurisdiction and control*» of Guantanamo Bay area to the United States for use as coaling and naval station in early 1903[206]. The provision was part of an official treaty between Cuba and the United States that basically ratified the conditions for the island's independence imposed by Washington after the war. The bay was set up immediately as a coaling station as soon as the Navy got hold of it, although it was not until 1909 that it became also a repair facility and an actual naval base[207]. As the two naval stations, one in the Caribbean and one in the Pacific, were finally being built, Roosevelt stepped up the efforts to connect them through an interoceanic canal. Always in 1903, after Colombia's failure to ratify the treaty that would have granted the United States the control of narrowest section of the isthmus, Washington encouraged and supported the rebellion of the Panamanian separatists in the northern part the country. As soon as political independence was achieved, few months later, the United States signed an agreement with the newly established state of Panama and obtained the rights to build the canal on its territory and control the area surrounding it «*in perpetuity*»[208].

The post-war renewed and "forced" interest in naval planning expanded beyond the management of the supply chain. The twentieth century saw the development of a new, more professional and more integrated approach in the study of logistics, which pushed the Navy, and the government, to reconsider its overall operational and fighting

[205] *The U.S. Navy in Hawaii, 1826-1945: An Administrative History* (Part 1: «Development of the Naval Establishment in Hawaii». See also: Trudy Ring, Noelle Watson, Paul Schellinger, *The Americas: International Dictionary of Historic Places* (Routledge, 2015), Section: Honolulu-Pearl Harbor

[206] Treaty signed by the United States and Cuba on May 22, 1903; U. S. Treaties and Other International Acts Series (TIAS): 6 TIAS 1116-1119

[207] Joseph C. Sweeney, Guantanamo and U.S. Law, *Fordham International Law Journal*, Vol. 30, Issue 3 2006, p. 687.

[208] Convention for the Construction of a Ship Canal (Hay-Bunau-Varilla Treaty), November 18, 1903. Text accessible online on the website of The Avalon Project – Documents in Law, History and Diplomacy of the Yale University Law School: https://goo.gl/OcgE3N.

capabilities at sea. The problem of distance in naval operations, which got suddenly more serious for the American Navy, was to be tackled with the identification and acquisition of "stepping-stones" in the Pacific region and in the Caribbean. The issue, however, needed also to be addressed from its technical perspective. Faster vessels could reduce the fleet's reaction time and the days necessary to complete their trips, while more efficient ships, or with an increased fuel capacity, could make ocean-crossings less challenging. This is the framework in which, and the reason way, the U.S. Navy began in those years experimenting new technologies and practical solutions in maritime engineering. Substituting oil to coal in steam boilers – one of the most radical attempts at improving naval operations and transform vessels' architecture – was one of the changes considered.

In fact, the studies about the possible uses of petroleum in marine propulsion had begun in the 1860s, just few years after the Drake's first oil discovery in Pennsylvania. The first practical tests, however, did not offer encouraging results. In discussing them, Benjamin F. Isherwood, Chief of the Navy's Bureau of Steam Engineering, wrote in 1867 what remained as one of the most famous indictments of petroleum as marine fuel. «*The use of petroleum as fuel for steamers is hopeless*», he admitted, «*convenience is against it, comfort is against it, health is against it, economy is against it, and safety is against it. Opposed to these, the advantages of the probably, not very important reduction in bulk and weight, with their attending economies, cannot prevail*»[209]. The experiments, conducted in the Navy Yards in Boston and New York, did prove that petroleum had a greater thermal efficiency than coal. They also showed that oil was lighter and easier to handle, that it needed smaller boilers to burn and that, when ignited, it produced less smoke and a fire that was easier to manage. Petroleum's greater combustion power, however, was also the first cause of concern among Navy's engineers. Oil evaporated easily and its insalubrious gas was sufficient to cause explosions if not properly contained – not the preferred scenario on board of a warships. Furthermore, liquid fuel seemed also more difficult to transport and store, as it required sealed containers and could not be just dumped on the ground like coal. Last but not least, oil was more expensive than coal. In 1870, a barrel of petroleum (around 160 liters) cost $3.86 – slightly less than the price for *a ton* of coal ($4.39), which had a heat

[209] *Annual reports of the Navy Department, Report of the Secretary of the Navy* (Washington: Government Printing Office, 1867), p. 175.

content about four times higher and generated three times more energy than an oil barrel[210]. As Isherwood pointed out, oil's practical drawbacks were simply too great to overcome at the time. The Navy's own difficulties, due to the lack of funding and the stiff resistance to modernization expressed by senior officers in the post-civil war decades, did the rest. The idea of using petroleum as fuel was simply abandoned until the turn of the century, when the Navy's officers, planners, and technicians found themselves facing a completely different scenario.

Most of the credit for the Navy's renewed interest in fuel oil was due to George Wallace Melville, President Cleveland's Chief of the Bureau of Steam Engineering, whose work and determination helped remodel the fleet's design and characteristics in those years. Melville, who besides being a brilliant engineer was also a successful explorer, took charge of the scientific Bureau in 1887. He fought, successfully, for the institution of an Engineering Experiment Station (EES) in Annapolis and introduced countless technical innovations until his retirement, in 1903. Specifically interested in improving the vessels' systems of propulsion, he began studying again the properties of petroleum as fuel in 1895-96. Thirty years after the first tests, and a generation of technological improvements later, he was able to get better results on the efficiency and reliability of oil-fired boilers. The prospects were bright enough to convince the Secretary of the Navy and the Congress to appropriate $15,000 for further experimentation right before the conflict with Spain in 1898[211]. For the following two years, the conflict and its busy aftermath diverted much of the Bureau's attention, thus delaying any actual work on the matter. The war's outcome, however, also presented powerful and unprecedented incentives for continuing, and actually accelerating, the studies on oil-powered engines for naval use. Together with the new strategic imperatives, which forced American engineers to focus on the creation of vessels with a larger radius of action, there were also clear economic considerations. As the number of naval operations rose, so did the amount of fuel necessary to keep the ships going. In 1898, the Navy had spent on coal 220 percent more than the previous year. If the Department largely anticipated the rise of fuel expenses on account of the war, it also

[210] Coal price from *Statistical Abstract of the United States*, Vol. 29; Bureau of Statistics (Washington: Government Printing Office, 1907), p. 568; Oil price from: *BP Statistical Review of World Energy* (June 2015); Heat content data from *U.S. Energy Information Administration*: https://goo.gl/GrbIin
[211] *Navy Yearbook*, 1916, p. 132

expected them to diminish once the actual fighting had stopped. Instead, still in 1900, the total sum disbursed for coal and its transportation was still around $1,572,652, which was more than twice the amount paid in 1897 and actually $250,000 more than the *entire appropriation* for the Bureau of Equipment during that same year, the last one before the beginning of the war[212]. Part of the problem was that, even if the quantity of coal used by American warships had indeed decreased slightly in both 1899 and 1900, the price had meanwhile risen – even by about fifty percent in certain ports – as a consequence of the overall spike in demand. Furthermore, fuel expenses were not the only entry to take into account. To complicate the Navy's balance sheet further there were the coal's transportation costs, which had suffered a similar increase. The Department complained that in less than three years the average cost of freighting coal to Manila by steamer from the Atlantic coast had gone from $6.92 dollar to $10 per net ton[213].

The situation at the end of the century confirmed that the Navy would have largely benefitted from the use of a cheaper substitute of coal. In 1901, with perfect timing, petroleum finally proved to be that alternative. The extraordinary geological discovery at Beaumont, TX, at the beginning of the year, and the quick and large price drop that it generated, made petroleum a real fuel competitor only for industrial plants, trains, and cars, but also for mercantile vessels and navy's ships. Extremely close to coast of the Gulf of Mexico as they were, the oil pools in Texas and Louisiana could have also offered the Navy a different, and closer, shipping point for its fuel cargoes to the Caribbean, thus cutting transportation costs. Furthermore, as if the tremendous increase in petroleum supply was not enough to convince American officials of the potential economic benefits of the transition, there were the simultaneous miners' protests in Pennsylvania, by far the most important coal state in the country. Culminated in 1902 with a celebrated Coal Strike that became a national issue and required federal intervention, the agitation caused repeated spikes in prices during the first years of the century. Not surprisingly, then, the Bureau of Steam Engineering decided to list the identification of the «*best means of utilizing liquid fuel for naval and maritime uses*» as first among its objectives in 1901 and that, the following year, Congress appropriated

[212] *Annual reports of the Navy Department, Report of the Secretary of the Navy* (Washington: Government Printing Office, 1900), pp. 285-288.
[213] Ibid.

another $20,000 for practical tests[214]. In fact, the sum was still relatively small and at that point the idea of transitioning to fuel oil in marine transportation still failed to register as major topic of conversation both at Capitol Hill and generally anywhere else outside the Navy's technical bureaus. The decision to further investigate the matter marked nonetheless the beginning of the Department's interest in liquid fuel.

The study of fuel oil continued for two years, throughout Roosevelt's first term. In 1903, the U.S. Naval "Liquid Fuel" Board – the agency created ad hoc by Melville at the beginning of the century – completed its report, which was submitted and made public the following year. The four-hundred-fifty-page document was widely read (five thousand copies were printed) and confirmed the great potentialities of oil as naval fuel. In its conclusions, the Board emphatically stated that it regarded «*the engineering or mechanical feature of the liquid-fuel problem as having been practically and satisfactorily solved*»[215]. American engineers seemed indeed to have tackled some of the major problems preventing the use of liquid fuel on large vessels, understanding, at least in theory, how to safely and efficiently burn oil – spraying it, thanks to a mechanical atomizer – and how to diminish the risk of explosions arising from oil's improper storage and evaporation. In order to put petroleum technology to actual test, the Board encouraged the installation of oil-fuel appliances on a limited number of monitors, torpedoes, and destroyers, smaller vessels specifically indented for coastal defense and short-range operations. No trial was instead suggested on board of armored cruisers and battleships, whose successful conversion to oil remained still years away. Indeed, despite the technical and scientific progresses, the Navy remained extremely wary about a major switch to oil and ultimately uncommitted. In discussing the matter soon after the Board's findings had been published, the Secretary presented a very prudent position. In his annual report, he stated that the results of the tests did warrant further experimentation, but did «*not prove that petroleum [could] be advantageously*

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[214] *Annual reports of the Navy Department, Report of the Secretary of the Navy* (Washington: Government Printing Office, 1901), p. 1033. Naval appropriation for the year 1902: *Navy Yearbook*, 1916, p. 190

[215] *Report of the U. S. Naval "Liquid Fuel" Board of tests conducted on the Hohenstein water tube boiler showing the relative evaporative efficiencies of coal and liquid fuel under forced and natural draft conditions as determined by an extended series of tests made under the direction of Rear-Admiral George W. Melville, engineer-in-chief, U. S. Navy*; U.S. Navy, Bureau of Steam Engineering (Washington: Government Printing Office, 1904), p. 434. The report's conclusions appeared on the New York Times, too. See: Results from Fuel Oil – Navy Board Regards Problems of Its Use as Solved, *The New York Times*, June 18, 1904.

substituted for coal as a fuel supply for naval vessels». «*The difficulties* of *using a liquid-fuel plant upon vessels of war are many and obvious*», he continued. The Secretary's choice of words, with the use of a double negative to state what by that time was a simple and clear scientific truth – i.e. that oil was, in fact, a promising and viable fuel alternative – was also telling, showing the Navy's cautious approach to the issue: «*My own view with respect to the matter is that the use of oil as a fuel on board naval vessels is a question that cannot by any means be regarded as settled adversely*»[216].

In the following years, the doubts about the overall feasibility and profitability of the transition to oil persisted and the internal resistance to the conversion prevailed. Until the end of Roosevelt's second term, no real progress towards the practical conversion of the fleet took place. The reasons for such a cautious attitude were varied. One was the existence of factors outside the Department's control and over which both naval engineers and officials were particularly worried. The first and most important was the future availability of petroleum. The Liquid Board itself had defined the uncertainties surrounding oil supply as a major hindrance to the use of crude petroleum as a standard fuel. The Navy's specialists were not geologists and knew even less than the (very) little that was known at the time about the country's petroleum prospects. Unimpressed by the recent developments within the oil industry, they were simply concerned that there would have not been enough oil in the future to satisfy the needs of an ever-growing and increasingly active fleet – a preoccupation that would have stayed with them for decades. The other reason why, after the initial enthusiasm, the Navy ended up stalling the process of transition had to do with the institution's innate conservatism and, again, its internal bureaucratic competition.

The organizational structure of the naval establishment at the time was pretty straightforward, with a civilian head (the Secretary of the Navy) supervising the work of a collection of different bureaus. The system was introduced in 1842 and revised in the early 1860s, but forty years later still presented major governance problems. Each bureau (Construction and Repair, Equipment, Medicine and Surgery, Navigation, Ordinance, Steam Engineering, Supplies and Accounts, and Yards and Docks) oversaw a specific area or part of naval operations and was formally the sole responsible for managing and carrying out the tasks associated with it. In practice, however,

[216] *Annual reports of the Navy Department, Report of the Secretary of the Navy* (Washington: Government Printing Office, 1904), p. 16-17.

administrative confusion and overlapping was inevitable given the lack of coordination between the bureaus. Each bureau chief was indeed supposed to report directly to the Secretary and, until the establishment of the General Board in 1900, the Navy lacked any centralized planning agency. In the following years the situation improved, but only slightly, as the Board had no authority over the bureaus or the fleet and thus could not offer (nor impose) any common policy or direction – a role that was left in the civilian hands of the Secretary[217]. Addressing complex and multifaceted issues in such an environment could easily led to administrative duplication and conflict between the bureaus, causing the entire institution to slow down. This was the case of the decision over the Navy's fuel supply, in which three different bureaus had to have a say: the Bureau of Steam Engineering, the Bureau of Construction and Repair, and the Bureau of Equipment[218]. The first had the task to actually design the Navy's boilers and steam engines, so it was supposed to be the bureau firstly and most directly impacted by a switch to fuel oil. Under Melville's leadership, the Bureau of Steam Engineering had led the research on liquid fuel and, after many successfully trials, represented also the most open to the prospect of a switch. The Bureau of Equipment was less enthusiastic. In answering to an inquiry about possible progress in the adoption of petroleum coming directly from the White House, it specifically recommended that «*there be no change from coal to liquid fuel for general use in the vessels of the United States Navy*»[219]. The Bureau was the administrative unit purchasing, storing, and handing all the coal (or oil, possibly) present in the Navy's refueling stations, currently in the process of being integrated into a large system of bases including several overseas sites. Given its domain and expertise, its opinion was not only welcomed but also crucial for any attempt at implement the change. In fact, its opposition to liquid fuel was clear. William C. Cowles, the head of the Bureau, conceded that the use of fuel oil was practicable «*under certain conditions, and in certain parts of the world*», but considered it impossible in military operations[220]. The actual availability of petroleum was, again, the

[217] About the structure of the Navy Department between the late nineteenth century and early twentieth century, see: Richard W. Peuser, Documenting United States Naval Activities during the Spanish-American War, *Prologue: The Journal of the National Archives*, Vol. 30, No. 1 (Spring 1998), pp. 33-45.
[218] P. A. Shulman, Science Can Never Demobilize: The United States Navy and Petroleum Geology, 1898-1924, *History and Technology*, Vol. 19 (2003), pp. 367-371.
[219] W. C. Cowles to the Navy Secretary, May 21, 1906, Records of the Bureau of Engineering, RG 19, NARA II, College Park (MD), USA
[220] Ibid.

core issue. Oil, differently from coal, did not seem to be a very common raw material. It was not evenly distributed among nations and it could only be found in few places (in 1905, the United States and Russia accounted for the 90 percent of the world oil production). Assuming a narrow practical perspective, the Bureau assumed that it would have been too complex and expensive to transport across the sea the enormous quantity of oil necessary to assure a constant flow of supply to the American ships. In fact, by the early twentieth century oil had become fairly easy both to move across the country (thanks to the use of pipelines), to stock, and to ship. The industry commercial growth proved that transferring large quantities of oil to places where originally there was none was not at all an impossible task. "Modern" oil tankers had indeed been consistently roaming the Ocean since the last decade of the nineteenth century and, by that time the Navy really took into consideration the idea to switch to liquid fuel, the largest oil company in the world (which happened to be an American company), based in the first oil producing country in the world (which happened to be the United States), had already sent its first oil carriers across the Pacific. Oil engines, in addition, were more efficient and would have guaranteed an increased steaming radius, thus reducing the actual amount of fuel needed to cover the same distance (without considering that equipping the vessels with oil-fired boilers would have made them easier to refuel at sea, too). These considerations, however, seemed far from the minds of those working at the Bureau of Equipment, who had spent the past few years trying first to establish and then to expand the Navy's coaling stations in the Pacific and the Caribbean in the attempt to keep up with the new fleet's requirements. To them, the sole prospect of having to throw away much of the work in order to build a new a supply chain, this time for a liquid fuel whose supply was not even regarded as secure, should indeed have sounded far-fetched, if not foolish altogether.

The Bureau of Construction and Repair, which had instead the responsibility to build and service American ships, took a similar stance on the issue, advising against a generalized fuel transition[221]. Converting the entire fleet to oil, from the Bureau's practical perspective, meant that its technicians would have had to retrofit all the existing ships, an incredibly complex and costly work whose success was far from guaranteed and whose potential benefits were, apparently, not worth the risks.

[221] W. L. Capps (Bureau of Construction) to Navy Secretary, May 25, 1906, Records of the Bureau of Engineering, RG 19, NARA II, College Park (MD), USA

In the first half of the decade, the idea of converting the U.S. fleet was therefore buried by a series of particular and particularistic objections put forth by the different bureaus in defense of their own work and administrative domain. Lacking a strong centralized and centralizing leadership able to collectively evaluate the issues raised by the adoption of petroleum, properly weighting the impressive strategic and practical advantages of liquid fuel against the difficulties and uncertainties of its implementation, the Department ended up delaying the transition of a technology that was already there. The General Board should have exercised that function, but it did have neither the formal power nor the informal authority to do so, yet. As the decade progressed, the interest for fuel oil therefore remained but no tangible progress towards the conversion of the fleet was taken, as even the idea of having additional trials with some of the smaller ships, as recommended by the Liquid Fuel Board at the beginning of the century, was repeatedly postponed and only slowly implemented.

If the Navy had an excuse during those years, it was that its engineers, mechanics, officers, and administrators were already hard-pressed to build the large and powerful fleet that the president, and his like-minded expansionists in the naval quarters and in Congress, had been asking for and reduce the distance with the more powerful European naval forces. The passage from an eminently defensive Navy to one able to fight in blue waters and project the country's power across the ocean required huge improvements in American naval architecture. The ability to design, build, and operate large armored battleships depended on large investments by the federal government and the hard work and ingenuity of the Navy's personnel. In this respect, Roosevelt's drive and determination brought impressive results. Between 1901 and 1905, he was able to secure the Congress' approval for the construction of ten battleships and four armored cruisers, plus more than ten other minor vessels, for a total spending that was «*without peacetime precedent*»[222]. During the first part of the decade the Navy enjoyed, and effectively exploited, the advantages of being a latecomer and greatly reduced the quantitative and qualitative gap with the Royal Navy. However, as the story of the (missed) transition to fuel oil indicates, to reproduce and adopt existing technology is one thing, to innovate is another. The difference was made clear once again by Great

[222] Sprout, *Rise of American Naval Power*, p. 261

Britain soon after, when it reminded the world that its navy was still leading the naval race and that all the other countries, United States included, were simply trailing. In 1906, the Royal Navy commissioned the *HMS Dreadnought*, a revolutionized and revolutionizing battleship whose entering into service made automatically obsolete any other capital ship ever designed, included those that were being built at the moment. The *HMS Dreadnought* was superior in every aspect: it was faster, larger, heavier, better armored, and equipped with more powerful guns. It was indeed so advanced that the new class of battleships it represented was named after her. From then on, every other country would have tried to build its own dreadnought.

The innovations in naval design presented by the British in 1906 did not come as total surprise to the American engineers, who had actually anticipated, at least on paper, many of those developments. Yet the U.S. Navy would have not been able to build and launch its first real (coal-burning) dreadnought until 1910. The problem, once again, was in the Department's internal struggles for authority. Seagoing officers may have been forced to accept a formal equality with the Navy's engineers in 1899, but they always refused to acknowledge any erosion in the power and influence that their class once enjoyed. As navy vessels became ever more complex and sophisticated machines, they kept fighting to maintain their edge over the Navy's technical personnel in defining the institution's present and future course. After the creation of the General Board, their senior members initiated a long and frustrating controversy with the Navy's scientific bureaus, questioning the naval engineers' ability to design modern and reliable ships. They repeatedly denounced the new vessels as defective and overall inferior to those of other countries' navies, trying to prove the ineptitude of the Bureau of Construction & Repair and asking for greater powers for the Board itself in determining the strategic and technological trajectory of the Navy. The dispute dragged for years and was widely reported in the press. Following the launch of the *HMS Dreadnought*, also the design of the two American battleships that should have represented the response of the U.S. Navy, both laid down in 1907, became a matter of debate. A naval conference was finally organized in Newport in 1908 to settle a controversy, which had diverted much of the energy from actual shipbuilding and even caused the launch of a congressional investigation. The work of the fact-finding Senate commission, tasked to ascertain whether the Navy's bureaus had actually been negligent in designing American ships,

eventually came to nothing. The U.S. naval officers, however, were still able to capitalize on a situation. With the scientific bureaus under public scrutiny and pressed to show results, they gained the upper hand within the Department. Most of them were proponents of the big navy and took the occasion to quash technical objections against the construction of even newer, larger, and more powerful battleships[223].

When ready, in 1910, the two first American dreadnoughts would have indeed been up to the level of the British original. These "all-gun" battleships would have also been the first capital ships of the U.S. Navy to be equipped with boilers able to burn both coal and petroleum. This was not, in fact, the revolution that the oil enthusiasts were waiting for, since they had both been designed as coal-fired vessels. Both of them, in practice, still had to rely on coal as primary fuel, while oil was supposed to be used as an auxiliary propellant, «*intended to be used only to assist in maintaining power in full-power runs after the coal fires become dirty, or when the trimming of coal in the fire rooms becomes difficult*»[224]. The expected introduction of the mixed fuel system on board the two battleships represented nonetheless a progress, although limited and belated, in the development of oil-firing ships by the U.S. Navy.

During the second part of the decade, indeed, the differences of opinion between the General Board and the Navy's technical bureaus had indeed not been limited to the proper size of American battleships or the most effective type of ordnance they could be equipped with, but had touched also the ships' propulsion methods. In a sort of role reversal since the previous decades, it was the Board that pushed for the installation of oil-burning devices on the entire fleet, capital ships included, showing signs of that comprehensive, overreaching strategic vision needed to drive and bring about such a change that the single bureau lacked. In 1908, impressed with the results attained aboard during the previous trials, the Board recommended the use of petroleum as an auxiliary fuel in capital ships and as the only fuel in destroyers and smaller vessels[225]. In the same year, the construction of ten small oil-burning destroyers (the *Paulding* class) was

[223]McBride, *Technological Change and the United States Navy*, pp. 78-87.
[224] *Annual reports of the Navy Department, Report of the Secretary of the Navy for the Fiscal year 1910* (Washington: Government Printing Office, 1910), p. 448. The words of the Secretary of the Navy were publicly reported also by the national press, see for example: Fuel Oil for Battleships, *Boston Evening Transcript*, December 2,1910.
[225] For a survey on Taft's naval policy, see for example: Sprout, Rise of American Naval Power, pp. 286-303; Donald Chisholm, *Waiting for Dead Men's Shoes: Origins and Development of the U.S. Navy's* (Stanford University Press, 2001), pp. 525-552; Phillips Payson O'Brien, *British and American Naval Power: Politics and Policy, 1900-1936* (Greenwood Publishing Group, 1998), pp. 99-126.

authorized[226]. They would have been the first Navy's ships ever designed to use petroleum as primary fuel. With their actual launch years away (none of them touched the water before 1910), however, the real situation of the American naval forces in regard to oil remained discouraging. There were more than one hundred and eighty Navy vessels in service at the end of 1908 and *all of them* burned exclusively coal, apart from a monitor, the *Cheyenne*, that had been refitted in October with oil-burning equipment to become a testing boat[227].

2.4 Naval Logistics and Interior Logic

The difficulties and delays in transitioning to oil-fired vessels did not impair a more traditional, quantitative growth of the fleet, measured according to the more common standards of naval tonnage and number of capital ships. In that respect, the fleet's development since the war against Spain had actually been impressive. At the end of 1897, the country's naval force was composed of just about seventy ships. During the Roosevelt's presidency, the number of first-class battleships went from nine to twenty-five. Similarly, the total of commissioned cruisers grew from nine to twenty-seven, the one of destroyers from zero to twenty-seven. Roosevelt's naval policy enable the American navy to surpass those of Japan, France, and Germany in terms of first-class battleships in just few years and rival them even as overall tonnage. The overall strengthening and expansion had become impossible to ignore by the second part of the decade. Before leaving the White House, the President nonetheless wanted to make sure that everybody could appreciate the country's naval progress, showcasing it for the whole world – and for the Japanese government in particular – to see[228]. In mid 1907, Roosevelt announced he would send sixteen battleships on a highly publicized voyage around the globe to demonstrate America's naval prowess[229]. The journey of the "Great White Fleet", as the naval force came to be known, began in December 1907 from the East Coast. The American vessels travelled south toward the Straits of Magellan and

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[226] *Annual reports of the Navy Department, Report of the Secretary of the Navy for the Fiscal year 1908* (Washington: Government Printing Office, 1908), p. 666.

[227] The two Delaware class battleships were still under construction, while two other battleships with mixed fuel system (the USS Utah and the USS Florida) had just been authorized.

[228] [Heightened hostility with Japan in the Pacific after the Russo-Japanese War (1904-1905) – explain]

[229] For an institutional account of the events surrounding Roosevelt's decision and the word tour itself, see for example: Michael J. Crawford, *The World Cruise of the Great White Fleet: Honoring 100 Years of Global Partnerships and Security* (Defense Department, Naval Historical Center, 2008)

then East across the Pacific. They docked again in Virginia in February 1909 after having passed through Suez and Gibraltar and having covered a total of more than 43,000 miles, stopping at least once in every continent. The circumnavigation followed a complete reorganization of the U.S. Navy fleet, whose old squadrons were disbanded and their ships reassigned into two new regional fleets, one stationed in the Atlantic Ocean and one in the Pacific. Since the first U.S. dreadnought would have not seen the ocean until 1910, all the battleships composing the Great White Fleet were "older" vessels, belonging to previous classes. The fact that they successfully concluded the word tour proved the American industrial ability. It signaled the other naval powers that country was finally ready to become one of them and to the Japanese that the U.S. was in the Pacific to stay. After having been overlooked for decades, the U.S. Navy finally possessed a fleet able to operate in blue waters.

Apart from the clear political message that the voyage was intended to deliver, the yearlong sailing trip was also planned as a unique training exercise for the Navy. The itinerary represented indeed a very demanding test for both the new personnel and the new equipment, as both had to prove to be able to endure the service and perform as planned. The time as sea became a very useful experience for both naval officers and engineers, who had the chance to see first hand the mechanical and operational characteristics of their fleet. Not everything they learnt, however, was something to be proud of. One of the most important lessons came indeed from the realization that an old problem was still there and not from its successful resolution. Despite the official success of the operation, the cruise had actually proved that U.S. Navy was still short on logistics and (very) bad at planning. If all the ships and sailors were able to make it home in 1909, it was only thanks to the foreign ships that came to the rescue. U.S. officers had to charter a number of colliers under foreign flags to deliver along the route the coal necessary to keep the American battleships going, since the U.S. Navy did not have auxiliary ships suitable for the mission. Even then, the Great White Fleet had serious resupply problems, as the Bureau of Navigation did not accurately calculate the lead-time for the shipments and the vessels missed them both in Australia and New Zealand.

The issue was solved nor easily or quickly, and was actually aggravated in the following years. Less than a month after the return home of the Great White Fleet, Taft

formally succeeded Roosevelt as President. In naval matters, as in many other policy areas, Taft was supposed to follow and push forward his predecessor's agenda. As in other many other policy areas, however Taft was not exactly able – either for lack of personal conviction or for the presence of a stiff opposition in Congress, or both – to further develop Roosevelt's ideas in the building up of the U.S. Navy.[230] Taft did, in fact, continue on the same path of naval expansion traced by the former administration. During his presidency, two new battleships were authorized each year and the total of the appropriations for the Navy actually surpassed that of Roosevelt's second term. Yet these numbers were just part of the story. Taft held the presidency during a period of rising costs for the Navy. It not only had to operate, and provide maintenance for, a growing number of vessels, but it also had to continue investing in the design and development of more complex (and hence more expensive) ships in the attempt to keep up with the renewed naval race between Great Britain and Germany. Higher and growing appropriations were thus not really a choice if the country wanted to maintain the same level of preparedness, let alone trying to improve it. More important, Taft lacked the same strategic vision of his predecessor. The administration fought hard to secure authorization from Congress for the construction of additional battleships, which were considered the immediate measure of a country's naval power, but failed to plan for the acquisition of various other categories of vessels whose presence within the fleet was necessary for the very protection and operation of first-class ships. The authorization to the construction of five colliers, obtained by the Navy in 1909 in the wake of the embarrassing refueling problems of the Great White Fleet, represented just a Band-Aid fix. Just to move a sizable fleet of battleships and smaller vessels to the Philippines via Cape Hope, according to the General Board's estimates, would have indeed required a number of fuel ships at least three times higher[231].

The following year the two battleships with mixed-fuel systems were finally completed and commissioned, together with some of the ten oil-fired destroyers authorized in 1908. The Navy, at that point, had about ten ships in its fleet able to burn oil out of a total of almost two hundreds. Although they represented just a very small

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231 Admiral George Dewey to the Secretary of the Navy February 28, 1910 (General Board File 420), as reported in: U.S. Navy Commander Daniel Joseph Costello, *Planning for War: A History of the General Board of the Navy, 1900-1914* (PhD dissertation, Fletcher School of Law and Diplomacy, 1968), p.572.

part of all the vessels on duty, they still needed to be fueled and this further complicated the Department's logistics problems. If the supply chain management and infrastructure for coal was still incomplete, the ones for oil were basically non-existent. The Navy had no carrier able to transport oil at sea, no oil deposit in the United States and no oil deposit abroad. For any need it had in the past or may have had now, the fleet had been, and still was, completely depended upon the availability of commercial vendors and private oil stations. The General Board tried to address the situation immediately, asking for the construction of fuel-oil depots in Key West (FL), Charleston, Norfolk (VA), and Narragansett Bay, while an old collier – the Arethusa, bought more than a decade before from the Royal Navy – was being converted into a oil tanker[232]. Despite the Board's willingness to take urgent remedial action, these changes would have of course required a long time to be fully implemented. The creation of the oil deposits took a couple of years, and the expansion of the naval stations in Guantanamo and Pearl Harbor so as to accommodate new containers for petroleum took even more. Meanwhile, the construction of two new oil tankers to actually carry the fuel there, approved in 1912, lasted until 1915[233].

During the Taft's presidency the strength and the abilities of the fleet remained limited from a strategic and operational perspective – or at least definitely below what a more far-sighted policy could have assured. This consideration was especially true in regard to oil and its generalized adoption as fuel for the fleet. The Navy's bureaus, already busy catching up with the steel and steam technology, looked at fuel oil with distrust throughout the decade. Despite early promising results in the design of oil burning devices for naval use and the presence of increasingly convenient economic conditions for the switch, for the first part of the twentieth century the Department remained focused on the construction of a supply chain for its traditional fuel: coal. Then, when change in naval propulsion methods began finally (and slowly) to be implemented, long-standing weaknesses and delays in naval planning continued to limit the mobility and readiness of the fleet. Fuel oil, and the necessity of assure its supply, did not become an actual concern within the Department of the Navy until the very end of the decade.

[232] *Annual Report*, 1910, p. 25.
[233] *Annual Reports*, 1912, p. 226

Yet, and paradoxically, by late 1909 Taft had already authorized the complete withdrawals of more than 3,000,000 acres of federal land from public entry on the basis of the possible presence of oil underneath them. The justification of the President's decision was the need to preserve it for its naval use. Ralph Arnold, the U.S. Geological Survey (USGS) field specialist in California, had been writing since 1907 to his Director, George Otis Smith, trying to convince him to take immediate practical measure to save the California oil land from speculation[234]. During the summer of that year, Arnold went as far as discussing the matter directly with J. R. Garfield, the Secretary of Interior. Otis Smith and Garfield, together with G. Pinchot at the Department of Agriculture, belonged to the close group of acquaintances who shaped Roosevelt's conservationist policies towards the country's natural resources[235]. Arnold was the first to attract attention to the situation of the California's oil lands while surveying the state for the USGS. The data he collected became useful in Washington soon after, in 1908, when David T. Day assembled the gloomy and alarmist report about the status of the country's oil resources to be presented at the Roosevelt's (and Pinchot's) National Conservation Commission. In his work, eventually published in early 1909, he would have called for a complete withdrawal of oil-bearing lands.

Day did not make any specific reference to the possible use of petroleum as naval fuel in his report. His director, however, had already taken care of the issue. Otis Smith had indeed addressed the problem even before the Conservation Commission was convened, making sure to explain the urgency of the situation to the Secretary of Interior. On February 24, 1908, he sent a letter to Garfield, saying that it would have been «*easy, if desired, to multiply the authoritative statements already in print concerning the superiority of liquid fuel*» and pointing to the decision of the British government, which had already chosen to use oil as emergency fuel on its battleships[236]. If the first was an obvious statement, the second was a well-reported fact, although apparently not really so in the Navy quarters. Oil was such a better fuel that, he

[234] Edgar W. Owen, *Trek of the Oil Finders: A History of Exploration for Petroleum* (Tulsa, OK: American Association of Petroleum Geologists, 1975), p. 176-177. Owen reported the correspondence included Max W. Ball, *Petroleum Withdrawals and Restorations Affecting the Public Domain* (Washington: Government Printing Office, 1917), p. 130-133.

[235] The California geologist was a conservationist, together with Otis Smith, Garfield, and the well-known Pinchot – the close group of acquaintances who shaped Roosevelt's policy.

[236] Otis Smith to the Interior Secretary, February 24 1908, quoted in Max W. Ball, *Petroleum Withdrawals and Restorations Affecting the Public Domain* (Washington: Government Printing Office, 1917), p. 104

predicted, its general adoption in naval operations was just a matter of price. From this premises, Otis Smith's conservationist logic could only lead to a pretty straightforward conclusion. «*For that reason*», he wrote, «*I have to recommend that the filing of claims to oil lands in the State of California be suspended in order that the Government may continue ownership of valuable supplies of liquid fuel in this region where all fuel is expensive*». If the Department were not to act rapidly, the Government would have then been soon «*obliged to repurchase the very oil that it had practically given away*»[237]. Such a course of action was however difficult to implement from a legal perspective, since it would have impinged on the rights of the oil prospectors who had already legally claimed the land. In the following months various tracts of land were temporarily withdrawn for classification through administrative measures, but lacking an actual federal regulation little could be done to stop the oil exploitation in California. Nothing therefore really changed until the following year, when the works of the National Conservation Commission became public. Meanwhile, in early 1909, Taft had officially taken office and Ballinger had replaced Garfield as Secretary of the Interior. The following months were not easy at all for the newly appointed Secretary. Ballinger came soon under attack by Roosevelt's circle of conservationists following his decision in May to restore to entry the about three million acres of land withdrawn by his predecessor. Repeatedly accused of favoring the large corporate interests over the national one, the Secretary could have become oversensitive to conservationist claims. On June, he went on to temporarily withdraw from all entry about 400,000 acres of California land classified by the USGS as oil-bearing – a measure that would have suspended any claims on those parcels, including the ones of legitimate prospectors, and that went even beyond Otis Smith's own recommendation[238]. Probably sensing the moment and the rising tide of conservationism in Washington, Otis Smith wrote him again in mid-September, explaining that taking into account the growing need for lubricating oil «*as well as the increasing use of fuel oil by the American Navy there would appear to be an immediate necessity for assuring the conservation of a proper supply of petroleum for the Government's own use*»[239]. He then reiterated his plea for

[237] Ibid.
[238] Owen, *Trek of the Oil Finders*, p. 178
[239] Letter from Otis Smith to the Interior Secretary, September 17, 1909, reported in Ball, *Petroleum Withdrawals and Restorations,* p. 133

federal intervention, recommending that «*pending the enactment of adequate legislation on this subject the filing of claims to oil land in the State of California be suspended*»[240]. The total area under consideration at that point was immense, almost as large as the entire state of Connecticut. Smith's arguments worked. Ballinger forwarded the USGS Director's claims to Taft the same day, making again «*special reference to the present and future requirements of the American Navy*»[241]. A little more than a week later, the President issued a degree authorizing the temporary withdrawal of an area covering approximately 3,041,000 acres of lands and including both public and private lots.

Taft's decision was remarkable for two reasons. First, his proclamation was technically "unlawful". No bill had been passed yet sanctioning the president's power to withdraw the territories selected by the USGS. There was no law expressly authorizing Taft's move. Congress tried to rectify the situation nine months later, on June 1910, when it approved the General Withdrawal (or Pickett) Act, which gave the president the right to remove public lands from entry for further classification and to eventually retain their titles. Taft, who meanwhile had proceeded to withdraw additional parcels of land in California, Wyoming, and Utah, reconfirmed all his orders under the new Act. The law, however, was not retroactive. It therefore left the government exposed to legal action by the long list of private entities that saw their claims revoked or denied after the original president's order, whose validity now seemed inevitably even more questionable[242]. Indeed, the administration would have had to spend years in court trying to prove the legality of Taft's initial decrees. It would have taken the intervention of the Supreme Court to settle the issue. In 1915, the justices would have confirmed the legitimacy of the president's action, although very on tenuous ground, stating that what gave Taft the power to issue the first decree was the «*long continued practice, the acquiescence of Congress, as well as the decisions of the courts*»[243].

The other element that made Taft's decision particularly noteworthy was that, despite being based specifically on the immediate and growing need for oil of American

[240] Ibid.
[241] Letter from the Interior Secretary to the President, September 17, 1909. Ball, *Petroleum Withdrawals and Restorations,* p. 135
[242] For an legal analysis of the decision and his implications, see for example: Richard J. Ellis, *The Development of the American Presidency* (Routledge, 2015), pp. 301-304; Christopher H. Pyle, Richard M. Pious, *The President, Congress, and the Constitution: Power and Legitimacy in American Politics* (Simon and Schuster, 1984), pp. 99-104; Eric Pearson, *Environmental and Natural Resources Law* (LexisLexis, 2012)
[243] The wording of the ruling is quoted in Ball, *Petroleum Withdrawals and Restorations,* p. 25

fleet, such a policy had apparently not been sought in any way by the Navy itself. In 1908-1909, the naval officers and engineers were still trying to figure out if they really needed, or even wanted, oil as naval fuel. They left no indication of their desire, let alone necessity, to convince the administration of the importance and urgency of such a move. The geologists of the Department of Interior, instead, seemed to know before everybody else what was best for the Navy, and the country. In their conservationist crusade against private profiteering and the corporate abuse of national resources, it is possible that their zealous concern for the status of the Navy's fuel supply was simply instrumental, and that their insistence about the necessity to lock up oil reserves for naval use was more a rhetorical device than real preoccupation, simply used to put forth the bigger argument they were trying to make about the existence and superiority of a collective interest. Yet, in doing so, they made a first and clear connection between such a national interest, whose protection warranted federal action to physically appropriate raw natural resources, and the supply of fuel oil of the U.S. Navy, upon which the country relied for security.

As for the Navy itself, it did not make any claim upon the California lands before 1912. Until then, the members of the Navy seemed neither interested in securing an oil reserve nor concerned about the possibility of never having one. Only about two years after Taft's first withdrawal order, in May, the Chief of the Bureau of Steam Engineering, H. I. Cone, wrote to the Taft's new Secretary of the Navy George von Lengerke acknowledging the reality of oil's impact and embracing its use aboard of American ships:

> «*The superiority of oil over coal as a fuel has been demonstrated so conclusively that this Bureau desires to extend its use to all new designs of important vessels driven by steam machinery*»[244].

He went on to state that the fear of a failure of the supply had been a deterrent to the use of oil for naval purposes until then. Such a statement clashed with the reality of the country's situation – the United States had been one of the two top world producers

[244] H. I. Cone to Navy Secretary, May 5, 1912. Records of the Secretary of the Navy No. 13668-75, RG 80, NARA II, College Park (MD), USA

for the previous forty years, with ever-increasing output levels, and had dominated the market. It also conflicted with the fact that, in the early twentieth century, the countries most willing to adopt to fuel oil, and most successful in doing so, were exactly those that lacked large oil reserves, like Great Britain, Germany, and even Italy. As an explanation for the Navy's slow transition, it largely overlooked the Department's internal bickering, hesitation, and delays, which effectively held back the use of petroleum for naval purposes and even the recognition of its ultimate value as a fuel. Yet the (fear of a) lack of adequate supply was, and would have been in the future, used to rationalize U.S. policy choices about oil. From being a justification for the Navy's early missed chances with liquid fuel, the concern for petroleum supply became a sort of guiding principle in future actions, all on the basis of basically unfalsifiable statements about the oil scarcity on earth.

In his letter, Cone then put forth similar considerations to those advanced by the USGS geologists, to state – like them – that what was really at stake was the national interest and security.

> «*With the general use of oil by all navies, which now seems inevitable, and the probable considerable increase in its use for commercial purposes, this uncertainty of supply might develop into a condition menacing the mobility of the fleet and the safety of the nation*»[245]

Making specific references to the lands withdrawn in California, as well as in Alaska and Oklahoma, Cone recommended the creation of a reservation for the Navy's future use. The General Board made the same request to Meyer, in June. The Secretary of the Navy wrote to Ballinger soon after, asking for «*the cooperation of the Department of Interior to secure a definite reservation for the Navy by Executive Order, of oil-bearing public lands in California sufficient in extent to insure a supply of 500,000,000 barrels*»[246]. The Secretary of the Interior at that point referred the matter back to the USGS, which proved once again its role in determining government's

[245] Ibid.
[246] Quoted in J. C. Maher, R. D. Carter, R. J. Lantz, *Petroleum Geology of Naval Petroleum Reserve No. 1, Elk Hills, Kern Country, California*, Geological Survey Professional Paper, No. 912 (Washington: Government Printing Office, 1975)

policy. The federal geologists quickly identified what they thought was a suitable section of California land on Elk Hills, while Smith prepared the technical directive for the president. On September 2, 1912, Taft signed the Executive Order that established the Naval Petroleum Reserve No. 1. The selected tract, which measured more than 30,000 acres, was within the perimeter of area removed from entry in 1909 and, as the original withdrawal, it did take up just open public lands. The land privately owned actually accounted to almost one-third of the entire area. The reservation was thus established "subject to valid existing rights", with the Department expecting a period of litigation to clear titles to many of the lots.

Instead of satisfying the Navy's newfound appetite for oil, the creation of the first Petroleum Reserve increased it. It also confirmed of the USGS's interest within the administration. Indeed, Taft's decision further empowered the role of the Interior's geologists, setting a far-reaching precedent in naval policy. Just a little more than three months later, on December 13, 1912, the president established a second naval reserve (Naval Petroleum Reserve No. 2) of roughly the same size at Buena Vista (CA). The move came after the Navy and the USGS had grown concerned about the actual size and profitability of the reservoir in the first site, worrying that it may not contain enough petroleum to fulfill the fleet's growing needs. Between the creation of the first reserve at Elk Hills and the one at Buena Vista, the Navy had indeed begun the construction of the first two U.S. battleships designed to use oil as primary (and actually exclusive) fuel. The *USS Oklahoma* and the *USS Nevada*, significantly enough, were laid down on two different shipyards on the East Coast respectively in October and November 1912[247].

When Woodrow Wilson officially took office in spring 1913, he found a fleet that was incomparably stronger and more efficient than the one that the previous Democratic president, Grover Cleveland, had fifteen years before. The American navy could boast more than two hundred ships in commission – three times the number of those floating in 1897, when in terms of naval power the United States still lagged not only behind Great Britain and France, but also Germany and Russia[248]. Much of the

[247] Neither of them, however, would have entered service until *1916*

[248] Brian Benjamin Crisher, Power at Sea: A Naval Power Dataset, 1865–2011, *International Interactions*, Vol. 40 (2014), pp. 602-629.

credit was due to Roosevelt, who planned and executed the cultural and material transformation of the Navy. The buildup that he embarked on, and that Taft with difficulty continued, marked also the beginning of a century of high military spending, consuming – alone – an average of almost twenty percent of the annual federal budget during the twelve years of Republican administration[249]. In fact, all the money spent and all the technological innovations introduced by the American engineers did not turn the U.S. fleet into the most powerful in the world. A series of long-standing structural, bureaucratic weaknesses limited the ability of the Navy to exhibit a strong political guidance and an overarching strategic vision, as the slow and uneasy, almost externally driven, transition to oil demonstrated. Furthermore, despite the efforts, Washington was neither able to match London's established superiority at sea, nor to keep up with Imperial Germany's obsessive spending in shipbuilding. In terms of capital ships and overall tonnage, the U.S. fleet was still behind the navies of both European powers[250]. Yet Roosevelt's policies did bring remarkable results for the Navy and lasting consequences for the country. They assured the United States a new, more important role on the international stage and empowered the fleet as enforcer and protector of such transformation. The new territorial commitments, meanwhile, had forced the Department of Navy to adjust and, if not overcome, at least face its many operational limits, in a process of growth that had fixed for the country and for the fleet new strategic objectives – and needs.

[249] Roger Dingman *Power in the Pacific: the origins of naval arms limitation, 1914-1922* (Chicago: University of Chicago Press, 1979), 3. McBride uses the same figure in *Technological Change*, p. 39.
[250] John Whiteclay Chambers, *The Oxford Companion to American Military History*, (Oxford University Press, 1999), p. 42

3. Opening Up the Middle East

3.1. Persian Oil and British Control

On January 8 1901, exactly two days before Captain Lucas struck oil at Beaumont, Texas, William Knox D'Arcy met for the first time Antoine Kitabgi in Paris. D'Arcy was a resourceful English entrepreneur who had acquired a fortune mining gold in Australia; Kitabgi was a «*well connected*, *well travelled*» Persian General and influential ex-director of his country's custom system[251]. The encounter would have been remembered as the initial step in the establishment of the first successful oil venture in the Middle East, an undertaking of unprecedented importance, which would have soon reshaped the structure of the industry and brought the region at the center of the world stage. At the time of the meeting, however, its outcome was not at all a foregone conclusion. D'Arcy had no experience in oil exploration, had never been in the Middle East, and was not even actively looking for an opportunity to get involved in such a business. Kitabgi, for his part, was more interested about the capital than D'Arcy could guarantee than about his qualities as captain of industry. He had very specific and material objectives to reach and, although obviously interested in the development of an oil business in Persia, he saw it as a means to alleviate Persia's economic distress more than as an end in itself. Kitabgi, like his acquaintance Amin al-Sultan, the Persian Prime Minister, was well aware of the grave financial difficulties of the kingdom[252]. Muzaffar al-Din, the Shah who rose to power in 1896, was a profligate spender. After years financing the already expensive policies implemented by the previous Shah (Muzaffar's father), the Persian government had been left with very limited options to repay the outstanding debts and cover for the ruler's extravagant lifestyle. The best chance to find

[251] Ronald W. Ferrier, *The History of the British Petroleum Company, Volume I: The Developing Years 1901–1932* (Cambridge: Cambridge University Press, 1982), p. 29

[252] Besides Ferrier, the main scholars working on the origins of the oil industry have mentioned and written, at different lengths, about D'Arcy and its concession, which inaugurated an era of Middle Eastern oil exploration. Among others, of course, see: Yergin, *The Prize*, pp. 134-149;
George Lenczowski, Oil and State in the Middle East, Ithaca, 1960.
S. H. Longrigg, Oil in the Middle East: Its Discovery and Development, London, 1954
For more details about the Persian (and British) protagonists of the negotiations and the specific events surrounding them, however, see for example: Edwin Black, *Banking on Baghdad: Inside Iraq's 7,000-Year History of War, Profit, and Conflict* (Hoboken, NJ: John Wiley and Sons. Blake, 2004), pp. 95-111; P. Avery, William Bayne Fisher, G. R. G. Hambly, C. Melville, *The Cambridge History of Iran, Volume 7* (Cambridge: Cambridge University Press, 1991), pp. 639-704; Arash Khazeni, *Tribes and Empire on the Margins of Nineteenth-Century Iran* (Seattle, WA: The University of Washington Press, 2009), pp. 121-158.

the cash necessary to keep the country afloat seemed to continue borrowing it from the two foreign friends (actually guardians, if not handlers) of the Persian state: Great Britain and Russia. Both countries had been playing the "Great Game" in the region for the previous two centuries and were equally interested in maintaining their sway over the kingdom. Bankrolling the regime, through formal loans or informal baksheeshes, remained of course one of the most effective ways to project their influence.

In the months preceding the meeting in Paris, the Persian Prime Minister had therefore turned once again to London and Moscow for credit. Kitabgi, meanwhile, had tried a different strategy. He went to Paris to find wealthy financiers who may be interested in obtaining an oil concession in Persia. Selling exploration licenses to private businessmen represented a good alternative to asking for money to national governments. Direct investments would have assured fresh, immediate, and effortless earnings for the government. Besides, Kitabgi could have hoped for a healthy premium as intermediary. The reason why he decided to bet on petroleum is easy to understand. The commerce of lubricants and other derivatives had proved to be extremely rewarding business and the Persian oil had already attracted the interest of wealthy European investors in the past. By then, indeed, there was no doubt about the presence of petroleum in the country. Oil seepages had been recorded for centuries, especially in the northern part of the country (close to the Russian Baku region, which once was Persian territory) and along the southwestern border (near the Iraqi city of Basra, an area that still today holds the largest share of the country's reserves). Although unrefined – and therefore used only in a very rudimentary way, for illumination or as pitch –, Persian petroleum was actually already a traded item at local level. The only question, then, was whether it was possible to commercialize it on a national and possibly international scale, i.e. to extract, refine, transport, and sell Persian oil in a quantity (and a quality) sufficient to compensate for the exorbitant costs, and the tremendous work, required to set up and run an oil business in such a country.

At the end of the nineteenth century, Persia had still the characteristics of a backward state. About a quarter of its population was nomad and half was living in very small villages. The total literacy rate was just around five percent and more than fifty percent of the people did not even *understand* Persian. A majority therefore spoke a completely different language, with Kurdish, Arabic, and Azeri being among the most

common. Moving around was also extremely difficult. There were just about over two hundred miles of paved roads and railways in a country of over six hundred thousand square miles, mostly covered by either mountains or inhabitable deserts[253]. Electricity or telephones lines could only be found in Teheran, which was also the only actual city in the entire kingdom. The other problem, from a business perspective, was the personalistic nature of the political power in Teheran. The Shah administered the state through deputies, loyal notables, and local proxies, in an overall arrangement that left little space for the functioning of an independent and official bureaucracy. The result was a system of government that was arbitrary, prone to corruption, and easily influenced by the external pressures of the country's powerful foes, or allies.

Running oil operations was therefore not going to be an easy task. In fact, the very first item on the list – finding petroleum in commercial quantity – still needed to be checked off. There had already been attempts to locate oil reservoirs large enough to justify an investment in the previous decades, but none of them had gone far. The British baron Julius de Reuter obtained excusive rights over the Persian mineral resources – all of them, from coal and petroleum to iron and lead – as early as 1872. The concession was never brought to fruition and was actually canceled the following year, after internal opposition to the project and the protests of the Russian government[254]. De Reuter was able to secure a second concession in 1889, but during the following decade he was forced again to abandon his venture. The situation on the ground – the hostile weather, the nonexistent infrastructure, the country's capricious politics and legislation – represented an insurmountable obstacle. Despite the failure, the excitement around the Persian oil, and the possibility of commercially exploiting it, continued to grow in the last part of the century. One of the reasons was the report of a French explorer, Jacques de Morgan, who after a long and difficult field survey confirmed that Persia was «*unquestionably petroliferous territory*»[255]. His findings

[253] For an assessment about the status of the country at the beginning of the twentieth century, see for example: Ervand Abrahamian, *A History of Modern Iran* (Cambridge, UK and New York: Cambridge University Press, 2008) pp. 1-33.
[254] On the de Reuter's concessions: R. P. T. Davenport-Hines and Geoffrey Jones, *British Business In Asia Since 1860* (Cambridge: Cambridge University Press, 1989), pp. 35-38; P. Avery, William Bayne Fisher, G. R. G. Hambly, C. Melville, *The Cambridge History of Iran, Volume 7*, pp. 186-189.
[255] Roger Howard, *The Oil Hunters: Exploration and. Espionage in the Middle East* (London: Continuum Books. 224), p. 10.

became public in 1895 and further fuelled the interest in the possible establishment of an oil industry in Persia.

The 1901 meeting between D'Arcy and Kitabgi could seem the natural consequence of these developments. It was however only through a series of improbable personal connections that the two found themselves in the same room in 1901. One of de Morgan's relatives, Edouard Cotte, had also served as de Reuter's intermediary in Persia at the time when the latter was trying to secure a concession. While working for the British baron in Teheran, Cotte had the chance to familiarize with Kitabgi, who had taken part in the negotiation on behalf of his government. A few years later, when de Morgan completed his report about the oil situation in Persia, Cotte informed directly Kitabgi, by sending him a copy. The geological assessment removed all doubts for the Persian General, who got convinced about the commercial potential of the Persian oil. As soon as it became clear that the de Reuter's concession was destined to fail, Kitabgi, determined to not let the chance to sign a profitable deal for the country slip away, approached the ex-British Minister in Teheran, Sir Henry Drummond Wolff, asking him to find a new financier willing – and able – to invest in petroleum exploration. Kitabgi knew Wolff because the latter, too, had been involved in the discussion around the de Reuter's concession during his service in Teheran, between 1887 and 1890. The ex-British representative welcomed Kitabgi's requests with no hesitation. The prospect of having a subject of Her Majesty in control of a concession that would guarantee further influence and control over the kingdom was appealing in London, in the 1880s as in 1900.

About a month after having talked with Kitabgi, Wolff came across the person they were looking for during an informal gathering in London: D'Arcy, whose wealth and ingenuity seemed to make him the perfect candidate for such a high-risk venture. The preliminary meeting that took place in Paris in early January 1901 was actually only the first of the many that were necessary to introduce and explain the business opportunity to D'Arcy. It took weeks to convince him to undertake the project – and to fund it. At the beginning of spring, the action moved to Teheran. Indeed, persuading D'Arcy to accept was just the beginning. The real challenge was to cajole the Shah and all the other Persian dignitaries into granting a new mining concession to another foreign – British – capitalist amid Russian opposition. Kitabgi, Cotte, and Alfred L.

Marriot, D'Arcy's new representative, travelled to the Persian capital and spent the following two months bargaining with the Shah's ministers while trying to prevent Moscow's interference and ultimate veto. They eventually succeeded. A deciding factor was probably D'Arcy's idea to renounce since the very beginning any exploratory claim in the five northern provinces close to the Russian border – the only part of country that would have actually been excluded from the *sixty-years* concession despite its obvious value, in view of its proximity to the gigantic Baku fields[256]. The agreement between the Shah and D'Arcy, who would never actually set foot in Persia, was finalized at the end of May. It granted to the British entrepreneur the exclusive right not only to locate and exploit Persian petroleum, but also to build oil pipelines through the country and to the south coast. The latter provision was particularly resented in Moscow, as it effectively cut out the possibility to move quickly the Russian oil south and then, by sea, towards the new eastern markets. It would have both prevented the development the Russian petroleum exports *and* made it very difficult for the companies in Baku to compete directly with a future Persian industry.

D'Arcy had two years to form a company and comply with the terms of the concession, which included also an upfront, one-off payment to the Persian government and a royalty for the state corresponding to the sixteenth percent the oil business' annual profits. If it seemed hard enough to secure the exploration rights, to exercise them proved actually much harder. D'Arcy spent two years just trying to stabilize his financial position and define what would have been his role in the future enterprise. Before going further with what still seemed a highly speculative venture, he wanted to make sure to have enough resources and a clear legal backing. In fact, he struggled to raise the capital needed to cover the anticipated costs of starting the company and his associates opposed many of his deliberations – all while the geologist he hired, George Bernard Reynolds, had already begun spending his money to carry out initial, and very

[256] Ferrier, *The History of the British Petroleum Company*, p. 33. **For another good description of the oil-related developments in the Middle East during those years, Fiona M. Venn, *Oil Diplomacy in the Twentieth Century* (Palgrave Macmillan 1986), pp. 14-34.**

Probably the historian who most meticulously described the negotiations involving Great Britain, Germany, and Russia is Marian Kent. She specifically focused on British (oil) policy in the Middle East in the first part of the century in numerous works; see: *Oil and Empire: British Policy and Mesopotamian Oil 1900–1920* (Palgrave Macmillan, 1976); *Moguls and mandarins: oil, imperialism and the Middle East in British foreign policy, 1900-1940* (London: Frank Cass, 1993); *The great powers and the end of the Ottoman empire* (London: Cass, 1996).

expensive, prospecting work on the ground. The First Exploitation Company was finally registered with much effort in early 1903, just in time to respect the concession's deadline.

The creation of the Company did not alleviate D'Arcy's concerns. In fact, it worsened them. As the drilling operations officially started, the investment was supposed to repay itself through the selling of petroleum products. There was one problem though: oil was nowhere to be found in commercial quantities. The expenses that D'Arcy had to make in order to continue drilling, with no return, during the following two years brought him on the brink of bankruptcy. His attempts to enlist the help of private banks and financiers in London, as well as that of the British government itself, were no more successful than the work of his geologists in Persia. What eventually saved the whole project was the involvement of the Burmah Oil Company, a British firm registered in Scotland in 1886 and operating in Burma and India[257].

Burmah Oil had established a flourishing business in the Far East in the 1890s and had enjoyed a monopoly in the Burmese oil market until 1901, when the Standard Oil expanded its operations in the country. By the early twentieth century, the Company's growth and success attracted the interest of the British Admiralty, which was at the time considering the possible switch to fuel oil. The Royal Navy wanted to make sure to have a dependable source of supply available before moving forward with the process and contemplated signing a long-term contract with the company. Burmah Oil was the only sizable producer in the whole British Empire and the Admiralty was naturally inclined to turn to it. As a business investment, furthermore, the company deserved to be supported and possibly defended it from falling into foreign hands. Burmah's powerful competitors were becoming more and more threatening. Both the Standard Oil and the Royal Dutch were actively trying to erode the Company's privileged positioning in the large Indian market, thus risking destroying its early progress in the region. The collaboration with the Admiralty would have assured to the British firm an outlet for its products, thus easing the pressure of the competition. It would have also guaranteed a special consideration by the Indian government and

[257] Geoffrey Jones, *The State and the Emergence of the British Oil Industry* (London: Macmillan Press, 1981), p. 88. Jones offers a detailed and precise account of the initial developments within the British oil industry in Persia (pp. 128-159). For the story of the Burmah Oil, see for example: T. A. B. Corley, *A history of the Burmah Oil Company, 1886-1924* (London: Heinemann, 1984).

therefore help in keeping its privileges in the country's market, as London would then have had a clear interest in maintaining the company on a solid footing.

As advantageous as it could seem, such an agreement posed a serious problem to Burmah. Despite a seemingly endless growth in the first decade of operations, the company was now having difficulties in locating new reservoirs[258]. Without certainty about its own reserves, the Company could not guarantee the Royal Navy what the Admiralty wanted, i.e. that it would have been able to supply all the future oil needed by the fleet in peacetime and, above all, in the event of an emergency. This is why, when in 1904 the Admiralty suggested that Burmah invested the D'Arcy concession, the company seriously considered the opportunity and eventually agreed to it. It indeed seemed a winning situation for all the subjects involved. Burmah could hope to diversify its sources without going through the complicated process of obtaining a new concession outside Burma and instead simply taking up a business already in place. In fact, the decision was not without risks, given the situation in Persia. The Company however did not really have a choice, since it was clear that the Admiralty, with which the negotiations for the supply agreement were still ongoing, wanted to have the deal done. London had indeed everything to gain. Thanks to Burmah's assistance, the search for Persian petroleum would have remained a British-led endeavor, and, in case of success, it would have led to the creation of large reserves for the navy – all this without spending a single penny of government's money. As for the cash stripped D'Arcy, it is difficult to see how at that point he could have wished for a better solution to his financial problems. The partnership between Burmah and D'Arcy was officially established on May 5, 1905, almost four year later the original concession was assigned. The contract between the Admiralty and British Company followed soon after and was formally approved in November. Meanwhile, in October, Burmah had also negotiated a truce with both the Royal Dutch and the Standard Oil, in order to stop their cutthroat competition in India[259].

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[258] An analysis of the growth and evolution of the Burmah Oil Compay in the early 1900s from a business perspective, it is present in: Mark Casson (ed.), *The Growth of International Business* (London: George Allen & Unwin, 1983), pp. 221-225

[259] On the history of the Royal Dutch/Shell, see: F. C. Garretson, *History of the Royal Dutch* (Leiden, Brill, 1953)

The Concession Syndicate Limited – the new enterprise created under D'Arcy's name and with Burmah's money – immediately took over the operations in Persia. For the following three years, however, the results basically stayed the same: not a single well proved productive. By the spring of 1908, there was very little glimmer of hope – and money – left. Then, in late May, with the Syndicate on the verge of collapse and ready to abandon the whole project, oil was struck at around 1,200 feet (almost the same depth of Lucas' well in Spindletop) in Masjid-i-Sulaiman, in the Zagros Mountains in the southwest of the country. The strength of the oil flow soon removed any doubt about the importance of the discovery, which marked the beginning of the oil industry in the Middle East and remains still today one of the most important events in the country's history. The well, located in a barren land where temperatures could reach fifty degrees Celsius during the summer, saved the Syndicate. D'Arcy and Burmah's directors spent the following months working out the details of the new, re-capitalized company to be created for the exploitation of the field. In April 1909, the Anglo-Persian Oil Company (APOC) was finally established, about eight years after D'Arcy's decision to enter the oil business. The British businessman became APOC's director, but the appointment was more a matter of form than anything else. The man who really took charge of the new enterprise was Charles Greenway, a business associate of Burmah Oil who had helped the company to establish itself in India and fight off the attacks of its giant competitors there. Greenway became APOC's managing director few months after the formation of the Company and was able to safely navigate it through the troubled waters of the post-foundation period.

The discovery in 1908 did not automatically transform the D'Arcy concession in the glorious business that it eventually began. In order to be sold, the oil had to be first transported and refined – not an easy task at all given the complete lack of industrial infrastructure in the South of the country and the fact that between the oilfield and the Persian coast, from where the kerosene, gasoline, and fuel oil would have had to be shipped, there were about one hundred sixty miles of wasteland. The works for the construction of a pipeline, a telegraph line, and a refinery in Abadan began in 1909. To complete them, however, it took about four years, an immense logistical effort, with most of the equipment that had to be brought in directly from England, and an incredible amount of money, which left – once again – D'Arcy and the whole company

in debt. Worse, when the refinery began distilling the first batches of crude oil in 1912, it was quickly realized that the Persian petroleum was particularly heavy and difficult to process. The quality of kerosene and gasoline produced was poor, thus creating additional problems for the enterprise. APOC had not developed any distribution system so, in order to sell, he needed to find another oil company willing to market its products through its own commercial network. In this situation, the low value of Persian oil's lighter cuts could not but worsen the Company's position, leaving it without any negotiating power. Indeed, it forced it to accept the marketing arrangement – an unfavorable one – proposed by its main competitor: the Royal Dutch, which at that time had completed its fusion with the British transporting firm, Shell, and operated in the Far East through a subsidiary (the Asiatic Oil Company).

Commercially disadvantaged and in urgent need of capital, APOC would have struggled to resist a takeover bid. Under the increasing threat of having to sell the Company, Greenway thus turned again to the British government for help. This time, he saw in it not only a potential lender and a powerful protector, but also a possible client and investor. Given the type of oil at hand it would have been easy for APOC to produce large quantities of fuel oil. The problem, in that case, would have been to find a buyer for such a commodity, since it continued to be one of the least marketable, especially in countries (like Persia and India) where the diffusion of internal combustion engines was still extremely limited. Greenway knew that, but he was also quick to realize liquid fuel's potentials in the transportation and military industry and brave enough to bet on its success. He offered the Admiralty a long-term contract for the supply of fuel oil to the Royal Navy and the right to nominate up to two representatives on the Company's board of directors in exchange for an annual subsidy to support APOC's operations in the Middle East. The contacts between the Company and the British government continued during the following two years, growing into an intricate web of political, diplomatic, and financial interests that involved both the Foreign Office and the Admiralty. On the table, indeed, there was not only the survival of D'Arcy commercial enterprise but also the preservation of the British authority in the Middle East, the future character of the country's naval policy, and the fate of what seemed an equally valuable mining concession in Mesopotamia, in the part of the territory of the Ottoman Empire that was just on the other side of the border from where

APOC struck oil. On the latter issue, in particular, both the government and the APOC had very similar views: neither of them wanted to see foreign investors or companies getting ahead and cutting the British out of the country's political and economic opportunities.

The fear of a foreign-dominated oil industry was exactly what Greenway used to convince the British government to support the APOC. The Company was successfully presented, and thus effectively considered as the only legitimate representative of the British oil interests in the region. In fact, London had at least another option. It could have chosen differently and associated itself with a way more solid and endowed company: the Royal Dutch-Shell. The oil giant was the result of the union, in 1907, of two different enterprises: the Royal Dutch Petroleum Company, created in 1890 in the Netherlands by August Kessler, Hugo Loudon, and Henri Deterding (who quickly rose to take charge of the company) to operate in the Dutch East Indies, and the "Shell" Transport and Trading Company, founded officially in 1897 by Marcus Samuel Jr. and his brother Sam. The Shell was a fully British company. Their founders had taken over their father's old commercial activity, the import-export of antiques and actual shells based in London, and slowly transformed it into an oil shipping company[260]. In the early 1890s, they had inaugurated a new era in oil transportation by designing the first bulk tanker and sending it through the Suez Canal. The idea to move greater and greater quantities of oil by sea in a quicker and cheaper way through the use of large carriers, which they used to transport the oil from Baku to the Far East, was quickly adopted by both the Standard Oil and the Royal Dutch. In order to contrast the enormous resources of the American giant, which was rapidly catching up with the European companies' operations in the region, the Royal Dutch and the Shell decided to join forces at the beginning of the new century, first with the creation of a joint subsidiary company (the Asiatic) in 1902, then with the amalgamation of the parent companies in 1907. In the new Royal Dutch-Shell group, the two commercial establishments remained legally different but operated as a unique entity. The final arrangement established that the Dutch side would have controlled sixty percent of the new conglomerate while leaving the forty percent to the Samuel brothers.

[260] For the story of the company, see: J. Jonker, L. van Zanden, *A History of Royal Dutch Shell, Vol. I – From Challenger to Joint Industry Leader, 1890-1939* (Oxford University Press, Oxford, 2007)

The fact that the Dutchman Deterding retained the controlling interest in the Royal-Shell combine (and that the other part of the shares were in the hand of the Jew Samuel) was repeatedly – an unscrupulously – used by Greenway in his dealing with the government. He pointed to the company's previous attempts to dominate the market in the Far East and suppress the competition, Burmah and APOC included, as proof of its monopolizing attitude. Without the help of the British government, Greenway predicted, it was just a matter of time before the Royal Dutch-Shell would swallow the APOC and end up controlling all that was left of the world oil industry together with Standard Oil – a scenario that would have put Great Britain technically out of the "oil race" in the Middle East, reduced the country's participation in the oil business to the activities of the Burmah Oil in India, and left the Admiralty without an all-British fuel supplier large enough to meet its increasing needs. The mistrust and suspicion towards Germany did their part, too. The long-standing imperial ambitions of the Second Reich over the Ottoman Empire were not a secret and the Deutsche Bank had indeed been fighting to secure an oil concession in Mesopotamia against British interests since the early twentieth century. In 1912, the German investors had struck a deal with a group of British and French financiers, signing a joint partnership agreement that included also the Royal Dutch-Shell group. The operation was completed during a time of tense relations between London and Berlin, with the Kaiserliche Marine challenging the Royal Navy in an expensive and threatening naval arms race, and the participation of the Royal Dutch-Shell group confirmed not only that it had beaten the APOC as the only company realistically able to develop the oil concession, but also that its Dutch manager was willing and determined to go to great lengths to expand his company and dwarf the competition.

D'Arcy's decision to invest in Persia had been an incredibly risky gamble. Thanks to a combination of luck and resolve, however, it would have ended up being one of the most consequential move in history of the petroleum industry. In about a decade D'Arcy's private venture had indeed already turned into an enterprise of national stature, whose fate was interlinked with those of other, more important players in the petroleum business and whose growth was directly affected by the policies of Her Majesty's government. In the next couple of years, between 1912 and 1914, Greenway

succeeded in securing the official backing of the British Government against the competition of way more powerful opponents, making the partnership between the national authorities and the British company grown even deeper.

The managerial skills and ingenuity of APOC's director, although great, cannot account alone for such an improbable political and commercial victory. The story of how the Anglo-Persian Company became associated with the Royal Navy, which is reviewed and assessed in the next section, is indeed the story of how oil became a definite commercial and strategic interest in the minds of the British policymakers. In an atmosphere of heated antagonism among the European chancelleries, the focus on the next international dispute would have soon moved to the neighboring territories of the Ottoman Empire.

2. Mesopotamian Oil and International Competition

Between 1912 and 1914 the British Navy underwent important change, both in leadership and, consequently, in policy. The institution's internal developments made the Admiralty even more sensitive to the issue of liquid fuel and more concerned about its use and availability, thus providing fertile ground for Greenway's arguments about the commercial value of the APOC and the importance of preserving the British ownership of the Company as well as its independence. The appointment of Winston Churchill as First Lord of the Admiralty, in October 1911, marked the beginning of this new course, characterized by a renewed interest in petroleum and the acceleration in process of transition towards its use. Churchill, who was serving as Home Secretary before accepting the position as head of the Navy, wanted to offer a strong response to the German naval rearmament. He argued for an overall modernization of the Royal Navy, pushing for the design and construction of a new generation of battleships, armed with bigger guns, carrying a stronger armor, and able to reach greater speed[261]. This is where oil inevitably came into play. Its superior qualities as fuel made it the perfect, if not the forced, choice for anyone trying to make ships faster without having to sacrifice on their size or weight. The use of oil-fired boilers was indeed the only way to make even larger, heavier, and more powerful vessels – like those that the Admiralty had in mind – move faster than any of the competing class of battleships. The advantages of liquid fuel were so great that Churchill saw little reason not to speed up their adoption aboard Her Majesty's ships. It was actually not the first time that the Royal Navy was confronted with the issue of fuel oil, nor it was new for British battleships to burn oil. Like the U.S. Navy, the Royal Navy had begun experimenting the use of liquid fuel as early as in the mid-1860s and, like the U.S. Navy, soon had to abandon the idea of using it in naval transportation[262]. As realized by the American engineers, the practical

[261] On the development of the British Navy in the early twentieth century, see for example: David K Brown, *The Grand Fleet: Warship Design and Development 1906-1922* (Annapolis: Naval Institute Press, 1999); Daniel Owen Spence, *A History of the Royal Navy: Empire and Imperialism* (London: I.B.Tauris, 2016). Jon T. Sumida, *In Defence of Naval Supremacy; Finance, Technology and British Naval Policy 1889-1914*, (London: Unwin Hyman, 1993)

[262] More specifically on the transiton from coal to oil, see for example: Erik J. Dahl, Naval innovation: From coal to oil, *Joint Force Quarterly*, XXVII (January, 2001), pp. 50–6; Gibson, M., "Oil Fuel Will Absolutely Revolutionize Naval Strategy": The Royal Navy's Adoption of Oil before the First World War', in R. Mahoney, S. Mitchell, M. LoCicero, *A Military Transformed? Adaption and Innovation in the British Military, 1792-1945*, ed. (Solihull: Helion and Company, 2014), pp. 110-123. W.M. Brown, *The*

drawbacks of burning oil at sea were simply too great to overcome with the technology of the time. Besides, differently from the United States, Great Britain was not an oil producer – at all. Even if the Royal Navy had understood how to safely burn petroleum, it would have had first to locate it and then learn how to transport it home. Coal, on the other hand, was abundant and of great quality. The Royal Navy had also a large transportation network covering most of the world through a system of integrated naval bases, reserved ports, and private contractors that made the use of coal particularly effective, cheap, and secure. At the turn of the century, then, changes in the global structure of the oil industry and in naval technology brought the Admiralty to reconsider the use of liquid fuel. The first important discoveries outside Russia and North America made oil more readily available. Petroleum was finally found in commercial quantities in the British Empire (Burma), as well as in Sumatra and Borneo (where the Royal Dutch begun its operations). At the same time, Romania emerged as the mayor producer in Europe (Russia excluded). In fact, it was not just a matter of quantity or about the number of new sources. Oil had indeed become also easier to move across large distances, thanks to the newly designed bulk tankers introduced by Shell. Samuel, who had identified since the very beginning the British fleet as a potential outlet for its oil, repeatedly tried to talk the Admiralty into using oil as fuel in the last decade of the century. Meanwhile, the Russian, French, and Italian navies – all driven by different incentives – began assembling for their ships mixed fuel systems able burn oil as auxiliary propellant. In the first case, it was the abundance of heavy petroleum from Baku that convinced the Russian naval officials and engineers to experiment with new oil-burning devices. The traditional reliance on small but fast ships for the country's defense is instead what pushed the French Navy to opt for an early switch to oil aboard its torpedo boats. For the Italian Navy, by contrast, the (tentative) adoption of liquid fuel came out of necessity more than far-sightedness and vision. Italy lacked coal, so its navy had everything to gain in finding a cheaper and possibly more accessible alternative to its use. Despite the attempts, results were mixed. In France, the decision was soon reversed, as the use of oil was deemed impractical and, in general, none of

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Royal Navy's Fuel Supplies 1898-1939: the Transition from Coal to Oil (PhD Thesis, King's College, London, 2003). For a more specific discussion on the previous energy transition (from wind to coal) within the Royal Navy and its strategic impact, see for example: Steven Gray, *Black Diamonds: Coal, the Royal Navy, and British Imperial Coaling Stations, circa 1870−1914* (Pd.D. Thesis, University of Warwick, 2014).

those countries came close to design a fully functional system for burning petroleum as primary fuel. Yet, if Great Britain wanted to keep pace with the progresses made by the other naval powers, it could not afford to stand still, especially considering that Germany too had expressed interest in using oil as fuel. Motivated by the recent developments, the Royal Navy conducted its first trials with liquid fuel aboard the destroyer *Surly* in 1898-99 and continued them retrofitting a cruiser (*Bedford*) and two battleships (*Mars* and *Hannibal*) in the early 1900s[263]. Their boilers were first converted to burn oil *only*, then altered again to use petroleum together with coal. Further tests were done with a third battleship, the *Sultan*, equipped with a mixed fuel system, and another destroyer, the *Spiteful*, which was modified to consume exclusively petroleum. In the last months of 1904, the destroyer's performances at sea were compared to those of her coal-burning sister ship, the *Peterel*. The results unmistakably proved oil superiority over coal, especially in these smaller vessels. Equally important, the trials confirmed that oil-burning boilers needed less manpower to be operated, reducing the workforce necessary in the fire room and making more men available for other duties on board. These successful experiments, together with the important improvements in the design of oil-burning devices achieved by British naval engineers, convinced the Admiralty to plan the conversion of the fleet by the end of 1904. All the existing cruisers and battleships were gradually refitted to burn both oil and coal, while mixed fuel systems were to be installed in all future vessels. As for the destroyers, it was instead decided for a complete switch: they began to be designed to use oil as *primary and only* source of power. In the United States, at the same time, the results of Melville's report had just been published and the practical trials aboard the navy's vessels had not even started yet.

These changes took place under the watch of the Admiral Sir John Fisher, who became First Sea Lord in 1904 and was an enthusiastic supporter of the conversion to oil. He had been one of the first and most convinced advocates of the use of petroleum in naval propulsion, championing the switch to liquid fuel since the 1890s, and would have remained one of the most vocal and authoritative promoters of change even after he left his position as professional head of the Royal Navy in 1910. The "Oil Maniac", as Fisher's colleagues dubbed him, had indeed met both with the Shell's Chairman

[263] Brown, *The Grand Fleet*, p. xx; R. A Burt, British battleships, 1889-1904 (Barnsley: Seaforth Publishing, 2013), p. 159

Marcus Samuel and D'Arcy between 1899 and 1903, when he was rapidly climbing the Admiralty hierarchy ladder, interested in finding reliable sources of oil in anticipation of a possible transition in the Navy[264]. Fisher's worries about the availability of supply were not as premature as they may have seemed. The issue became an actual and crucial concern for the British naval establishment just a few years later, in the mid-1910s, after the main engineering problems had been solved and the Royal Navy decided to start converting its vessels. Indeed, despite Fisher's early interest and the Admiralty attempted planning, exemplified by the agreement with Burmah Oil in 1905, it was soon realized that an oil-burning fleet would have consumed a quantity of petroleum greater than the one that the British Navy had available in its depots or could have immediately procured in case of war. The disappointing news coming from Persia, where D'Arcy's geologists seemed unable to find any of the much-anticipated petroleum reservoirs, only emphasized the limits of the British oil resources, as well as those of the Royal Navy's supply strategy. The mounting budget constraints that the Admiralty faced in those years completed a bleak picture for all the oil buffs. In 1908-09, the British navy basically was forced to partially revert its policy, ordering to return to coal-fired boilers for the next class of destroyers. The sixteen ships of the *Beagle* (or *G*) *Class*, completed between 1910 and 1911, would go down in history as the last of their kind designed by the British engineers to burn coal[265].

The conversion of the fleet slowed down. The idea of a complete switch was however never abandoned. Its implementation was just postponed – until Churchill's arrival at the Admiralty. The then Home Secretary proved to be the perfect heir to Fisher in regard to oil, an issue about which the two had talked at length in the previous years. They found themselves largely in agreement. Many of Fisher's ideas – his fixation about speed and his steadfast belief in oil's superiority – were taken up by Churchill, who used his characteristic charisma and determination to move things forward. When the new First Lord of the Admiralty took office, the country's oil situation however had not really improved [four years peacetime – royal commission]. The Navy had tried to escape what seemed an inevitable oil shortage by stockpiling oil home and abroad, so to have enough fuel to operate the fleet for sufficient number of months in case of emergency. Yet the efforts to build up its storage capacity had largely

[264] Jones, *The State and the Emergence of the British Oil Industry*, p. 15
[265] Norman Friedman, *The British Battleship 1906-1946* (Seaforth Publishing, 2015), p. 58.

failed by 1911 because of the rising costs and the difficulties and delays in designing and constructing specific tanks for liquid fuel. Any plan to renew the fleet and transform it into a fast, powerful, oil-burning war machine continued therefore to be thwarted by the scarcity of supply – or, better, by the long-standing lack of a source of fuel oil that was considered strategically secure, cheap enough for the Admiralty's coffers, and sufficiently reliable in the long run. By the end of 1911, the Navy had already built or was building fifty-six destroyers and more than seventy submarines «*solely dependent on oil*»[266]. All its other ships (except the recently designed *G Class*) were equally able to burn petroleum, although only as auxiliary to coal. Struggling to secure the fuel for the smaller vessels already at sea, the Royal Navy did not seem to have any margin to turn also its biggest and most prestigious fighting items – the battleships – into oil-depended hulls.

The unpromising scenario did not deter Churchill from his purpose. Committed to find a solution that would have allowed him to go on with the introduction of all-oil battleships, in December 1911 he established a secret committee to find a solution to the problem of supply. In the following weeks, the committee held talks with oil experts and oil business leaders. Among them there were both Deterding and Greenway, who did not miss the chance to make his case and present the APOC as the only dependable and loyal fuel provider for the British navy, in contrast with the self-interested and foreign dominated Royal Dutch-Shell combine. In January, Captain Pakenham, Fourth Sea Lord and committee's chairman, confirmed in his final report that the Navy's existing oil depots were not sufficient and recommended to expand the total capacity as to amass *at least* twelve months of projected wartime usage worth of reserves. No comprehensive or definitive answer to the questions regarding the viability of a complete conversion was found, though. The situation of the Navy's oil supply was indeed deemed so precarious that the committee's findings must have appeared more as a rejection than a validation of Churchill's proposal for oil-only capital ships. Unwavering, Churchill doubled the stakes instead of backing down. In mid-1912, he pushed through the inclusion of his long-cherished "fast division" of five oil-only battleships in the naval budget. He then decided to set up a Royal Commission on Fuel and Engines to finish the job of the Pakenham's committee, asking no less than the

[266] Winston Churchill, *The world crisis* (London: Butterworth, 1923), p. 134.

"godfather of oil", the Admiral and friend John Fisher, to chair it[267]. To him, Churchill had personally asked to solve this «*liquid fuel problem*»; he urged Fisher «*to find the oil; to show how it can be stored cheaply: how it can be purchased regularly and cheaply in peace, and with absolute certainty in war*». Last but not least, the commission's chairman would have had to develop «*by all means…its application in the best possible way to existing and prospective ships…*»[268].

Fisher of course accepted. What Churchill needed was a clear and authoritative endorsement of his naval oil policy, able to clear the way for further government spending in liquid fuel and a closer, more active collaboration with private companies by the Admiralty – and what Churchill asked, the Commission delivered. The results of its fact-finding work were published at the end of the year. The report stressed the overwhelming advantages of liquid fuel and, while calling for the construction of new storage facilities, basically confirmed that there was enough petroleum in the world to justify and move forward with a complete switch. In fact, Fisher went as far as prescribing the adoption of diesel engines in naval transportation – one of his old oil-related obsessions, but also an impossible solution given the technological level of the time. The Committee had no executive powers and Churchill used only the parts of its work that he needed to cement his policy proposal. Among Fisher's final recommendations, which came in three reports published between the end of 1912 and the spring of 1913, there was the stipulation of long-term agreements with the oil companies, as to stabilize the supply, allow for a better naval planning, and insulate the government from the price fluctuations. In July, Churchill proposed the British cabinet to sign forward contracts with the oil majors, adding that, as general principles, the country should have aimed at: maintaining the access to multiple sources of supply; fighting off monopolization tendencies in the petroleum market, which would have inevitably brought back the Admiralty to a situation of dependency on a single company; relying as much as possible on British-controlled firms and territories as fuel supplier. Churchill's final purpose was to bring the Admiralty directly into the oil business, hoping that it would have been able one day to control its own supply without

[267] Kent, *Moguls and mandarins*, p. 42, Jones, State and Emergence, p. 168. **Timothy C. Winegard, as well as other, mentions Fisher's nickname: Timothy C. Winegard, *The first world oil war* (Toronto: University of Toronto Press, 2016), p. 44.**
[268] Churchill, *The world* Crisis, p. 137-8.

having to rely on external providers, basically making the Royal Navy produce and refine its own oil. In this respect, the correct and continuous development of the Anglo-Persian oil supply became therefore «*indispensable*», as Churchill himself explained at Whitehall[269]. Indeed, the negotiations with the APOC had meanwhile already begun. As with the Pakenham's commission, both Deterding and Greenway had the opportunity to present their proposals before the Royal Commission and try to convince the Admiralty to enter an agreement with their companies. Despite Fisher's relationship with (and strong admiration for) the Royal Dutch's director, Greenway's arguments about the "Britishness" of the Anglo-Persian eventually prevailed. By mid-1913 Churchill had probably already made up his mind about the company he wanted to affiliate with and the kind of agreement that he wanted to achieve, so much so that he decided to send John Cadman and the Vice-Admiral Edmond Slade to Persia to examine – in person – the concession and its value. The trip was intended to break the last resistance, still strong within the Navy, against the idea of the Admiralty mingling with a private business – and it worked. Cadman and Slade, who would have become two of the protagonists of the British oil policy in the following decade, advised upon their return to take «*all possible steps should be taken to maintain the Company as an independent British undertaking*»[270]. It was January 1914. In June, Churchill finally won the approval of the House of Commons, making full use of the nationalist rhetoric presenting the Anglo-Persian as an imperial achievement and vital resource, besides a to the international oil monopolies. The final approval arrived in august, a week after the entrance into WWI. The British government went on to acquire a controlling interest of fifty-one percent of the Anglo-Persian's stock in exchange of an injection of more than two million Pounds into the Company's pockets. According to the agreement, two seats on the company's board were also to be reserved to government representatives. Whitehall therefore became the de facto owner and manager of APOC, which in a separate understanding also agreed to provide fuel to the Admiralty for twenty years at a lowered price.

For Churchill, it was a personal, political, and military success. He later claimed that the «*aggregate profits*» of the investment, when fully realized, would have been so great as to claim «*that the mighty fleets laid down in 1912, 1913 and 1914, the greatest*

[269] Jones, *State and Emergence*, p. 169.
[270] Ibid, p. 170

ever built by any power in an equal period, were added to the British Navy without costing a single penny to the taxpayer»[271]. The British naval programs in the years immediately preceding the war were indeed unprecedented, as it was Churchill's decision to build a fast battleship division in 1912 – a move that marked the point of return for the Royal Navy, since then fully (and forcefully) committed to liquid fuel. The agreement with the Anglo-Persian however was not an inevitable and foregone conclusion nor a brilliant, calculated gambit proving the far-sightedness of the British Admiralty, as Churchill and the other supporters of the decision presented it. When the British government decided to became the majority shareholders, the Company was «*on the brink of bankruptcy; it was in no position to supply the Royal Navy in adequate quantity, it was entirely depended on one field in one country*», and its refined products were still below par[272]. To market them, since it lacked any downstream structure, it had to rely on other companies including (actually, primarily) the Royal Dutch-Shell. The APOC had actually problems also to transport them, since it did not even have its own tanker fleet, which would have taken years to complete. From a commercial and economic perspective, an agreement with the much more solid and resourceful Royal Dutch-Shell group would have made more sense. Choosing the APOC was a risky and not totally indispensable move that, after a great deal of time and effort, fortunately paid off. The real success was therefore for the Anglo-Persian, which avoid selling out its assets to its competitors and was allowed to survive and actually further develop under the protection of the British state. Greenway, thanks also to a series of coincidental circumstances and events, was able to entice the government into doing something it was normally inclined to reject – directly participate in a private business enterprise – by appealing to its imperial vanity and naval ambition. The reality of the oil industry was however different from the triumphalist rhetoric of the Admiralty. Churchill knew it well, too. The apparent rejection of the Royal Dutch, for example, was not really so. The Admiralty still needed its oil, as APOC's output levels were indeed too low to satisfy the navy's needs, especially with a war to wage. Despite the cries about the "Shell menace", Churchill never seriously antagonized Deterding. The Admiralty and the Royal Dutch-Shell continued instead to have a working relationship even as the

[271] Churchill, *The world* Crisis, p. 140
[272] Gregory P. Nowell, *Mercantile states and the world oil cartel, 1900-1939* (Ithaca, NY: Cornell University Press, 1994), p. 55.

former was presenting the latter as untrustworthy. The same did Greenway, who had repeatedly accused Samuel and the Dutchman to be unscrupulous monopolists: it was exactly in the spring of 1914, when the agreement between the Admiralty and the Anglo-Persian was already in sight but not finalized yet, that Greenway, Samuel, and Deterding became actual business partners in the exploitation of the other equally promising Middle Eastern concession, covering part of the immense territory of the Ottoman Empire.

The area at stake corresponded to the Ottoman provinces (vilayets) of Mosul and Baghdad, still today one of the most important (and sought after) oil region in the world. As in Persia, the presence of oil deposits in the area was already well known. The "Eternal Fires" of Kirkuk – located halfway between the Iraqi capital and the northern province of Mosul – had been burning since the dawn of time, or at least since the fifth century BC, when Babylonian King Nebuchadnezzar threw three Jews in them, as chronicled in the Book of David in the Old Testament[273]. The late nineteenth century Sultan Abdul Hamid had a different and less gruesome idea about how to make use of the oil seepages in Mesopotamia. In 1888, sensing the commercial value of the reservoirs, he acquired by decree all the oil rights and placed them in his Privy Purse – the Sultan's private treasury. In the same year, the Ottoman government granted to the Deutsche Bank the concession for the construction of the railway from Constantinople to Konya. In was not unusual for European investors to finance large construction projects in the Middle East. In fact, it was the norm among the main European powers, bankers, and capitalists to compete to obtain the authorizations from the local governments and take up the burden (and the costs) of the work, as every new mile of railroad, telegraph line, electrical grid, like every new seaport, street, and bridge, brought larger outlet for their products, more clients for their services, and easier access to the country's natural resources. In 1888, almost eighty percent of the foreign total investments in the Ottoman Empire had «*the commercial purpose of obtaining raw*

[273] Mirella Galletti, Kirkuk: The Pivot of Balance in Iraq Past and Present, *Journal of Assyrian Academic Studies*, Vol. 19, no. 2 (2005), pp. 21-52. In 1945, Life Magazine published a special report on those areas and the international competition for their control. The article also talked about their geology and their legendary "fiery furnace" of Kirkuk: *Middle East Oil, Trouble Erupts as great Powers Jockey for the Power that Petroleum Provides*, Life Magazines, Vol. 18, No. 234, 11 June 1945, pp. 25-37 (31). The expression is used also in a very recent business report about the region: The Oil & Gas Year, Kurdistan Region of Iraq 2009 (2009), p. 18

materials and selling industrial products»[274]. The Deutsche Bank completed the Anatolian railway in the 1896. In the Sultan's mind, it was supposed to be only the first stretch of a much longer, and more ambitious, train line connecting Constantinople with Baghdad. When presented with the idea, however, the German group was not enthusiasts. The project was too costly and basically not worth the trouble. The situation changed dramatically few years later, when a further look into the region's topography undeniably confirmed the presence of oil. Calouste Gulbenkian, a young Armenian oil-enthusiast, was among the firsts to produce a complete report about the Mesopotamian oil prospects. Calouste's father, Sarkis, was an oilman himself[275]. He became rich importing kerosene from Baku and even richer when he took the position of tax collector for the Sultan's private treasury. His superior, the minister of the Privy Purse Hagop Pasha, was the man who had asked the twenty-years old Calouste to survey the area in the early 1890s. Gulbenkian did not really do it. He simply put together the existing information about the region (travel books, previous geological expeditions, and the stories of the people working on the Anatolian Railway who had been in those territories). He had earned a degree as civil engineer in London in the early 1880s, but he never acted as one. He became an expert in the oil geography of Iraq, a subject he got to know probably better than any of the European geologists that visited the region in those years, but he was never a "field man" and never spent a single day drilling for oil. Yet he became one of the most influential oilmen and industrialist of the early twentieth century, whose name was inextricably associated with the birth of the Iraqi oil industry – a feat he achieved without ever setting foot in the country.

In 1901, a first technical study confirmed that the Mosul's area was «*a veritable lake of petroleum*»[276]. Meanwhile, D'Arcy had launched his business venture in Persia, looking for oil just east of the southern part of the Mesopotamian region. Two years before, in 1899, the Deutsche Bank had finally agreed to build the southern part of the railroad. It is difficult to say who was the real winner in the deal. The Sultan, who

[274] V. Necla Geyikdagi, *Foreign Investment in the Ottoman Empire: International Trade and Relations, 1854–1914* (London and New York: I. B Tauris), p. 75

[275] On Gulbenkian's life, see for example: Ralph Hewins, *Mr. Five Per Cent*: the Biography of Calouste Gulbenkian (London: Hutchinson, 1957). Life Magazine referred to him as one of the richest men in the world in 1950, publishing a multi-page story on his «*mysterious*» life. «*Mystery Billionaire - Calouste Sarkis Gulbenkian, Fabulous Dealer in oil, art and Intrigue has Devoted a Lifetime to Remaining Unknown*», LIFE Magazine, 27 Nov. 1950, Vol. 29, No. 22, p. 80.

[276] Edward Mead Earle, *Turkey, the Great Powers, and the Bagdad Railway: A Study in Imperialism* (New York: Macmillan, 1923), p. 15.

strongly wanted the rail track to be built, specifically wanted the Germans in charge of the works. He had received several other proposals from other European investors (both Russian and British), but had rejected all of them. Kaiser Wilhelm II, who had personally paid a visit to Abdul Hamid the year before, and its subjects were the only foreigners he trusted – or, better: those who he distrusted the less. The German influence on the Ottoman Empire was indeed at its height at the end of the century. As the neighboring Shah, the Ottoman Sultan, too, feared that letting British enter the county to take over the project would have inevitably meant an expansion of London's unduly and unwanted influence over the Empire. Building the railroad was a sensitive enterprise. Besides offering new market opportunities, it carried serious military and strategic implications that made its importance even clearer well beyond its immediate commercial value. At the time, the train represented the fastest and most important means to move troops across large territories. Laying rails further south, to Baghdad and possibly to Basra, on the Persian Gulf, meant giving the possibility – to whoever country controlling it – to quickly deploy its army relatively close to the southwestern Russian border and project its armed forces into the Indian Ocean, therefore towards the jewel of the English imperial Crown: India. This is way the Kaiser Wilhelm II, who had personally paid a visit to Abdul Hamid in 1898, got also interested a project. The exciting prospect to connect Berlin to Baghdad by train became at that point more than just a fantasy. An integrated railway network going from central Europe, where trains were becoming more common and popular, down the Euphrates valley could have given Germany access to the Persian Gulf provided it with a direct route to its farthest colonies in central and south Africa, while keeping in check the British and Russian expansion in the region. Needless to say, both Russia and Great Britain strongly opposed the idea of Germany working on the railway. Moscow announced that any attempt to get too close to its borders and to Northern Persia, an area that it considered firmly under its influence, would have not been tolerated, warning of possible «*military consequences*»[277]. London, meanwhile, made sure that the rails would never actually reach the Persian shores. The Foreign Office struck an agreement with the Sheikh of Kuwait, who promised not to cede to any foreign government the use of its coastal

[277] Sean McMeekin, *The Berlin-Baghdad Express: The Ottoman Empire and Germany's Bid for World Power* (Cambridge, Mass: Belknap Press of Harvard University Press, 2010) p. 36

territory in exchange for the British military protection[278]. It was 1899. A few of years later, in 1903, reiterating a concept already expressed in private by Lord Curzon at the turn of the century, the British foreign secretary Lord Lansdowne would have announced what the American newspapers called «*a British Monroe doctrine in the Persian gulf*»[279]. «*I say without hesitation*», he stated before the House of Lords, «*that we should regarded the establishment of a naval base or a fortified port in the Persian Gulf as a very grave menace to British interests, and should certainly resist it by all means at our disposal*»[280]. The Foreign Office actually feared Moscow's intrusion more than Berlin's, but the message was clear for everyone: no external power would have been allowed to extend its interest in the Gulf zone.

Between the Ottoman Sultan Abdul Hamid and Freiherr Marschall von Bieberstei, the German ambassador at Constantinople, it was probably Georg von Siemens, the managing director of the Deutsche Bank, the person less enthusiast about the railway concession he had just been awarded. The project was extremely costly and presented all the characteristics of an engineering and logistic nightmare. Furthermore, the prospect of economic returns from the actual use of the railway by local passengers was very slim, since it would have crossed large unpopulated areas. The estimated expenses for the construction works were so high, accounting to at least five hundred million francs, that the Deutsche Bank had to look for additional investors willing and able to finance the venture. The search for fresh capitals and the war of attrition between the European chancelleries – always trying to keep in check each other's plans and moves on the ground – stalled the project until March 1903, when the Baghdad Railway Company (BRC) was finally created and the construction works began[281]. Along with a

[278] For details of the agreement between Great Britain and Kuwait at the turn of the century, see for example: Hassan Ali Al-Ebraheem, *Kuwait and the Gulf: Small States and the International System*, (Routledge Library Editions: Society of the Middle Easy, 2016 ed.), pp. 98-99. See also: Geoffrey Simons, *Saudi Arabia: The Shape of a Client Feudalism* (London: Macmillan, 1998), p. 168.

[279] «Britain Issues a Warning as to the Persian Gulf; Proclaims a Monroe Doctrine There - Will Fight Any Power Trying to Establish a Naval Base», *The New York Times*, May 7th, 1903; «In The Persian Gulf, British Monroe Doctrine Proclaimed», *Los Angeles Herald*, May 7th, 1903.

[280] Official transcript in the *Precis of Correspondence on International Rivalry and British Policy in the Persian Gulf, 1872–1905*, Chapter 4, part III: Important Pronouncement and Declaration of Policy by the Marquess of Lansdowne, 1902–03 (published by the Government of India Foreign Department, 1906), pp. 47. See also, Vanessa Martin, *Anglo-Iranian Relations since 1800* (London, New York: Routledge, 2005), pp. 155-156.

[281] An international financial conglomerate comprised of German, French, Austrian, Swiss, Italian, and Ottoman banks eventually came together to sponsor the Company. The German group remained the most important in terms of votes and therefore maintained a «*considerable influence on the board's decisions*».

tax exemption, the Company had received mining and exploration rights within twenty kilometers strip of land on either side of the planned track route. In 1904, then, a formal authorization was granted to the German group to survey the provinces of Mosul and Baghdad for oil.

The first 120-miles section of the railway, from Konya to the small town of Bulgurlu in the eastern part of the country was completed in a little more than a year. The enthusiasm for the early success, however, did not last long. The construction works stopped there. Back in 1899, the Sultan had given the Railway Company eight years to complete all the 1,400 miles of the line to Baghdad and had set even stricter terms for completing the preliminary exploration for oil. When the German group planned to resume the works, in 1908, the concession had expired. Not a single mile of track out of Bulgurlu had been laid, or a single well been sunk. The period of prolonged inactivity puzzled several later observers, who had difficulties accounting for the delay. The political theorist Timothy Mitchell, who has recently presented one of the freshest accounts of the political and economical implications of the global switch from coal to oil, pointed to other scholars' selective blindness to explain what happened in the Middle East at the beginning of the century. The period of inactivity had been difficult to explain, Mitchell argues, because everyone normally assumed that the Deutsche Bank cared about the project and wanted to move forward with it. In fact, he states, the German group was not really interested in the railway, or in the extraction of Mesopotamian oil. As noted by T. Mitchell, its goal, like the one of the other large firms of the time, «*was not to develop important new sources of oil, but to delay their development*», as to avoid oversupply and increase the products' prices[282]. Once the usual interpretative approach is reversed, the construction suspension can finally appear for what it really was, according to Mitchell: a perfectly logical and intentional dilatory move by the Germans. The Deutsche Bank's tactic in Mesopotamia is actually

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Jonathan S. McMurray, *Distant Ties: Germany, the Ottoman Empire, and the Construction of the Baghdad Railway* (Westport, Conn.: Praeger, 2001), pp. 52-53. Murat Özyüksel, *The Berlin-Baghdad Railway and the Ottoman Empire: Industrialization, Imperial Germany and the Middle East* (London: I.B.Tauris, 2016)

For a more technical analysis on the economic exchanges between Europe and the Ottoman Empire, see: Sevket Pamuk, *The Ottoman Empire and European Capitalism, 1820-1913 Trade, Investment and Production* (Cambridge University Press, 1987); Necla Geyikdagi, *Foreign Investment in the Ottoman Empire: International Trade and Relations 1854-1914* (London: I.B.Tauris, 2011). W. O. Henderson, *Studies in German Colonial History* (London: Frank Cass, 2006 ed.), pp. 74-86.

[282] Timothy Mitchell, *Carbon Democracy: Political Power in the Age of Oil* (London and New York: Verso, 2012), p. 54

presented as just one part of a grander and grandiose scheme put in place by oil companies to restrict the production on a more global scale. European firms worked to acquire Middle Eastern concessions simply to prevent their competitors from doing it, so to deny them the possibility to extract oil that everybody in the industry much preferred to keep buried underground. In particular, a more immediate aim was to maintain the giant fields of Baku as isolated as possible by precluding access to the Persian Gulf to Russia and physically blocking its oil from reaching larger markets. The British presence and activities in Persia were supposed to confirm this alternative reading. Burmah's decision to invest in the D'Arcy venture, from this perspective, became simply a «*speculative investment…to keep the concession afloat as a means to prevent others from producing oil in the Middle East, or pumping it there from Caucasus, which would only add to [the company's] problems in India*»[283].

The long series of formal and informal market agreements punctuating the story of the industry's development definitely confirms that the oil business was, since its very beginning, characterized by collusion, speculation, and monopolistic tendencies more than free and fair competition. Yet it is difficult to see how this interpretation can be applied so strictly to the events in Persia and (even more so) in Mesopotamia at the time. The events surrounding Burmah's involvement in Persia do not really tell a tale of astute and farsighted management as one dominated by pessimism and self-preserving instincts. Burmah Oil's management turned increasingly cautious and conservative by the mid-1910s, unable to diversify despite growing concerns about the drying up of the company's own reserves. Investing in Persia may have seemed a good opportunity to prevent others from extracting Middle Eastern oil, but it was not what the company had planned or was planning to do. Indeed, the choice to save D'Arcy was not even a spontaneous one. The decision, in 1905, came after the Admiralty, with whom Burmah had just signed a supply contract, had specifically asked the company to act – a request from which it could not really shy away. Once in the country, instead of simply running out the clock and frustrate its competitors, the Burmah became deeply involved in the project. By the time the Anglo-Persian was officially registered in 1909, it would had invested in Persia nearly £400,000[284]. The sum was almost twice the money (£200,000) that the Company spent in double the time (until 1911) looking for oil in Burma

[283] Mitchell, *Carbon Democracy,* p. 53
[284] Casson (ed.), *The Growth of International Business*, p. 222.

itself[285]. Squeezed by competition in its home turf in the first part of the decade, Burmah was holding on to London's imperial protection and a market agreement forced upon by its main commercial rival (the Royal Dutch) to survive, with no certainty of going much further, let alone growing, given the company unfavorable long-term prospects. In this delicate context, the efforts that went into developing the D'Arcy concession, and the interest it arose during the years, do not really seem to fit into a narrative that sees the Persian venture simply as a tactical, painless speculative stunt. Furthermore, the possibility of Russia having direct access to the Gulf had basically been shut down by London and its imperial-minded representatives in India themselves since the beginning of century.

In Europe, meanwhile, the Deutsche Bank agreed to divide up the European markets with the Standard Oil. The compromise left eighty percent of the pie to the American giant and twenty percent to the newly created European Petroleum Union, a company that included British (Shell), Russian (Nobel), French (Rothschild), and German (Deutsche Bank's subsidiary in Romania, Steaua Romana) interests[286]. The arrangement represented indeed a clear attempt to cartelize the industry in Europe. The Deutsche Bank did want an orderly and stable market, with fixed prices, protected by sudden increases in supply – whether they were coming them from Russia or elsewhere. The agreement, however, was found only in 1907, *after* the German group had stopped its works in the Ottoman Empire and, above all, after it had fought and lost an all-out price war with the Standard Oil on the European soil. Therefore the Deutsche Bank, together with the other European firms, was basically forced to settle for just a quarter of the continental market by the overwhelming power of Rockefeller's company, since it could not bear the (low) costs imposed by the Americans[287]. If anything, instead of being a burdening or destabilizing asset, a supplemental source of cheap oil, as Mesopotamia would have proved to be, could have come in handy in the mid-1910s. This appears even truer if one considers that the greatly feared Baku production

[285] Jones, *The State and the Emergence of the British Oil Industry*, p. 104.
[286] Mercantile, p. 59.
[287] Rondo Cameron, V. I. Bovykin (ed.), *International Banking, 1870-1914* (New York: Oxford University Press, 1992), pp. 459-462
Fursenko, A. A., and Gregory L. Freeze. *The battle for oil: the economics and politics of international corporate conflict over petroleum, 1860-1930* (Greenwich, Conn: JAI Press, 1990)

dramatically dropped at the beginning of the century because of the ethnic conflicts and discriminations in the area involving the oil workers. The quantity of oil extracted declined between 1901 and 1904 and then collapsed in 1905, when generalized violence erupted in the region. The thirty million-barrels difference between the 1901 and the 1905 Russian output was far greater than the annual production of Romania, Galicia, India, and Dutch East Indies put together. The only fields that in those years could make up for the losses and keep up the global production levels, which slightly diminished in any case in 1905-1906, were the ones in Texas and California. If there was a time when it seemed possible to gain market shares in Europe and elsewhere – or, at least, when it would have been worth and important to do so, in order to stop the flood of American oil –, that was the time.

What stopped the construction work for the Baghdad Railway at Bulgurlu was actually the lack of money. In 1903 the Ottoman government had agreed to pay the German company every year a fixed sum of money for each mile of railway completed. This compensation was to act as kilometric guarantee for the Deutsche Bank in building unprofitable tracts of the railroad. The clause was uneconomical for the Ottoman administration, but the Sultan was willing to diminish the financial risks of the German investments by paying back the Company just to see the railroad built. The problem arose when the financial situation of "Sick man of Europe" aggravated and the payment became an actual burden for the Ottoman state, raising serious doubts about its ability to honor its obligations. The revenues from the train service on the tracts already built, meanwhile, were lower than expected. Without governmental guarantees and knowing that the sections ahead would have been the most expensive and the more difficult to build, and probably the least commercially profitable to operate, the Germans stopped the works, patiently waiting for more positive developments. As for the oil exploration rights, although extremely valuable, they were still only additional benefit for a multinational conglomerate originally established two decades earlier to build a railroad. In mid-1910s, it is difficult to see how a company that was not even able to muster enough resources to lay rails on the ground should or could have bore the costs of setting up an oil industry in an impervious region of a desolated and far away country.

The unwillingness to embark in further oil drilling and exploration, and to massively invest in it, could therefore be ascribed to a lack of foresight, not to an excess of it, by the Germans, who did not anticipated the tremendous economic changes that the development of the regional oil resources would have brought about. In this regard, it is worth remembering that looking for oil in the Middle East was still considered an extremely risky and difficult venture, a business gamble that few were willing to take. After all, the British had been trying, in vain, to locate a commercial well just on the other side of the borders for years – a period of time in which D'Arcy had repeatedly failed to find investors to help him in Persia, let alone buyers to whom resell his concession rights. Not even the intervention of a "real" oil company, Burmah Oil, in 1905 seemed to have been enough to improve the situation.

If the German's strategy was to wait for a more propitious time to continue the railway and develop the oil concession, it did not pay off – at all. In 1908, after the Sultan had raised the custom duties to pad the state's coffers, the Deutsche Bank worked to resume the railroad construction by signing a new agreement with the Ottoman state. In was the beginning of June[288]. A month later, the revolution of the Young Turks erupted. The large reform movement shook the foundation of the Sultan's power and questioned the Ottoman Empire's political and financial affiliation with the Wilhelmine Germany. Both the contract for the realization of the Baghdad railway and the concession for coveted oil rights for the two Mesopotamian provinces were now back on the table and open to discussion. They would soon become bargaining chips for the new leadership in dealing with the European states and, in fact, important pieces in the game of international power-politics being played at the time.

In the following years, the tumultuous political situation in the country brought the Ottoman state to often change and realign its sympathies towards the European powers. With Abdul Hamid cornered by reformers, Germany's fortunes declined after the revolution. London's influence, on the contrary, grew – although only temporarily – as the Young Turks gained power in the country and forced the restoration of the 1876 constitution. From 1907, Germany had become also more isolated at the international level as a result of the signing of Anglo-Russian convention, with which London and Moscow agreed to settle their rivalry in the Middle East and Central Asia. Both

[288] McMurray, *Distant Ties*, p. 62

countries, together with France, presented now a united diplomatic front against Germany, in Europe as in the Middle East. The recent and moderate Anglophilia in Constantinople would have been redressed relatively soon, as the country swung away from Great Britain. The territorial disputes arose in the Balkans following the conflict in the early 1910s, the continuous Russian menace at the border, as well as the British aims in the Gulf, which mined the Empire's territorial unity, would have eventually encouraged Constantinople to turn back to Germany and the central powers, with which the Ottoman Empire would have ultimately – and fatally – sided during the war.

Meanwhile, however, Germany had to defend its political and commercial investments in the region against the encroachment of the other European countries, first of all Great Britain. After 1908, and even more after the ousting of the Sultan in 1909, the Deutsche Bank was put on the defensive and struggled to maintain a hold on the concessions that Abdul Hamid had assigned it[289]. To complicate the matter further, the news of Burmah's oil discovery in Persia arrived. The perfect timing of the British breakthrough, dated May 1908, caused the stakes on the Mesopotamian concession to skyrocket. The Ottoman government understood the situation immediately. Few months later, in September, it decided to take away the oil rights of the provinces of Mosul and Baghdad from the Sultan's Civil List and put them under the authority of the Ministry of Finance. The decision was confirmed by decree in May 1909 – a move that officially voided all the previous agreements and restarted the race for the Mesopotamian oil, now open to all sorts of contestants. International financers and oilmen did not really play hard to catch. Both the British and the Royal Dutch-Shell had already approached the Ottoman government in the previous months. In fact, D'Arcy had tried to petition for a concession as early as 1904, in the attempt to revive his dying bid for Middle Easter oil and find in Mesopotamia what he could not find in Persia. Four years later, after oil started flushing out of the ground in Masjid-i-Sulaiman, his reasons for trying to acquire the Ottoman fields were even more valid. Although he was not the only British financier interested in the concession, he would remain the only one to receive direct support by

[289] There are several accounts on the intra-European competition in the Ottoman Empire. For a focus on the role petroleum in defining them, see for example: George E. Gruen, The Oil Resources of Iraq: Their Role in the Policies of the Great Powers, in Reeva Spector Simon, Eleanor H. Tejirian, *The Creation of Iraq, 1914-1921* (New York: Columbia University Press, 2012); David E. McNabb, *Oil and the Creation of Iraq: Policy Failures and the 1914-1918 War in Mesopotamia* (Routledge, 2016)

the Foreign Office. When, for example, Shell's director Samuel turned to Her Majesty government for assistance, he was (once again) rebuffed in reason of his partnership with non-British interests.

Whitehall's refusal to collaborate with Samuel and its foreign associates did not really prevent the Royal Dutch-Shell to reach what it wanted. It turned out that, indeed, London's help was not needed negotiating with the Sublime Porte when you could count on the services of Calouste Gulbenkian. In 1907, the Royal Dutch-Shell had opened an office in Constantinople with the help of the Arminian «*oil factotum*», who in the occasion was also appointed as company's representative in the country[290]. Gulbenkian had become a British national in 1902 and had connections extending well beyond the borders of the Ottoman Empire. In 1908, he and his uncle, Boghos Nubar Pasha, took up the work of setting up the National Bank of Turkey (NBT). The institute, which was created to satisfy the nationalistic and liberal aspiration of the new government, would grow up to be a key connecting link between British and German interests in the country. Through the bank, and the men behind it, London and Berlin sealed a diplomatic truce and a new, mutually beneficial commercial partnership in the Ottoman Empire.

After months of negotiations, the NBT was officially established in mid-1909. Henry Babington-Smith, the former the British representative on the Ottoman Public Debt Administration, was its president, as advised by the Foreign Office. Sir Ernest Cassel, a Prussian-born banker and financier, acquainted with King Edward VII and Churchill and equally well connected to the German political and financial circles, was one of the directors. Gulbenkian, who directed the operation since the beginning, reserved for himself thirty percent of the bank's shares. The events that followed exemplify perfectly the intricate networks and combination of financial, commercial, and diplomatic interests surrounding oil, in the early twentieth century as today.

For the Young Turks, the bank was supposed to be a sign of discontinuity with the past and had to serve as a way to balance out the foreign, and primarily German, influence of the previous years. For the British government, it could be used as an instrument of imperial policy, as a means through which channel British capitals into

[290] Nowell, *Mercantile States*, p. 66.

the Ottoman Empire and expand the British control in its territories[291]. For Gulbenkian, the NBT was first of all an opportunity of self-aggrandizement, a unique chance to get more of what he knew best: oil. Loyal to the saying that suggests joining those who you cannot defeat, Gulbenkian' next move was to incorporate the German interests, the original holders of the oil rights in Mesopotamia, into a new company with limited liability registered in Great Britain: the African and Eastern Concessions. The new business entity thus included the National Bank of Turkey *and* the Deutsche Bank. Along with them, Gulbenkian brought on board the Asiatic Petroleum Company. This was, of course, not a random choice. The Asiatic was the subsidiary of the Royal Dutch created before the amalgamation with Shell, in 1902, through collaboration between Samuel himself and the Rothschild bank. Such an arrangement thus combined together, in a single business venture, the second biggest oil company on earth (the Royal Dutch-Shell); the most important French financier (the Rothschild family), who had ties in the Russian oil industry and had also recently bought a quota in Deterding's enterprise; British capitals, through the National Bank of Turkey, an institute that the Foreign Office overtly supported, and the only European company that had actually worked in the area: the German bank, who had agreed to transfer what was left of its oil rights from the Anatolia and Baghdad railways company to the new combine. This seemingly unbeatable multinational conglomerate officially assumed the new name of Turkish Petroleum Company (TPC) in early 1912. Gulbenkian, whose ego was as big as his talent, had stated in his memoires that in these negotiations – and in all those that would have followed until the late 1920s – he was the real deus-ex-machina. In fact, there were other men connecting all these interests and who acted as power brokers. One of them was, for example, Frederick Lane, oil businessmen, long-standing business associate of Samuel, board member of the Royal Dutch-Shell, and Rothschild's representative, who had also been involved with the Armenian in the creation of the Turkish National

[291] There are different interpretations on the nature and role of the NBT. It seems clear that, despite being financed by British capital, the bank never actually functioned as a mere imperial tool. It did have a role the attempted penetration of the Ottoman Empire by the London, but its operations have to be considered in a much ampler context of European alliances and rivalries. The Young Turks, for example, took advantage themselves of the institution to attract European investments in the country. For a discussion on the NBT, see: Marian Kent, 'Agent of Empire? The National Bank of Turkey and British Foreign Policy', *Historical Journal*, Vol.17, no. 2 (1975), pp.367 89; Keith Hamilton, 'Diplomatists, Not Men of Business: the Constantinople Quays Company in Edwardian Economic Diplomacy', *Diplomacy and Statecraft*, Vol.25 (2014); John Burman, 'Politics and Profit: the National Bank of Turkey Revisited', *Orients*, Vol.37, no. 1 (2009), pp.225 36; Jonathan Conlin (2016) Debt, diplomacy and dreadnoughts: the National Bank of Turkey, 1909–1919, *Middle Eastern Studies*, 52:3 (2016), 525-545

Bank[292]. Another one was Cassel himself, who also became director of the TPC. According to the final agreement, the Turkish National Bank would have controlled fifty percent of its shares, with the Deutsche Bank and Royal Dutch-Shell both splitting up equally the remaining half[293].

The only one who could reasonably be unhappy about the creation of the TPC was the Anglo-Persian director, Greenway. His company had been completely (and purposely) left out of the arrangement by its competitors, who were outmaneuvering him in the Middle East. If successful, the Mesopotamian venture would have posed a formidable challenge to Burmah and D'Arcy interests. In the Far Eastern market, which was supposed to be APOC's preferred outlet, the Royal-Dutch was already squeezing its British competitors, having forced them to compromise and sign a marketing agreement. The Turkish syndicate now threatened to block APOC out altogether. It had deep pockets and resources that were, at least on paper, much greater than those that Burmah and D'Arcy could ever put together. Last but not least, it could rely on the solid and large distribution network of its parent companies to sell its products in Europe and elsewhere.

As precarious as its position was in 1912, the British company was neither alone nor lost. The 'special relationship' that Burmah had built with the Admiralty and that APOC was trying to replicate was a powerful asset, an important connection with the imperial power to be used as a leverage to obtain from higher authority what business competition had put out of reach. Between 1912 and 1914, Greenway indeed negotiated with London not only a long-term fuel supply contract for the Royal Navy, but also APOC's access to the Mesopotamian oil in the form of participation in the TPC. The two things were obviously connected, for both the Company and the British government. As the possibility to partner up with APOC was being evaluated, the Admiralty took a natural interest in the company's financial and industrial landscape. In this respect, securing a solid footing for the future meant avoiding the murderous competition within the oil business promised by foreign investors' moves in the Middle

[292] Nowell, *Mercantile States*, p. 97.
[293] The International Petroleum Cartel, Staff Report to the Federal Trade Commission, released through Subcommittee on Monopoly of Select Committee on Small Business, U.S. Senate, 83d Cong., 2nd session (Washington, DC, 1952), Chapter 4, "Joint Control Through Common Ownership--The Iraq Petroleum Co., Ltd.," pp. 48-49

East. The reasons that were pushing the Admiralty to sign an agreement with the Anglo-Persian were indeed the same that eventually induced it to help the company in gaining admission to the TPC. The Turkish combine could be interpreted as a perfect example of the monopolist attitude that Greenway ascribed to Deterding and that upset London, whose worries about the prospects of an oil industry dominated by a handful of corporations, none of them British, became an important determinants of the final decision. Besides, APOC's entrance in the TPC would have allowed London to further establish its presence in the Persian Gulf, put a check on foreign encroachment, and ultimately enjoy greater control and authority in an area that the Foreign Office considered – and wanted to maintain for the foreseeable future – of exclusive British influence.

The British government therefore saved APOC twice: first by guaranteeing the company a secure outlet for its heavy oils, then by helping it not to be cut off from the development of the Ottoman oil fields. In fact, the two objectives were achieved practically at the same time. In mid-February 1914, the British cabinet informally consented to the Admiralty's signing of the agreement with the Anglo-Persian. On March 12, a committee was appointed to draft the official contract. A week later, on March 19, the representatives of the various parties involved in the creation TPC (the British and the German governments, the National Bank of Turkey, the Deutsche Bank, and the Royal Dutch) sat together at the British Foreign Office with the directors of the Anglo-Persian to reach a compromise on Mesopotamian oil. In fact, the meeting was only one of the final steps of a long negotiation process that saw the two imperial governments in London and Berlin as major actors. The discussion about the future composition of the TPC was slow and actually quite complex, but despite the initial advantage that Germany and the other non-English members of the Turkish syndicate enjoyed on the field, there was little that they could do to resist British pressures once Great Britain decided to throw its diplomatic weight on the issue. The German government, seeking to reconcile its interests with those of the British and establish a modus vivendi with the other European powers in the region, eventually accommodated London's requests for increased participation[294]. The agreement signed in March at the

[294] Francis Harry Hinsley, *British Foreign Policy Under Sir Edward Grey*, pp. 151-154. The discussion about the TPC and the fate of the Baghdad Railway took place on the backdrop of increasing diplomatic activity in Europe. The decade preceding the WWI, the European powers negotiated multiple agreements

Foreign Office was still very general, lacking specific details about how the oil company would actually be run, but did set a couple of principles whose crucial importance in the development of the Middle Eastern oil industry would have been fully appreciated only a decade later, when they became the reason of a bitter international diplomatic dispute with the United States. The first concerned the proprietorship of the TPC, whose (relative) majority of shares was now to be held by the all-British group. This result was achieved by transferring the stock of Turkish National Bank, which accounted to fifty percent of total, to the Anglo-Persian. The Deutsch Bank and the Royal-Dutch would again split the rest. The problem was Gulbenkian, one of the original 'founders' of the NBT, who with the new configuration would have lost any right on the Mesopotamian oil. A solution was found by asking both APOC and the Royal-Dutch to each cede 2.5 percent of their shares to the Armenian oil broker. Gulbenkian, who would have entered the oil mythology as "Mr. Five Percent", received in fact only the "beneficiary interests" of those bonds – i.e. he could enjoy the financial gains deriving from their possession but had not voting rights. The ownership of the future TPC would have then been divided as follow: 47.5 percent to the Anglo-Persian group, 22.5 percent to the Deterding and Samuel, 22.5 percent to the Deutsche Bank, 5 percent to Gulbenkian.

There was a second aspect on which all the parties involved agreed on: the necessity to limit, if not eliminate altogether, aggressive and harmful competition among themselves. Standard Oil's commercial menace was big enough to convince European companies to use their resources to try to contain the expansion of the American giant, instead of hindering each other's business. The "Foreign Office Agreement" signed in March therefore contained a so-called "self-denying clause", through which the participants pledged not to become involved – either directly or indirectly – in the production of oil in the Ottoman Empire outside the common framework of the TPC. Independent actions by the signatories were allowed in Egypt, Kuwait, and in the "transferred territories" along the border with Persia, which were

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in the attempt to define opposing military and political alliances and strengthen their respective position. For an overview of the pre-WWI diplomatic maneuvers in Europe and a more detailed description of how the talks on the Middle Eastern situation fit into the general context and connected with other outstanding issues of the time, see for example: Philip Willard Ireland, *Iraq: A Study in Political Development*, pp. 31-62; Marina Soroka, *Britain, Russia and the Road to the First World War: The Fateful Embassy of Count Aleksandr Benckendorff, 1903-16* (Farnham: Ashgate, 2011), pp. 201-236

expressly mentioned in the article, but not anywhere else in the country. The proviso was in fact already present in the 1912 original TPC agreement between the Turkish National Bank and the Deutsche Bank. It was reconfirmed and embraced in 1914, just before the war could bury any hope of its real application. Resurrected after the conflict, this self-imposed constraint would have become the centerpiece of the interwar oil politics, the single most important organizing principle around which the companies developed their maneuvers, eventually shaping the industrial development of the whole region.

The negotiations on the TPC ran parallel to those that Great Britain and Germany undertook to settle the different, although closely related, dispute concerning the construction of the Baghdad Railway. The timing of the resolution of the two controversies leaves little doubt about their actual connection. A first understanding had been found in 1913, when it was established that the railroad would have stopped at Basra and that no extension to the Gulf coasts would have ever been planned without London's consent. Formally, the accord was between the British government and Sublime Porte. Such conditions, one of which dictated for the presence of two British nationals on the board of the Baghdad railway company, could have however not been set without the approval also of the German government. Indeed, Germany's official acceptance did not come much later. An Anglo-German agreement ratified those very same terms on June 15, 1914, less than three months after the two countries had found a compromise on the future structure of the TPC at the Foreign Office. Two days after, on June 17, 1914, the parliamentary debate on the proposed participation of the British government in the Anglo-Persian Oil Company took place in London. Churchill, who had introduced the measure not as a part of a financial bill but in a policy paper, won the approval of the legislative body on the acquisition of the fifty-one percent of the company's shares.

In a matter of months, Great Britain had not only taken control of a private enterprise through the very usual means of direct participation in its ownership but also secured for the national government a say in the development of the oil industry both in Persia *and* in the Ottoman Empire, through APOC's entrance in the TPC. The missing piece of this regional plan of political and economical control was the actual concession for the ottoman territories around Baghdad and Mosul. The only oil rights the TPC

could claim were indeed those transferred to it by the Deutsche Bank in 1912 – i.e. the original exploration privileges granted to the Baghdad Railway Company by the Ottoman government, which had repeatedly contested their validity during the course of the first decade of the century and had never agreed on or sanctioned their reassignment. To shore up the shaky legal foundations of their joint enterprise, the British and German governments had petitioned the Sublime Porte to grant a new concession to the TPC soon after the signing of the Foreign Office Agreement. The Grand Vizier's reply arrived at the British and German embassies in Constantinople on June 28, 1914 – about ten days after the decision of the British parliament to invest in the Anglo-Persian. The message announced the government's consent to the new lease while leaving the definition of an actual contract to future discussions[295]. No talk, however, would have ever been held. On the very same day a young Slav nationalist named Gavrilo Princip shot and killed the Austrian Archduke Franz Ferdinand with his wife six hundred miles northwest of the Ottoman capital. The assassination of the heir to the Austro-Hungarian throne in Sarajevo triggered a series of reactions that led straight to armed conflict in Europe. Less than a week after, on August 4, Great Britain sent a formal declaration of war to Germany. The conflict halted any prospect of collaboration between the two. As fighting raged in Europe, the situation surrounding the Turkish syndicate and its claim over the Mesopotamian oil were largely overshadowed by much more pressing war-related concerns and considerations. A couple of months later, the entrance into WWI of the Ottoman Empire on the side of the Central Powers definitely compromised any hopes for a favorable conclusion to the common endeavor. The sough-after new concession for the TPC was never drafted.

The intricate web of financial and political relationships behind the efforts to secure remunerative and territorially extensive concessions contracts in the Ottoman Empire mirrored the equally complex balance between the European powers in those years. The painstaking negotiations to define the terms of the railway and the mining contracts, which took place in London before than in Constantinople, revealed a situation in which the distinctions between private investors and official agents, between commercial aims and national policy, was not always clear-cut.

[295] Alawi D. Kayal, *The Control Of Oil* (Routledge, 2009 ed.), p. 64

The creation of the Turkish Petroleum Company in 1912, on the wake of the successful operation in Persia, was a perfect example of this combination of interests, in which imperial motives mixed with, and often hid behind, financial and business agents. The enterprise, however, also indicated a new alertness about petroleum. The possible presence and production of hydrocarbons in the Middle East was now looked upon carefully, as oil gained importance both as naval fuel and as economic factor – one able to multiply investments and provide tremendous incentive for the development of an even more structured and integrated oil industry.

Intra-European rivalries were however not the only problem interfering with a stable and orderly development of the Ottoman resources and the implementation of construction projects so needed by the country. Another element risked disrupting the precarious equilibrium that the European courtiers were trying to maintain around the Eastern Question: the arrival of American capitalist and diplomats, who entered the game exactly in those years and attempted to rebalance the power relations in Constantinople.

3.2 The Americans: Nosing into the Business, Attempting Control, and Finding Competition

The war interrupted a coordinated and almost successful scheme by the main European oil companies to lay hands on the Ottoman oil and, more broadly, to divide up the Middle Eastern petroleum resources among them – a project carried out with the support and active collaboration of the European powers, interested in putting forward their own territorial interests in the region. One of the main purposes of the British, German, and Dutch oil companies' rush to secure exclusive access to the desolate Mesopotamian lands was to defuse the menace of an ever-growing Standard Oil company, whose rapacious business practices had already put the European businesses on the defensive in multiple occasions. Seeking (and possibly obtaining) new concessions in the Middle East offered to them a double opportunity: on the one hand, to deny the giant Rockefeller's group a opportunity of further expansion; on the other, to gather enough resources themselves to, if not fight back, at least hold their ground in possible future commercial wars against the American oil superpower. The realization of the European companies' final objective – a (mutually beneficial) stabilization and pacification the continental market – would have unmistakably passed through the control of the Middle Eastern production. From this perspective, the attempt to keep the region out of Standard's reach before the war was a complete success. In fact, this achievement may have been more the result of the American lackadaisical approach than the European business acumen. Although the shadow of Rockefeller's company always loomed over the negotiations, its threat never materialized. The company did not try to participate to the production of Middle Eastern oil and, in reality, did not even seem interested in doing so. Standard's oil scout, John Worthington, did visit the area, but not before 1910, when the European oil interests had already encroached upon it. His report about the Mesopotamian oil resources was, of course, positive, but no direct attempt to acquire them came from it. This conduct was partly a reflection of the more general passive, detached attitude that the United States had towards the region. For Great Britain, Germany, Russia, and France, as well as Italy and, of course Austria-Hungary, the "Eastern Question" had been, and still was, a constant reason of interest and serious concern, which led to decades (in fact: more than a century) of diplomatic jostling and military involvement. By the early twentieth century, the main European

powers and namely Great Britain, Germany, Russia, and France, had all tried, with various degree of success, to extend their influence in the Persian and in the Ottoman Empire and participate in the imperial land-grabbing game in the area. The United States, on the other side, was thousands of miles away from the Middle East and the strategic anxieties it generated, both literally and figuratively. While London worried about presiding over every land and sea transit routes to India and Moscow about guarding its southeastern borders, Washington was busy finding a way to cut through Panama to strengthen its hold over the rest of the western hemisphere, signaling profoundly different regional priorities.

At the beginning of the twentieth century, the United States did have interests in the Ottoman Empire, as well as in Persia and Egypt, and, as every other country, worked to maintain and possibly expand them. Those were however mainly related to the many American religious, philanthropic, and educational initiatives that targeted the Middle East since the early nineteenth century. Commercial matters were important, too, and increasingly so from the 1890s on, but their scale and scope remained inferior to those boasted by the European powers involved in the region[296]. There were, overall, no specific strategic aims for the United States there at the turn of the century. This proved true, for example, in 1897-98, when both McKinley and Roosevelt – whose distain for the decadent Ottoman Empire was absolute – chose not to deploy US Navy's ships in the Mediterranean following the Armenian Massacres of the mid-1890[297]. In showing its military strength, the U.S. would have not only joined the other European powers in their attempt to pressure the Sultan into stopping the onslaught but also offered the Ottoman government a convincing reason to provide compensation for the loss of American properties. Washington refused to take up the issue. Differently from

[296] For a complete overview of American relations with the Middle East, for example: Michael B Oren, *Power, Faith, and Fantasy: America in the Middle East, 1776 to the present* (New York: Norton, 2011); Karine V Walther, *Sacred interests: the United States and the Islamic world, 1821 – 1921* (Chapel Hill: University of North Carolina Press, 2015). For a focus on the Ottoman Empire/modern Turkey, see: Şuhnaz Yilmaz, *Turkish-American Relations, 1800-1952 Between the Stars, Stripes and the Crescent* (Florence: Taylor and Francis, 2015); Aydin Mustafa, *Turkish-American relations: Past, Present and Future* (London: Routledge, 2004). For a comparison with European investment in the same period, see Sevket Pamuk, *The Ottoman Empire and European capitalism, 1820-1913: trade, investment, and production* (Cambridge: Cambridge University Press, 1987). The most important work as regards to oil remains however that of John A. DeNovo, see: John A. DeNovo, *American interests and policies in the Middle East: 1900 – 1939* (Minneapolis: University of Minnesota Pr., 1968).

[297] Roosevelt famously wrote: «*Spain and Turkey are the two powers I would rather smash than any in the world*», Theodore Roosevelt to William Wingate Sewall, May 4, 1898, in Elting E. Morison (ed.), *The Letters of Theodore Roosevelt* (Cambridge, Mass: Harvard University Press, 1951), Vol. 2, p. 822

other circumstances, the classic tools of the American gunboat diplomacy were not used. The events – and opportunities – in the Caribbean were more important. First the fight against Spain, then the subduing of the Filipino resistance, absorbed all Washington's resources. Soon after, it would have been the correction of the "chronic wrongdoings" in the region to deserve the administration's full attention. In fact, in 1905-1906, the U.S. did get involved in a controversy in the Mediterranean, after Germany repeatedly challenged France's authority over Morocco. Roosevelt acted as a mediator between the two sides, leading a situation that risked spiraling out of control to a peaceful resolution. The president's decision to enter the dispute was dictated more by his desire to enhance the country's international status (and to neutralize the threat of an unnecessary and destabilizing clash between two European powers) than by any territorial or commercial aim that the U.S. could have ever had at stake in the issue.

The United States' first encounter with the Ottoman Empire dated back to the early years of the Republic, when American ships in the Mediterranean (now without the British military protection) came under repeated attack from North African pirates. Washington met these actions with determination, sending its navy to fight against the Barbary States – a collection of loosely controlled territories along the North African coasts, roughly corresponding to today's Libya, Algeria, and Tunisia, which were at the time all under Constantinople's authority, plus Morocco, the independent kingdom where the United States opened its very first consular post in the Arab world. After two wars and more than two decades of diplomatic and armed confrontation, the pirates' threat eventually began to decline in the 1820s. In the following years and until at least the second half of the century, however, despite the growth of American trade with the region, the relationship between Washington and the Ottoman Empire remained essentially "nonpolitical". Adhering to a strict policy of nonintervention and neutrality, the U.S. diplomatic missions were slow to develop into an official structure of representation and even slower to coherently project and promote a specific national interest in the area. Indeed, American diplomats in the Middle East during the nineteenth century were often neither diplomats nor American[298].

[298] For the story of American diplomatic mission in the Middle East, see: Charles Stuart Kennedy, *The American Consul: a history of the United States Consular Service, 1776-1924* (Washington, DC: New Academia Publishing, 2015); Ruth Kark, *American Consuls in the Holy Land 1832-1914* (Jerusalem and Detroit: Magnes Press and Wayne University Press, 1994); Phillip J. Baram, *The Department of State in the Middle East: 1919 – 1945* (Philadelphia: University of Pennsylvania Press, 1978); J. Robert Moskin,

U.S. consulates usually developed out of private trading houses, like the one opened by David Offley in 1811, which eventually became the first consular post in the Ottoman Empire. Offley was a Philadelphian Quaker, who arrived in the eastern Mediterranean port of Smyrna to represent his trading firm and expand his business. He spent the following years fighting against the high custom duties imposed to American goods, before being formally appointed as consular agent by Washington in 1823. The United States, however, did not establish formal diplomatic relations with the Sublime Porte until 1831, when David Porter was sent to the Middle East and appointed as first chargé d'affaires in Constantinople[299]. It was therefore only one year later, in 1832, that Offley assumed the title of consul for the post in Smyrna. Together with John Porter Brown, nephew of the head's legation in Constantinople, dragoman and soon to be named consul there, Offley became the only American officer of that rank to actually be a U.S. citizen[300]. Indeed, although new consular posts were being opened in the northeastern part of the Ottoman Empire (where the presence of Armenians and other Catholic minorities was concentrated), as well as in Aleppo, Beirut, Alexandria, and Cairo, no American officials knowledgeable enough in Arabic (and sufficiently well-disposed) to be dispatched to those outposts were found. The newly appointed U.S. representatives were citizens of other countries, specifically Europeans, who had been

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American statecraft: the story of the U.S. Foreign Service (New York: Thomas Dunne Books/St. Martin's Press, 2013);

[299] Technically, in fact, Porter was not the first American consul to be appointed for the post in the Ottoman Empire. Before him, Andrew Jackson had assigned the post to George W. Erving, an experienced U.S. diplomat who had previously served in London, Madrid, and Copenhagen. The U.S. Congress had even confirmed his nomination but Erving turned down the offer and refused to proceed to Constantinople. The mission was an inferior grade to what he had in Denmark and in Spain. Constantinople, furthermore, was not considered a particularly inviting place. As the Niles' National Register (one of the most widely circulated weekly news magazine of the time) wrote few years later reporting on Erving's life and his decision to decline: «*An office of charge d'affaires to the Ottoman Porte, if not as tormenting as the birds of Tytius, or the rolling rock of Sisyphus, is, at least, as bad as the purgatory of the Roman church*», Niles' National Register, Nov. 9, 1844, p. 159. See also J. L. M Curry, and Robert C. Winthrop, *Diplomatic services of George William Erving* (Cambridge: J. Wilson, 1890). For the news of Erving's appointment: Niles' National Register, March 12, 1831, p. 26

[300] In mid-nineteenth century nepotism was still very much an issue within the U.S. civil and diplomatic service. David Porter guaranteed a job in the American legations within the Ottoman Empire to all three of his nephews. John Brown and George A. Porter served in Constantinople, while George Brown settled as consul in Algiers. David Long, *Nothing Too Daring. A Biography of Commodore David Porter, 1783-1843* (New York: Naval Institute Press, 1970), p. 312. Kennedy, *The American Consul*, pp. 110-111. John Porter was also later accused of «*robbery, attempted assassination, false imprisonment, conniving with others to deprive an American national of his office under the Turkish Government, and to secure it for an Englishman*» Charges Against Dragoman Brown, *The New York Times*, June 9, 1860. For a list of all the "officers and agents, civil, military, and naval, in the service of the United States" in the 1840s, see: *Register of All Officers and Agents, Civil, Military, and Naval, in the Service of the United States*, J. & G. S. Gideon Printers, Department of State, 1845).

in the region long enough to know the local language and customs. It was not an entirely unusual practice, as Washington had to appoint non-Americans in many other consular stations around the world in the early years of the Republic. Once combined with the list of locations where Washington chose to appoint a representative, however, a more precise picture about how limitedness and selectivity of the American diplomatic engagement with the region emerges. U.S. missions were only in Mediterranean ports and/or in areas of high missionary activity. In Egypt, for example, which was formally under Constantinople's authority but soon to become a de facto British protectorate, American consular activities developed relatively fast. The country was a large cotton producer, as well as one of the main access points to the Middle Eastern market and a crucial transit zone towards the Far East. The first U.S. consul in the country was an Englishmen, John Gliddon, appointed in the early 1830s to operate – not by chance – from Alexandria, Egyptian biggest port[301]. For the following two decades, indeed, American official representation in Egypt remained a (British) family matter: John's son, George Robbins Gliddon, became vice-consul at Cairo, while his son-in-law, the Scottish Alexander Todd, eventually took his place in Alexandria in the 1840s. The first American born-consul to the country, named Daniel Smith McCauley, was appointed only in 1849. Despite the long wait, and the informality and nepotism that characterized the American Foreign Service in the country, Washington's official ties with this coastal section of the Ottoman Empire were much stronger than those with other, more inner areas. One of them was the territory corresponding to today's Iraq, where the U.S. had no representative and, apparently, no intention to have one. The first American consul to ever be appointed to Baghdad was John Henry Haynes, who took office *more than half a century later* his fellow U.S. consuls in Constantinople, Cairo, or Jerusalem. He arrived indeed to the Iraqi capital only in 1889, at a time when the British – who had opened their legation there almost a century earlier – were already battling with Germany for control over the area. Worse, Haynes was everything but a diplomat and his new position had very little to do with the advancement of American interests. He was an archeologist, today remembered as one of the pioneer of

[301] Andrew Oliver, *American travelers on the Nile: early U.S. visitor to Egypt, 1774-1839* (Cairo: American University in Cairo Press, 2014); Vivian Cassandra, *Americans in Egypt, 1770-1915: Explorers, Consuls, Travelers, Soldiers, Missionaries, Writers and Scientists* (Jefferson, NC: McFarland & Co., 2012), p. 97-98.

archeological photography, who had spent years travelling the Middle East and who though that the title of consul would have facilitated his next mission in Mesopotamia as one of the leading members of an archeological expedition organized by the Babylonian Exploration Fund at the University of Pennsylvania. He thus pressured an uninterested Congress into sending him to Baghdad as official representative, so that he could carry on the work he was really interested on: the excavation of the old Sumerian city of Nippur. The U.S. government did accept the request, but with a catch: Haynes was to have no pay, since the title of consul would have been mostly symbolic and he would have not done any actual consular or diplomatic activity[302].

If in the Ottoman provinces the American official presence was limited, in other Middle Eastern territories it was even scarcer. In the central and inner regions of the Arabian Peninsula – an area larger that France, Spain, Germany, Italy, and the United Kingdom combined – Washington had no representatives. The absence in this case was understandable, since what would later become part the Saudi Kingdom was nothing else than collection of desolate lands, roamed by Bedouins and inhabited by ancient Arab tribes, where very few westerners dared to venture. The problem is that Washington did not seem to find anything interesting along the coasts, either. The next American post south of Baghdad was in fact on the sea, and specifically in Muscat, Oman, a whopping 2,000 kilometers away from the Iraqi capital. Yet despite being the only one in the entire Peninsula, the Muscatian station remained of marginal importance. Opened as early as 1838, it was "infrequently manned" and almost forgotten until 1880, when it was officially turned into a consulate[303]. Even then, its fortunes did not exactly improve: the office was disbanded in 1915 (and not reopened until 1971). The short-lived Omani experiment was the only attempt that the U.S. government made to have American envoys along the Persian Gulf and Gulf of Aden.

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[302] According to the director of the expedition, John Punnet Peters, the lack of a salary was «*an unfortunate accident*». He wrote that the chairman of the House Committee of Ways and Means had accepted the idea of paying of a stipend to the consul of Baghdad, but «*forgot*» to introduce the amendment authorizing it in Congress. John Punnet Peters, *Nippur; or, Explorations and adventures on the Euphrates; the narrative of the University of Pennsylvania expedition to Babylonia in the years 1888-1890* (New York, G. P. Putnam, 1899), pp. 10-11. A more recent historiographical account offers what seems a more realistic version, explaining that it was the Second Assistant Secretary of State Adee, on December 1889, to make clear that a salary had not been budgeted since the position had been created after the pressures of the expedition's organizers and mainly to facilitate the work on the field. Edward L Ochsenschlager, *Iraq's Marsh Arabs in the Garden of Eden* (Philadelphia: University of Pennsylvania Press, 2014), pp. 252.253.

[303] Kennedy, *The American Consul*, p. 103.

In the seaside territories south and north of the sultanate, Washington lacked any kind of diplomatic footing – and would have lacked it for decades. The Trucial Sheikdoms (today's United Arab Emirates) were British protectorates and saw the establishment of an official American diplomatic presence only in the 1970s. Similarly, formal relations with both Qatar and Bahrain would have been set up only after the two territories reached their independence, in the second half of the twentieth century.

The situation was relatively better in the northeast-neighboring Kingdom of Persia. The United States had had the first diplomatic contact with the country, at the time ruled by Qajar dynasty, back in the 1850s. It would have taken however another thirty years for an official American legation to find its way to Teheran. The first U.S. representative to move to the Persian capital was Samuel Greene Wheeler Benjamin, who presented his credentials as chargé d'affaires and consul general to the Shah only in 1883. As in other locations, the decision to open a diplomatic mission had nothing to do with the advancement of specific territorial or commercial interests. It was the presence of American missionaries in the country that prompted the U.S. Congress to act. There were about sixty professing Christians living in Persia in the early 1880s who had travelled from the United States. The number may seem small, but once put into perspective it is not. Compared to those of other countries, the American group was the largest. As Goode put it, by the time Benjamin arrived in Teheran, the United States had sent more missionaries in Persia than all other nations combined[304].

Expressing its concerns for the pilgrims' safety and well being, Washington had then finally decided to dispatch an agent in Teheran. The religious dimension (and objective) of the American mission was so paramount that the first choice for the job was, in fact, an actual missionary: Reverend Henry H. Jessup, who was active (and well known) in Syria. His refusal made way for Benjamin, who was a journalist and was himself born from missionary parents[305].

Throughout the nineteenth century, the protection of American lives and properties remained the main concern of U.S. representatives throughout the region. Consular-related matters were exactly what busied (and troubled) U.S authorities the most, as an ever-growing number of American merchants, philanthropists, explorers and

[304] James F. Goode, «A Good Start: The First American Mission To Iran, 1883-1885», *The Muslim World*, Vol. 74, no. 2 (1984), pp. 100-118.
[305] Ibid.

adventures went to tour the Middle East. Artists and writers, too, began roaming the southern half of the Mediterranean, bringing to an enthusiastic public fascinating tales and images about the Holy Land and the culture of the people living in the area. Nobody, however, did more to shape Americans' perception of those distant territories than the missionaries themselves, who continued to be the most populous group among American expatriates in the Middle East[306].

Pilgrims and missionaries had begun travelling from the United States to the "Bible lands" as early as 1810s. By the beginning of the twentieth century, their presence had grown immensely and produced an extensive and well-structured network of places of worships, schools, and associations. In 1900, there were a total of about 250 missionary stations that managed over 700 schools with more than 40,000 students in the territories of the Ottoman Empire (including Egypt) and Persia. This was without accounting for hospitals and churches[307]. Their Christian proselytism within the Middle East was tolerated, if not respected, thanks also to their civic engagement and their commitment towards the overall betterment of their host society. Many American missionaries were not only devoted preachers and evangelists but also physicians and educators, carrying out a caring and much-needed service for their communities. The fact that they were not persecuted and could in fact live and work freely did not mean, however, that their presence in the Middle East was unproblematic. First, as their number and activities grew, so did their visibility within the Muslim society, with inevitable frictions between their work – whose ultimate goal remained the Muslims' conversion – and the traditionalist stance of the local authority. The characteristic paranoia about foreign influence and intrusion, whose tide rose rapidly in Constantinople at the turn of the century, contributed to negatively affect the daily life of American missionaries, placing limits and restrictions to their operations that Washington's official representatives in the region constantly rejected on the basis of U.S. nationality. Indeed, similarly to the European nationals, American citizens living in the Ottoman Empire had a privileged status thanks to the capitulations imposed on the Sublime Porte with the Turkish-American Treaty of 1830. The various legal and

[306] For the impact of American religious missions: Hans-Lukas Kieser, *Nearest east: American Millenialism and Mission to the Middle East* (Philadelphia: Temple University Press, 2012); Karine V. Walther. *Sacred interests*.
[307] DeNovo 9-10

financial exemptions granted to foreigners remained a source of resentment throughout the years and, even when not directly responsible for the unwanted attention of local officials, they nonetheless set the stage for multiple conflicts between the 'rights' of the Americans living in the country and local regulations. U.S. diplomats increasingly busied themselves with denouncing the erosion of American privileges and fighting the harassment – both targeted and occasional – towards their nationals.

The influx of American missionaries into the Middle East at the end of the nineteenth century turned out to be problematic also in another respect, although the adverse effects of their presence and commitment were visible only in hindsight. Besides determining much of Washington's consular activity in the region, they also were a crucial factor in shaping the perception of an Ottoman – and more broadly: Islam – society that they were, in fact, trying to change. American missionaries became a relatively important interest group, able to convey powerful representations of the Middle East, its customs, and its traditions. The image that they presented, which emerged from a specific cultural background defined by the principles of their own, self-proclaimed, proselytizing and civilizing mission, was not flattering – and it is difficult to see how it could have been otherwise. As many other Europeans, Americans evangelists saw the Ottoman civilization as decadent and inherently backward. The political crisis of the Empire was the inevitable consequence of an underdeveloped society that, even when pushed and prodded by more advanced and (religiously) righteous western societies, refused to change and actually evolve – much to the frustration and disillusionment of the American missionaries. The numerous reports of violence against the Armenians, in particular, represented a major factor in shaping the negative reputation of the Ottomans. This view contributed to greatly reinforce and fixate western Orientalist vision, which informed both the European and American perception of the region during the twentieth century. Washington's knowledge of the area that, at the time, was known as "the Near East" remained for decades limited and partial, imbued by a sort of moral judgment that worsened the position of the Islamic society in the eyes of the foreign observer.

The lack of appropriate knowledge about "the other" was, in fact, reciprocal. Accounts from the early twentieth century reveal that Middle Eastern authorities had little if not no familiarity at all with the United States. Among those who had very scant

information about the American state there seemed to be also the Persian Shah. About two decades later, in 1901, the United States finally appointed its first minister plenipotentiary to the country: Lloyd Carpenter Griscom. Upon meeting the Persian authorities, the Shah first dubiously asked him about the presence of rivers and plains in the United States, and then said that he intended to pay a visit to Roosevelt – travelling to Washington *by caravan*[308].

This distance, ideal and real, between the United States and the Middle East had also, and paradoxically, positive implications for the relationship between the American government and those in the region. The fact that Washington had little presence and limited official activity in the Ottoman Empire, as well as in Persia, Egypt and elsewhere, revealed a narrowness of aims that was somewhat reassuring for Middle Eastern authorities. Compared to the envoys of the European countries, which had long been trying to manipulate them and control both them and their territories, American officials and businessmen appeared more straightforward, less interested in meddling with their domestic affairs. The risk of political intrusion and territorial encroachment seemed to be indeed much lower in dealing with the Americans – a consideration that contributed to the fostering of relations between the two sides. The relatively more positive characterization of U.S. citizens and representatives helped also to sustain the expansion of the country's commerce in the region. In the second part of the nineteenth century, U.S. trade with the Ottoman and the Persian territories was minimal. American merchants imported mainly licorice roots and rugs, together with other items such as dried fruits, nuts, and raw wool[309]. The first signs of change began to appear – at least in Washington's attitude – at the beginning of the century, when under the push of new, outward-looking Secretaries of State the United States began to look more effectively for markets abroad and new avenues of commerce, even in the Middle East. First John Hay (1898-1905), then Elihu Root (1905-1909) and Philander C. Knox (1909-1913) restructured and reoriented U.S. foreign policy in accordance with the objectives and expectations of Roosevelt and Taft, two presidents whose administrations they eventually contributed to define. Hay, Root, and Knox not only oversaw a shift in policy

[308] Lloyd Carpenter Griscom, *Diplomatically speaking* (London: Murray, 1941), p. 218.
[309] Geyikdagi, *Foreign Investment in the Ottoman Empire*, 59; DeNovo, *American Interests*, 38-39; A list of U.S. imports from the Ottoman Empire can be found also in: *Daily Consular and Trade Reports* (U.S. Government Printing Office, 1908).

but also the evolution of the instruments of its implementation. The structure and composition of the Department of State changed substantially in the first decade of the century: its internal organization was rationalized; its network of consular and diplomatic posts was expanded; its personnel were improved, both in quantity and quality.

Recounting the time in which Hay took office, the historian Tyler Dennett described the Department as «*small and relatively private affair*» with a workforce composed of few laborers and a staff of about sixty people, of whom only about a tenth was actually doing some job. «*It was an antiquated, feeble organization, enslaved by precedents and routine inherited from another century, remote to the public gaze and indifferent to it. The typewriter was viewed as a necessary evil and the telephone was an instrument of last resort*»[310]. The number of employees identified by Dennett, who was writing in the 1930s, matches pretty well with official figure provided nowadays by the U.S. Office of Historian, which states that a total of eighty-two people working for the Department in 1898. They were what would have later been called domestic/civil servants, i.e. State's employees working in Washington DC or within the United States. In a little more than a decade, their number would have almost tripled, surpassing two hundred and thirty by 1910. As for the members of the diplomatic service (one of the two groups of people, together with those belonging to the consular service, serving for the Department abroad), they alone grew by thirty percent between 1900 and 1910 (from 93 to 121). The increase in the Department's annual spending during the same period was more than forty percent (from $3.4 million to $4.9 million). In the Middle East, in particular, the structure of official representation was strengthened through the establishment of new posts and the elevation of the rank of U.S. envoys to match the prestige and importance – at least formally – of those of the other European powers. At least four new American agencies were opened in the Ottoman Empire by the end of the decade, bringing to the number of those directly under the jurisdiction of the consulate-general at Constantinople to fourteen[311]. The American legation in the capital was actually raised to embassy status in 1906, when Washington decided it was time to have its first representative with the rank of Ambassador to the Ottoman Empire. John G. A.

[310] Tyler Dennett, *John Hay from Poetry to Politics* (New York: Dodd, Mead & Co., 1934), p. 198.
[311] They were: Aleppo (1910), Alexandria, Baghdad, Beirut, Crete, Dardanelles, Erzerum, Harput, Jerusalem, Mersin, Salonika, Sivas, Smyrna, Trebizond.

Leishman, who had been envoy extraordinary and minister plenipotentiary in Constantinople since 1900, presented his new credentials in October and then proceeded to purchase – using his personal funds – the building where the American mission was staying. Palazzo Corpi, a classical and distinctive edifice designed by an Italian architect for a fellow countryman and shipbuilder and realized with woods and marble imported directly from Italy, became the second building outside the United States to be owned by the federal government. The other one was the residence of the American legation at Tangier, which however had been acquired as a gift from the Sultan of Morocco in the 1820s. The property in Constantinople, instead, was the first to have been actually bought – and the only one to have been paid for with money won playing poker[312]. The American legation in Teheran, too, was elevated to a superior rank at the beginning of the century, with the chief of mission's official title going from minister resident to envoy extraordinary and minister plenipotentiary. An American diplomatic service member with the rank of ambassador, however, would have not been seen in Teheran until after the Second World War.

Change took place not only in the formal structure and composition of the Department but also in its internal working organization. The progressive and reformist furor of the earlier twentieth century did not spare one of the most important administrative units of the federal bureaucracy. Professionalization became a must rather than a matter of choice. Roosevelt tried to eradicate the spoils system that defined the access to departmental job, the internal promotions, and – above all – the distribution of foreign appointments. At the beginning of his second mandate Roosevelt, with the collaboration of his secretary of state Root, tried to implement a new merit system based on the successful completion of competitive examinations and the possession of specific qualifications to obtain a position in the Department and climb the career ladder. The new criteria were confirmed and actually made more stringent by Taft, which oversaw also the most important rationalization of duties and

[312] Louis Mazzarri, A Palazzo on The Bosphorus: The American Embassy in Selcuk Esenbel, Bilge Nur Criss, Tony Greenwood, *American Turkish Encounters: Politics and Culture, 1830-1989* (Newcastle upon Tyne: Cambridge Scholars, 2011), pp. 110-122. The incredible story of Palazzo Corpi appears today even of the official site of the American legation in Turkey: Thomas J. Carolan, Jr., *History of the Former Consulate Building: Palazzo Corpi*, Consulate General of the United States, Istanbul, Turkey, https://tr.usembassy.gov/embassy-consulates/istanbul/history/
In response to the rising complaints from U.S. diplomats about the lack of proper housing abroad, Congress finally reacted in 1911, passing the Lowden Act (1911), which provided for the purchase of buildings where were housed the American overseas missions.

responsibilities to date within the Department. Tasks were finally distributed to a series of newly created bureaus with jurisdiction over specific issues and/or geographical regions. Four geographical divisions were established in 1909 to divide up the globe in just as much macro-areas: Western Europe, Near East, Far East, and Latin America[313]. The formation of the Bureau of Near Eastern affairs (NEA) did not, per se, signal the emergence of any particular focus on the Ottoman or Persian Empires. The region under its jurisdiction was so large that seemed to defy the very idea of subject and area specialization. Besides the Middle East, it included Central, Southern and Eastern Europe, thus combining together countries as different as Germany, Italy, Russia, Austro-Hungary, Serbia, Greece, Egypt, Turkey, Persia, and even Abyssinia[314]. As Michael B. Oren has noted, moreover, «*none of the NEA's original staff could speak a Middle Eastern language or product a contemporary map of the area*»[315].

The creation of such an administrative division was nonetheless a substantial improvement. It reflected a different sensibility about the region as a whole and its commercial opportunities[316]. This new awareness about the necessity to manage foreign affairs in a different manner in order to assist more effectively any private or public interest that may have arisen abroad was promoted directly from the Taft administration, whose approach to diplomacy was pragmatic and business-minded[317]. Both the president and his Secretary of state, Knox, saw U.S. representatives abroad as instruments to facilitate and expand American financial activities abroad. Diplomacy's role was closely connected with the promotion of American trade and therefore with the providing of assistance to U.S. merchants and entrepreneurs. Private capital was, in this

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[313] Elmer Plischke, *U.S. Department of State: a Reference History* (Westport, CT: Greenwood Press, 1999), part III, pp. 205-206; Moskin, *American statecraft*, p. 250.
[314] Baram, *The Department of State in the Middle East: 1919 – 1945*, p. 67.
[315] Oren, *Power, faith, and fantasy: America in the Middle East*, p. 320
Matthew F. Jacobs, *Imagining the Middle East: the building of an American foreign policy, 1918 – 1967*, Chapel Hill: Univ. of North Carolina Press, 2011.
[316] In reporting and explaining the creation of the division, American newspapers explicitly wrote that the decision was part of the plan to specialize in the «*commercial and political affairs of the world*». The territory under NEA's jurisdiction, the *New York Times* stated, «*with its intricate political problems and its opening opportunities for commercial expansion, has made necessary special attention*». In fact, both the New York Times and the Los Angeles Herald used the exact same words, which were probably part of an official statement from the administration. "Knox Creates New Division", *The New York Times*, December 2, 1909. "Secretary Knox Creates New State Department", *Los Angeles Herald*, 2 December 1909, p. 3.
[317] Taft even personally took pride of the reorganization in his 1912 annual message. Annual Message of the President, FRUS (1912), p. VIII

regard, as valuable as anything else in opening up new markets and bridging connections with countries with whom Washington had previously had little dealing[318].

The administration's activities in Asia and especially in Latin American, characterized by the willingness to *«all proper support to every legitimate and beneficial American enterprise abroad*», won Taft's foreign policy the familiar label of "dollar diplomacy"[319]. In the Middle East, too, the Department of State tried to reproduce similar dynamics, taking up opportunities to expand American presence in Ottoman territories. The chance to reverse Washington's previous indifference came thanks to the work and disposition of Colby Mitchell Chester, admiral of the U.S. Navy and veteran of both the Civil War and the Spanish-American War, who decided to launch into a grandiose as challenging venture in the Middle East once retired. The "Chester Project", as the business endeavor came to be known, involved the construction of a more than 1,200-mile railway system crisscrossing the country. The plan contemplated the realization of two trunk lines: one going from Samsun, on the Black Sea, southeast to stop in Sulaimani, close to Persian border; the other starting from the Syrian Mediterranean coast and running northeast through Aleppo to reach Bitlis and Van, two old Armenian cities (today with a Kurdish majority) in the eastern part of Anatolia. The two tracks would have intersected at Diyarbakır, in southeastern Turkey. The first American to come up with the idea of developing a railway project in the Ottoman Empire seems to actually have been the son of the president of an American railway supply firm in 1906, after a trip in Syria and Turkey. The man was C. Arthur Moore Jr. and the name of the company Manning, Maxwell, and Moore. The initial plan was to build a much smaller section, connecting the Mediterranean coast with the inner part of the country. What got the Admiral involved in the project was his own son, Colby Mitchell Chester Jr., who was also both Moore Jr.'s brother-in-law and the treasurer of the family company. Chester Jr. asked his father for assistance as soon as he learned about the possibility of investing in the Ottoman Empire. He then went on

[318] Taft considered stability at the same time a function and a prerequisite of commerce – an idea that prompted the administration to intervene in the internal affairs of in Caribbean countries like Nicaragua, Dominican Republic, and Mexico.

[319] Taft used the expression twice in his messages to the Congress, in 1909 and 1912. Papers relating to the foreign relations of the United States with the annual message of the president transmitted to Congress December 7, 1909 – FRUS (1909), p. XV; December 3, 1912 – FRUS (1912), p. X.

to enlist the help of another member of the family: the Commander Arthur Chester, his brother and the Admiral's other son.

Details on exchanges between them are very scarce, but it is not difficult to see why they both would have wanted the elder Chester to actively take part in the venture. The sexagenarian Admiral not only had a certain status in Washington (he acted as Superintendent of the U.S. Naval Observatory from 1902 to 1906), but also a direct experience with the Ottoman Empire and its rulers. He had already met the Sultan Abdul Hamid at the beginning of the century, entertaining a very amicable meeting with him during an otherwise particularly delicate situation. Chester arrived for the first time in in Constantinople in 1900, as Captain of the *USS Kentucky* – the newest, largest, and more powerful pre-dreadnought vessels of the U.S. Navy to date. The battleship, commissioned just a few months before, was officially en route to the Far East to join the Asiatic Fleet. There was no stop scheduled in Turkey but, according the American Chargé d'Affaires in Constantinople – the same Lloyd C. Griscom who would have soon been sent to Teheran as minister plenipotentiary –, it was he himself who wrote to John Hay in Washington and asked him, in turn, to persuade the Secretary of the Navy to change the itinerary of the *USS Kentucky*. Griscom's idea was to use the coincidental passage of the imposing battleship to pressure (in fact, to scare) the Sultan into paying reparations for the properties the American missionaries lost during the anti-Armenian raids in the mid-1890s[320].

At the time of the events, the Sublime Porte had refused to pay any kind of indemnity. The administration had decided to not to publicly pursue the issue and refrained from exercising any form of gunboat diplomacy, but had continued to expect some form of compensation. Frustrated by the Sultan uncooperative attitude, the American had stepped up the pressure at the turn of the century. At that point Abdul Hamid, willing to avoid the embarrassment of being forced to walk back from his previous stance, started looking for some of private, «*indirect payment method*»[321]. Griscom wrote in his memoirs that he had proposed him the purchase of an American cruiser for an increased price, as a discrete way to channel back money to Washington while saving the appearances. The menacing presence of the battleship was to show exactly of how easy would have been for Washington to resort to coercion, if only

[320] Griscom, *Diplomatically Speaking*, p. 166.
[321] From Griscom to Hay, June 15, 1900, FRUS (1912), p. 908.

wanted, thus pushing the Sultan into taking the deal and sign the contract. Chester apparently took up the role perfectly, sailing into the Turkish harbor of Smyrna with «*decks cleared for action*», ready to fire its oversized thirteen-inch guns, and arriving so close to the seawall that the inhabitants started to flee in panic of an imminent bombing[322].

The money arrived in Washington, eventually, but not in the time and manner originally envisioned by Griscom. The American diplomat recalled in his manuscript that the Abdul Hamid did not really bow to the direct threat and signed the contract only weeks later, at the end of December, *after* the *USS Kentucky* had left Turkey. The official documents – and among them, the telegrams sent to Washington from Constantinople by Griscom himself – tell a slightly different story, one in which the battleship's trick seems to have worked even less. The Department of State continued indeed to complain privately with the American envoys about the Sultan's stubborn refusal to offer compensation for months after Chester's visit. In February 1901, Hay took care to specify that the President himself had requested the legation to «*insist upon immediate payment*» from Constantinople[323]. In June 1901, Abdul Hamid finally deposited about 20,000 pounds sterling to the credit of John G.A. Leishman, the new American Minister Plenipotentiary, in the Imperial Ottoman Bank[324]. No reference to any direct connection between the payment of the indemnity and the purchase of American vessels, let alone the signing of a contract by the Sultan, was made in the cables discussing any of these developments with Washington.

What the two versions have in common remains the account of the meeting between Chester and Abdul Hamid, described as a real success both in Griscom's memories and in his private communication with the State Department. Upon the arrival of the *USS Kentucky*, the Sultan, sensing the situation, had arranged for an official reception to welcome Chester and his crew. The Ottoman ruled transformed the evening in a sort of celebration of friendship between the Constantinople and Washington, showing his positive disposition towards the United States and signaling his interest in expanding the commerce and the investments between the two countries – a message

[322] Griscom, *Diplomatically Speaking*, p. 171.
[323] From Hay to Griscom, February 27, 1901, FRUS (1901), p. 518
[324] From Griscom to Hay, June 12, 1901, FRUS (1901), ibid.

that apparently resonated both in Chester's ears and in Washington, as to become the reason of the Admiral's next encounter with the Ottoman authorities.

In 1908, Chester would have come back to Constantinople, this time on an official mission to investigate any new commercial opportunities in the Empire. Again, details about timing of his visit, as well as the events surrounding it, are conflicting. The Admiral had retired from active service in 1906 and had been since then on special duty in the Bureau of the Equipment, which among its responsibilities had also the overseeing of the U.S. Navy coal supply. Since 1905, following an internal reorganization, the Bureau had to require for «*all coal for steamers' and ships' use*» and have charge of the «*naval coal depots and naval coaling stations within the continental limits of the United States, outside of navy yards and naval stations*»[325]. Records confirm that already in 1907 the U.S. government had designed (following the suggestion of the American National Geographic Society) the Admiral as U.S representative at the Ninth International Conference of Geographers, to be held in Geneva from July 27 to August 6, 1908[326]. He was then named also as delegate at the Eleventh International Congress of Navigation, which would have taken placed in Saint Petersburg just about month before, from May 31 to June 7, 1908. Chester duly attended both[327]. At the Swiss convention, the Admiral (who delivered a speech on "The Physical Geography of the Sea") was accompanied by a few other notable U.S. experts and researchers. Among them, in particular, there was David T. Day: the United States Geological Survey (USGS) geologist who had just submitted to Roosevelt's Conservation Commission the first tragic estimate about the future of American oil supply. Day presented a paper exactly on "The Distribution of the Petroleums (cit.) of the World".

It is impossible to say whether Chester was familiar with the subject of petroleum at that time, as well as to know his views on the much-debated issue of 'conservation' of natural resources. Similarly, there is no evidence that the two weeks

[325] United States Navy, Regulations for the Government of the Navy of the United States (Washington: Government Printing Office, 1905), p. 13.
[326] Root to Leo Voger, U.S. Minister of Switzerland, Novemebr 25, 1907. DS 2793/5, RG 59, NARA II Archive, College Park (MD
[327] Chester is listed among the temporary members of the association that participated to the Congress, see: *Compte Rendu des Travaux du Congress*, Eleventh International Congress of Navigation, St. Petersburg (Permanent International Association of Navigation Congresses, 1908) p. 103. *The Ninth International Geographical Congress, Bulletin of the American Geographical Society*, Vol. 40, No. 11 (1908), pp. 679-681

spent in Geneva had any influence on the Admiral's reasoning or business ambitions. In fact, it is not even clear if the Admiral and the geologist ever discussed these matters together – or if they even meet at all. The only confirmed piece of information is that Chester begun soon after to negotiate with the Ottoman authorities for what would have become one of the most (if not the most) contested Middle Eastern mining concessions ever assigned to western investors.

According to Chester's own account, which was written and circulated in the early 1920s, when the subject became (again) a major topic of debate within the administration, he began discussing the commercial agreement directly with the Sultan Abdul Hamid. He also claimed that he initiated his mission in 1908 after receiving authorization and support, via the Department of the Navy, from Roosevelt himself. He added that the Secretary of State Root, too, was aware of his trip and actually encouraged it. In fact, he stated, he idea of applying for a concession in Turkey came from a report that the U.S. consul in Syria had produced and transmitted to Washington in 1908. Chester said that his mission replicated the one entrusted a short time before to Admiral Lord Charles Beresford of the British Navy, which was sent with the sanction of the British Government to report on the possibility of increasing the British trade in the Far East. No reference to the self-enriching scheme of Moore and Chester himself was made.

The same version was publicized in article published in 1922 on the popular magazine *Current History*[328]. It discussed the American oil claims in Turkey and chronicled the birth of the Chester concession. The author was Henry Woodhouse, a prolific writer who often appeared on Hearst's yellow press and who had recently penned a series of pamphlets and essays on petroleum and the post-WWI Anglo-American controversy in Mesopotamia. Woodhouse wrote that the trip took place in May and June 1908 and that, while still in the United States the Chamber of Commerce and the Board of Trade and Transportation of New York furnished the Admiral with a commission, asking him to report on any matters of interest to the American commerce. He also specified that Chester had Washington's full support since the very beginning, repeating the claim about Roosevelt's personal involvement and stating that, before leaving, the Admiral had requested and obtained the sanction of the Secretary of State

[328] Henry Woodhouse, «American Oil Claim in Turkey», *Current History*, Vol. XV, No. 6, March 1922, pp. 953-959

Root. Woodhouse declared that the «*undertaking originated in the State Department itself*», since the project was based on the report of an American consul in the Middle East. This time, however, he cited the one in Alexandretta and not in Aleppo. «*It is a matter of record* », he added, «*that not only was the syndicate assured of such support from the American Government, but that in the ensuing negotiations no attempt to open up trade for American citizens in a foreign country ever received more cordial and helpful co-operation from the Federal Government than that Chester group*»[329].

Woodhouse should have been well informed, since in those years he was also Chester's business partner. After the conflict he had actually helped the Admiral forming a new syndicate, in a renewed attempt to secure the concession in Mesopotamia. Both Woodhouse and Chester had therefore a vested interest in presenting the story of the project as a long-standing government-sponsored – or, better: government-mandated – enterprise, with the aim of securing the assistance of the new administration, a form of official backing that was considered necessary if success was to be achieved. Indeed, when, in 1923, the Department of State tried to put together an official version of events, it found little in its internal files to back the Admiral and Woodhouse's story. As proof of the President's direct involvement, and interest, in the 1908 trip to Constantinople, both had made reference to the decision to dispatch a portion of the U.S. fleet to Turkey, with the only instruction to take on board and carry to the United States ten Ottoman officers. The move was reported as an act of courtesy to Constantinople directly connected with the Admiral's mission. The American battleships, however, docked at Smyrna only in 1909. The Department's official compiling the report defined the compliment paid to the Sublime Porte as «*an afterthought*», which had been first suggested by Lewis Einstein (the American Chargé d'Affairs in Constantinople) to the Secretary of State *after* the Turkish authorities had planned to send a group of officers overseas[330]. No evidence of Roosevelt's direct support was mentioned in the report. Similarly, no clear reference to the supposed report

[329] Woodhouse, «American Oil Claim in Turkey», p. 958.
[330] US Department of State, "History of the Chester Project," Series C., Sec. 52, Turkey, No. 10, State Department Archives, Record Group 59, Washington, D. C. History of the Chester Project with References to the Department's File, Confidential Report No. 30, Department of State, Division of Publications, Series C, No. 52, Turkey No 10 - printed and distributed on October 2, 1923 (Washington, Government Printing Office, 1923), p. 2

of an American consul discussing possible concessions in the Ottoman Empire *before* Chester's trip could be produced at the time.

These discrepancies should not be surprising; especially once Woodhouse's own personal story and dubious reputation are taken into account. Chester's associated had indeed a fascinating and bizarre life, which somehow reflected the maneuvering and unscrupulousness permeating the oil politics and industry in those decades. His real name was Mario Terenzio Casalegno. He was an Italian, born in Turin in 1884, who traveled overseas in 1904 after having wandered throughout Europe. Once in the United States, he begun working as in the kitchen of a restaurant in Upstate New York and was soon accused, convicted, and jailed for the murder of a coworker. Upon his release, after 4 years in prison, he wrote a few articles on the Baltimore Sun under the name of Henri Casalegno, posing as an Italian culinary artist[331]. He then changed subject and began focusing on aviation. Henry Woodhouse, as he now came to be called, quickly gained credit as an expert in the field. Thanks also to his newly acquired friend and powerful editor Robert J. Collier, who was also the president of the Aero Club of America, Woodhouse acquired a national reputation. He founded his own magazine – *Flying* – and actively participated to public debate during WWI as an aviation specialist. Meanwhile, concealing his previous conviction, he was also able to obtain the American citizenship in 1917[332].

[331] In fact, no historian seems to have noticed or recognized, leave alone confirmed, these articles – published in early 1909 – as authored by the same man. Yet the indications are all there. First of all the name, Henri Casalegno, which is a perfect mid-step between his real name and the total "Americanized" version that he would have adopted in the following years: Henry Woodhouse. Then there is author's background, presented in the articles' introduction. The author claimed to be an Italian chef with extensive experience in the best restaurants in Paris, London, and New York - a life story that seems to be (largely) exaggerated version of Casalegno's real one up to that point, minus (of course) the 1904 "incident". The author also claimed to be working at the Maryland Club, which was a prestigious club in Baltimore. The fact that he was able to convince the members to be a real culinary artist while hiding his past is also well among the range of possibilities, considering his track records.

[332] Woodhouse's story is known, but it is not widely reported nor investigated. Parts and bites about his life appear in a series of historiographical accounts about various issues, from aviation to counterfeiting, and books on American pseudonyms. See for example, Tom D. Crouch, *Rocketeers and Gentlemen Engineers: A History of the American Institute of Aeronautics and Astronautics - and what Came Before* (American Institute of Aeronautics and Astronautics, 2006), p. 13. Woodhouse ended up also under the lens of the U.S. government after the WWII as suspect communist. His name (and past) appears in the investigation about un-American propaganda activities conducted by Congress during WWII. See *Investigation of un-American propaganda activities in the United States: Hearings before a Special Committee on Un-American Activities, House of Representatives, Seventy-fifth Congress, third session-Seventy-eighth Congress, second session, on H. Res. 282*, *Part IX* (Washington: US Government Printing Office, 1938), p. 686-687

At the end of the war, a series of disputes with the other members of the Aero Club about the association's administrative management brought him to court, where his past was finally exposed. The legal battle began in 1918 and lasted for years. The *New York Times* followed the process and reported on Woodhouse's previous conviction, his name change, and his dubious naturalization as they emerged during the last proceeding, which took place in 1922[333]. The trial and the public disclosure of his past, however, did not stop his hustling. By the time the process was over, Woodhouse had already managed to reinvent his life once again, this time as oil expert and entrepreneur. In 1920, he began taking interest in the petroleum situation, looking for profitable opportunities abroad. It was at this time that he got closer to Chester, whom he had already met through the common passion for aviation. Their partnership eventually failed, but what did not change was Woodhouse's attitude towards life. He remained extremely resourceful, continuing to show a limited deference to the truth. In the following decade, he went on to become what he is most known today for: a forger of historical documents. In the 1930s, he began collecting and trading antiques related to the early history of the country. Several of the items sold, it was soon discovered, were however contemporary counterfeits. Woodhouse specialized in replicating the signatures of the American presidents and managed to dupe a considerable number of people into buying historical documents he had forged himself.

This is the background of the author of some of the most informative accounts on the early years of the Chester project. His writings would have indeed resurfaced later on, as bibliographical sources in the works of those historians who tried to reconstruct the story of the concession and analyze the American foreign oil policy. E. W. Chester, late twentieth-century American historian, relied heavily on Woodhouse's 1922 article to write about the activities of his namesake Admiral in Turkey. He reported, for example, Woodhouse's statements about Chester's mission, stating that the Admiral went in Turkey from the United States «*in May and June of 1908*»[334]. Yet Chester was still in New York on May 18, as reported by on of the city newspapers[335].

[333] «Woodhouse Called Ex-Convict in Court», *The New York Times*, September 26, 1922.
[334] Edward W. Chester, *United States oil policy and diplomacy: a twentieth-century overview* (Westport: Greenwood Press, 1983), p. 216.
[335] Prominent Arrivals at the Hotels, *The New-York Tribune*, 18 May, 1908. The newspaper, in what seems today a very typical style of reporting of the time, published a list of all the "famous" personalities who checked in in the city's hotels. Chester stayed at the *Belmont*.

The Admiral had just arrived there and was presumably passing through, getting ready to leave and reach Saint Petersburg before the start of his first conference as U.S. delegate, about ten days later. Until at least mid-June, therefore, Chester could not be anywhere near Constantinople. Woodhouse appears in the bibliography of one of Marian Kent's books, too. She actually wrote that Chester applied for a railway concession (and not a mining one) for the first time at the very beginning of spring, even before the timeframe suggested by Woodhouse, in March 1908. The statement, which is not backed up by any direct reference, appears equally incorrect[336]. In mid-March 1908, the Admiral was in Washington, where he gave a speech about the importance of the Navy while attending the 2nd Army Corps Association[337]. Furthermore, in the previous months Chester seemed very much focused on something completely different, namely airships. The Admiral was «*one of the more enthusiastic balloonists, or "balloonatics"*» in the country and, apart from planning to «*navigate the air in his own balloon*», was busy trying to convince the Department and the general public that the dirigibles were destined to become the "eye of the navy", to be used as «*an antidote for the submarine*»[338]. W. Stephen Hemsley Longrigg, British administrators in Iraq after 1921 (when the country acquired a semi-independent status) and Land and Liaison officer for the Iraqi Petroleum Company in the 1930s, offers a third version about Chester's trip to Constantinople. Longrigg was appointed Officer of the Most Excellent Order of the British Empire, served in WWII, and went on to become a respected academic after the conflict. In the late 1950s, he wrote that Chester arrived in Constantinople as early as January 1908. He also added that by that time the Admiral had already received the commission from the Chamber of Commerce of New York. This combination of events is of course even more improbable, if only because Chester himself never presented it as possible. Woodhouse is also among the sources used by John DeNovo, probably the most authoritative American historian to have worked on the U.S. foreign oil policy of those years. DeNovo noted that the State Department in the 1920s considered Woodhouse a man of «*questionable reputation*». He avoided quoting him directly, but it is unclear whether he was actually aware of his

[336] She may have actually mixed up the years, since something similar to what she described as happening in March 1908 – Chester securing a railway and telephone concession – happened instead in March *1909*.
[337] Admiral Chester Defends Navy, *The New York Tribune*, 14 March 1908.
[338] Ballon Craze in Gotham, *The Green Bay Press-Gazette,* 16 December 1907; Airship for the Navy, *The Washington Post*, October 29, 1907.

personal history, since the events that characterized his life are not mentioned or discussed at all[339].

DeNovo admitted that the available record left «*some obvious questions unanswered*» and remained vague on the Chester's mission, simply stating that the Admiral arrived in Turkey in the «*summer of 1908*», after attending the conference in Geneva[340]. This is the version emerging from the Department of State's files, which show no clear reference to the project before the fall of 1908. The «*earliest data*» on Chester's trip in the official documents seem to be in a letter sent by Charles A. Moore, the Admiral's original business partner, to Root on October 14, 1908[341]. In his message, Moore recalled to the Secretary of State that Chester had gone to Constantinople during the summer with the knowledge and consent of the Department, acting at the request of a series of American business organizations. He said that Chester had obtained a commission from both the New York and the Boston Chamber of Commerce – a statement as later repeated by Woodhouse – and that needed more time to complete his mission. The purpose of the message was indeed to ask Root to intercede with the Secretary of the Navy for an extension of the Admiral's detail in the Ottoman Empire, which was granted a few days later.

Moore gave no precise indication about the date of Chester's arrival, but stated that the Admiral had attended both conferences in Europe, in early June and late July. DeNovo reported this aspect, but he also seemed to confirm one of Chester and Woodhouse's claims, namely that the Admiral initiated the negotiation directly with the Sultan. He rather ambiguously wrote that the Admiral's «*original contacts were with Abdul Hamid*», but that «*after the revolution of 1908-1909, he had to negotiate with the Young Turks regime*». It is therefore not immediately clear whether he was referring to the months before June 1908 (pre-revolution) or to the interval between August 1908

[339] DeNovo, *American Interests*, p. 218. There is no doubt that in the early 1920s Woodhouse's dubious past became known in the American oil circles. A confirmation is present among the records of the Anglo-Persian Company. At the beginning of 1922, Cadman, the Company executive, wrote in his personal diary that two Americans working for the *National Petroleum News* told him that Woodhouse had «*served a term for manslaughter and that he had been implicated in a casa of misappropriation of funds in the Aero Club*». Secret Diary of John Cadman, 1921-1926, p. 73; ARC 70210, British Petroleum Archives, Warwick (UK),
DeNovo actually writes in one of the notes of his book that he personally interviewed Woodhouse. Yet no reference to his controversial past – and limited credibility – is present.

[340] Ibid., p. 61

[341] C. A. Moore to Root, October 14, 1908, DS 16251, RG 59, NARA II Archive, College Park (MD), cited also in DeNovo, *American Interests*, p. 61.

and April 1909 (when the Sultan was formally still in power but greatly weakened at the political level) as the period in which the "first contact" between the Admiral and Abdul Hamid took place. Given the time frame of the events that he provided and the reference to Moore's letter, it may make sense to think that he was simply referring to the latter. The exact month in which Chester brought up the issue with the Ottoman authorities is not just a matter of detail, as it changes the validity of the Americans' claims. This is why Chester and Woodhouse after the War would have proposed, and stuck with, a different interpretation. In the early 1920s, when the international dispute over the ownership of Mesopotamian oilfields broke up, a reorganized Chester's syndicate declared to be rightful possessor of the mining rights over the area by virtue of the fact that the Sultan Abdul Hamid had personally assigned the concession to the Admiral in 1908. Woodhouse himself argued in the much-cited 1922 article that Chester had found an agreement with the Sultan *before* the outbreak of the Young Turk revolution on July of that year[342]. The Chester syndicate said that it was only because of Abdul Hamid's ousting that the mining application had to be resubmitted and its formal (and final) approval got eventually delayed, thanks to the timely intervention and interference of other European competitors. In the 1930s, Woodhouse, acting as a managing director of the Chester's syndicate after the death of the Admiral, was still writing letters to the directors of the Standard Oil, the Anglo-Persian, and the Dutch Shell, all involved in the development of new oilfields in the Persian Gulf, warning them against going forward without the consent and participation of the original owner of the concession. The entire region by that time was firmly in control of the oil majors and the chances of breaking their hold were basically non-existent. It is therefore possible that Woodhouse was just trying to extract some money as pecuniary compensation and was not really interested in entering the oil business. He went however as far as affirming the existence of specific historical records in the correspondence of the Admiral that proved the pre-existing agreement between Chester and the Sultan. In his letter, he even reported the exact date in which the mining concession was supposedly assigned to Chester: June 23rd, 1908[343]. The date is of course not a coincidence, since the revolution started just

[342] The agreement, always according to Woodhouse, was for a broad concession assigning to Chester the construction of practically all the public works in Turkey *plus* the oil exploration rights.

[343] From The Chester Concession Syndicate and Ottoman Development Co., signed by Henry Woodhouse, managing director, and dated October 18, 1935. Persian Gulf Concessions, Standard Oil Company of California, Part 1, ARC 70946; British Petroleum Archives, Warwick, UK.

few days later. Furthermore, in September, the Young Turks decided take the jurisdiction over the Mesopotamian mineral resources away from the Sultan's prerogatives and transfer it to the Minister of Mines[344]. The move deprived Abdul Hamid of the authority to directly sell the concessions, which made useless any attempt to gain the concession (exclusively) from him. Having the sympathy of the Sultan (or simply paying him off) was not sufficient anymore; all the applicants now would have had to receive the public approval of the government.

It is clear how admitting a "late" arrival of the Admiral in Constantinople would have forced the syndicate to tell a different story. The problem is that only way for Woodhouse's version to hold somehow together was to imagine Chester as being able to be in Constantinople as some point between his two European conferences - i.e. to go from the United States to Russia and from Russia to Turkey in little more than three weeks, from the end of May to mid-June; successfully negotiate an agreement with the Sultan in a matter of days, while the political situation in the capital was already tense; leave Constantinople (just a few days before the country plunged into chaos), in order to go to Geneva to attend the second conference, which started at the end of July; then return once again in Turkey at the end of the summer of 1908 to continue the talks with the new government.

Besides the letter that his Moore had sent to the Department, which saw Chester arriving in Constantinople only after July, and common sense (such an itinerary would have been a impressive tour de force for a sixty-five years old man at the beginning of the twentieth century, when commercial flights were not even an option), there is also at least another source that appears to disprove the Admiral's (and Woodhouse's) own version. In November 1908, a Washington Post's special cable from Constantinople announced the recent arrival of the Admiral into the city. It stated that the Admiral and his wife were «*now in Constantinople*» and planned to spend the winter there. It did not mention any previous passage in Turkey and reported instead on Chester's previous and current and activities. The newspaper wrote that the Admiral was working on a report for the Department of the Navy on «*astronomical observatories*». The Secretary of the Navy had indeed instructed Chester to obtain during his stay in Europe «*certain information regarding matters of interest to the Navy Department*», an information that

[344] Jonathan Conlin (2016): Debt, diplomacy and dreadnoughts: the National Bank of Turkey, 1909–1919, Middle Eastern Studies (2016), p. 12.

was passed to all the U.S. diplomatic officers in Europe in April 1908 in order to forewarn them and call upon them to render him all the necessary assistance[345]. No reference was made to any possible ongoing negotiation with the Ottoman government, which could well indicate that still in the fall of 1908 Chester had not yet taken up the issue with the Sublime Porte. What found instead large coverage in the report was the Admiral's newfound interest in liquid and gaseous methods of propulsion. Indeed, the article was specifically meant to publicize Chester's call for the introduction of gas engines on American battleships[346]. The Admiral admitted that he had been studying the latest developments in naval construction while in Europe, assessing the technical solutions already introduced by the other countries. He urged the United States to stop following Great Britain and take instead the lead in naval engineering. Most important was the change that he seemed to promote in naval construction and operations. As reported by the article, the Admiral explained that the only way to build better and more serviceable ship was by improving their propulsion system and not by trying to increase the displacement:

> «*But we must realize that, in spite of the [steam] turbine, we have come to the point where steam power has reached practically its maximum of efficiency. As the consumption of fuel is augmented so greatly with increase of speed, we cannot extend the radius of action of our fleet, much more even if we do build larger ship. Thus it becomes evident that for any marked increase in the efficiency of the ship we must look to the engine. And in the face of what has been written and demonstrated by actual operation it cannot be gainsaid that the engine that will give the greatest efficiency is the explosive engine*»[347].

After a summer in Europe, Chester seemed to have put aside his passion for airships and started focusing on naval fuel. It is clear that the Admiral left the United States in mid-1908 with various tasks to complete. Apart from the official

[345] Assistant Secretary of State, Robert Bacon, to Diplomatic Officers of the United States in Europe, April 8, 1908, DS 2793/11, RG 59, NARA II, College Park (MD).
[346] Favors A Gas Engine, Rear Admiral Chester Wants One on Battleship – Urges this Country to Act, *The Washington Post*, November 23, 1908.
[347] Ibid.

responsibilities that he had been assigned with by the Navy, he had received the mandate of a series of American commercial boards to explore possible commercial opportunities in the Middle East, as well as the authorization of the Department of State, which approved and supported the overall mission. Furthermore, Chester had his own business interests and those of his sons and his associates to take care of. Despite all the instances in which both the Admiral and Woodhouse repeated their version of the story, however, it is really difficult to believe that there was any contact with the Ottoman before – at least – the very last months of 1908.

The historical sources are more precise about what happened next. Chester stayed in Constantinople over the winter of 1908 and entertained cordial relations with the new parliamentary regime, helped also by the good disposition of the American administration towards it. One of Chester's two sons, the Commander Arthur Chester, who had retired from the Navy's active duty even before the father (in 1905), joined him in the Ottoman capital to become the field representative and operative of their joint business venture. Again, contrary to what the Chester's syndicate claimed after the War, it seems that the American investors counted on the Young Turks more than on the Sultan to open up the country to foreign investments. It is only after the deposition of Abdul Hamid, in April 1909, and the end of the unrests in the country that the American commercial interests began to really press their cases, probably thinking – or at least hoping – that the new regime would have finally made good of their promises of reform and modernization.

In August, the *New York Times* reported that «*an American industrial invasion of Turkey*» seemed to be a «a *near probability*», explaining that the Department of States was registering the activities of various American groups trying to obtain concessions in the Ottoman Empire[348]. Among them there was also the Chester syndicate, which had already applied for a couple of smaller projects – the building of a railroad between Aleppo and Alexandretta, and the installation of a telephone system in the capital – and had finally decided to submit in formal terms to the Ottoman government the proposal for a much larger railway development program. The construction details would have changed several times in the following years, but the basic idea remained the same. It involved the laying down of more than a thousand

[348] American Capital May Invade Turkey. Corporations Trying to Win Great Concession from New Government, *The New York Times*, August 18, 1909.

kilometers of train tracks all over the country and the acquisition of exclusive mining rights for all minerals – petroleum included – within a strip of land of twenty kilometers on each side of the line. Such an ambitious proposal was what the syndicate would have come to be associated with and known for. It was also the reason why European interests, especially those in Berlin, stood up and placed themselves firmly in the syndicate's way.

As reported by the American newspaper, however, European investors were not the only competitors that Chester had to guard from. His compatriots, too, were after the prize. Dr. Bruce Glasgow, a representative of the Anglo-American firm J. G. White and Company, had applied for a very similar concession just the month before. Even worse for the Admiral, was the fact the Glasgow had promptly communicated his move to the American embassy, and had duly received its administrative support, technically beating him to the punch. The situation led to a direct competition between the two groups and to the emergence of a certain level of uneasiness in the American legation. U.S. officials did not want to be forced to choose between the two, as throwing Washington's diplomatic weight behind one of the two would have given it a decisive advantage, while American officials would have therefore preferred cooperation instead of opposition. The idea was not well received by Chester, who acted to solve the problem on his own terms. He moved to undercut his competitor by proposing to the Sublime Porte the construction of normal-gauge instead of narrow-gauge tracks, as proposed by Glasgow. The offer of course got the attention the Ottoman government, which refrained from assigning the concession to the first comer. The Department's files suggest that the Admiral even paid a sort of compensation to Glasgow to avoid any counteroffer and to settle the matter once and for all. Either with or without money involved, the strategy worked and by the end of the summer the Chester's group remained the only American applicant.

The Admiral's venture therefore moved forward, despite its rocky start and the apparent distaste of the new head of the American legation, Oscar Solomon Straus. As U.S. representative, Straus had acted twice as envoy extraordinary and minister plenipotentiary in Constantinople in the previous two decades (1887-1889 and 1898-1899). In September 1909, however, he returned to assume the rank of Ambassador. In one of his first messages to Washington, Straus wrote that Arthur Chester had not

particularly impressed him as business representative – so much so as to propose the Department to set in place a sort of screening mechanism for Americans seeking the administration's support in their dealing with foreign government, in order to diminish both the possibility of having multiple American applicants and the risk of having to spend resources on irresponsible and disorganized speculators. Undeterred and probably unaware of Straus's full views about his son, the Admiral moved full steam ahead. In November 1909, he formally reorganized his business venture under the official name of Ottoman-American Development Corporation, with an initial capital of $100,000. Chester was able to put together a significant number of renowned investors and supporters for his syndicate. Besides the Chesters and Moore, among the list of people involved in the project there were heads of prominent American railway and steel firms, construction companies, and banks. A series of U.S. institutions like the U.S. Steel Corporation and J.P. Morgan and Company even sent direct letters of recommendation to the Ottoman authorities in behalf of the Chester's group. James W. Colt, a successful American engineer who had oversaw the construction of parts of the most important railway lines in the United States, joined the Ottoman-American Development Corporation as technical expert[349].

As next move, the group asked the official backing of the American authorities, asking Washington to support its case before the Ottoman government. Possibly mindful of Straus original lukewarm endorsement of the enterprise, the Secretary of State remained sympathetic to the group's claims but noncommittal, writing back to one of the company sponsors that the policy was to «*seek and have the same opportunity and facilities for submitting proposals...afforded to reputable American concerns of their representatives, without espousing the claim of any particular individual or firm to the exclusion of others*»[350]. He added that the Ambassador at Constantinople would have been pleased to get the representatives Ottoman-American Development Corporation in touch with the appropriate ottoman officials, but that «*the scope of the policy would not permit him to request the granting of the concession to the company, which must rely upon its own efforts and merits to obtain this*»[351].

[349] Colt worked on the Great Northern Railway, the Northern Pacific Railroad, the Chicago, Milwaukee, St. Paul & Pacific Railroad, and the Chicago & Great Western Railroad. Information is from James Wood Colt's data sheet at the University of Rochester's library, River Campus, which holds Colt's papers.
[350] Secretary Knox to Straus, December 8, 1909 DS 5012/31-21), RG 59, NARA II, College Park (MD)
[351] Ibid.

Chester and his associates continued to work fully to that effect in the following months. By the beginning of 1910, a preliminary understanding had been found with the Ottoman officials. The agreement gave the Ottoman-American Development Corporation sixteen months to complete a survey of the area involved in the project. To prove the bona fide of its application, the Chester group even made a deposit of 20,000 Turkish pounds in an Ottoman bank. The sum was a sort of down payment, which would have been collected by the government in case the preliminary study had not been completed within the given time frame. The hopes for a quick approval of the official concession contract by the Ottoman government and parliament, however, vanished over the spring just as fast as they were created. There were two main reasons for the delay in the ratification process, which eventually became an indefinite suspension that de facto killed the application. The first was the Ottoman authorities' intention to extract the greatest advantage from the agreement, which led them to raise the stakes in the negotiation not only with the Chester's group but also with Washington; the other, and possibly decisive, was the German opposition.

The Ottoman officials were well aware of the project's magnitude and, betting on the Americans' ambitions for its acquisition, advanced a series of requests directly to Washington in order to guarantee its authorization. The Sublime Porte was simply trying to leverage the Department of State into conceding the more favorable conditions on a series of outstanding issues between the two countries. Among the demands of the Yung Turk government, there was the increase in Turkish customs duties, the possibility to obtain a number of American warships to strengthen the Ottoman Navy and, above all, the renunciation of a series of capitulatory privileges. The Ottoman authorities were right about Washington's interest in the concession. After the initial doubts about the solidity of the enterprise, Chester's resoluteness and prominent sponsors seemed to have reassured the American officials, both in Constantinople and in Washington. Furthermore, as Taft's presidency took shape, so did its policy regarding the advancement of the American interests abroad. The President's dollar diplomacy would have targeted primarily Central and South America, but Chester's operation fit perfectly into the picture. The attempt to obtain construction and mining projects in the Middle East was in line with the administration's objectives of expanding U.S. investments abroad and promoting U.S. trade. As Knox himself explained to the

Ottoman representatives in March 1910, the administration attached «*great importance to the granting of this concession*», which had to be considered as a proof of the «*growing commercial relations between the United States and the Ottoman Empire*»[352]. Once realized that Chester was actually in the position of securing an agreement, the Department became not only interested in the negotiation, but also willing to get involved and ready to make offers at the national level in order to reach a favorable outcome. While agreeing on the on the increase of the custom duties, however, it still found it difficult to accept the dropping of capitulatory rights. Knox assured that the issue would have remained on the table for future talks, but, as he put it, the U.S. government was «*not at the moment fully prepared to open negotiations for a modus vivendi waiving the right of forum claimed by the United States in the case of the arrest, imprisonment and trial of American charged with criminal offences in Turkey*»[353].

This position does not diminish the extent of the Department's support for the Chester's project before the Ottoman authorities. American officials both in Washington, in the person of the Secretary of State and even more of the Assistant Secretary of State Huntington Wilson, and in Constantinople, with Straus, repeatedly signaled to the new Ottoman regime the administration's interest and goodwill. The direct discussion between the two governments added a new level in the negotiations, bringing in additional elements that complicated the process, but it was not the reason why the application fell through. Indeed, the gap between the positions of the two sides would have been greatly reduced and almost closed in the following two years. What seemed to have instead greatly influenced the considerations at the Sublime Porte and eventually halted the ratification of the agreement was the German opposition to the project. Berlin's influence in the Empire had rose quickly in the previous decades the Chester's plan could had effectively opened the way to the American penetration in what Wilhelmine Germany clearly considered a part of its sphere of influence. Furthermore, German investors already held specific interests in the same construction sector. The Chester project, Berlin would have contended, interfered with the planned path of the German-sponsored Baghdad railway. Technically, the dispute focused on specific sections of the line proposed by the Americans that reportedly crossed areas

[352] From Secretary Knox to the Charge d'Affaires of the Ottoman Legation in Washington, Rustem Bey, March 15, 1910, DS 867.602 Ot 81/4A, RG 59, NARA II, College Park (MD)
[353] Ibid.

already assigned to the Germans. Berlin's concerns, however, had little to do with the practical aspects of the concession. The resistance to the Chester's group was more a matter of principle, based on (geo)political considerations. The nature of Germany's opposition was revealed also by the techniques it used to pressure the Ottoman government into refusing the American application. The rumor that the Standard Oil was behind the Ottoman-American Development Corporation began suddenly to circulate in Constantinople in those months. Playing upon Standard's reputation for being a predatory and soulless company, the story painted the entire operation – a developmental project of immense proportions – as a scheme to control the Mesopotamian oil fields devised by what, in 1910, was the most feared (and despised) oil corporation on the planet.

Chester's and his associates «*took pains to assure the Department, the Turkish Embassy, and the Embassy in Constantinople that this was not the case*»[354]. Being accused of colluding with Rockefeller, or actually being his pawn, was just one of the problems for the Admiral. Indeed, had he succeeded in convincing his interlocutors about the Standard's non-involvement, probably would have not made any difference. The Grand Vizier, Hakki Pasha, had decided not to pass the preliminary agreement to the Council of Ministers for consideration, despite the fact that it had already received the approval of the Minister of Public Works. In his communications with the American officials, he explained that the decision was solely due to the presence of more important and pressing issues concerning the unstable situation in the Balkans provinces of the Empire, which the government should have had to address first[355]. Hakki Pasha's close contacts with Berlin and his sympathies for Germany were however not a mystery to anyone[356]. In reporting these developments back to Washington, between May and

[354] US Department of State, "History of the Chester Project", p. 5.
[355] Ibid.
[356] Ibrahim Hakki Pasha maintained the role of Gran Vizier from January 1910 to the end of 1911. In November 1911, the New York Times referred to Hakki Pasha has the head of the «*Germanophile committee which is the Jack-of-all-trades*» in the Ottoman Empire. He then served as Ottoman representative in various European countries, including Germany, and served as Ottoman mediator in London in 1913 during the negotiations for the Mesopotamian oil and railway concession between Great Britain and the German Empire. Lewis H. Gann and Peter Duignan write that he even had a German-descended wife. In Lewis H. Gann, Peter Duignan. *The rulers of German Africa: 1884-1914* (Stanford: University of Stanford Press, 1977), p. 60. Hakki Pasha sided with Berlin during the war and the general perception of him did not change. The dragoman of the Russian Embassy in Constantinople, too, called him a «*germanophile*» in 1917. André Nicolayévitch Mandelstam, *Le sort de l'Empire Ottoman* (Paris, Payot 1917), p. 59.

early June 1910, Straus explicitly pointed to the opposition of the European powers as the main obstacle to the approval of the concession[357]. While small progress were being made at the bureaucratic level, he said, the German Embassy was actively trying to sink the project.

In Washington, the Department understood that the road to Constantinople passed through Berlin. The European chancelleries, however, were difficult places to navigate and the American officials would have soon got lost on the voyage. Knox instructed the U.S. Ambassador in Germany, David Hill, to make «*very discreet but strong oral representations*» to the host government, asking explanation on its opposition towards the Chester project[358]. In what, according to DeNovo, was a remarkable display of the Department's «*inadequate grasp of the power equation*», Knox's directive authorized the U.S. envoy to threaten retaliation in case Berlin refused to cooperate[359]. Hill should have made reference to the open door policy, asking for its respect and pointing to the other instances in which the two countries had developed a successful collaboration in China and Africa. Eventually, if German opposition were not removed, Hill had to warn the German government that the United States would have allied with other powers to deal with the situation.

Berlin's reply was, in the words of the Department of State, «*characteristic in a certain indirection which was sometimes attributed to the Wilhelmstrasse in its imperial days*» – that is to say the German Foreign Office simply denied any official opposition or intervention on the matter[360]. David Hill, the American ambassador in Berlin, reported however to have received also informal visit from Arthur Von Gwinner, the Director of the Deutsche Bank, who came to complain about the Chester's venture. He said that it "invaded" a series of rights already possessed by the German group and repeated a major accusation against the American project: that it was «*not a plan for bona fide railroad development but a scheme for controlling certain undeveloped oil fields in order to keep their product out of the market*»[361]. The frustration and hostility of Von Gwinner is understandable. Over the last two years, the German group had struggled to keep its own railway project alive, trying to convince the new regime to

[357] Straus to Knox, June 3, 1910; DS 876.602 Ot 81/18, RG 59; NARA II
[358] Knox to U.S. embassy in Berlin, June 3, 1910, DS 876.602 Ot 81/18, RG 59; NARA II
[359] DeNovo, American Interests, p. 70
[360] US Department of State, "History of the Chester Project", p. 6
[361]

revive the old concession agreement and continue funding the construction works. In 1908, the revolution and the fall of the Sultan had compromised the German position at the Sublime Porte. Berlin had lost a precious ally in Abdul Hamid and risked losing the previous commercial privileges, with the pact with the Baghdad Railway Company that could have ended up being scrapped altogether. Meanwhile, the competitors had multiplied. First appeared D'Arcy, who aimed directly for the acquisition of mining rights in Mesopotamia – a claim that, if successful, would have deprived the German group of the biggest prize associated with their original concession. Then arrived the Americans, who threatened to replace them in the railway business. Berlin would have eventually reacted, winning back the favor of the Ottoman authorities and finding a compromise with the other European powers to secure the construction of the remaining sections of the Baghdad railway and launch a joint effort for the exploration and development of the Mesopotamian oilfields (through the NBT and the TPC), but the post-revolutionary period was surely a complex period, in which the German representatives and investors were forced multiple times on the defensive.

About the repeated accusations of cooperation with the Standard Oil, it does seem that many Europeans officials and capitalists were simply being paranoid, if not malicious. Many of them feared the American giant so much that they saw its shadow everywhere. Before Chester, even Bruce Glasgow, the head of the other American group that tried to apply for the same concession, was thought by the British at first to be a Standard's representative[362]. London had even received a report stating that the American company had no plan to join the race for the development of the Mesopotamian resources at that point, being interested only in the sale of petroleum products in the country[363]. Apparently it was not enough. Actually, it probably ended up confirming some of the fears about Standard's goals in the region. For D'Arcy himself,

[362] Sir Lowther to Sir Edward Grey, Confidential letter, August 23, 1909. File 3047/1909 'Railways: Asiatic Turkey; railway construction in Asia Minor' [148r] (300/368), British Library: India Office Records and Private Papers, IOR/L/PS/10/166, in Qatar Digital Library http://www.qdl.qa/archive/81055/vdc_100030544746.0x000065. The mistake was corrected only about a month later, after further investigation, in mid-September: Sir Lowther to Sir Edward Grey, September 14, 1909. File 3047/1909 'Railways: Asiatic Turkey; railway construction in Asia Minor' [143r] (290/368), British Library: India Office Records and Private Papers, IOR/L/PS/10/166, in *Qatar Digital Library* http://www.qdl.qa/archive/81055/vdc_100030544746.0x00005b

[363] Mr. Marling to Sir Edward Grey, December 17, 1909. File 3047/1909 'Railways: Asiatic Turkey; railway construction in Asia Minor' [113r] (230/368), British Library: India Office Records and Private Papers, IOR/L/PS/10/166, in Qatar Digital Library http://www.qdl.qa/archive/81055/vdc_100030544746.0x00001f

the fact that the Chester project was so large and included a series of very convenient clauses for the Turkish government was in itself a proof that the plan was just a subterfuge to get a hold on the oil, with no real intention of building a railway. He even wrote to the English officials that Chester and his financial supporters had «*openly stated that the object they have in view in this scheme is not the building of a railway, but the security of the mineral rights, and more particularly those for petroleum*»[364]. The U.S. records, on the other hand, show nothing of sort. The participation of the Standard Oil was not even an issue and was never actually discussed. The only times it came up was when both the members of the syndicate and the American officials had to respond to foreign accusations. They did it so always in the same fashion: i.e. denying any direct or indirect involvement of the Standard Oil[365].

If European investors were overtly agitated about, and opposed to, the Chester's application, the public face of the European diplomacy remained impassive. The German foreign minister even told Hill in Berlin that his government would have actively supported the American project once it was modified to respect what Germany considered its already acquired rights[366]. Berlin's message however greatly contrasted with the information gathered by the Americans in Constantinople, which pointed to an escalation of Berlin (secret) diplomacy targeting not only the Ottoman government but also the other European powers, in an attempt to secure their support against the Chester project. The Department then tried to go around Berlin and bring up the issue directly with the countries that were supposedly involved – France, Italy, Great Britain, and Russia – but, even in this case, Americans were left empty-handed[367]. The U.S. representatives abroad all received similar replies: there had been no contact with the German authorities on the subject and nobody really opposed the American venture[368]. The Russian foreign minister went as far as saying that his country was actually in favor

[364] D'Arcy to Foreign Office, April 8, 1910. . File 3047/1909 'Railways: Asiatic Turkey; railway construction in Asia Minor' [143r] (290/368), British Library: India Office Records and Private Papers, IOR/L/PS/10/166, in *Qatar Digital Library* http://www.qdl.qa/archive/81055/vdc_100030544746.0x00005b

[365] This position was for example repeated by Knox to the U.S. embassy in Berlin on June 18, 1910; DS 867.602 Ot 81/24, RG 59, NARA II

[366] DS 876.602 Ot 81/18, RG 59; NARA II

[367] American representatives in Europe were instructed on June 11. The file number for the letter is the same: DS 876.602 Ot 81/18, RG 59; NARA II

[368] DS 876.602 Ot 81/25, -/31, -/36, -/39, RG 59; NARA II

of the American enterprise, as it would have balanced out the German influence in the Ottoman Empire[369].

The events in Constantinople continued to suggest a different scenario, one in which the European juggernauts were making the American diplomatic machine going around in circles with relative ease. Indeed, as sound as the Chester's project could be, commercial considerations stopped where geopolitics began. The exchanges between the U.S. representatives and their European counterparts took place in mid-June, 1910. The agreement was supposed to reach the general assembly for final consideration by the end of the month. The Grand Vizier, however, never submitted it. As feared, on June 28, the Ottoman parliament went in recess without having discussed the matter. The Chester group had little doubt about who was responsible for the situation. As they explained to the Department, expressing their dismay, they felt «*quite confident that had it not been for the intervention of the German Ambassador, the concession would have been granted several months ago*»[370].

The defeat, while profoundly frustrating for Chester, seemed to have the opposite effect of the Department of State, which appeared even more motivated to secure the concession. To the disappointment of the Ottoman-American Development Corporation, the Taft administration answered indeed with resolve. The U.S. officials spent the rest of the summer trying to organize a strategy for the fall. The head of the Near East Division, Evan Young, asked the representatives of the Chester's group to «*call at the Department…for the purpose of conferring and mapping out a line of action in order that we may exert every pressure as soon as Parliament convenes*»[371]. Great care was also taken in staffing up the American legation in Constantinople and preparing it for the diplomatic offensive. Strauss was indeed scheduled to return to the United States due to previous personal commitments. The Department however did not want to leave the post without a high rank representative, so it was decided to send no less than the Assistant Secretary of State, Huntington Wilson, to Constantinople in September on a special mission with the title of Ambassador Extraordinary. It was not enough. John Ridgely Carter, who was Minister at Bucharest at the time, was also

[369] DS 876.602 Ot 81/36, -/38, -/42, RG 59; NARA II
[370] From the Ottoman-American Development Company to Huntington Wilson, June 28, 1910, DS 876.602 Ot 81/33, RG 59; NARA II
[371] From Evan Young to Huntington Wilson, July 1, 1910, DS 876.602 Ot 81/33, RG 59; NARA II

ordered to proceed to the Ottoman capital. He was asked to familiarize with the history of the negotiations and be ready to support the syndicate's representative. The president, the Department explained, had a «*keen interest*» in the concession[372].

In the following weeks, indeed, Wilson would have handed the new Sultan, Mehmed V, a letter signed by Taft himself. Throughout the fall, U.S. representatives continued to confer with the Ottoman officials at multiple levels. In order to secure the concession, the administration went as far as to offer what seemed to be the most coveted prize for the Young Turk regime: the revision of the capitulatory privileges. The strategy apparently bore fruit. The U.S. envoys held the attention of their Ottoman counterparts and the negotiation moved forward despite the reportedly continuous interference of the German embassy. At least, this is what they thought. In November 9, 1910, Wilson wrote back to Washington that «*the railway concession seems to be matter of very widespread interest and what I hear makes me sanguine of its consummation*»[373]. Few weeks later, it was the company itself to express its satisfaction and gratitude to the American government, praising Wilson's action. Thanks to his mission, John R. MacArthur (one of the two MacArthur brothers and Chester's associate) wrote to the Secretary of State that «*the hope of our representatives is much strengthened that the concession we are seeing will in due time, without great delay, be granted*»[374].

The talks continued incessantly into the first months of 1911 around the details of the concession. Company's representatives, American officials, and members of the Ottoman government began negotiating anew the extent of the mining rights associated with it and the choice the Mediterranean terminus of the line, in the attempt to trace a route that would have not infringed upon what Germany perceived to be its own rights. Berlin's preferences and position on the matter were indeed still the main concern of the Young Turks, which at this point clearly communicated to the American representatives that they could not risk irritating Germany and losing its friendship. In early February, after a series of changes to the original agreements, Carter was nonetheless reporting to Washington that the Chester project would have been «*approved within a few days*»[375].

[372] From Knox to Carter, October 20, 1910; DS 876.602 Ot 81/54A, RG 59; NARA II
[373] From Wilson to Knox, November 9, 1910; DS 876.602 Ot 81/58, RG 59; NARA II
[374] From McArthur to Knox, December 3, 1910; DS 876.602 Ot 81/60, RG 59; NARA II
[375] From Carter to Knox, February 24, 1910; DS 876.602 Ot 81/74, RG 59; NARA II

By April, nothing had happened yet and the company had grown increasingly exasperated. MacArthur communicated to the Secretary of State that they had information signaling – contrary to what the Department had assured them – that Russia, too, was opposing the concession and siding with Germany. He added that the group had come close to the decision to withdraw their application out of frustration. The negotiation rollercoaster brought the enthusiasm back up in early May, when Carter cabled from Constantinople that the Grand Vizier had finally signed and submitted the revised version of the agreement to the Parliament. Then, on June 1, everything fell through – again – when the news arrived that the assembly had voted to postpone the consideration of the project until the next fall, when the assembly would have reconvened after the summer adjournment. Carter was quick to blame the Grand Vizier and his «*entire absence of good faith throughout all the negotiations*» for this second defeat, which came after a year of intense talks between the parts[376].

The decision was a terrible blow for the American company. At that stage, somewhat ironically, the side more invested in securing the concession became the Department and not the original applicants. The first doubts about the ultimate success of the project had actually begun to creep in as early as the previous fall, when Colt completed the first field survey. The results were not as good as expected and indicated that completing the project would have been more expensive than originally predicted. At the time, one American official at the legation in Constantinople had warned Washington about the possibility that the company would have not been able to sustain the effort. Chester, however, personally had reassured the Secretary of State of the soundness and commitment of the enterprise and the diplomatic effort continued. Now, almost one year later, those he needed to convince to carry on were his own disillusioned sponsors. More than one investor appeared indeed to have had enough. After two years of trying, they came to believe that the external opposition to overcome was too strong and that keep running after the Ottoman authorities was useless, even more so now that Italy was about to occupy Tripoli. Technically, the finish line was not that far, since the only administrative passage left was the parliament's approval. Yet few of those associated with the project thought that, with a war to wage, the Ottoman

[376] US Department of State, "History of the Chester Project", p. 12

assembly would have really taken up the issue for consideration – and even less that there was a real chance of success.

At the end of September, the Admiral's son communicated that the members of the syndicate had decided to withdraw the cautionary deposit made in 1909[377]. The exchange took place while Department was busy preparing a new diplomatic offensive and getting ready for the reopening of the parliamentary session. William Woodville Rockhill, an experienced diplomat who had served already in the Ottoman Empire, in China, and Russia, and happened to be the actual author of Knox's original "Open Door" note, had been reassigned as new ambassador in Constantinople in mid-1911 – a clear sign of the administration's determination. Chester Jr. denied that the move represented the end of the syndicate, but struggled to keep the bid alive while looking for possible alternative backers. He hoped that the decision to withdraw the money would have been interpreted as a sort of ultimatum by the Ottoman government, possibly (and paradoxically) accelerating the definitive approval of the concession. The actual outcome, of course, was just the opposite.

The deposit was taken out of the bank five days before the parliament reconvened, on October 19. Chester's application technically was still standing, but Colt communicated to the Department that they would have been forced to formally withdraw their proposal unless additional contractual benefits could be guaranteed to the syndicate. Indeed, without a strong financial backing, the company was not anymore in the position to be able to accept the same terms agreed on in the spring. Such a development de facto eliminated any residual chance of success. At that that stage, there was no margin to even think that it would have been possible to renegotiate the concession. The parliament did take up the contract previously agreed on for discussion, but its approval was never put to vote, since the signatory had announced its inability to respect its terms.

The American officials, after almost three years of diplomatic battle and an incredible amount of political capital spent, were deeply irritated. As the company suddenly withdrew, the Department remained in the embarrassing situation of being the only side pushing for a concession that everybody, at that point, knew was impossible to achieve. Both in Constantinople and in Washington, the feeling was that the diplomatic

[377] From Carter to Knox, February 24, 1910; DS 876.602 Ot 81/110, RG 59; NARA II.

exposure on the project had compromised the American position in the Ottoman Empire, since the administration risked being associated with the resounding failure of the Chester syndicate. In the following months, the department tried to distance itself from the American group and go back to an official policy of neutrality and noninvolvement in the region, avoiding taking up the issue of the concession again, either with Chester or with other U.S. investors.

The following year, in 1912, Chester and Colt claimed to have gathered again a sufficient number of financial backers and thus revitalized the syndicate to try once more to secure the railway contract. The Ottoman government was technically still interested in developing the project, which would have undoubtedly benefited the country as a whole. At the time the Baghdad Railway Company had gone back to laying down railroad tracks in the eastern part of the country, while the Deutsche Bank was still busy working out the details of its agreement with the NBT to launch the assault to the mining concession in Mesopotamia. The negotiation between the European powers, and the supreme distrust between the parties involved, continuously slowed down the process. With every country always wary of the other's moves, willing to double check them and ready to stymie them if necessary, the result was that no other claimant had been able to secure a new construction agreement with the Sublime Porte after Chester's withdrawal, thus leaving the Americans hopes alive. The concession remained however a politically loaded issue. Without the backing of the administration, the commercial ambitions of any private citizen were destined to collide with, and to be crashed by, the strategic interests of the European powers. The Department, although still sympathetic with Chester, made clear that this time declarations of intent would have not been enough to prove the seriousness of their commitment. The Company had to make «*good on its own*» before hoping to receive again the administration's support[378].

Few months later, after the new Wilson administration had installed, the syndicate was further reshuffled. Some of the old investors definitely abandoned the project, others joined, and Colt became the president of a newly organized entity named Ottoman-American Exploration Company[379]. The new appellation hinted at a possible change in the mission of the enterprise, from a construction company to one interested in mining and surveying for minerals. The government's position, however, remained

[378] DeNovo, American Interests, p. 84
[379] DS 876.602 Ot 81/153; -/160, RG 59; NARA II.

the same. In mid-1913, in an internal memorandum, the new administration produced a lucid analysis of the situation, saying that any attempt to secure the concession, although driven by purely commercial interests, carried a number of unavoidable – and unwanted – political implications. The administration realized that in trying to force American interests' way into the Ottoman government, it would have had to engage with the European powers, with the clear risk of becoming embroiled in a series of disputes that that the country was not prepared to discuss and from which could have extracted little benefit. The ongoing Balkans Wars were a perfect example and reminder. The administration, following a long-standing diplomatic tradition, realized that was neither willing nor ready to be sucked into European politics and therefore decided to back away from a more direct and active support.

In a matter of few months, the outbreak of the War would have canceled any hope of gaining a concession, with or without the administration's support. The early story of the Chester project remained however as a perfect representation of the pre-WWI trajectory of the United States in the region. Its origins and development paralleled the transformation, and actual evolution, of American interests and presence in the Middle East in the first part of the twentieth century. In a matter of about two decades, the situation changed significantly. On the eve of War, American activities in the Ottoman Empire were still first and foremost religious in character and connected to the missionary world, but were no more exclusively limited to it. The country had actually become a target for businessmen and investors, in a move that was extensively celebrated at home by American newspapers[380]. Likewise, Washington's official presence on the territory, which was almost nonexistent at the end of the nineteenth century, grew in both quantitative and qualitative terms. An expanding network of missions, new and more experienced personnel, and a reorganized (and specialized) Department of State were now the means through which the Administration could operate in the region and implement its policy. The change in attitude was due the outward looking strategies and policies of Roosevelt and his successor, as much as to the practical steps taken by their three secretaries of states, John Hay, Elihu Root, and Philander Knox, to modernize the foreign service. The rationalization of the Department

[380] NYT reports on Chester's project

and the definition of a clear policy for the expansion of the American trade abroad between 1908 and 1909 marked an important juncture, one that inaugurated a new season of foreign involvement in (and support to) American businessmen activities abroad.

Just as it demonstrated the American advances in the region, however, the Chester project (and the Department's management of the issue) showed also the limit of the U.S. foreign action and diplomacy in the area. The Americans' inexperience in dealing with the Ottoman authorities and their dilatory tactics doomed their efforts and proved the American uneasiness in such a context where the European powers were actively engaged in their own maneuvers. The dispute over the development project was indeed the first time that Washington tried to assert its interests over those of the other powers out its geographical comfort zone. At the end of the nineteenth century, the Department had confidently asked for the respect of an "open door" policy in China. In that case, however, there was no real disagreement between the parties involved. The European countries basically consented to a commercial policy that benefitted all without depriving them of anything that was considered to be of real political interest. Furthermore, Washington did see Eastern Asia as an area of natural expansion for the American trade while being relatively marginal to the strategic ambitions of the other western powers. Hay's move was a significant diplomatic success, but also a fairly effortless one. The Roosevelt and Taft's administrations were equally confortable in dealing with the various squabbles that emerged during the rest of the decade between the American bankers and capitalists with their southern neighbors. Once it was clear the American continent was within the sphere of influence of the United States, Washington proceeded to resolve its controversies undisturbed, choosing and shaping policies to its own liking. In the Ottoman Empire the situation was different. The European countries had been discussing over the Eastern Question for two centuries, with the United States not really being a part of the picture. The Department's attempt to replicate successful dynamics, continuously stepping up the level of their involvement, did not work. The problems of the Chester and his associates, which knew little of Ottoman politics, had limited connections in Constantinople and even less in Europe, and therefore had to rely heavily on the Department's intervention, further burdened the negotiation. The syndicate's failure in maintaining and showing a solid

financial backing eventually finished off any chance of succeeding. By then, however, then the administration had already suffered multiple defeats.

In Constantinople, the United States got into the shifting sands of European imperial politics and did not seem to grasp the nature and magnitude of the forces at play. It found itself lost in details and ended up missing the larger picture, unable to work out a more compelling and comprehensive strategy. The fact that neither Chester nor the American officials did realize what the other parties involved were specifically fighting about is significant in itself. Oil was not at all a central issue in the discussion about the Ottoman Empire at the beginning of the century, but it did become one of the main reasons why a series of private and governmental European agents tried to secure construction and mining contracts from the Ottoman authorities by 1914. Yet the American representatives seemed to have missed this level of the discussion, so much so that the only instances in which the matter was (briefly) registered was when they had to defend the syndicate from the charge of being a proxy for the Standard Oil.

While the Deutsche Bank hoped to control new sources of petroleum to oppose Standard's overwhelming power in Europe, D'Arcy planned to expand his oil venture into Mesopotamia, and Great Britain dreamed of securing fuel of its Navy while blocking off any attempt to undercut its position the Gulf, the American administration remained apparently unaffected by similar concerns in the area. In Europe; petroleum had already entered the foreign policy discussion as an element of strategic interest; in Washington, the decision to support Chester was driven primarily by commercial considerations, not naval, military, or public ones surrounding the use of petroleum. Washington would have fully caught up with these changes soon thanks to the intervention in the political and public debate of those geologists and engineers who had already been trying to shape the conversation around petroleum within the nation in the previous decade and that took the opportunity provided by the War to push their analysis and claims even further.

4. Towards War and Beyond

4.1 Oiling the War Machinery

Woodrow Wilson was sworn in as the 28th president of the United States on March 4, 1913. The inaugural address was a perfect collection of those progressive themes and catchwords that first helped the Democrats to regain control of the Congress and then him to get elected. Wilson referred multiple times to the "Nation" as collective, organic entity and pointed his finger at those greedy individuals who, for the sake of their egoistic interests, had drained the country's resources and had stepped on the rights of the other members of the society. The speech was imbued with religious overtones – a consequence of the President's own strong spirituality, but also a natural aspect of a reformist message that expressed a righteous fury and quasi-messianic vision. This kind of language, and the moral Manichaeism that it conveyed and promoted, emerged clearly in a passage where Wilson, while discussing the evolution of the American system of government, touched one of the defining political issue of the era – the conservation of national resources – before explaining the undesired consequences of the American unregulated economic and industrial development:

«*Our life contains every great thing, and contains it in rich abundance. But the evil has come with the good, and much fine gold has been corroded. With riches has come inexcusable waste. We have squandered a great part of what we might have used, and have not stopped to conserve the exceeding bounty of nature, without which our genius for enterprise would have been worthless and impotent, scorning to be careful, shamefully prodigal as well as admirably efficient. We have been proud of our industrial achievements, but we have not hitherto stopped thoughtfully enough to count the human cost, the cost of lives snuffed out, of energies overtaxed and broken, the fearful physical and spiritual cost to the men and women and children upon whom the dead weight and burden of it all has fallen pitilessly the years through…With the great Government went many deep secret things that we too long delayed to look into and scrutinize with candid, fearless eyes. The great Government we loved has too often been made use of for private and selfish purposes, and those who used it had forgotten the people*»[381].

The concern for the American declining natural endowment and the hostility towards monopolies were two traits that would have indeed deeply characterized the work of the Wilson's administration. These ideas affected the actions of two crucial members of the executive, Franklin Knight Lane and Josephus Daniels, and the two departments they headed, the Interior and the Navy, whose policies are often reported

[381] Woodrow Wilson, Inaugural Address, March 4, 1913. Available through the American Presidency Project website: http://www.presidency.ucsb.edu/ws/index.php?pid=25831

and analyzed without properly taking into consideration the importance of the common progressive cultural and political milieu that shaped them. Lane was Canadian by birth and, as Wilson, the son of a Presbyterian minister of Scotch-Irish descent. The family soon moved to California, where Lane began working as journalist while earning a law degree. After a period in New York as San Francisco Chronicle's reporter and activist for the Democratic Party, he went back to the West Coast where he became more and more involved in politics. He helped his friend James Duval Phelan to secure the election as mayor of San Francisco in 1896 and became soon after (in 1898) himself a public servant, winning just enough votes to defeat the Republican incumbent in the race for city and county attorney[382]. Lane's status within the Party's ranks grew in the following years. The Democratic establishment first selected him as candidate first in the 1902 election for governorship in California then tried to make him mayor of San Francisco, in 1903. Both campaigns were unsuccessful, but Lane fared well in a state dominated by Republicans. Just as Lane's activities within the Democratic Party grew, so did his adhesion to progressive ideas and principles – so much so that he gained a seat in one of the most important and representative regulative agencies in the hands the federal state in those years: the Interstate Commerce Commission (ICC). President Roosevelt named him as one of the members of the ICC at the end of 1905. The Senate confirmed the nomination on June 1906; on the same day it passed the Hepburn Act, which greatly expanded the powers of the agency. Lane maintained the same role until after Wilson's election, when he was offered a position in the new executive[383]. The two men had never met before – and would have not met until the very day of the inauguration – but his upstanding profile and professional experience as railroad regulator convinced Wilson's advisor, the Colonel Edward M. House, that he was the right man for the job[384].

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[382] Phelan and Lane knew each other very well and they were friend. Lane was elected as city attorney of San Francisco at the time when Phelan was the mayor. Kevin Starr. *Endangered Dreams: The Great Depression in California* (New York: Oxford UP, 1997), pp. 276-278. For Lane's biography, see: Keith W. Olson, *Biography of a Progressive: Franklin K. Lane, 1861-1921* (Westport, Conn.: Greenwood Press, 1979).

[383] On the process that led to Lane's selection as Secretary, which was indeed particularly consequential for the ambientalist/preservationist cause in California: Robert W. Righter, *The battle over Hetch Hetchy: America's Most Controversial Dam and the Birth of Modern Environmentalism* (New York: Oxford University Press, 2006), pp. 118-120.

[384] On the qualities of the new Secretary of Interior, there is also an article of the New York Times that praises Wilson for his selection and his real "democratic" style: «Cabinet's Open Door Amazes Old-Timers – Real Democracy Seen for the First Time in Washington in Many Years», *The New York Times*,

Daniels, born in North Carolina, represented a different kind of Democrat and progressive. His ideas were deeply rooted in Southern politics and tradition. Advocate of white supremacy, pro-silver, in favor of both the introduction of the income tax, abolitionist, and radically anti-bug business, David M. Kennedy rightly defined him a «*Bryanite schooled in Populist principles*»[385]. Daniels acquired indeed recognition within the Democratic Party for the help and support that he, as editor of one of the main North Carolinian newspapers (the *News & Observer*), gave to Bryan during the presidential campaign of 1896. He was then named as Democratic national committeeman for his state, a position he maintained until 1912, while continuing to advance the Party's cause from the pages of his newspaper. His selection as member of the cabinet after Wilson's victory was not happenstance. Daniels was an ardent reformer and during the first decade of the century he had come to know, and appreciate, the vision of the future Democratic president. Despite the initial differences between Bryan and Wilson, he fully threw his support behind the latter. In fact, he skillfully worked behind the scene to smooth any possible intra-party, becoming instrumental first in bridging the divide between them and then in securing Wilson the nomination in 1912. It was Daniel's activity in those years that elevated him into the inner circle of the presidential candidate, who duly rewarded him for his work after the election[386].

The relationship between the two was based on mutual appreciation and remained solid throughout the years, as Daniels became one of the (only) four cabinet members to serve during both Wilson's terms. His nomination as Secretary of the Navy was however not without controversy. Daniels knew nothing about naval operations or the department he was about to lead. Similarly to what happened in the selection of the other departments' heads, loyalty turned out to be more important than expertise. Daniels would have nonetheless succeeded in his position, steering the Navy through turbulent times – and a world war from which the U.S. naval forces emerged undoubtedly stronger than they had ever been. Daniels indeed made up in effort and determination what he lacked in experience. His activism and drive for reform became

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March 16, 1913. The famous American Review of Reviews, edited by Albert Shaw, defined Lane as a men who could not «*ever be buncoed by political confidence-men or power-company lobbyists*». «The New Department Heads», *The American Review of Reviews*, Vol. 47 (1913), p. 434.

[385] David M. Kennedy, *Over Here: the First World War and American Society* (Oxford: Oxford University Press, 2004).

[386] On Daniels' life, see: Craig Lee A., *Josephus Daniels: His Life and Times* (Chapel Hill: University of North Carolina Press, 2013)

clear since the very beginning of his tenure. Like Wilson, Daniels officially took office on March 5, 1913. The day after arrived also Lane's formal confirmation as Secretary of Interior[387]. On March 7, just two days after the installation of the administration, the Assistant Secretary of the Navy Beekman Winthrop wrote to the Secretary of Interior, asking Lane to provide his Department's «*unreserved opinions*» on a series of technical issues connected to one of the most pressing, and important, matters for the Navy: the conversion of the American fleet from coal to oil[388].

Winthrop explained that, in order to «*act intelligently and safely upon the policy of building oil-burning battleships and destroyers*», the Navy was requesting information on «*the future of fuel oil*» in the United States. The advantages of the use of petroleum in military and naval operations were so evident, Winthrop continued, that the Department would have loathed throwing them away – especially considering that the United States, as «*extensive oil-producer*», seemed to be in an unique position to make use of it. By mid-1913, the Navy had already begun equipping its smaller ships with oil-burning engines, so the question was not whether to initiate the transition to fuel oil but whether to embrace, accelerating the conversion as to finally include capital ships. In fact, the Department had already requested and obtained the authorization from Congress to build its first oil-fuelled battleships (the *USS Nevada* and the *USS Oklahoma*) in 1912. Their construction, which had started late that year, was however far from being completed when the new administration took office and, as Daniels himself reported in his memoires, the Navy technical bureaus were still discussing whether or not actually install a propulsion system that relied primarily on oil[389]. What caused the Department to have second thoughts were the expenses associated with the use of liquid fuel. The price of petroleum was rising quickly and steadily (especially on the Atlantic seaboard) due to the burgeoning demand and, as Winthrop wrote to Lane, the Navy would have found itself in an «*awkward and dangerous position*» if the country's oil reserves were suddenly to fail once the conversion of the whole fleet had been approved. The new Secretary wanted therefore to make sure that there was enough

[387] Craig Douglas. *Progressives at War: William G. McAdoo and Newton D. Baker, 1863–1941*. (Baltimore: Johns Hopkins University Press, 2013), Ch. 5.
[388] Beekman Winthrop to Franklin Lane, March 7, 1913; Josephus Daniels Papers, Box 565, Reel 63, No. 637-640, Manuscript Division of the Library of Congress, Washington DC,
[389] Josephus Daniels, *The Wilson era: years of peace, 1910-1917*. Vol. 3 (Chapel Hill: North Carolina University Press, 1946), p. 368.

oil available to supply the new battleships during their entire lifespan, which was considered to be of about twenty years, before confirming the policy of fleet conversion. The request for information addressed to Lane was particularly indicative of the position of the Navy as regards to fuel oil and, more in general, the country's level of awareness about petroleum's uses, supply, and military potential. The letter demonstrated the Department's (and Daniel's) serious interest for the matter – one that would have remained central throughout the decade –, but also the relative unpreparedness of the Navy on some of the basic issues surrounding it. Winthrop asked Lane what would have been the «*probable fuel-oil situation*» in twenty years, on how many years notice could have been expected in case U.S. oil resources were to fail, and how reliable would have been the Navy Petroleum Reserves in California as source of supply for the following two decades in case the Navy had to depend on them, taking into consideration their current status and the constant drainage by wildcatters. The decision to ask for Lane's opinion was warranted, given the expertise of the Interior's bureaus on the matter. Less justifiable, and more problematic, was the extent to which the Navy's policy of conversion seemed to hinge on the technical judgment of another federal agency. The letter indeed indicated, still in 1913, Daniels' department lacked any in-house bureau or committee able to make similar estimates and had to base the future of a program as important as that of adopting oil-fuelled battleships on assessments made by an external entity, as it was not in the position to autonomously determine the proper course of action. This aspect is even more worrying when one considers that the decision to adopt oil as primary fuel for the new class of capital ships had, in fact, already been made in 1912. In the final months of the Taft's administration the Navy's adoption of oil did seem a fait accompli, so much so that the geologist and oil expert Day himself wrote that the Navy had «*definitely abandoned the use of coal in future fighting-ship design. All new destroyers, submarines and battleships are designed for oil burning*», adding that the Navy was «*extending its oil facilities rapidly*»[390]. By declaring itself surprised by the rising prices and ready to reconsider its choices depending on the Interior's estimates, the Navy proved that not only it still lacked its own supply strategy but also it had failed in acquiring the necessary capabilities to plan for one.

[390] Petroleum, by Thomas T. Day, in Mineral resources of the United States for the year 1912 Part II (Geological Survey – Washington DC, Government Printing Office 1913), p. 373.

The figures in Daniels' possession seemed to be at best partial and at worst inadequate not only as regards to the general oil situation of the country, but also as to the status of the Navy own reserves in California, which had been established as early as 1910. The fact that Day, in those very months, published exactly these information in *his* own annual report, offering an estimate of the capacity of the Elk Hills and Buena Vista fields together with the volume of oil stored in all the others naval stations, from Norfolk to Pearl Harbor, from Boston to Guantanamo, was the apparent confirmation that the Geological Survey knew more than the Navy itself – or, at least, just as much[391].

The way in which the Navy reported on its fleet's oil requirements to Lane, too, raises questions about the Department actual effort, if not ability, to plan for future supply. Despite the rapid growth of oil consumption in the first decade of the century and the experience of the war of 1898, which caused the amount (and the cost) of fuel – coal, at the time – necessary for U.S. naval operations to skyrocket, the Navy had asked the Department of Interior to assess the reliability of Californian oil reserves by providing a fixed and constant figure as annual naval consumption for the following twenty years, with no indication or apparent provision for increased use in case of war. The comparison with the British strategizing could only serve to emphasize the delay and superficiality of the American side, since by 1913 the Royal Navy had already set up a specific naval commission on oil after years of internal discussion about the adoption of fuel oil and planning for its recovery from various overseas sources.

The Department of Interior, on its side, took more than three weeks to respond to the request of information. When Lane's reply arrived, on March 31, a young Franklin Delano Roosevelt had already replaced Winthrop as Daniel's Assistant Secretary. The information conveyed was itself an indirect (and involuntary) proof of the volatility (and inaccuracy) of U.S. oil estimate at the time. Lane reassured the Navy about the availability of petroleum in California. In explaining the state's oil situation, the Secretary of Interior made reference not to the aggregate Day's 1908 report, but to more recent and specific estimates that focused on the petroleum reserves of the West Coast. Based on these reports, Lane predicted that Californian oil would have lasted way more than twenty years[392]. What is remarkable is how he (and the engineer he cited) came out

[391] Ibid., p. 373-374.
[392] Franklin Lane to Secretary of the Navy, March 31, 1913; Josephus Daniels Papers, Box 565, Reel 63, No. 638-640, Manuscript Division of the Library of Congress, Washington DC.

with such a figure. The number of years of oil supply left in California was indeed calculated by diving the estimated amount of total reserves of the state by the *1911 rate of production*. Petroleum estimates, therefore, continued to fail to properly anticipate, measure, and include the continuous growth in production and consumption, creating fixed models that were as linear and stationary as inaccurate.

To be fair, Lane did stress that it would have been impossible to provide accurate answers to the Navy's questions, since they depended on a «*a variety of unknown factors*» – a series of variables that could have greatly affected the «*commercial and industrial development in the country during the next generation*». This realization however did not stop Lane to write Daniels that he believed the Department of the Navy would have been able «*rel[ied] upon the reserves already existing for a supply of fuel oil for a period greater than the life of any battleship to be constructed within the next decade*»[393]. Lane, of course, got the right answer, although his numbers and model were incorrect. His assurance was enough to convince Daniels to go forward with the conversion: the first two American battleships relying primarily on oil would have been launched in mid-1914 and finally commissioned in 1916.

Daniels also asked if the Navy could expect "some relief" from the high prices that it was forced to pay on the Atlantic coast in order to get oil. Lane replied that fuel would have only become more and more expensive and, as the only way to avoid such expenses, suggested that the Navy autonomously extract its own oil. Despite lacking any technical expertise on oil drilling and extraction, the possibility of directly producing oil and therefore "cutting out the middleman" resulted incredibly appealing for Daniels. In the following weeks, after having received equally positive feedbacks about the idea by the Navy General Board and the Bureau of Steam Engineering, which expressly suggested asking appropriation and authorization from Congress, the Secretary decided to move forward. He used the Navy annual report, presented in December 1913, to press the matter before the administration and the U.S. lawmakers. His words offered a forceful representation of the situation, emphasizing the need to act promptly to secure oil for the Navy and avoid remaining at the mercy of the oil companies. He recommended to Congress «*the immediate consideration of providing fuel oil for the Navy at reasonable rates, and the passage of legislation that will enable*

[393] Ibid. No. 640.

the department to refine its own oil from its own oil wells and thus relieve itself of the necessity of purchasing what seems fair to become the principal fuel of the Navy in the future, at exorbitant and ever-increasing prices, from the private companies that now completely control the supply»[394]. In order to emphasize the urgency of the matter, he explained that «*the superiority of oil over coal*» was at that time a settled issue and «*no longer a matter of experiment*»[395]. He doubled down on this point by bringing up the example of the Royal Navy. Churchill's attempts to make the Navy self-sufficient as regards to oil through the development of an independent network of supply and a series of direct partnerships with the national oil companies proved that the British Government, Daniels stated, had «*clearly foreseen*» that the future was «*in the control of oil wells, and the refining of its own*». Daniels rhetorically asked what the United States, a country with «*bounteous flowing petroleum wells*», was waiting for to develop its own fields if even was even an oilless nation as England – which he called «*geographically handicapped*» – had realized that taking charge of the supply at the government level was the best policy[396].

It is worth noting that, in pressing for a Navy able to produce and refine its own oil, the Secretary was driven more by economic considerations than by strategic ones. Daniels was worried about the price of oil and, given its newfound indispensability of liquid fuel, wanted to find a cheaper way to secure it. In this respect, to influence Daniels' reasoning and shape its position (and that of the Department) there was his deep-rooted distrust for "big business". As many other progressives of the time, especially those within the Wilson administration, the Secretary favored governmental control over the industry and despised the monopolies. He was therefore soon to identify the oil companies, whose behavior was the first cause and target of the widespread suspicion and hostility against the large business in the United States, as a possible obstacle, if not danger, to the national service offered by the Navy. In his report Daniels indirectly accused them of profiteering (and charge that would have been levied on them multiple times during the War), famously saying that the current system, in

[394] *Annual reports of the Navy Department, Report of the Secretary of the Navy* (Washington: Government Printing Office, 1913), 14.
[395] Ibid.
[396] Ibid., p. 15.

which the Navy had to purchase oil from the market, only «*fattened the pockets of a few oil companies*» at the expenses of the American people[397].

In the anti-trust crusading climate of those years, it is not difficult to understand why Daniels' proposal seemed reasonable and even to some extent appealing. Roughly a month after the publication of Daniels' report, in January 1914, Congressman Thomas Pryor Gore introduced a resolution in the Senate that authorized and directed the «*Secretary of the Navy and the Secretary of the Interior to investigate and report as to the feasibility, expense, and desirability of Government constructing maintaining, and operating*» its own pipe line to move oil from the mid-continent to the Gulf, as well as of acquiring additional oil lands or lessees and «*producing or purchasing oil with a view to provide and conserving at all times an adequate and available supply of oil for the Navy*»[398]. Not surprisingly, also the proponent of the resolution was a progressive Democrat coached in populist principles. Born in Mississippi, Gore became a prominent member and supporter of the Populist Party in the early 1890s, before deciding to campaign for Bryan in 1896. He formally joined the Democratic Party in 1900 and was elected as a Senator from Oklahoma for the same Party in 1907. His background is a sign of the importance of the southern-populist tradition in the definition of the Democratic brand of progressivism during the early Wilson presidency. In 1914, the Senate did indeed approve his resolution and, for the following two years a representative of the Department of the Interior, together with a colleague from the Navy, conducted hearings to assess the feasibility of the new proposed policy.

The oil industry was not pleased at all with the idea. Small operators had, in fact, reasons to appreciate the plan, since the entrance of the federal government into the petroleum business would have helped them – in theory – to break Standard's close hold over the industry. Rockefeller's various companies and subsidiaries, even after the court's order of 1911, maintained a *de facto* monopoly of the American oil transportation network. A federal-owned and managed pipeline would have therefore brought some relief (and a possibly fair alternative) to independent companies otherwise

[397] Ibid. p. 15.
[398] Report to the United State Senate in accordance with the Gore Resolution (Senate Resolution 244, 63rd Congress, 2d Session), Richmond Levering, who assembled the report, to Senator Cato Sells and Commander J.O. Richardson (U.S. Navy), who were the two members tasked to coordinate and manage the investigation, 18 January, 1915, Decimal File 81.6363/2, RG 59, NARA.

forced to accept any price requested by the "octopus" to handle their oil[399]. Despite the possible benefits, however, such a move by the administration would have represented an outright intrusion into the private sector. The government would have become a major player within the industry, turning into an actual competitor – one that would have been even harder than Standard to work against – and no oilman could take the prospect lightheartedly. The possibility of a federal authority with creeping regulatory powers and a direct participation in oil operations was a risk more than anything else, as the sanctity of free enterprise, and the definition of its limit, remained exactly the major point of contention in the political and cultural struggle between the private capital and the public administration that characterized the Progressive Era[400]. The fact that the government believed that it could known and do better than the oilmen themselves in fuel production and distribution was not therefore only a worrying news but also an irritating development for those entrepreneurs who had helped to make the American petroleum industry great worldwide[401].

The results of the Senate investigation, which were ready by January 1915, could do nothing but uphold the position of the business interests, pouring cold water on the aspirations of the Secretary of the Navy and all those who believed that the federal government had the political capital and the practical skills to substitute itself to private companies. The final report considered the project feasible from a purely engineering standpoint, but stated that none of the departments or agencies existent at the time would have been able to undertake it. It was not just a matter of technical knowledge. The reality of the oil business made its day-to-day operations too complex to be managed through government bureaucracy.

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[399] This is how in mid-1913 the New York Times described the dominion that the Standard still enjoyed in the domestic market: «*While the Standard Oil has been dissolved, it is still the principal stockholder in the segregated companies…The Standard is, however, the carrier. It owns the pipelines that tap every well and drain the product as fast as it is produced. In this virtually has no competition and it is, therefore, practically the one buyer of crude oil at the well and can fix the price at whatever it pleases within reason or without it. This condition also allows it, no matter how the corporation may be split up, to fix the price at which the independent refineries must sell their oil*». «Thousands of Uses for Petroleum Oil – While Production Declines, New Demands Grow, and it All Works Well for the Standard Oil – Controls by Simple Plan», *The New York Times*, March 22, 1913.

[400] Together with the oil industry, the railway companies were the other preferred targets of the anti-business crusade. The menace of government control in their case seemed at times even more real: see for example: «Higher Rates of Government Ownership – W.C. Brown Retiring President of the New York Central Thinks End of Private Control of Railroads Likely if Interstate Commerce Commission Does Not Decide Pending Rate Case in Their Favor», *The New York Times*, December 21 22, 1913

[401] See also, John A. DeNovo, «Petroleum and the United States Navy before World War I», *Mississippi Valley Historical Review*, Vol. 41, No. 4 (1955), p. 653.

«*We consider the operation of producing oil no simple matter and the operation of pipe line, refineries and the marketing so complicated in their ramifications, that short of an organization which is as efficient as some of our largest oil companies, it is impossible to satisfactorily conduct this business*»[402]

The only possibility was to create a sort of «*permanent service department*» to be filled with oilmen co-opted from the private sector and therefore already «*thoroughly trained in these matters*». Even in that case, however, the nature of the public administration would have frustrated their work and chances of success. In an passage that seemed to perfectly incorporate the industry's critique, the study explained even if «*men of this class were obtained, they would not be able to work at their full efficiency on account of restrictions, limitations and delays that would be imposed upon them as employees of the government. Their chief value in any private corporation would be their ability to take prompt action in matters that frequently involve large expenditures on properties or production, and these opportunities could not be taken advantage of if they were obliged to be put through as requisitions or requests through the usual Government channels*»[403].

The report still considered «*highly desirable, even imperative, that the Government should place itself in a position to control a reserve supply of oil that will give it use of liquid fuel at a minimum cost for a long period of years*», but asked it to refrain from any direct involvement in refining and marketing of oil[404]. All it had to do to secure the oil was to lease its lands to private companies and subject them to the Government's right to claim production as required, or reserve those territories and avoid excessive depletion. Alternatively, it could just find an arrangement with the oil companies operating there as to maintain the possibility to obtain fuel oil – the only item the Navy was actually worried about spending too much money on – at production cost and allow them to sell the other petroleum products for profit.

The report included the statements of the Navy Commander David F. Boyd, who had been specifically asked to collaborate in the study and who had been even more

[402] Report to the United State Senate, 18 January, 1915, Decimal File 81.6363/2, RG 59, NARA.
[403] Ibid.
[404] Ibid.

straightforward in his assessment. He wrote that the U.S. stood «*supreme in production and reliability of supply*». While foreign fleets may had «*perplexing oil problems to face*», the American Navy had «*only that of expense to meet and surmount*». Since the problem, in Boyd's opinion, was just about the price of oil and not its availability, the solution was simple: it would have been enough for the government to reserved for itself the privilege of first purchaser of the oil produced from the lands it owned and secure «*preferential contracts from any of the large pipe line companies now operating*»[405]. There was no need to enter the oil business; the government could have just taken care of organizing its own transportation system to connect its storage tanks to its bases along the American coasts.

The results of the study greatly dampened the enthusiasm and interest in Congress around Daniels' plan. The changing reality of the petroleum industry had meanwhile contributed to undercut the position of the Secretary. At the time of the submission, the U.S. oil outlook appeared much better than it was when the Navy first wrote Lane – a perspective change in that was emerged also from the overall very optimistic tone of the report. Between 1913 and 1915, U.S. oil production had indeed growth by around thirteen percent, while the price had dropped by more than *thirty* percent[406]. What was regarded as the Navy's main problem as regards to oil had, therefore, almost disappeared by itself and the U.S. Congress, as a consequence, became less concerned about the issue. Despite the insistence of the Secretary, who as late as a month before the report was presented reiterated his desire to see the Navy «*own its oil lands and ultimately produce, transport, refine, and store its own oil*»[407], the plan to transform his Department (and therefore the government) into a oil producer was shelved. Another reason for the decision was the fact that, while the hearings were ongoing, the Supreme Court had struck another blow to Standard's control, ruling that the companies operating the American oil pipelines were in fact "common carriers" engaged in interstate commerce, and therefore subject to the Interstate Commerce

[405] Extracts from Commander Boyd's Report; in Report to the United State Senate, 18 January, 1915, Decimal File 81.6363/2, RG 59, NARA.
[406] EIA, petroleum production, electronic database, at www.eia.gov/dnav/pet/pet_crd_crpdn_adc_mbblpd_a.htm
[407] *Annual reports of the Navy Department, Report of the Secretary of the Navy* (Washington: Government Printing Office, 1914), p. 19

Commission[408]. The sentence had expanded the powers to regulate of the federal government the movements of petroleum products under the Hepburn Act of 1906, thus already addressing some of the concerns raised by Daniels about the absolute power of the private companies in imposing high prices.

Despite the rejection of Daniels' requests, the debate on the issue remained however as the first instance in which the direct intervention of the government in the oil business as an actual participant was proposed. Proposals to organize through and on behalf of the federal government business entities directly involved in oil production, refining, and marketing would have appeared again both after WWI and WWII. In all these cases, the authority and capacity of the national oil companies was questioned and, in the name of a greater national good, Washington's authority and resources were summoned. In every instance, the American oil companies managed to rebuff the attempts to restrict their space of maneuver and encroach on their commercial independence while holding high the banner of free enterprise.

The extreme confidence expressed in the report about the overall availability of American oil – just a few years after the foreboding estimates completed at the end of the Roosevelt administration – indicated the difficulties that some U.S. officials still had in understanding the nature and dynamics governing the industry and therefore predict its trajectory. The Navy, in particular, seemed to be easily swayed by the volatile movements of the market. Unable to grasp the forces at play and therefore anticipate them, the Department was forced to closely follow and *react* to the ups and downs of the petroleum business. This also meant, however, that the only way the Navy could make long term planning was by using short time-frame analysis. What they use to do was basically take the only thing available to them – a snapshot of the current market situation – and project them into a longer temporal perspective in a linear manner. Just like if they were to develop a flight plan only by looking outside a cabin window, the

[408] The legal battle began in late 1913 («Opens Pipeline Fight – Brief Upholding Government Control Filed by New Solicitor General», *The New York Times*, September 23, 1913) and ended in June, 1914: «Standard Oil Loses Its Pipeline Fight – Supreme Court Upholds Act Making Lines Common Carriers Subject to Regulation», *The New York Times*, June 23, 1914. Even after this (second) sentence, the government continued to go after the Company. Suspicious that the various affiliates may have not complied with the ruling, the Senate adopted two resolutions aimed at verifying the extent to which they had obeyed the Supreme Courts' decrees. Washington's attitude proved the distrust that was still present against the Company. One of the two resolutions was sponsored by Gore himself. «Senate Prods Standard – Direct Inquiries as to Dissolution and Pipeline Oil Purchases», *The New York Times*, September 29, 1914.

American officials found themselves scrambling to readjust their path (and policy) after any variation in the external conditions. Unable to gather all the information and incorporate them in a single, broader, and more stable model, they risked not only to miss the bigger picture, but also to over- (or under-) react to any change along the way.

The ability to grasp the basic elements of the ongoing process that the Navy itself called «*the passing of coal and the advent of oil*» would have indeed been crucial in any attempt to correctly assess and adjust to it[409]. The adoption of liquid fuel on a global scale would have had enormous consequences. Yet a still overlooked aspect seemed to be the soon-to-arrive increase in demand that the implementation of a similar naval policy in all the other countries would have caused. Like the United States and following the example of Great Britain, other powers would have tried to secure oil for naval uses too and, if the line of action proposed by Churchill and Daniels, involving the government's direct participation into the oil business, were to become the norm, then access to oil would have stopped to be simply a commercial objective and become a bone of strong political contention between nations. The Petroleum Gazette, a Pennsylvanian independent oil and gas journal, had anticipated this scenario as early as 1913 while discussing Daniels' proposal:

«*There are other considerations than cost that enter into the question and not the least of these are volume and permanence in supplies made available…If the world's navies are to use oil for fuel the same arguments will be advanced and acted upon by every other nation that would not be placed at a disadvantage in naval efficiency. The governments with home or territorial oil fields will endeavor to provide for the greater part of their supplies in the same manner as proposed above by Mr. Churchill in Great Britain and Mr. Daniels in the United States, while the countries with little or no oil production, but with navies using fuel oil, must make provision for storage reserves. Indeed, even the governments best situated as to current supplies and producing territory, actual or prospective, will require substantial reserves of this character, for oil fields will decline and dry spots will be in evidence for governments as well as individuals. Thus to the rivalry for oil on the part of individuals and companies there is the prospect, in the present outlook, there is to be added the rivalry of nations*»[410].

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[409] *Annual reports of the Navy Department, Report of the Secretary of the Navy* (Washington: Government Printing Office, 1914), p. 17.

[410] The Petroleum Gazette was symbolically published in Titusville, the very city where Drake drilled the first oil well of the modern era. «Foreign Interests in U.S Oil», *The Petroleum Gazette*, Vol. XVIII, No. 4, July 1913, p. 2.

A world's race for oil driven by a change in naval policies would have put under great stress the existing production sites, redesigning trade patterns and eventually upsetting the linear, "static" representation that American officials had of the oil business. At the time, the industry already operated on a global scale, dominated by international corporations with large interests abroad and over which national governments had little or no control. In 1914, U.S. oil companies' investments in Europe accounted for about *one fourth* of all the American foreign direct investments towards the region[411]. Even when taking into consideration the entire world, the share of American FDI in the petroleum sector (exploration, production, refining, and distribution) remained well above ten percent of the total[412]. These numbers are impressive if one considers that the pre-WWI period represented a still early stage of development for several oil-intensive industries (including mechanized agriculture, air-transportation, chemicals and plastics). Still in 1914, American companies (and above all the Standard Oil group) provided alone for almost one third of all the crude oil and derivate products demanded by the other countries[413]. In this context, it is clear that oil was not meant to, and would have not, stopped at the border. Petroleum would have flown instead where it was most needed (purchased), following the law of supply and demand – or, more realistically, according to the market share allocations decided by the companies among themselves.

The industry had evolved tumultuously through cycles of rapid expansion fuelled by major oil discoveries around the world. Especially in the United States, where the structure of the property rights rewarded the quick exploitation of the fields over their conservation, periods of overproduction were part of the (if not natural, at least) usual pattern of development of the oil business. Due to the high availability of petroleum, the commerce of crude oil and derivatives had remained a buyer's market for most of the previous decades. Yet price hikes due to rapid increases in demand or sudden drop in production, especially at regional level, were also common. Oil booms and phases of relative contractions therefore alternated in what was an overall positive

[411] Mira Wilkins, *The Maturing of Multinational Enterprise: American Business Abroad from 1914 to 1970* (Cambridge: Harvard University Press, 1974), p. 31
[412] Ibid.
[413] American Petroleum Interest in Foreign Countries, Hearings Before a Special Committee Investigating Petroleum Resources – United States Senate, 79th Congress, 1st Session, Senate Resolution 36, June 27-28, 1945 (Washington DC, Government Printing Office, 1946), p. 214.

trend of growth for the petroleum sector. These fluctuations however continued to puzzle and concern those who were looking closely at the industry, trying to understand it and interpret its future course.

Indeed, the optimism of the years immediately before the War quickly dissipated as the fundamentals of the market began to change again. In his 1915 annual report, Daniels repeated his worries about the oil situation before the Congress. Oil price was on the rise once again and he explained that the supply was «*a problem of great importance*» now that the Navy had fully committed to liquid fuel[414]. Forced to abandon the idea of having the Department produce its own oil, he did not relent and indeed double down on the request of for protection of the naval reserves. Oil was a «*necessity*» for the Secretary, who regarded the oil lands in Wyoming and California as the actual lifeline of the Navy[415]. Wary of the market oscillations and even warier of private interests, he announced that he had met with the Attorney General and the Secretary of Interior in order to figure out the best strategies to protect the rights of the Navy and asked the government to "persecute" and "remove" without delay any driller who was «*illegally occupying*» any tract of those territories to operate thereon. Daniels stated that the «*only feasible method of providing an adequate, dependable supply*» was to set aside, under government control, large oil-bearing areas and keep private companies out of them. Those reserves were to be used only when a decrease in production and high prices would have shut off all other sources of supply[416]. In Daniels' opinion, such a time would have come, for sure: it was just a matter of "when", not "if". It was therefore «*vital*» for federal government to retain control of those lands[417]. The obsession with the naval oil-lands was indeed so great that at one point he actually requested the deployment of armed group of Marines on them – and therefore on U.S. soil – to physically protect the areas from wildcatters[418].

After what seemed a short period of diversion, principle of conservation came back as strong as than ever as guide for government's action and as fundament of the

[414] *Annual reports of the Navy Department, Report of the Secretary of the Navy* (Washington: Government Printing Office, 1915), p. 64.
[415] Hearings before Committee on Naval Affairs of the House of Representatives, on estimates submitted by the Secretary of the Navy (Washington DC: Government Printing Office, 1915), p. 763.
[416] *Annual reports of the Navy Department*, 1915, p. 64.
[417] Hearings before Committee on Naval Affairs of the House of Representatives, 1915, (Washington DC: Government Printing Office, 1915), p. 763.
[418] Ibid, p. 760.

public debate around American resources, especially mineral ones. In fact, conservationism had never left. It had simply fell on the background for a very brief time as oil production grew and the country gained new confidence about its role and its means, thanks also to a blossoming industrial sector, a revamped Navy, an expanding commerce, and the continuous growth of Washington's diplomatic reach. Furthermore, to dampen the conservationist furor had arrived Lane himself, who had a more moderate and pragmatic view on how to manage the country natural resources. Differently from those who held pure preservationist positions, the new Secretary was open to a controlled and regulated – functional – use of American natural endowment. As his reply to Daniels demonstrated, he saw the country's naval reserves as an asset to exploit – not as an untouchable property. This attitude was, in theory, similar to that displayed a few years earlier by Pinchot, the father of America's forestry. In fact, the two were more distant than what they had wanted to see. Pinchot, who had even welcomed Lane's appointment, would have turned sour quickly, as the Secretary began to drift farther and farther away from his initial naturalistic benevolence and towards a pro-business vision and management of American lands and natural resources, oil included[419].

Lane's growing distance from the traditional positions of the American conservationists was however due more to the intransigency of the latter than to the treachery of the former. To any of Lane's openness towards the American business interests interested to operate on government lands, Daniels responded with stiffness, progressively hardening its position as to claim the absolute inviolability of the oil-bearing lands under federal jurisdiction by 1915. The crusade of the Secretary of the Navy signaled that at no point before the War the conservationist cause was lost. The proof that the progressive conservationism, as defined by its traditional anti-business ethos, was still a powerful ideological force was in the kind of reasoning expressed by Daniels and by those who, like him, always operated on the premises that resources were scarce and that, in order to make better use of them on behalf of the "nation", federal government had to step in and private interests had to be kept in check. This socially and economically characterized conservationism scored indeed some important

[419] Contemporary conservationists were inflexible with Lane and would have later openly accused him of selling off federal lands to private interests. John Ise, one of the most fervent conservationist in the 1920s, got to the point of calling Lane «*one of the most dangerous men that have ever held the office of the Secretary of Interior*», John Ise, *The United States Oil Policy* (New Haven: Yale University press, 1926), p. 336.

points in those years. On April 30, 1915, Wilson decided to create a third Naval Reverse at Teapot Dome, in Wyoming. The decision, which followed Daniels' request and came in the middle of the discussion about the legal status of the first two, left little doubt as to where the president stood.

In such a climate, Wilson's administrative move was indeed particularly significant. Yet it was neither the only action nor the most visible one taken at the time with the problem of the American future oil supply in mind. In 1914, the president had authorized the occupation of Veracruz, in Mexico, after the diplomatic crisis following the Tampico Affairs. The deployment of U.S. forces was formally meant to restore the American prestige and admonish the southern neighbor. In fact, it was a way to punish and damage the authority of Victoriano Huerta, who was despised by Wilson. In the context of the intervention, the take of Veracruz did not come by chance. American oil companies had indeed invested heavily in the area in the previous years, attracted by richness of the oil lands and the closeness to the American border, and the administration realized it would have been important to safeguard them.

The decision to intervene arrived in late April 1914. Just a couple of weeks before, the Secretary of State Bryan had explained Wilson that Mexico was destined to become an «*inevitable source*» from which the American oil supply would have been drawn in the near future. Bryan's reasoning added a new passage to the usual conservationist logic – one that pointed at foreign oil as the natural substitute for what many thought would have soon become difficult to find at home. In a matter of a couple of years, those concerns would have grown exponentially thanks to the war in Europe, marking a new phase in American conservationist thinking.

The First World War would have indeed soon confirmed petroleum's crucial role as fuel and lubricant also in the military realm, producing a new awareness about its role, availability, and supply. As soon as the conflict spread through Europe, oil became a prized resource in a conflict that saw the introduction of tanks, trucks, and planes, and a widespread use of submarines and battleships. The steady rise of petroleum consumption, however, was worrying news for those federal experts who had already questioned the abundance of national oil resources before the outbreak of the war. As early as February 1916, with the war already ravaging Europe, Mark Lawrence

Requa, a consulting engineer at the Bureau of Mines, prepared a report on «*The Exhaustion of the Petroleum Resources of the United States*», and submitted it to the U.S. Senate through his friend and California Senator James D. Phelan. The Bureau of Mines, headed by Van H. Manning, and the U.S. Geological Survey, whose director was George Otis Smith, were both agencies of the Department of Interior. Formally they had different technical responsibilities, but the status of American oil reserves was clearly an area of common interest. In his article, Requa painted a very grim picture of the country's future, explaining that American oil resources could last – under the best of circumstances – about thirty or forty years. He specifically called for the intervention of the federal government to avoid what was described as an impending national catastrophe. The only solution, according to the federal official, was in the acquisition of foreign resources (first of all the ones in Mexico, then those overseas). There was not only the country's commercial and economic independence at stake, but also its freedom.

«*Viewed from any angle, the situation is highly unsatisfactory and demands immediate consideration in an attempt not only to husband what we have but to add to our reserves by securing foreign sources of supply…*

In the exhaustion of its oil lands and with no assured source of domestic supply in sight, the United States is confronted with a national crisis of the first magnitude…We must either plan for the future or we must pass into a condition of commercial vassalage, in time of peace relaying on some foreign country for the petroleum wherewith to lubricate the high-ways of commerce, in time of war at the mercy of the enemy who may either control the source of supply or the means of transportation; in either event our railways and factories will cease operation our battleships will swing helplessly at anchor, and our country will resound with the martial tread of a triumphant foe»[420].

Requa was a true "mining man", whose father made a fortune with gold and silver mines in Nevada. He instead turned first to copper and then to petroleum, joining the oil rush in California at the beginning of the century. As member of the industry, Requa had already become a relatively well-known figure within the Western oil circles. In Washington, however, in 1916 he was still a simple technical advisor and his earnest concerns for the status of the national oil reserves may have seemed far-fetched.

[420] Mark Requa, *Article on the Exhaustion of the Petroleum Resources of the United States*, United States Senate, 64th Congress, 1st Session, March 9, 1916. A copy is enclosed in the Department's file 867.6363/5, RG 59, NARA II.

The gravity of the situation, as expressed by his article, largely surpassed any previous assessment about the role of foreign petroleum. At the time, the American companies were already present in the Mexican oil fields and the federal government was aware of their importance. It was however an evaluation based on their commercial value, not on their strategic significance. Requa's message carried instead a different and unprecedented sense of urgency[421].

These considerations ceased to be simply those of a particularly concerned engineer only one year later, when United States' entrance into the war transformed Requa's role within the administration and gave him national visibility[422]. Personal connections helped his cause: soon after the country joined WWI, Requa's close friend Herbert Hoover called him to serve as his personal assistant in the U.S. Food Administration. After few months of service, he was appointed Head of the Oil Division in the U.S. Fuel Administration, a position that gave him large wartime regulatory powers and the opportunity to establish close ties with companies' executives. In that function, indeed, he gained the appellation of «oil czar» and worked side by side with the National Petroleum War Service Committee (NPWSC), a group of prominent industry representatives including the heads of the major national oil companies, to coordinate petroleum shipments to the Allies and organize national fuel distribution. The Committee had been designed specifically to encourage the collaboration between oilmen and federal agencies and succeeded in bridging their relationship. The joint-wartime planning was considered a success on both sides of the Ocean. The U.S. was able to supply about eighty percent of the Allied petroleum needs during the war and the combined work of the country's companies and federal departments received widespread acknowledgment on the press[423].

The war effort, however, also forced the United States to accept oil rationing and gasless Sundays, which were imposed by Requa himself in the last months of conflict. The domestic controlled shortages were simply the result of the industry difficulties in

[421] About the concept of scarcity and the resulting "ideology", see: Roger J. Stern, «Oil Scarcity Ideology in US Foreign Policy, 1908–97», *Security Studies*, Vol. 25, No. 2, pp. 214-257.

[422] Requa's name began not only to appear on oil industry-related journals and magazines, but also on the national newspapers. During wartime, *New York Times* itself reported multiple times on his work and decisions as Head of the Oil Division.

[423] See, for example: «Floated to Victory on a Wave of Oil, Earl Curzon Tells How Allied Ingenuity Overcame Petroleum Crisis of 1916», *New York Times*, November 23, 1918; «Wave of Oil that Swept Allies to Victory Was American Oil», National Petroleum News; December 16, 1918.

restocking and transporting oil after having stretched its logistical resources for years because of the war, but they ended up inevitably confirming the fears about the future of the national supply previously publicized by federal experts, bringing down an already weakening confidence in the abundance American oil reserves. Requa's narrative began to gain recognition and support during the final moments of the WWI, as he incessantly continued to press his arguments in Washington. Hoover's endorsement of his recommendations, and overall vision, for example, arrived already in October 1918. The then still head of the U.S. Food Administration wrote him denouncing the restrictions put by foreign countries upon U.S. companies attempting to acquire ownership of oil producing territories abroad, and expressing his agreement on two specific points:

1. *The United States oil concerns must secure foreign oil territory if we are to have continued supplies*
2. *The effort to secure this supplement must be organized by the Government*[424].

Requa was incredibly consistent during his career in advancing a strongly competitive, antagonistic vision about the issue of oil supply, based on a classical and exclusivist – in a world: imperialistic – notion of possession and control that applied to the natural resources just as well as it applied to territories. He reiterated this approach in his final report as general director of the Oil Division U.S. Fuel Administration, produced soon after the end of the war. In the official document, dated December 20, 1918, and to be transmitted to the head of the U.S. Fuel Administration, H. A. Garfield, Requa explained that it was not even a matter of knowing precisely how much oil was still stored below the American ground anymore. The decision to acquire foreign fields was not connected to the years of supply left; it was not a relative necessity, but an absolute one. This is why, regardless of how much time the country had left before seeing the exhaustion of its national resources, the government had to act *now*:

«*Whether estimates of the Geological survey are correct or grossly in error, the fundamental fact remains unaltered; we are increasing our consumption of petroleum products at a tremendously rapid rate, domestic production no longer suffices to meet the demand, and in the light of future needs we should, as a Nation, encourage in every*

[424] Hoover to Requa, October 12, 1918, Food Administration Records, Box 66, Hoover Institution, Stanford (CA), USA.

way possible our nationals in the acquisition of petroleum-bearing lands thought the world…

Mechanical power is the dominant note in the determination to future industrial supremacy; the products of petroleum are essential in the development of this power… We must see to it, therefore, in behalf of national welfare, that our reserve supplies are increased at every opportunity through the acquisition by our nationals of reserves in foreign lands».

In order to push the government into action, Requa made reference to the very popular and powerful idea of national welfare that emerged in the progressive era – that of a superior public good (as opposed to the private one) that the state had to serve and protect through its action. He would have eventually redefined and expanded its meaning – and the extent the federal authority had to go to safeguard it – by redefining it in such a way as to include the very safety of the country, therefore marking a transition from the idea of a communal, shared, *domestic* well-being to that a *national* interest (as opposed to other "national" interests in the international arena): Requa was not asking the government to break monopolies for the sake of the collectivity (i.e. to rebalance the various private interests within the community and avoid profiteering), but to protect the country from external and "vital" threats that could endanger its very existence by destroying the fabric of its society, the structure of its economy, and even infringing upon the integrity of its territory.

4.2 America Needs to Refuel

The months following the end of WWI proved to be critical in ending Washington's apathy about the issue of foreign supply and transforming the public debate about it. A more assertive foreign policy toward the acquisition of external petroleum reserves, especially in the Middle East, developed through the combined efforts of a limited but determined group of people, who established a powerful connection between oil reserves and the nation's growth and security. This shift in the national discourse on oil began to materialize in early 1919, when the widespread pessimism regarding the status of the national resources coupled with American oil companies' post-War business considerations. The wartime collaboration between the industry and Washington proved that the two could effectively work together, for the gain of both. Once the war was over, this relationship turned in a relatively short span of time into an even closer, yet informal, partnership, based on a stronger convergence of

interests. The federal experts, concerned about the country's dwindling oil reserves, and the companies' executives, looking into commercial opportunities abroad, found common ground (and cause) in building a greater awareness about the strategic value of foreign petroleum supply and in guiding policy-makers towards the formulation of a new and more forceful approach to the matter – i.e. for the government to extend assistance and support to the national oil companies seeking concession abroad[425].

From a purely commercial perspective, the extraordinary surge in the consumption of petroleum products sounded more like an opportunity than a misfortune, as it bore serious expectations of a formidable post-War world market expansion. The rapidly shifting business environment compelled even the largest of American companies to rethink their business plans and operations. The impressive production's capacity of the American domestic fields had guaranteed to U.S. companies decades of dominance in the world oil market. Now the prospects of exhaustion forced them to plan ahead and enter the race for overseas exploration, in which American operators lagged well behind their international competitors. In fact, scarcity per se was not what troubled American oilmen the most. Oil industry's leaders were skeptics about federal geologists' claims and, even if they actually were to believe them, it would have made little difference. Companies' directors and Washington's officials operated with different time frames. The government had (still has) to assume a long-term perspective in the definition of its policy; businesses thrive on the realization of short-run objectives (and gains). A thirty or forty years' outlook was definitely too long for any oil company firm worried about surviving the next five in immediate aftermath of a world war. What companies really worried about was to find oil as not to be wiped out by the increasing domestic and international competition, a threat way more imminent than that posed by the depletion of the national reserves. Coincidentally, there was a way to defuse both: secure foreign resources. The actual possession of the wells was indeed considered crucial in a business sector that, according to both industry and government's assessments, was to be dominated by production. As another engineer of the Bureau of Mines wrote exactly in early 1919, «*oil companies – and their*

[425] The works of historians such has John DeNovo, Gerald D. Nash, Randall J. Stephen, have all highlighted, with various degree intensity, this complementarity of interests and the role of those who tried to make them relevant in US foreign oil policy.

countries – controlling oil production will control the petroleum trade of the world in the future».

The leading American company, Standard Oil of New Jersey (SONJ), had the same concerns, as was affected by the same problem. After the 1911 sentence, which had divided and compartmentalized the original Standard, the SONJ had maintained a strong marketing structure, but had lost much of its upstream operations (exploration and production). As a consequence, the company became soon "short on crude", i.e. it lacked the production capacity to satisfy its distribution objectives. By the end of the war, indeed, the quantity of oil extracted directly by the SONJ accounted for only about the fifteen percent of its refineries' needs[426]. The overwhelming majority of the petroleum's products marketed by the company derived therefore from oil bought from other producers – a situation that basically forced the SONJ to rely on its competitors (and accept their posted price) if it wanted to continue selling, let alone expand in new markets. The Wall Street Journal reported on the company's outlook few days after the armistice, explaining that it lacked any control of the supply outside of United States[427]. The SONJ had focused for years on distribution and marketing activities, thinking it «*could control the markets of the world through the markets of America*», just to find itself at a serious disadvantage when the demand boomed and new and more productive oilfields were discovered abroad and acquired by its competitors.

In the following weeks, the future of U.S. foreign oil supply repeatedly entered the public debate[428]. While great attention was reserved to the oil situation in Mexico, where U.S. private interests had entered a long legal battle with the national government for the redefinition of royalties and ownership rights, both federal oil experts and Standard's executives began to look at the Middle East. The region, stretching from Egypt to Persia, was enormous but at the time only few areas arose real interest. Geologists knew that oil was present in Persia, suspected that it could be extracted in commercial quantities from Egypt and Palestine, and were pretty sure about the existence of large reservoirs below the territory once referred as Mesopotamia, between

[426] D. Yergin, *The Prize: The Epic Quest for Oil, Money & Power*. NY: Sino & Schuster, 1993; pag. 199.
[427] «Standard Oil Strongest at Home, Not Abroad», *Wall Street Journal*, November 24, 1918.
[428] See, for example, «Edward L. Doheny Talks About Petroleum's Future», *Wall Street Journal*, December 12, 1918; «Walter Teagle Discusses the Future of Oil», *Wall Street Journal* January 21, 1919; «World's Future Run on Oil», *Tusla Daily World*, March 15, 1919; «Looking Toward the Future», *The Waverly Oilman*, May 1919.

the modern Iraq and the southeast of Turkey[429]. The information about the area was limited but compelling enough to convince U.S. group of geologists, oil experts, and oilmen of the opportunity and, in fact, necessity to compete for its control. To successfully do so, however, it was necessary to gain government's attention to the Middle Eastern cause, and to try to offset British advantages in the area[430].

4.3 Minding the Gap

The way federal oil experts and Standard's directors brought pressure to bear on the administration, and specifically on the State Department, for a shift of policy towards access to Middle Eastern resources mirrored the tangled web of personal and working relationships existent among them, which had mostly grown out of the war experience. Their efforts, which would have showed a remarkable degree of coordination, started from afar and precisely in Europe.

The fate of the Mesopotamian territories, which were officially part of the defeated Ottoman Empire, would have indeed been decided during the peace negotiations. When they started in Paris, on January 18, 1919, the partition of the Empire was among the many issues on the table. The goal, for the federal oil experts, was to avoid any transfer of authority to European powers that would have compromised the chances of the American government and companies to acquire the area's oilfields. In order to get the attention of the U.S. delegates in Europe, on February 4th, Requa instructed E. W. Perdew, a chemical engineer of the Bureau of Mines stationed in London, to forward to his friend Bernard Baruch, one of the highest American representatives in Europe, a message on the «Protection of the Petroleum Industry of the United States». Baruch was sympathetic to the industry's needs. Besides

[429] The Arab Peninsula and the Persian Gulf were still basically unexplored. Outside the national borders, US interests extracted crude only in Romania and Mexico, whose large oilfields had raised great expectations. Among the other oil-bearing regions, the most important were the Russian territory around Baku, the Dutch East Indies – where the Royal Dutch Shell, Standard's competitor, operated –, and Venezuela (where commercial production had just began). Middle Eastern oil reserves, however, would quickly gain major consideration.

[430] English merchants, explorers, and officials had been roaming the region for decades, and the Anglo-Persian Oil Company was already active in Persia. On the other hand, US presence in the early twentieth century went little further that of missionaries and occasional merchants. The State Department, which had only a handful of diplomatic posts in the region, waited until 1909 to inaugurate a division of Near Eastern Affairs and, once established, it failed to signal the emergence of a specific interest in the region - lest of all an oil-related one: the jurisdiction of the new bureau extended to an enormous area that included Russia, Germany, Italy, and the Balkans, together with Turkey, Persia, Egypt, and Abyssinia.

being one of the best-know American financiers, during the conflict he had served as director of the War Industry Board and had the role of supervising the work of the National Petroleum War Service Committee – a task that of course brought him to have a direct relationship with the Committee's head: A. C. Bedford, the SONJ's chairman. Perdew's letter to Baruch was meant to inform the latter and, as a consequence, President Wilson himself, about the precarious situation of the American oil industry. It included a series of considerations emerged during previous conversation between Requa, Van H. Manning, who was still the director of the Bureau of Mines, and Perdew himself. Requa had worked as consulting engineer in Manning's Bureau for years before WWI, prior to becoming head of the Oil Division. After the conflict, they restarted, or better continued their collaboration, showing perfect alignment in their positions on the issue of foreign supply. Perdew's long message to Baruch conveyed their common concerns about the future of American oil, beginning by reiterating the impending danger for the country's economy:

«*...I wish to state most emphatically that Mr. Requa has not in anyway over-estimated the impending danger and disaster to the petroleum industry of the United States - and what affects the petroleum industry affects directly and indirectly every industry in the United States...Lessons of the war have shown only too clearly that petroleum products are now essential to life and industries as are iron and coal*».

He then went to describe the situation of the American oil industry:

«*Unfortunately in the past [had] confined themselves almost entirely to territory within the United States…[building] up large and efficient distributing and marketing organizations abroad, depending upon American production*» (emphasis in the original).

We are now confronted with the fact that US Production of crude oil is not keeping up with the consumption of US refineries, which, alone, should cause the US government to encourage and induce American oil interests to seek production in other part of the world, and thus help supply American foreign trade with American produced oil from foreign fields[431].

Given Baruch's background and expertise, it is not difficult to understand why Requa, Manning, and Perdew decided to draw attention to the situation of the American oil

[431] Perdew (American Shipping Mission – Petroleum Section; London) to Baruch, February 4, 1919. Josephus Daniels Papers, Box 518, Reel 36; Manuscript Division of the Library of Congress, Washington DC, USA.

business and the country's shrinking commercial opportunities to get his support. The letter stated that there was also an «*even stronger reason*» behind their call to action. Perdew wrote that, after few months in London, he had come to the conclusion that H. M. Government was «*adopting a strong, vigorous and continuous policy with regard to controlling as much as possible of the present and future world's production of petroleum*». According to him and his colleagues, it was clear that Great Britain (and France, too) were practicing unfair competition, discriminating against U.S. citizens and capitals in those territories under the European influence. The message described London nationalistic practices as a matter of fact and asked for immediate Washington's involvement. Perdew called the British policy «*aggressive*» and warned that, if allowed to continued, it would have, «*to say at least, place[d] all American oil interests at a serious disadvantage in the future, unless the Government of the United States also speedily adopt[ed] a strong "oil policy" or [took] some other means to protect American interests and to secure for them an equal break with British companies*».

The proposed recommendations were equally clear. The three federal experts specifically referred to the Middle East, communicating its undeniable importance. «*The so-called Neutral Zone in Persia*», Perdew wrote, «*has without the shadow of doubt tremendous oil resources […] There is every reason to believe that this immense oil field extends into Turkey (Mesopotamia)*». This information, he added, should have been taken into serious consideration «*in the settlement of the world's new boundary lines and especially in the disposition of enemy territory and colony*»[432].

A few days later, Perdew made even clearer what they expected from the government, specifying to Baruch that: «*Mesopotamia stands to become one of the world's greatest oil fields. It is therefore very important that Mesopotamia does not come within either British or French areas of influence*»[433].

Industry's executives soon joined the mission of this small group of oil "experts" (they were all non-elected officials with technical knowledge), which had fully mobilized in the attempt to promote a very definite vision about the management and control of the country's oil resources. Walter Teagle, who was SONJ's president and

[432] ibid.

[433] Memorandum, Perdew to Baruch; February 12, 1919. Josephus Daniels Papers, Box 518, Reel 36; Manuscript Division of the Library of Congress, Washington DC, USA.

used to sit, together with SONJ's chairman Bedford, in the NPWSC, soon demonstrated to possess, and work on, the same information about the profitability of the Mesopotamian oilfields circulating within the Department of Interior[434]. It was not, by any means, surprising. The numerous (positive) assessments about the oil prospects in the area were indeed nor new or secret. Furthermore, Teagle, too, was a personal friend of Requa, with whom he literally shared an office while working in Washington during the war[435]. Just a few days after Perdew sent his message to Baruch, Teagle wrote to the Standard's directors, bringing to their attention the great perspective value of the «*promising*» Middle Eastern oilfields[436]. Given Standard's thirst for crude oil, the possibility of controlling them must have sounded like a unique business opportunity. Teagle made clear that gaining access to those sources of supply had already become a company's objective, expressly stating that he was «*already wondering if there was any way we could get into the oil producing end of the game in Mesopotamia*». In the following weeks, Bedford left for Paris to talk directly with the U.S. delegates dispatched there and take part in person to the ongoing negotiations.

4.4 Forging the Oil-National Security Nexus

The efforts to convince the administration not to let Mesopotamia slide into the British area of influence continued incessantly during the spring of 1919. While SONJ's executives were in Europe, the geologists and petroleum engineers at the Department of Interior applied further pressure on Washington officials. On February 28, Requa, Manning, and the Director of the U.S. Geological Survey George Otis Smith, sent a common statement to H. A. Garfield, head of the U.S. Fuel Administration, saying they were «*impressed with the seriousness of the efforts being made by the British and Dutch interests to dominate the petroleum supply of the world*». They letter explained that, since «*40% of the available oil of the United States has already been exhausted*», it was «*absolutely necessary…that American interests be encouraged by sympathetic*

[434] Bedford too had a seat in the NPWSC – a situation that made the SONJ the only company to have two of its men sitting the Committee.
[435] G. Knowlton & S. Gibb, *History of Standard Oil Company: Resurgent Years 1911-1927*, NY, Harper and Brothers, 1974, pag. 120.
[436] Teagle wrote almost the exact same words used by Perdew: «*there is every reason to believe that these Persian fields are large in extend and they extend over into Mesopotamia…*». Ibid, pagg. 274-275.

Government cooperation», so that «*the interests of the public can best be safeguarded*»[437].

The day after, on March 1, 1919, J. H. Rossiter, the Director of Operations of the US Shipping Board, doubled down on these claims sending his own personal message to Garfield. He added a new perspective on the importance of securing foreign supply, explaining that oil was essential to keep the U.S. merchant marine running and thus to maintain any hope for an all-American commerce. Rossiter put on record his full support for the positions and recommendations advanced by the American oil experts and said that he had received the report from Requa himself.

«*Through the courtesy of Mr. Mark L. Requa I have had the opportunity of perusing statement on PETROLEUM addressed to you by Mr. George Otis Smith, Director Geological Survey, Mr. Van Manning, Director Bureau of Mines, and Mr. Mark L. Requa, General Director Oil Division, Fuel Administration…*
I desire to further impress the importance, nay-absolute necessity, of assuring sufficient oil fuel for our merchant marine…

OIL vs. COAL is to be briefly summarized as SUCCESS vs. FAILURE. Unless we have oil fuel for our ships we must relinquish our aspirations for an overseas commerce under the American flag…

The question of a dependable oil supply for our ships is one that gives me constant concern and I cannot too strongly urge the importance of acting promptly along the lines suggested in the statement of Messrs. Smith, Manning and Requa»

Garfield was the perfect person to convey the message to the President. Besides being the head of Fuel Administration, Garfield was also Wilson's friend[438]. He forwarded the letter to him just two days later, «*urging that the question of fuel oil supply receive early and careful consideration*». «*In weighting the value*» of the experts' assessment, Garfield specifically suggested «*calling upon Mr. Baruch*», who had evidently already been exposed to Requa's ideas – and possibly to those of Bedford, too[439].

[437] Requa, Manning, Otis to Garfield, February 28, 1919. Josephus Daniels Papers, Box 518, Reel 36; Manuscript Division of the Library of Congress, Washington DC, USA.
[438] Both university professors, Wilson had offered Garfield a chair in politics at Princeton in 1903, when he became president of the prestigious institution. A few years later, Wilson recommended Garfield as president of the Williams College in Massachusetts, before asking him to serve as Fuel Administrator during the World War I.
[439] Memorandum for the President of the United States From H. A. Garfield Concerning the Oil Situation, March 5, 1919. Josephus Daniels Papers, Box 518, Reel 36; Manuscript Division of the Library of Congress, Washington DC, USA.

The head the Oil Division lobbying activity was relentless and unending during those months. At the beginning of March, he sent a letter sent to the Sub-committee on Mineral Raw Materials of the newly established Economic Liaison Committee – an interdepartmental body formed few months earlier to study the new economic situation and coordinate policies among those agencies that were usually dealing with foreign trade, namely the Department of State and the Department of Commerce. Dismayed by the lack of progress on the issue, Requa tried to send another forceful message, urging «*that in the national interest* [emphasis on the original] *American petroleum companies be encouraged by the Government to acquire foreign sources of oil supply, wherever they can be obtained*»[440]. In the attempt to prevent any accusation of favoritism towards the industry – i.e. of trying to enlist the government's support just to allow American private companies to profit off the acquisition of foreign oilfields –, he appealed again to the notion of public good, explaining that the action he was proposing «*was solely and wholly in behalf of the people of the United States*», and restating that this was «*not a plea in behalf of the Standard Oil Company or any other company; it is a plea in behalf of the United States, in behalf of the people of this nation*». The bigger, international implications of the petroleum issue were of course not lost. Requa hinted in the text at the fact that the United States risked (another) war if it were to disregard his recommendations and refuse to take action.

These very same concerns were presented to the Secretary of the Interior Franklin Lane almost at the same time. In mid-May, Manning presented to his superior a voluminous report on the *International Policies Affecting the World's Petroleum Industry*. In fact, the study was prepared as a reply to a formal questionnaire submitted to Manning a week before by a member of Congress – no one else than the Californian Senator Phelan, Requa's friend and the man who first formally introduced his original report in Congress in 1916. «*On account of the national importance of this information*», Manning presented it to Secretary Lane in the form of an one hundred-page memorandum, which included an fairly elaborate presentation of all the arguments advanced in the previous months about the importance of securing foreign supply and a

[440] From Mark Requa to the Subcommittee on Mineral Raw Materials – Economic Liaison Committee, May 12, 1919. The Committee was an interdepartmental body formed few months earlier to study the new economic situation and coordinate policies among those agencies that were usually dealing with foreign trade, namely the Department of State and the Department of Commerce; DS 811.6363/45, RG 59 (1910- 1929), Box 7643, NARA II Archive, College Park (MD).

series of specific policy proposals. Manning's report began by repeating the claim that there was no other option in respect to future supplies of essential raw materials for the United States, and in respect to the country's future trade in general, that was at the present time so important and so critical as the petroleum situation. He added:

«*No greater and more lasting and far-reaching service can be rendered to this country at the present time, than making possible and effecting the securing by or for American Citizens their rightful participation in the development of all of the world's reserves of petroleum*»[441].

As to the Middle East, he asked the administration to intervene in the peace negotiation as to force the European power to maintain an "open door" policy as regards to petroleum:

«*[P]ositive stipulation should be made that, in any protectorate or mandatory sphere resulting from the pending peace negotiations, the protecting or mandatory power, its citizens and its nationals shall not enjoy any special privileges or preferences in respect to the oil industry*»[442].

The participation of American companies was however not a matter of profit, or economic growth, as of national supply. The difference is crucial to fully understand their logic. According to Manning, Requa, and Otis Smith, the ownership of the concession equaled with the control of the production – an assumption based on a very rigid vision of the oil industry and market, in which oil followed, and would have always followed, the flag. They feared the possibility of foreign nationals controlling foreign oilfields because they thought that, once the major sources of production were placed in British or French or Dutch hands, the American industry, military, and navy would have been cut off from supply, or easily forced to pay any price (not only in the monetary sense) imposed upon them. The strictly nationalistic policy that they proposed followed exactly from these premises. To address the problem of scarcity, what they argued for was «*an American petroleum company financed with American capital, guided by American engineering, and supervised in its international relations by the*

[441] Ibid.
[442] Van Manning, Director of the Bureau of Mines, Report to the Secretary of the Interior on the International Policies Affecting the World's Petroleum Industry, May 1919. Mark Requa Papers, Box 2; American Heritage Center, Laramie (WY), USA.

United States Government» to pump oil out of foreign ground. Indeed, it was either "American" oil or the risk of not getting oil at all. This is how the connection between the acquisition of foreign sources of supply and the security of the state emerged, through the application of a close neo-mercantilist reasoning that valued control and saw no space for compromise.

In the report, Manning actually explained what control meant in the context of the oil industry – or at least what the federal oil experts thought it to be – and why it was important. He accused foreign countries, and especially Great Britain and France, of developing «*nationalistic and national policy leading to the direct of indirect governmental control of oil production and distribution in the respective countries*» before discussing the incentive behind it. He wrote that oil controlling policies had «*a number of objects*»:

> *1) To insure an unhampered and certain supply of petroleum products in war as well as in peace;*
> *2) To benefit the public treasury.*
> *3) To secure for their own citizens all profits accruing from the petroleum business within the borders or zones of influence of these countries.*
> *4) To dominate indirectly shipping and commerce by controlling oil bunkering stations and sources of supply of petroleum. Petroleum products may be bartered for other raw materials or commodities*».

His analysis demonstrates that U.S. oil experts had already a clear understanding of the strategic implications of the issue of oil supply and deliberately choose to adopt this framework, which placed the American oil needs in a broader geopolitical context, to discuss it. Petroleum fields' control was rather characterized as an element of state power and therefore as a valid reason to compete for.

These explicit political considerations, which seemed to go well beyond the technical opinions usually requested from geologists and engineers, all came from a small group of specialized federal officials within the Department of Interior. They were the same civil servants who had been studying the American oil industry and its resources in the previous ten years and whose careers actually depended on natural resources' preservation. WWI enhanced their visibility and their role, giving them the opportunity to build a successful working relationship with the petroleum industry. The

result could be seen in the growing emphasis they put in promoting foreign acquisition through government's *support* to private business, and not direct state's intervention or, worse, takeover, as in the British case. It is worth noticing that twice between 1919 and 1920 the creation of an all-American oil company, in which the government would have had a direct participation, was proposed, and twice it was rejected in Congress. Among those opposing to the project, there were not only the industry's executives who strongly argued against such a possibility, but also the oil experts themselves.

This is just one of the issues over which the interests of both groups converged after the war. Indeed, federal geologists and engineers in those months found themselves suddenly much closer to the oil companies that they had been working with during the conflict. It is difficult, if not impossible, to determine if proximity to corporate interests had an influence over their sense of mission. What it is sure however is that between early 1919 and 1920, besides pushing for a course of action compatible with that desired by companies' executives – i.e. government assistance to (not exert control over) private enterprise abroad –, some of them were *becoming* oil company representatives.

In spring 1919, after the dissolution of the NPWSC, the industry's need for a proper representative body led to the establishment of the American Petroleum Institute. Requa, who actually fostered its creation, had left his work within the administration and quickly became member of what could be called the first national trade petroleum association, serving as one of its directors. Manning followed soon after, assuming the role of Head of Research. Thomas O'Donnell, Requa's director of production in the Fuel Administration, did the same, becoming API president.

API's creation both structured and expanded the network of government-industry relations, which, from then on, would only become stronger. In mid-1919, Requa went to work as Vice-President of Sinclair Oil Company, while Secretary Lane and his personal assistant Joseph J. Cotter, accepted an offer of the Pan American Oil Company in 1920. Both companies had their presidents among the members of the NPWSC and, later, became API affiliates. Moreover, until 1920, Requa also served as vice-president in another trade association, the American Institute of Mining Engineers, together with his friend and soon to be Secretary of Commerce Herbert Hoover – who became president of the organization.

From mid-1919 on, Requa acted as a connecting link between Washington and the industry. His great familiarity with both the administration became extremely useful for the industry in trying to secure government's assistance in the Middle East. On May 1919, he communicated directly to the Department of State that «*American oil interests are seriously considering examination of Mesopotamia and Palestine with view of acquiring oil territory*». Before proceeding, he needed assurance that «*such activities met [the] approval [of the] American Government*» and that the «*conditions of peace treaty [were] such as to permit American companies to enter that region under terms of equality as compared with foreign companies...*»[443]. U.S. companies, too, turned directly to the Department of State for attention, as they began reporting the race against English companies more and more as an international dispute, rather than a commercial confrontation among competing firms. In the same days, Standard Oil of New York (Socony) complained to the State Department, which continued to be officially silent on the issue, that the British authorities' forced a company representative in Jerusalem to open his office for inspection. The incident dated back to mid-1918, but it was not a coincidence that Standard decided to denounce it only months later, defining it a «*very grave offense*»[444]

During the first half of 1919, this aggressive representation of British intentions was repeatedly brought to the US public, with articles on industry-related journals and newspapers about possible British oil «*monopoly*»[445]. British activities in the Middle East (together with commercial advances in Mexico) were seen as part of London's deliberate attempt to lay hands on the world's oil reserves, shutting the United States off from its much-needed supply. The issue also reached the floor of the US Senate, where Phelan disclosed Manning's memo at the end of June[446]. Later on, the chamber published extracts from the Secretary Lane's Annual Report to the President, in which

[443] The acting Secretary of State Frank Polk asked for instruction to the American delegation in Paris. The reply was not particularly comforting: «*the present stage of negotiations about Turkey makes it impossible to give [a] definite answer*». FRUS 1919, II, 252-253; Polk to the Commission to Negotiate Peace, May 21, 1919; Commission to Polk, June 5, 1919.
[444] FRUS 1919, II, 250-252. Socony to Polk, March 15, 1919.
[445] See, for example: «British Fleets Depend on American Oil: Desire to Be Independent of United States is Cause for World-Wide Search for Petroleum», *National Petroleum News*, March 19, 1919. «Britain Ransacks All World For Oil», *New York World*, March 29, 1919. «Great Britain an Oil Monopolist?» April 7, 1919; «U.S. and British Battle for Oil Control Starts», *New York Public Ledger*, April 10, 1919.
[446] US Congressional Records, 1919, 58, Part 3. Pag. 3304.

he called for «*a policy prompt, determined, and looking many years ahead*» in regards to petroleum supply[447].

[447] Franklin Lane, Annual Report of the Secretary of the Interior for the fiscal year ended June 30, 1919, Vol. 1, G.P.O., 1919, pag. 22. Published by the US Senate as «Conservation Through Engineering», Senate Document No. 572, 66th Congress, 2d Session.

4.5 Shifting Gears Up

After months of pressing concerns, the Department of State was eventually brought to recognize the importance of foreign oil supply. On August 16th, the Secretary of State Alvey A. Adee wrote to US consular posts: «*The vital importance of securing adequate supplies of mineral oil both for present and future needs of the United States has been forcibly brought to the attention of the Department*». It was the first time Adee was specifically addressing the problem, and asked for the «*most complete and recent information regarding such activities either by United States citizens or by others countries*»[448].

With the involvement of the State Department, the race for Middle Eastern oil against European oil companies formally acquired the status of a political and diplomatic issue, although it took almost another year, and further British moves in the region, before the administration aligned completely with the oil industry and experts' requests. American companies continued to organize themselves for foreign ventures in the following months, while maintaining the pressure on Washington policy-makers for the establishment of a clear and secure policy of assistance in Middle East. Socony, one of the most active companies of Standard group in the region, renewed its grievances over British obstructionism during the summer[449]. When the State Department eventually questioned Great Britain's intentions, London's (weak) defensive argument explained that as long as those territories remained under its military occupation, it felt «*bound to prohibit the activities of any explorer, commercial agents or concessionaires*», in order to avoid confusion while waiting for the establishment of a new, formal authority[450].

The decision on the future status of those territories was indeed still officially pending in Paris. It seemed clearer, however, that both areas would fell under London jurisdiction thanks to the newly instituted mandate system of the League of Nations[451].

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[448] FRUS, 1919, I, 168. Adee to Diplomatic Consular Officers, August 16, 1919.

[449] Socony had sent its geologists in Palestine and Mesopotamia during the summer, but in both cases British officials promptly refused them the permission to study the area – while reportedly leaving British oil experts freedom of movement. For a detailed account of those months, see John DeNovo, *American Interests and Policies in the Middle East, 1900-1939*. St. Paul, University of Minnesota Press, 1963. Pag. 171-173.

[450] FRUS, 1919, II, 257. The Ambassador to Great Britain (Davis) to the Secretary of State, October 14, 1919.

[451] In August, London had already "proposed" an agreement to Persia that would have guaranteed British control over the country's oilfields.

This prospect was not reassuring for U.S. companies, which were particularly irritated by London discriminatory practices. The American Petroleum Institute formed its Foreign Relations Committee in order to help U.S. firms to take part in the exploration of new oil regions. Its chairmanship was assigned, unsurprisingly, to Standard's president W. Teagle. On September 30, API's president O' Donnell communicated to the Secretary of State Robert Lansing the resolution adopted by the Board of Directors, based on the work of Teagle's Committee. It urged the government to take «*effective steps through diplomatic channels*» in order to assure «*American companies or citizens operating, or desiring to operate, in foreign countries the same privileges enjoyed in the United States by companies or citizens of such foreign countries*»[452].

In the first months of 1920, as the negotiations continued to stall, the efforts to pressure the U.S. government were renewed. During the February meeting of the American Institute of Mining and Metallurgical Engineers in New York, Manning identified the «*access to the sources of supply*» as «*the key to the future*» and exhorted the other members «*to educate the people of this country and their representatives as to the situation, and to urge such wise and necessary steps as would best relieve it*»[453]. After him, Otis Smith lambasted the government for its inactivity, making specific reference to the much-needed support from Washington for an «*Open Door*» policy[454]. In commenting Otis' speech, Requa was even harsher, holding US officials accountable for not having listened to their early warnings:

«*We face a lack of preparedness and appreciation of the gravity of the situation…that would be grotesque were it not for the tragedy involved. […] Our Government officials have before them a very unpleasant experience when they have to explain the lack of foresight as regards petroleum*»[455].

AIMME offensive culminated few days later, when Requa prepared a petition entitled *Imperative Need of Aggressive Foreign Policy as Regards the Oil Industry*. The

[452] O'Donnel to Lansing, September 30, 1919. DS 800.6363/89, RG 59 (1910-1929), Box 7236, NARA II, College Park (MD), USA.
[453] Manning, Van H., *International Aspects of Petroleum Industry*, published in the Transactions of the AIMME, 1921, Vol. LXV, New York. Pag. 78
[454] Smith, George O., *A Foreign Oil Supply For the United States*, February 1920, Pre-commerce Papers, Box 24, Folder AIMME Speeches. Hoover Presidential Archive, West Branch (IA), USA.
[455] Requa's comments are published in the *Transactions of the AIMME*, 1921, Vol. LXV, New York. Pag. 93

document, which bore the signature of AIMME president Hoover for approval, was presented to both the White House and the Congress[456].

In those months, Requa brought his fight directly before the American people, writing a series of long articles that were published on the Saturday Evening Post, which at the time was one of the most influential and widely circulated magazines in the country. One of them – titled *The Petroleum Problem of the World* – described a post-WWI world where competition was real and the risk of war still present. Looking back at the situation of Germany during the conflict, he warned the government and its people against not taking the issue of petroleum supply seriously. Washington ought to have a solid and coherent plan to safeguard the country and avoid its collapse.

«*Germany is an example of a country cut off from petroleum in time of war, attempting the use of all kinds of substitutes, and failing success in the end in part because of the lack of those very petroleum supplies. With such an example before us it is scarcely conceivable that the United States will permit itself ever to reach such a position; and yet, notwithstanding the war and its lessons, we have done absolutely nothing to anticipate such a contingency…*

National necessity, having to do mainly with industrial problems, was the underlying cause of the Great War; and again in the future commercial conditions will play a similar role unless wise statesmanship forestalls the crisis and provides adequate means whereby the situation will be not only anticipated but controlled…

The industrial life of every nation depends today upon the products of petroleum… The collapse of industry spells national collapse, and it therefore follows that the nation must guard against such contingency»[457]

Requa presented the access to foreign oil neither as an industrial, practical issue nor just as a commercial opportunity for few. Securing oil supply was a critical step in guaranteeing national growth and security. Petroleum came to be characterized as a fundamental factor in state power and, therefore, as a commodity worth competing for. Companies' stakes in the control of the Middle Eastern petroleum resources were thus merged with what was considered a more general and inescapable national need – access to *more* oil:

«Due to the tremendous increase in consumption of raw materials, the struggle

[456] AIMME to the President and Congress of the United States, February 29, 1920; DS 800.6363/95, RG 59, Box 7236, NARA II Archive, College Park (MD)

[457] Mark Requa, The Petroleum Problem of the World, *The Saturday Evening Post*; copy is enclosed in Mark Requa Papers, Box 4; American Heritage Center, Laramie (WY), USA.

for possession of the world's reserves has assumed of late years a more and more acute phase. Farseeing statesmen have long since realized the necessity for providing - as far as possible - unlimited reserves to meet national requirements, not of today or tomorrow, but for centuries - the longer the better»[458].

The category of control is essential to understand Requa's views about the structure and functioning of the oil industry, as well as the perceived threat to the security of the nation that the failure to acquire foreign sources would have caused.

«*In the world contest for raw materials the struggle for petroleum will be most intense. The uses to which it is put are fundamental and vital; the demand has grown and will continue to grow at a rate exceeding that of any other of the great mineral products. New sources of petroleum supply must be sought in the underdeveloped countries. Efforts to the national of each leading nation to control these supplies will involve friction so intense and severe that war may be the ultimate outcome of the struggle unless some plan is adopted by which the several conflicting national interests may be harmonized…*

Control of some of the most important foreign sources of petroleum supply is now in the hands of American companies. This control must be solidified, the companies strengthened and a plan perfected whereby America can deliver fuel oil not only to her own ships but to the ships of the world at any port at which they may call.

No matter what our international arrangements may be, how liberal or fair the proposed action, we shall be unable to reap our share of the benefits or fulfill our tasks unless we are able to perform it as efficiently as other nations»[459]

Requa continued to refuse to frame the acquisition of foreign oilfields simply in terms of commercial competition. It was the international standing of the United States, which the war had elevated to the rank of world power, which called for different, global, and more forceful approach to oil.

«*The United States cannot sit idly by a witness the passing of the world's petroleum reserves into foreign lands. With the world's raw materials under control of England the League of Nations would be but hollow mockery so far as industrial freedom is concerned. It is true we might avoid war, but at the price of industrial vassalage…*

Such procedure [England's attempt to control all world oil] *would be shortsighted in the extreme, as it would at once raise the question of a world monopoly of which England would alone be the beneficiary – a procedure so charged with danger*

[458] Ibid.
[459] Ibid.

that its adoption seems hardly possible when once the United States invites attention to our mounting needs and our dominating position»[460].

Requa barely mentioned the oil companies themselves. He demanded action from the state, because at risk there was the safety of the nation. In this perspective, private oil firms, and their successful activities in the Middle East and elsewhere, became simply a means to reach what was seen as a broader national interest. The prosperity of the American industry was not an end in itself, but instrumental in achieving a national control over the world petroleum's supply – a way to reassert the American position on the international arena and maintain a hold on friends and foes.

The notion that "oil is power" was repeatedly presented to the American public in those years. As Rossiter put it already in early 1920 referring to the international struggle for possession and its strategic aspects, especially referring to the mobility of the Navy, «*oil is a very big stick*»[461].

These lobbying efforts made a breakthrough in the first half of 1920. Representatives in the US Congress, who were naturally more receptive to this kind of by then widely public concerns, acknowledged part of the oil experts' requests adopting a new Mineral Leasing Act, which, among others things, basically denied access to U.S. oil lands to private interests of any country excluding U.S. companies from accessing oil fields under its control. The State Department too came to assume the oil industry's viewpoint against Great Britain during the following months, when a series of unanticipated events convinced Washington policy-makers to reconsider the country's international position. Back in October, the Secretary of State had duly warned London that, even if Great Britain had obtained the jurisdiction over Mesopotamia, it should have abided by the rules it had agreed to, i.e. «*to secure to citizens of all nationalities members of the League of Nations, equal protections and the same rights as the acquisition of property…and that concessions will be granted…without distinction on the ground of nationality*»[462]. This claim, however, ironically crumbled when the United States itself renounced to enter the League in March 1920, after Senate's refusal to ratify the treaty. Short of this legalistic argument, the administration had to hold onto

[460] Ibid.
[461] Rossiter's words are quoted in an article written by the American correspondent of a foreign newspaper. The article directly cites an editorial of the San Francisco Chronicle. «Supremacy in Oil, Britain Now Paramount, American Output Decreasing», *The Evening Post*, February 21, 1920
[462] Polk to Davis, October 24, 1919; FRUS, 1919, II, p. 258.

the more general principle of the Open Door, as repeatedly advocated by the industry since the end of the War, in claiming what was by then considered the vital – and indisputable – U.S. need for Mesopotamian oil.

This strategy became even more inevitable a month later, when the State Department learned about the April 1920 San Remo agreement between Great Britain and France, which divided among them the territories of the old Ottoman Empire, including its oil-bearing lands, and confirmed their influence over the whole area of the British mandate in Palestine and Mesopotamia. The pact stirred controversy in the United States. The State Department stepped up its diplomatic activity over the summer, initiating a tough exchange with London over oil access rights.

At the beginning of 1921, when the new Republican administration of President Harding took office, a more assertive foreign policy toward foreign oil acquisition in the Middle East was virtually set: the relationship with Great Britain began where it had been left off, as the new administration completely embraced oil experts' claims for foreign petroleum supply, building closer and closer ties with the oil industry to facilitate both the passage of information and the assistance to specific companies involved in foreign exploration. The State Department of Secretary Hughes, together with the Commerce Department of Secretary Hoover, became the staunchest supporters of the U.S. oil companies in the long struggle with London in Middle East, which ended – temporarily – only in 1927 when Great Britain eventually agreed to Washington's pressures for participation in the development of the rich Mesopotamian oil fields.

The main actors in the negotiations, of course, were the American and British companies themselves. By the time they found an agreement, the issue of oil supply was not as central in the American public and political debate as it was at the beginning of the decade. The main reason was that new large discoveries in Oklahoma, Texas, and California had flooded the country with oil. In a matter of few years, the scenario had shifted from possible exhaustion to certain overproduction, undermining the original argument for the acquisition of foreign sources of supply. Fears of scarcity were swiped off by a flush of oil that still raised concerns, but this time for the continuous drop in oil prices due to oversupply.

What did not change was the underlying reasoning that connected the possession of oil resources with national security – the idea that oil was an instrument of state

power and that therefore the control over its supply, or the lack of it, what a vital matter for the state. The belief that a country could achieve this supposed control through the ownership of the oilfields by fellow nationals remained alive, too. In a true mercantilist fashion, U.S. oil experts were convinced that the physical possession of the sources of production by American companies could have assured a direct flow of oil from those distant territories to the homeland and its bunkering stations around the world, both in peacetime and in war, while accruing the national wealth. In other words, the presence of national companies in foreign producing countries was a necessary and actually sufficient condition to have a corresponding degree of control over the market and securing supply.

The assumption that sees national oil companies as a powerful and effective instrument of national interest was (and has been) however exactly that: an assumption, something taken for granted and accepted as true without prior verification. Oil majors have instead never acted as governmental tool, nor have based their commercial strategies on what the idea of common good. Private companies operated according to a different set of rules, those of the market, and objectives, those of their investors. Already in the 1920s, instead of serving the country by delivering to its people (as well as its government, its military, and its navy) petroleum's products at the lowest price, oil companies tried to negotiate lucrative supply contracts with their national governments and raise costs by restricting the production. Even the Anglo-Persian, usually pointed at the quintessential example of government-directed company, engaged in similar practices. The story of the oil industry is, indeed, one of attempted cartelization and evasion of regulation. In the United States more than anywhere else the central authority had never had any direct and formal means to participate in the definition of the companies' commercial policies. Differently from what happened in Great Britain and elsewhere, the state had never held oil companies' shares, therefore government officials, in that function, have never seated on board meetings.

Furthermore, even if American oil companies could have 'taken instructions' directly from Washington regarding foreign acquisitions, they could have done very little to really secure supply – especially when it would have mattered most, i.e. in wartime. From a strategic perspective, distant oilfields were indeed not a reliable asset in time of war, since they were (and still are) extremely difficult to defend and equally

easy to destroy, or simply to damage up to the point of halting the production. What defined (or should have defined) the importance of oil reserves from a national security perspective was not the nationality of their owners, but their ability to defend them. Unless a country was powerful enough to maintain active and safe supply lines that could stretch for thousands of miles, as in the case of the Middle Eastern oil fields, and still have a physical military presence on site to avoid any possible disruption, foreign wells, whether they were in the hands of nationals or allies, were not sources of supply a state could safely rely on. As two commentators of the Anglo-American oil dispute wrote in the early 1920s, the «*government's policy of owning or controlling the sources of its oil supplies is entirely unnecessary*»[463]. The idea that command of oil production is essential for the command of the seas is a «*fallacy*», which actually turns the reality upside down. On the contrary, «*the axiom on which they might have proceeded is that command of the seas is essential for command of the oil production*». This is because «*in time of war, control of the sea routes makes every oilfield in the world a potential source of supply*».

Yet despite the continuously increasing levels of domestic production, the formal and factual separation in place between the federal government and private business (and thus between public policy and corporate interest), and a strategic reality that greatly downplayed the importance of the formal ownership of the fields vis-à-vis sovereignty and military power**,** the original oil-security nexus, which connected the possession of the oilfield with the possibility of actually 'controlling' its production and therefore with the energy security of the country, has never left the American political and public debate. The historian M. J. Hogan noted that, after the heated exchanges of the early 1920s between Washington and London, the oil companies were able to find an agreement and neutralize the conflict, acting as a buffer between the states and de-politicizing the issue of supply. In fact, the process of oil securitization was never reversed. At the end of the 1920s, American and British companies eliminated a reason for a possible international confrontation, but did not change the discourse about oil. Petroleum continued to be considered a strategic commodity and, as soon as fears about its immediate and future availability arose again, as in the 1940s, the very same

[463] H. Davenport & S. R. Cooke, *The Oil Trust and International Relations*, London: Macmillan (1924), p. 57.

arguments about the importance of securing access to the Middle Eastern oilfields and controlling the production through "national presence", reentered the policy-making process as well as the public debate. The securitarian rhetoric used to frame, present, and justified Washington's interest for the region actually benefited the oil companies themselves, which were once again recognized as interpreters of the country's security needs.

The notion of "national security" acquired a specific connotation after WWII. Yet the very same expression was repeatedly used already after the WWI when discussing oil-related matters. A 1923 Report of the Federal Trade Commission on Foreign Ownership in the Petroleum Industry, for example, clearly summarized the reasoning behind the U.S. approach towards oil making direct reference to the fact that:

«....Among the other result of the war it may be noted that a spirit of nationalism was awakened in all of the important countries of the world, which involved the ideas of self-determination, self-preservation, and national security. The latter idea immediately suggested the importance of conserving the natural resources and raw materials of any given country and of extending holdings by acquisitions abroad. These considerations led to the adoption of governmental programs of exclusion or discrimination against foreigners, together with the development o their own natural resources by their own citizens. Due to the demonstrate vital importance of large supplies of petroleum in the World War for oil-burning navies, for the merchant marine, for airplanes, and for the transportation of Army supplies and equipment, there was a widespread realization that a nation possessing ample petroleum reserves had a tremendous advantage over any nation not possessing adequate supplies of petroleum products...

It appears self-evident that a country having widely distributed sources of supply storage, and distributing facilities is in a much stronger competitive position than one with concentrated sources of supply»[464].

This notion of energy security strictly connected with the idea of 'control' of "crystalized" in the minds of both American officials' and citizens, as the same rhetoric continued to be used even once the fear of oil scarcity was long gone. Throughout the interwar period, foreign acquisition and internal conservation remained the two faces of the same coin for those who saw oil as a vital asset for the U.S. In December 1924, President Coolidge established the Federal Oil Conservation Board. Although the country was not, by any means, suffering from underproduction at the time, the president's decree read:

[464] *Report of the Federal Trade Commission on Foreign Ownership in the Petroleum Industry*, February 1923 (Washington DC, Government Printing Office, 1923), p. 33.

«*Developing aircrafts indicate that our national defense must be supplemented, if not dominated, by aviation. It is even probable that the supremacy of nations may be determined by the possession of available petroleum and its products…*
Oil, of which our resources are limited, is largely talking the place of coal, the supply of which seems to be unlimited, but coal can not take the place of oil in most of its higher uses, on land or sea or in the air...

For the purpose of giving this responsibility of government in all of its aspects the consideration it demands, I have constituted a Federal Oil Conservation Board consisting of the Secretaries of War, Navy, Interior, and Commerce, to study the Government's responsibilities and to enlist the full cooperation of representatives of the oil industry in the investigation…

Last March I appointed a commission to advise me on the special subject of the best policy to insure the future supply of fuel oil for the Navy. That commission will continue to function in its limited field and might to advantage sit with the Conservation Board in the conferences I expect will be between these four Secretaries directly concerned and the outstanding producers of petroleum. Similarly, the members of the Conservation Board will call upon their technical adviser in the bureaus to contribute to the full discussion of ways and means of safeguarding the national security through conservation of our oil»[465].

In «*Oil*», a series of booklets prepared and published by the American Petroleum Institute in 1930, the narrative revolving around the concept of national security was expressed in even equally clear terms. A section, titled *The World Goes Round on Oil*, read:

«*The world was brought to a full realization of the importance of petroleum in every-day life, in industry, and in safeguarding national security by the World War. The use of fuel oil in factories and for ship propulsion, and the demand for specialized fuels and lubricants made by air transportation, had their inception during the war.*

Before the war probably less than 4 percent of the word's vessel tonnage burned oil; today 34 percent is oil burning. This includes the Dieselized ship, the automobile of the sea…Half the ships being built in the world today are Diesel ships»[466].

The same security considerations became officially engrained in U.S. oil policy during WWII, when Washington's assessments on the strategic value of the Middle Eastern oilfields – repeating those very assumptions about oil, the structuring of the

[465] Letter of appointment of the Federal Oil Conservation Board, dated December 19, 1924; the letter is present in the introduction of the First *Report of the Federal Oil Conservation Board* (Washington DC, Government Printing Office, 1926), Reports of the Federal Conservation Boards, Hoover Presidential Archive, West Branch (IA), USA
[466] *Oil* (New York: American Petroleum Institute, 1930), p. 45

industry, and the notion of energy security – unmistakably argued for their importance for the country's national security.

Archival Note and Bibliography

The study is based on extensive archival research and makes use of a wide range of documents from both private and public collections. In order to carry out a far-reaching review of the American domestic debate on oil in the early twentieth century, I visited about a dozen archival repositories and libraries in order, looking at records covering a time span of more than forty years (from the late nineteenth century to the mid-1930s), and issued by five different American administrations and several federal agencies, departments, and oil companies. The sites visited included federal archives; presidential archives; public and university libraries holding contemporary publications; private institutions; and corporate archives.

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- American Heritage Center (Laramie, Wyoming)
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- Franklin D. Roosevelt Presidential Library and Archive (Hyde Park, New York)
- Chevron Corporate Archive (Concord, California)
- Special Collections Research Center, Georgetown Univ. Library (Washington DC)
- Dolph Briscoe Center for American History (Austin, Texas)
- British Petroleum historical archives (Coventry, United Kingdom)
- Rockefeller Library, Brown University (Providence, Rhode Island)
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