

**Globalization, State Industrialization, and the Nineteenth Century Russian Petroleum  
Industry**

by

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## Abstract

When the Russian imperial government decided to embark on a project of capitalist industrialization in the years following their military defeat by Britain and France in the Crimean War, the political regime would be challenged to maintain its authority while instituting the necessary reforms. Although this was unappealing to supporters of the autocracy, external dangers (in the form of industrialized militaries) constituted a geopolitical threat to the Empire that could not be ignored by the government. Accordingly, policy officials in the Ministry of Finance attempted to industrialize and modernize while maintaining as much power in the center as possible.

This paper analyzes one of the most successful of Russia's new industries, the petroleum industry. Centered in Baku and Transcaucasia, the Russian petroleum industry became the largest producer in the world by 1900. This paper will examine how poorly the public institutions of the Russian Empire supported growth in the oilfields, and how the regime's disinclination to abandon its traditional centripetal power structure prevented the emergence of the capitalist incentives that would allow for industrial growth led by the private sector. However this paper will also show that access to the globalized nineteenth-century world, led by the British Empire, could be a catalyst for industrial growth regardless of that industry's domestic institutional environment.

This paper is broken up into two sections, the first analyzes the negative impact of the government's policies on the petroleum industry's development and growth, while the second analyzes the positive impact of the Russian petroleum industry's embeddedness within nineteenth century global commercial networks on its ability to expand production. This global

perspective allows the Russian petroleum industry to be analyzed within its true context. As long as access to international commercial relationships were not substantially hindered, competitive industries were able to flourish despite poor policy making on the part of the central government.

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## Table of Contents

<b>Introduction</b> .....	1
<b>Chapter One: The Ministry of Finance and Petroleum</b> .....	16
Industrialization and the Russian Bureaucracy.....	21
Russian Petroleum Industry: Merchants, Commerce, and the Law.....	35
Conclusion.....	76
<b>Chapter Two: Globalization and the Russian Petroleum Industry</b> .....	79
The Global Market.....	83
Conclusion.....	101
<b>Conclusions</b> .....	104
<b>Bibliography</b> .....	111

## Introduction

Towering above the modern city of Baku in Azerbaijan are a trio of glass skyscrapers over five hundred feet tall, designed and constructed to resemble flames. Fire and flames have long been associated with this region on the west coast of the Caspian Sea, particularly the Apsheron peninsula on which Baku lies. Pools of oil have oozed up onto the surface for millennia, providing a rich source of fuel for centuries of Zoroastrian fire rituals. The sheer preponderance of the black viscous substance led to the area becoming a sacred site in the Zoroastrian faith. That association with fire and flame has had a different connotation since the 1870s, when the area around the city became, and has remained, one of the world's primary petroleum producing regions.

Baku, by the time a global petroleum industry emerged, had been annexed into the vast Russian Empire. Although a remote and comparatively small city, by 1900 the oilfields around it would make the Russian Empire the world's largest producer of petroleum. Unfortunately, shortly thereafter, the industry at Baku would descend into extremely violent labour and sectarian strife that would last the better part of a decade. Although emerging from the sectarian strife by 1907, the region's conquest by the Bolsheviks in 1920 meant that its ability to access capitalist and western markets would be limited until 1991. Since then it has once again emerged as one of the world's most important petroleum centers, but has never quite equaled the predominance of its 1900 heyday.

Although the global petroleum industry was less than fifty years old in 1900, petroleum had already become an important aspect of modern daily life. Initially, it was petroleum's ability

to be refined into kerosene that made it marketable. Kerosene, which before petroleum was too expensive and impractical to manufacture on a large scale, was a revolutionizing source of illumination when it was mass-marketed in the 1860s. For one American cent an hour, consumers could illuminate their home with a brighter and more reliable substance than any tallow, whale oil, or other substance that had been available previously.<sup>1</sup> By the end of the 1860s, kerosene lamps were providing illumination to millions of people (rich and poor) all around the world.

The modern petroleum industry began in 1859 when Edward Drake drilled a well in northwestern Pennsylvania that began to provide petroleum on a large enough scale for commercial amounts of kerosene to be manufactured. Within a few years, the entire northwest corner of Pennsylvania was dotted with wells and the market was flooded with petroleum for kerosene. The supply gluts led to low prices and the ruin of many industry participants, leaving them vulnerable to an organization that was capable of rationalizing and economizing the industry on a massive scale.

In 1870 John D. Rockefeller formed the Standard Oil Company, which would focus on the refining and distribution of kerosene. Standard's ability to reliably produce high volumes was noticed by the railroad companies, who needed consistent amounts of rolling stock in order to ensure their own profitability. Consequently, they made discount deals with Rockefeller that allowed him to economize further and price his competitors out of business. Rockefeller's Standard Oil Company would have the overwhelming majority of the American kerosene market

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<sup>1</sup> Loris S. Russell, *A Heritage of Light: Lamps and Lighting in the Early Canadian Home* (Toronto: University of Toronto Press, 2003), p. 131.; John H. White Jr., *The American Railroad Passenger Car: Part Two* (Baltimore, MD: Johns Hopkins University Press), p. 415.

cornered by 1874, and could claim almost 80% of global market share by 1880.<sup>2</sup> Improbably, by the end of the next decade, Standard would be in a death struggle with Russian oil for global markets. By 1900 the Russian petroleum industry had not only proved itself capable of competing with Standard Oil, but had in fact overtaken it. Therefore, the question emerges as to how the Russian industry was able to produce and sell more petroleum than Standard Oil in this period? What were the factors that led to the industry's remarkable success?

The emergence of the Russian petroleum industry coincided with the period of Imperial Russian industrialization. The economic development of Imperial Russia between the years of 1862-1914 was one of the earliest examples of a state's conscious attempt to rapidly industrialize. Concurrent with Meiji Japan, the Russian state attempted to transform an agricultural society into a modern industrial capitalist one in a matter of decades. Throughout this study, the phrases "backward" or "relatively backward" frequently appear in relation to Russia's economy and society in the middle of the nineteenth century. This phrase does not, of course, capture all of the aspects of a large and complicated economy like the Russian Empire's. What the term is intended to convey is that, from an industrialized perspective, economies that have little industry and rely on agriculture are lacking the economic forces and relations that are present in an industrial economy and are therefore "backward". In the case of the Russian Empire, industrialization was a means of achieving modernization. This attempted modernization was repeated in developing countries through much of the twentieth century, meaning that the

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<sup>2</sup> Council on Foreign Relations, "Oil Dependence and US Foreign Policy: 1850-2017", <https://www.cfr.org/timeline/oil-dependence-and-us-foreign-policy>. By 1880, 85% of global production was done in the United States. The only other places that petroleum were produced in large quantities were Baku and Canada. Some small quantities were produced from shale in Scotland.

historiography of the industrialization of Imperial Russia became influenced by the literature associated with developmental economics.

In the late 1950s, Walt W. Rostow developed a theory that an economy went through five stages of growth between being a traditional agrarian society and a modern one defined by mass consumption. The third stage, “take-off”, was the stage at which rapid and self-sustained economic growth became normal.<sup>3</sup> According to Rostow, “take-off” typically follows the decision of a politically powerful interest group (or groups) to implement the vast institutional changes that are required to transform the traditional society into a modern one. In Russia these groups, according to Rostow, were “a political, military, and civil service elite, smarting from the harsh lesson of the Crimean War and from a widening perception of the national costs of Russian backwardness”.<sup>4</sup> The period of 1861-1914 (Great Reforms to the First World War) was considered by Rostow to be Russia’s “take-off”, a theory that strongly influenced the emerging group of historians who would begin to carefully study this period. Aspects of this theory would be challenged by Alexander Gerschenkron who argued that a late-industrializing state did not necessarily have to pass through all of the stages of growth. It could “catch-up” through the “latecomer effect”, which posits that firms or nations are able to modernize and develop more quickly than firms or nations that modernized earlier. This is because the latecomers are able to achieve convergence by adopting state-of-the-art technology and systems that have already been

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<sup>3</sup> W.W. Rostow, “The Stages of Economic Growth,” *The Economic History Review*, Vol. 12 No.1, (1959), p. 6.

<sup>4</sup> *Ibid*, p. 7.

developed in fully industrialized states.<sup>5</sup> Gerschenkron argued that rather than experiencing “take-off”, the Russian state was financing and directing a “catch up” during this period.<sup>6</sup>

Alexander Gerschenkron’s theory emerged as western historiography’s orthodox view of Imperial Russian industrialization. According to Gerschenkron, Russian industrialization was a conscious state driven policy, spurred on by aggressive railroad construction and state investment in industrial sectors. Bertram Wolfe referred to this as “the fusion of statism with industrialism.”<sup>7</sup> Additionally, a deflationary fiscal policy combined with heavy tariffs allowed Russia to develop a favourable balance of trade and to eventually go on the Gold Standard. The Gold Standard allowed Russia to continue to borrow abroad, and to attract foreign capital into Russia in order to substitute for low domestic capital. English language historians often refer to this policy approach as the “Witte System”, after Russia’s powerful Minister of Finance Sergei Witte (1892-1904). The major failure of the Witte system, according to this group of historians, was not disrupting the legal attachment of peasants to the communal village until Petr Stolypin’s 1907 reforms. The commune, according to Wolfe, oppressed individual peasants through “constant communal repatriation of land, village dictation of agricultural methods, and by collective responsibility for taxes and (military) recruits”<sup>8</sup> These historians argue that Stolypin’s reform liberated peasants from oppressive communes and unleashed Russian economic growth

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<sup>5</sup> John A. Matthews, “Catch-Up Effect and Latecomer Strategies in Industrial Development,” *New Political Economy*, Vol. 11, No. 3, (September 2006), p. 313-314.

<sup>6</sup> Alexander Gerschenkron, “Russia: Patterns of Economic Development, 1861-1958”, *Economic Backwardness in Historical Perspective* (Cambridge, MA: Belknap Press, 1962), p. 125.

<sup>7</sup> Bertram Wolfe, “Backwardness and Industrialization in Russian History and Thought”, *Slavic Review*, Vol. 26 No. 2 (June, 1967), p. 187.

<sup>8</sup> *Ibid*, p. 194.

until the beginning of the First World War. According to John McKay, this approach is “the point of departure for almost all general investigations” of Russian industrialization.<sup>9</sup>

This approach had significant appeal. On the one hand, it was able to show a continuity (and allowed for a comparison) between the late tsarist approach to industrialization and the Soviet approach taken in the 1930s. Additionally, the policies undertaken by the Russian government in order to industrialize were largely consistent with the consensus in developmental economics at the time. In 1955 Arthur Lewis argued that developing economies were split into ‘traditional sectors’ like agriculture and ‘modern sectors’ like industry. Lewis’ prescription, for which he won a Nobel Prize, was for the state to shift resources from the traditional sectors to the modern ones.<sup>10</sup> As will be shown in Chapter One, this is largely what the Russian government attempted to do. Therefore, given the popularity of Lewis’ theories amongst western economic historians, it is easy to perceive why the orthodox theory of Russian economic development was so popular.

The state-focused perspective of the orthodox theory emphasizes the importance of the bureaucracy to Russian industrialization, an institution that quadrupled in size between 1857 and 1903.<sup>11</sup> In the late 1970s western historians, like Brenda Meehan-Watters, Marc Raeff, and Daniel Orlovsky, began to investigate the inner workings of the tsarist bureaucracy as a counter-balance to the extensive existing historiography on the Russian intelligentsia and workers.<sup>12</sup>

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<sup>9</sup> John McKay, “Baku Oil and Transcaucasian Pipelines, 1883-1891: A Study in Tsarist Economic Policy”, *Slavic Review*, Vol. 43, No. 4 (Winter, 1984), p. 604.

<sup>10</sup> Arthur Lewis, *The Theory of Economic Growth* (London: Allen and Unwin, 1955).

<sup>11</sup> Francis Wcislo, *Reforming Rural Russia: State, Local Society, and National Politics, 1855-1914* (Princeton NJ: Princeton University Press, 1990), p. 95.

<sup>12</sup>See Brenda Meehan-Watters, “The Evolution of the Russian Bureaucracy in the Nineteenth Century,” *Soviet Studies in History*, Vol. 18, No. 2 (1979); Marc Raeff, *Understanding Imperial Russia: State and Society in the Old Regime* (New York: Columbia University Press), 1984; Daniel Orlovsky, *The Limits of Reform: The Ministry of Internal Affairs in Imperial Russia, 1802-1881*.

These historians (along with more recent examples like Francis Wcislo, and Andrew Verner) have analyzed the authority, freedom, and effectiveness of a bureaucracy operating under an autocratic Tsar.<sup>13</sup> Examined closely in Chapter One, what has emerged is a messy picture of a largely inefficient system that depended a lot on personality. That does not mean, however, that the regime was idle in the late imperial era, or merely concerned with saving itself from extinction. Rather, it was an active system that alternated between competing visions of reform. Late imperial bureaucrats were largely convinced that the autocracy was salvageable in some form within a modern society, and competed with each other to convince the autocrat that their policy agenda was the most likely to achieve success. The industrialization strategy pursued by the Russian finance ministry would be one such policy agenda.

Gerschenkron's orthodox thesis of Russian industrialization was already being challenged in the 1960s by revisionist scholars who were critical of the Russian state's initiatives. Rather than arguing that Russian industrialization had been a successful initiative of the state that was only stymied by the lack of labour mobility, historian Arcadius Kahan (of the University of Chicago) criticized many of the government's industrialization policies as being harmful to industrialization. He argued that state investment had taken opportunity away from private investors, that the tariff regime was detrimental to agriculture and light industry, and agreed with Haim Barkai that the deflationary approach taken by the government in order to attract foreign capital and to achieve the Gold Standard had imposed onerous costs on the peasantry.<sup>14</sup> By the end of the Cold War, it was not only the virtues of the state-driven

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<sup>13</sup> Andrew Verner, *The Crisis of Russian Autocracy: Nicholas II and the 1905 Revolution*, (Princeton, NJ: Princeton University Press, 1990); Francis Wcislo, *Reforming Rural Russia: State, Local Society, and National Politics, 1855-1914*.

<sup>14</sup> Arcadius Kahan, "Government Policies and the Industrialization of Russia", in *The Journal of Economic History*, Vol. 27 (December 1967), p. 460-77. Haim Barkai, "The Macro-Economics of Tsarist Russia in the Industrialization

industrialization that began to be challenged in western historiography, but the whole notion of state-driven industrialization itself.

Beginning in the 1970s historians like John McKay, Olga Crisp, Thomas Owen, and Paul Gregory emphasized the importance of the heretofore marginalized private sector in Russia.<sup>15</sup> These historians have argued that the entrepreneurs and capitalists themselves were participants in industrialization, not just agents of the state. Unlike previous assessments the Russian merchant, entrepreneur, and capitalist now had agency in the Empire's economic development. That role was not only limited to business growth, as Alfred Rieber and Muriel Joffe have described how groupings within the merchant estate could act like an interest group in Russian politics. Rieber, in particular, has argued that tension frequently emerged between Russian entrepreneurs and the goals of the Ministry of Finance.<sup>16</sup>

The revisionists' emphasis on the role of commercial society intersected with historians' search for a pre-World War One Russian bourgeoisie. The seminal historian in the West of Russian merchants is Alfred Rieber, whose book *Merchants and Entrepreneurs in Imperial Russia* argues that no such united bourgeoisie existed due to commercial society's fragmentation into ethnic and regional groupings.<sup>17</sup> Anne Fitzpatrick, along with Henning Hillman and Brandy

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Era: Monetary Developments, the Balance of Payments and the Gold Standard", in *The Journal of Economic History*, Vol. 33 (June 1973), p. 339-71.

<sup>15</sup> See: John McKay, *Pioneers for Profit* (Chicago: University of Chicago Press, 1970); Olga Crisp, "The Pattern of Industrialization in Russia", in *Studies in the Russian Economy Before 1914*, (London: Macmillan Press, 1976), p. 1-4; Thomas Owen, *The Corporation Under Russian Law, 1800-1917* (Cambridge: Cambridge University Press, 1991). Paul Gregory, *Before Command: An Economic History of Russia from Emancipation to the First Five Year Plan* (Princeton, NJ: Princeton University Press, 1994).

<sup>16</sup> Alfred Rieber, *The Imperial Russian Project: Autocratic Politics, Economic Development, and Social Fragmentation* (Toronto: University of Toronto Press, 2017); and Muriel Joffe, "Regional Rivalry and Economic Nationalism: The Central Industrial Region Industrialists' Strategy for the Development of the Russian Economy, 1880-1914", *Russian History*, Vol. 11, No. 4, (Winter, 1984),

<sup>17</sup> Alfred Rieber, *Merchants and Entrepreneurs in Imperial Russia*, (Chapel Hill, NC: University of North Carolina Press, 1982).

Aven, have shown how this fragmentation could have considerable negative consequences on business practices and investment by isolating capital within regional networks.<sup>18</sup> Meanwhile, Thomas Owen has examined the social and economic obstacles to the creation of an empire-wide capitalist class, and blamed the Russian state for organizing and enforcing a legal structure that had the effect of disincentivating the emergence of such a group.<sup>19</sup> These historians have shown the considerable positive local effects that capitalists and entrepreneurs had on industrialization, but that their influence was limited to their own local operations and networks.

A third school of Russian industrialization has emerged out of Immanuel Wallerstein's "World Systems Theory". Best illustrated by Boris Kagarlitsky's *Empire of the Periphery*, this school suggests that Russian industrialization was best described by a model of core and periphery. Integrating earlier Marxist analysis (largely taken from early Soviet scholars like S.R. Ronin, Petr Liaschenko, and Mikhail Pokrovskii) with Wallerstein's model, Kagarlitsky argues that the world system that was dominated by the core countries of Britain and Western Europe had an over-accumulation of capital by the middle of the nineteenth century, which required a new frontier of investment. This over-accumulation occurred at a time when Russia knew that it needed western help to industrialize if it was going to remain a great power, and therefore the empire allowed itself to be exploited as a world system periphery for the use of western capital. Kagarlitsky argues that Russian capitalist industrialization, which was a project of the state and foreign capitalists, devastated the countryside and reinforced Russia's status as a periphery to the

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<sup>18</sup> Anne Fitzpatrick, *Great Russian Fair: Nizhnii Novgorod 1840-1890* (New York: Palgrave MacMillan, 1990); Henning Hillman and Brandy Aven, "Fragmented Networks and Entrepreneurship in Late Imperial Russia," *American Journal of Sociology*, Vol. 117, No. 2 (September 2011);

<sup>19</sup> Thomas Owen, *The Corporation Under Russian Law, 1800-1917* (Cambridge: Cambridge University Press, 1991).

world system's core. He agrees with Pokrovsky's statement that Russian industrial economic growth in the 1890's was accompanied by "the conquest of Russia by foreign capital."<sup>20</sup>

Kagarlitsky's admirable Wallersteinian effort has the virtue of emphasizing just how integrated Russia was with foreign markets during its industrialization. It shows that any analysis of Russian industrialization cannot begin and end within the borders of the Russian Empire. Unfortunately for the world systems theorists, the model just does not hold up that well under scrutiny. In Kagarlitsky's case, he massages statistics in order to grossly overemphasize the amount of foreign capital in Russia, let alone the willingness of Russian policymakers to be its toadies.<sup>21</sup> As this thesis will show, although European capital was heavily invested in the Russian oil industry, the core-periphery model is far too structuralist to capture reality. Additionally, as Chapter One of this thesis will show, suggesting that the Russian government was in any way a slave to foreign capitalists and capital is an exaggeration.

Whatever the structural limitations of world systems theory, it does nicely lead into an analysis of nineteenth century globalization history. Influenced by the post-Cold War globalized world, social scientists (and eventually historians) began to re-conceptualize earlier periods globally, and to identify global relationships between goods, people, capital, and ideas. A.G. Hopkins, in a 2010 article for the *Journal of the Economic and Social History of the Orient*, argued that modern empires were really just agents of globalization. Regarding the nineteenth century, Hopkins suggests that "the expanding empires of the nineteenth century were

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<sup>20</sup> Boris Kagarlitsky, *Empire and the Periphery: Russia and the World System*, (translated by Renfrey Clarke), (Ann Arbor, MI: Pluto Press, 2008), p. 223.

<sup>21</sup> For an example of his misrepresentation of statistics, he frequently refers to any capital as foreign if it was not the capital of an ethnic Russian. As a relevant example to this study, he refers to the Nobel Brothers as "foreign capitalists", but both Ludvig and Robert were Russian citizens who spent the majority of their commercial careers associated with and within the Russian Empire.

paradoxical: they were nationalist expressions of new or remodelled nation states but they also developed trans-national... flows of goods, ideas, and people.”<sup>22</sup> According to Hopkins, a consensus has emerged among historians of globalization that the second half of the nineteenth century was indeed globalized, and more globalized than the last decade of the twentieth and early twenty-first century in labour and long-term capital markets.<sup>23</sup> However, because each period of globalization had certain unique factors, debate has emerged as to exactly what form nineteenth century globalization actually took.

Jeffrey Friedan has argued that nineteenth century globalization was, as per Hopkins, a globalization that was made possible by technology, but largely encouraged and enforced by the British Empire.<sup>24</sup> Other colonial empires existed, but trade and finance largely operated according to British rules. Both he and Niall Ferguson emphasize the importance of the liberalized trade regime that was largely an initiative of the British Empire.<sup>25</sup> Meanwhile, Michael Miller has suggested that nineteenth century globalization was more of a web of regional networks connected through European shipping.<sup>26</sup> He de-emphasizes the role of liberalized trade laws, and suggests that railroad and container ship technology began a trend of globalization that has not abated since the middle of the nineteenth century. These global technological advances would have a considerable effect on the petroleum industry.

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<sup>22</sup> A.G. Hopkins, “The Historiography of Globalization and the Globalization of Regionalism”, *Journal of the Economic and Social History of the Orient*, Vol. 53, No. 2 (2010), p. 25.

<sup>23</sup> *Ibid*, p. 24.

<sup>24</sup> Jeffrey Friedan, *Global Capitalism: It's Fall and Rise in the Twentieth Century* (New York: W.W. Norton and Co., 2006), p. 21.

<sup>25</sup> Niall Ferguson, “Sinking Globalization,” *Foreign Affairs*, Vol. 84, No. 2 (March/April 2005).

<sup>26</sup> Michael Miller, *Europe and the Maritime World: A Twentieth Century History* (Cambridge, UK: Cambridge University Press, 2012).

The purpose of this thesis is to examine the factors that shaped successful Russian industrialization up to the year 1900. Petroleum is a useful case-study for this study because of its success. Rather than focusing on a failed industry, or a sector whose exports were negligible, petroleum was selected due to Russia's prominence within the global industry and the sector's emergence alongside Russian industrialization. This thesis explores both internal and external influences, allowing for a slightly different approach to the analysis of a Russian industrial sector than has been tried before.

Chapter One will examine the internal factors that affected the industry's growth from 1870 to 1900, with an emphasis on the factors that affected the export industry. In particular, it will analyze the effect of the institutional environment, bureaucratic initiatives, the social environment, and the law. The success of the petroleum industry will illuminate how effective the Ministry of Finance's direction and management of the industrialization initiative was, as well as the ability and willingness of the Russian private sector to participate actively in industrialization. The chapter analyzes the role of prominent individuals within the government, like Sergei Witte, and concludes with a thorough examination of the incentive structure put in place by the state to incentivize private sector-led growth.

Chapter Two examines the external factors that led to the industry's remarkable export growth from 1888-1900. Before 1888 the industry was largely focused on the domestic market, so it was only after that year that external factors begin to play a significant role. The chapter explores how the Russian petroleum industry's integration within a global economy affected its growth through an analysis of the roles of the British Empire, American competition, technology, and foreign firms.

This thesis argues that it was largely external factors, as opposed to internal factors, that led to the Russian petroleum industry's growth. Its success was due to European capital, technological innovation, and access to global markets. By contrast, internal factors such as the institutional framework of Imperial Russia, bureaucratic governance, anachronistic legal structure, and the pervasiveness of conservative social and business attitudes negatively affected the industry's ability to reach its potential. Therefore, external factors allowed the Russian petroleum industry to overcome internal obstacles to become the top petroleum producer in the world by 1900.

This thesis relies on a variety of primary sources. The most important are British and American Consular and diplomatic sources from the main export terminus of Batumi which provide both export statistics and analysis of local events of importance to the industry. There are two main reasons for this choice of focus. First, these officials were expected to provide reliable annual trade statistics to commercial audiences around the world. In the case of Batumi, the officials were particularly reliable. Paul Stevens, the British consul through much of this period, was an "old Russia hand"<sup>27</sup> who had become quite familiar with the petroleum industry and wrote carefully for a British audience very curious about opportunities in the Russian petroleum industry. J.C. Chambers, the American Consul at Batumi at the time, was an agent of Standard Oil and was therefore very well-versed in the petroleum industry and particularly careful in ensuring that his figures were correct. Although Stevens' statistics predominate in the footnotes, Chambers' statistics were used to cross-reference those numbers. The other advantage to these

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<sup>27</sup> "Old Russia Hand" was a term used for British diplomatic officials and prominent private citizens who had spent a lot of time in Russia and heavily relied upon by the Foreign Office for their analysis of a country that was quite exotic to Britons of the late 19<sup>th</sup> century. Keith Nielson described them as "possessing an expertise concerning Russia as a result of various circumstances: long residence, linguistic aptitude, specialized study, business dealings and so on." Keith Nielson, *Britain and the Last Tsar: British Policy and Russia, 1894-1917* (Oxford: Clarendon Press, 1995), p. 4.

sources is that they provide a standardization of language that is hard to find anywhere else. Petroleum was still a new commodity in the 1890s and the words “oil” or “petroleum” did not necessarily imply the commodity in question. *Naphtha* (where the Russian word for oil, *neft*, comes from) was frequently used to refer to petroleum, but it was equally likely to refer to mineral spirits, benzene, or the compound *naphthalene* which was derived from the distillation of coal tar. *Oil* could refer to any number of mineral oils or seed oils that were commonly exported from Russia, and petroleum could even refer to the petroleum jelly that we associate with the product ‘Vaseline’. Accordingly, even officials and businessmen familiar with the petroleum industry could be misled by using a wide variety of labels. What might have been clear in 1890 is less clear today. In order to ensure that the statistics being used are as reliable as possible, it was decided to use the records of the consuls at Batumi who used a standardized vocabulary. Other primary sources include newspaper and magazine articles, memoirs, and official documents. Given that the focus of the thesis was largely exports, the primary sources are predominantly in the English language. Of the readily available statistics in North America from the port of Batumi at the time British and American sources predominate, meaning that using equivalent sources in other locations allowed for a consistency that might not have been possible otherwise.

The secondary literature selected in Chapter One was also either written in English or translated into English. Although an exciting late and post-Soviet Russian language historiography on the subjects touched upon in Chapter One exists, the English-language historiography has a longer pedigree and is extensive enough that, in a short sixty-five page analysis like chapter one, it is sufficient. As far as the secondary literature used in Chapter Two, most transnational histories of the British Empire or globalization are written in English or

translated into English. Therefore, the reliance on English language secondary sources should not affect the accuracy of the analysis or conclusions.

## Chapter 1: Ministry of Finance and Russian Petroleum

Thomas Hughes defines *large-scale technological systems* as a series of socially constructed components and artifacts (either physical or non-physical) that “contribute directly or through other components” to reach a common goal.<sup>28</sup> According to Hughes, systems can be entirely physical, like an electric power grid, or non-physical like an investment bank.<sup>29</sup> The key is that they are constructed by *system-builders* who “construct or (are able to) force unity from diversity, centralize in the face of pluralism, and (forge) coherence from chaos.”<sup>30</sup> Components like materials, labour, transportation, bureaucracy, finance, and management were forged by available technology into a coherent working relationship that was capable of reaching a specific goal. Alexander Gerschenkron, in his 1962 essay “Russia: Patterns of Economic Development”, characterized the Ministry of Finance’s industrialization strategy as a “series of attempts to find - or to create - substitutes for those factors which in more advanced countries had substantially facilitated economic development, but which were lacking in conditions of Russian backwardness.”<sup>31</sup> Although Gerschenkron did not use Hughes’ terminology, his description of the Ministry of Finance’s organizational approach to industrialization could fit within Hughes’ model. Gerschenkron claimed that transforming the traditional agricultural economy of Russia into a more modern one like Great Britain’s or Germany’s required a system whose primary purpose was to artificially replicate aspects of other countries that had industrialized, which

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<sup>28</sup> Thomas Hughes, “The Evolution of Large Technological Systems”, ed. Wiebe E. Bijker, Thomas Hughes, and Trevor Pinch, *The Social Constructions of Technological Systems* (Cambridge, MA: MIT Press, 2012), p. 45.

<sup>29</sup> Ibid.

<sup>30</sup> Ibid, p. 46.

<sup>31</sup> Alexander Gerschenkron, “Russia: Patterns of Economic Development, 1861-1958”, in *Economic Backwardness in Historical Perspective* (Cambridge, MA: Belknap Press, 1962), p. 123.

Russia was lacking, in order to achieve industrialization.<sup>32</sup> According to Gerschenkron, Russian industrialization would require state-financed and directed growth in order to build transportation networks, the substitution of state capital for private domestic capital, and legislative changes encouraging private sector industrial development.<sup>33</sup> Although Gerschenkron largely considers this system a phenomenon of the 1890s, a creation of the powerful Finance Minister Sergei Witte (1892-1903), this chapter will show that much of Witte's approach was consistent with that of earlier finance ministers beginning with Mikhail von Reutern (1862-1878).

The Ministry of Finance assumed that it could capably monitor and direct all sectors of the economy. This idea emerged organically from how tsarist officialdom operated in practice. Although discussed in greater detail below, at this point it suffices to say that the relationship of the Tsar to his ministers was designed so that theoretically only the Tsar would know what was going on across all departments at any given time. This gave the Tsar, and only the Tsar, the ability to direct his various ministers as if they were pieces on a chessboard.<sup>34</sup> The Ministry of Finance considered that its role for the economy. Below, it will be argued that the ministry was incapable of monitoring and managing all sectors of the economy and that the petroleum industry suffered from a lack of attention relative to other sectors, leaving the petroleum industry at the mercy of its inhospitable legal and cultural environment.

Although it was hardly an ideal approach to industrialization, no other approach to industrialization was possible in Russia's personalized autocratic political system. Rather than being drafted by an individual minister, proposed legislation was typically referred to a

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<sup>32</sup> Ibid, p. 124.

<sup>33</sup> Ibid, p. 124-128.

<sup>34</sup> Verner, p. 45-46.

committee inside of the State Council or Senate<sup>35</sup> which could take years to arrive at any recommendations.<sup>36</sup> Accordingly, for day-to-day business, the Tsar and the ministers relied on “dispensations”.<sup>37</sup> These dispensations provided exemptions from and exceptions to the law as currently written. A dispensation did not change the law, but allowed the government to ignore an inconvenient law when it suited their purpose. According to Andrew Verner, “Autocratic government... was little more than the sum of innumerable ad hoc decisions.”<sup>38</sup> Officially, only the Tsar had the ability to offer a dispensation, but dispensations were usually recommended to the Tsar by ministers during weekly audiences. Consequently, ministers were able to control access to them. Subsequent finance ministers believed that, if Russia was ever going to industrialize, many ad hoc dispensations would be required so that modern industry could avoid enforcement of inconvenient legislation. Although all finance ministers understood that this system required reform, they proposed conflicting ideas and approaches to what that would entail.

A cottage industry has emerged among historians of late imperial officialdom around identifying groups of reformers or reactionaries that existed within the bureaucracy. The active bureaucratic conflict that existed, but without political parties, has caused historians to occasionally superimpose parties or camps onto a structure that did not have such a clean division. The peculiar nature of the bureaucracy has even led to significant debate over terminology for the existing ideologies within the bureaucracy, along with debate about who belongs where and at what time. It will be discussed in more detail below, but for now it will

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<sup>35</sup> The State Council was a body of senior members of the Royal Family, military officials, and bureaucrats. It had no specific power but was an advisory committee to the Tsar.

<sup>36</sup> Ibid.

<sup>37</sup> Ibid, p. 46-47.

<sup>38</sup> Verner, p. 46.

suffice to say that this chapter will accept the premise that there were two significant ideological groupings that populated the late imperial bureaucracy. On the one hand were what will be defined here as *Rechtsstaat* reformers, or those who wished to construct a legal autocracy based on the rule of law and “rationalized institutional hierarchies capable of executing the domestic policy of a unified central government.”<sup>39</sup> These reformers were looking forward to a future devoid of arbitrariness, some democratic representation, and maybe even of a constitutional regime along a western model. These were the officials who had led the Great Reforms and had largely (but hardly exclusively) been favoured under Tsar Alexander II (r. 1855-1881). The other major group within the imperial bureaucracy will be described as the “counter-reformers”. Not necessarily reactionary, officials in this group were committed to modernizing the autocratic state in such a way that would preserve Russian traditions, retain the arbitrary decision-making authority of the Emperor, and preserve order in the countryside.<sup>40</sup> The “counter-reformers” were largely favoured by Tsar Alexander III (r. 1881-1894) and Tsar Nicholas II (r. 1894-1917). It will be argued below that when interacting with the government, the Russian petroleum industry was far more successful under the former than the latter.

There were other factors that prevented Russia from modernizing on the western model. Western industrialization had largely been realized through the empowerment of centrifugal organizations (firms) to create their own successful systems, with only minimal centripetal pressure through trade laws, taxation, and occasional corruption. The autocratic Russian political system, by its nature, was distrustful of centrifugal empowerment. Accordingly, however much the Ministry of Finance may have desired Russian firms to resemble their European or American

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<sup>39</sup> Francis Wcislo, *Reforming Rural Russia, Local Society, and National Politics*. p. 55.

<sup>40</sup> *Ibid*, p. 56.

counterparts, the Russian political system concentrated power centripetally. Thus, the great corporate systems of the United States and Europe were impossible, and the government would be more activist by necessity.

In the 1890s Russia was responsible for between thirty and fifty percent of the annual global petroleum supply.<sup>41</sup> Thus, this chapter will not argue that the petroleum industry failed in Russia. It was clearly a success and spawned the first significant challenge to Standard Oil's global petroleum hegemony. However, what this chapter will suggest is that the Russian state was an impediment to its success. What success the industry had was usually despite the Russian government's actions. A company getting its supplies almost exclusively from the oilfields in western Pennsylvania should not have been able to compete with any company (or groups of companies) that relied on Baku oil as their major source of supply. Baku has continued to be a major source of oil production ever since 1871. It was one of the three major oil producing regions in the Soviet Union, and it continues to reliably produce over 800,000 barrels per day with an estimated remaining reserve of approximately seven billion barrels.<sup>42</sup> Although oil production has returned to Pennsylvania with the onset of widespread fracking, it was only two decades ago that oil production in Pennsylvania had been reduced to five functioning wells.<sup>43</sup> Therefore, although Russia was one of the largest suppliers of global petroleum in the period, Baku had so much more potential than was utilized. This can be attributed to flaws in the

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<sup>41</sup> Daniel Yergin, *The Prize: The Epic Quest for Oil, Power, and Money* (New York: Simon and Schuster, 1991), p. 62,

<sup>42</sup> U.S. Energy Information Administration, "Azerbaijan Analysis", January 7, 2019. First Accessed on February 3, 2019. <https://www.eia.gov/beta/international/analysis.php?iso=AZE>

<sup>43</sup> Robert Strauss, "Oil Makes a Comeback in Pennsylvania," *New York Times*, April 22, 2015. First Accessed on February 27, 2019. <https://www.nytimes.com/2015/04/23/business/energy-environment/oil-makes-a-comeback-in-pennsylvania.html>

approach taken to industrialization, as well as weaknesses in the Russian institutional, legal, and cultural environment.

Therefore, it will be argued that the nineteenth century Russian petroleum industry was handicapped by internal factors. It suffered from the Russian autocratic political environment that emphasized ad hoc decision making over legislative reforms. Additionally, in order to overcome shortages of domestic capital, conservative business practices, and skepticism of modernization, a reliance on centralized bureaucratic institutions was required that was badly suited to the supervision of a modern industrial economy. In attempting to direct industrialization, the state frequently exacerbated the already considerable environmental problems that the petroleum industry faced. Therefore, it can be stated confidently that internal factors had very little to do with the success of the Russian petroleum industry during the second half of the nineteenth century.

### *Industrialization and the Russian Bureaucracy*

Gerschenkron argued that Russia, being a latecomer to industrialization, was able to capitalize on this tardiness by exploiting technological advances elsewhere. Russia did not have to endure Rostowian “stages of growth”, but could adopt the latest and most sophisticated technological and industrial models available.<sup>44</sup> The same possibility existed for searching out a state-of-the-art model for industrialization, and then having Russian policy emulate it. For Russian officials, the most attractive choice was the Prussian led group of states in central Europe that consolidated into the German Empire in 1871. According to Jurgen Kocka,

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<sup>44</sup> Gerschenkron, p. 125.

Germany's industrialization was bureaucratic-led as opposed to private sector-led like in Great Britain or the United States.<sup>45</sup> The rapid government financing of railroads, government assistance to heavy industries, and a rapidly growing network of credit facilities allowed the Zollverein, and later Germany, to become the most industrialised state on the continent.<sup>46</sup> Prussian military power had relied on this industrialization in its overwhelming military victories against the Austrian Empire in 1866 and the French Second Empire in 1870-71. Of particular virtue, at least to Russian observers, was that this industrialization had not appeared to threaten the autocratic political regime of the Prussian-Brandenburg Hohenzollern dynasty in Berlin.

However attractive Germany might have been as a model for industrialization to Russia's reformers, there were significant differences between the two states. First, Russian autocracy was of a significantly different character than the German model. As mentioned above, the Tsar enjoyed unlimited arbitrary power. In consequence, not only were there no representative political institutions, but neither did any official body exist to standardize legislation, procedures, or rules. Alfred Rieber argues that Russian autocracy even "prevented the emergence of a central bureaucratic organ which might have served to rationalize and coordinate decisions as well as referee the conflicts arising among competing interest groups."<sup>47</sup> Meanwhile, in Germany, the 1871 *Constitution of the German Empire*, which was an extension of earlier such documents within various German states, enshrined into law a political regime of popular assemblies, standardized legislative practices, and a federalist model that included a division of powers between the central and state governments. The German emperor's power, although quite broad,

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<sup>45</sup> Jurgen Kocka, "Capitalism and Bureaucracy in German Industrialization before 1914," *The Economic History Review*, Vol. 34, No. 3 (August 1981), p. 454.

<sup>46</sup> Ibid.

<sup>47</sup> Alfred Rieber, "Bureaucratic Politics in Imperial Russia", *Social Science History*, Vol. 2, No. 4 (Summer, 1978), p. 403.

was only absolute in a few areas. In practice, central government authority was exercised by a robust Prussian civil and military bureaucracy that was responsible to both the Prussian and Imperial legislatures.<sup>48</sup> A long history of constitutions had preceded the 1871 version, in which many of the German states had independently institutionalized standardized bureaucratic and legislative rules for creating and amending laws. These were institutions that were lacking in Russia. This is not to say that arbitrary behaviour was not possible in Germany, as the Kaiser exercised his absolute power to appoint and dismiss officials at whim. Other figures, such as Otto von Bismarck, were able to act arbitrarily due to the collection of offices they controlled.<sup>49</sup> However, this political action was significantly more curtailed in Germany than was available to the Russian Tsar. The upshot was that Germany was largely governed by a system of laws and regulations, which some German historians have gone so far as to term a type of *Rechtsstaat* (a state governed by law).<sup>50</sup> These standardized procedures allowed the government to regularly amend the law as needed without having to only rely on ad hoc decision making, and provided its capitalists with the peace of mind that the system could reliably be expected to work in a certain way. Overall, it allowed the German Empire to function as something other than the sum of innumerable ad hoc decisions. Therefore, although there were some similarities between Germany and Russia in the second half of the nineteenth century, its system of government had led to do very different bureaucratic and legislative institutions.

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<sup>48</sup> Much of the argument in Christopher Clark's biography of Wilhelm II is that the actual constitutional power of the Kaiser was undefined and constitutionally unknown. According to Clark, Wilhelm endeavoured to find out just how much he could get away with. He was forced, unlike the Tsar, to make political alliances in order to achieve his goals, and could not just act arbitrarily. He was successful in some areas and stymied in others, particularly by a very institutionally powerful military. Christopher Clark, *Kaiser Wilhelm II: A Life In Power* (London: Penguin Books, 2000) p. 35-42.

<sup>49</sup> It is worth noting though, that no other figure was able to parallel the power of Bismarck until the twin dictatorship of Hindenburg and Ludendorff in the last stages of the First World War.

<sup>50</sup> Kenneth Ledford, "Lawyers, Liberalism, and Procedure: The German Imperial Justice Laws of 1877-79," *Central European History*, Vol. 26, No. 2 (1993), p. 165-67.

The Russian Ministry of Finance between 1845 and 1885 was largely staffed by officials drawn from provincial gentry and *raznochintsy* (an educated group of urban professionals without specific class attachments).<sup>51</sup> According to Rieber, these officials shared similar educations that emphasized *classical* and *German historical* political economy.<sup>52</sup> Rieber has describe their comprehensive economic policy as thus: “Its chief features were a moderate tariff, a centralized bank, a stable currency backed by specie, a strong dose of foreign capital for development purposes, private railroad construction under state supervision, and a conciliatory attitude towards the Western naval powers.... Overall, it represented the triumph of institutional loyalties over personal and familial.”<sup>53</sup> It was the members of this group that would be responsible for leading the first half of Russia’s industrialization.

Mikhail von Reutern, the Minister of Finance from 1862-1878, understood that launching a rapid bureaucratic-led industrialization on the German model would put considerable stress on the imperial treasury.<sup>54</sup> Hence, the Ministry of Finance would have to become the central policy organ that Russia heretofore lacked, in order to ensure that the Tsar did not divert necessary funds to other departments.<sup>55</sup> This concern was particularly acute due to the traditional nature of the relationship between the ministries and the autocracy. The ministries of the Russian Empire did not function like a modern cabinet might, with the Tsar overseeing a group of ministers that would coordinate issues of policy as well as manage their own departments. Russian ministers were appointed by the Tsar whom they were expected to meet with one-on-one, usually once a

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<sup>51</sup> Rieber, “Bureaucratic Politics in Imperial Russia”, p. 409.

<sup>52</sup> Ibid.

<sup>53</sup> Ibid.

<sup>54</sup> Alfred Rieber, *The Imperial Russian Project: Autocratic Politics, Economic Development, and Social Fragmentation*, p. 166.

<sup>55</sup> Ibid.

week.<sup>56</sup> In these sessions, ministers would bring the Tsar written reports for approval as well as to inform him of the goings on at his Ministry. These reports were expected to contain all business at the department, important initiatives as well as mundane trivialities.<sup>57</sup> Ministers were expected to only discuss issues going on at their own departments, and not to discuss issues that might have a bearing on other departments.<sup>58</sup> This way, only the Tsar would be able to oversee the entire structure. The ministers could meet irregularly as a group, but it might only be once or twice a decade in order to deal with a particularly urgent matter. Consequently, the Minister of Finance had no control over what the Tsar might promise another minister for his department, the expense of which could significantly derail any planned state investments in the economy.<sup>59</sup> Therefore, von Reutern had to ensure that the Ministry of Finance maintained at least some level of influence over state expenditure.

Although never turning the Ministry of Finance into the central policy organ that Rieber identified, von Reutern was able to make it the government's most powerful ministry. He did this by publicly publishing the state budget in 1862. Previously, the state of the budget was unknown to the other ministries (and possibly to the Ministry of Finance itself), meaning that there was no supervision of state accounts, which could be leveraged by money hungry officials in other departments. These officials would rely on the lack of published information to circumvent the Ministry of Finance and request specific resource allocation from the Emperor.<sup>60</sup> A transparent and public state budget ensured that the Ministry of Finance (and particularly the Minister of

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<sup>56</sup> Verner, p. 46.

<sup>57</sup> For an example of mundane trivialities, the Tsar had to approve all raises and holiday time for employees.

<sup>58</sup> Ibid.

<sup>59</sup> For example, what if the War Minister was granted a new fleet?

<sup>60</sup> Rieber, *The Imperial Russian Project: Autocratic Politics, Economic Development, and Social Fragmentation* p. 165.

Finance) would stand as a barrier between the other Ministries and the Emperor, at least when it came to state expenditure.

Industrialization would require very competent leadership, and fortunately the Ministers of Finance from the Great Reform era to the end of the nineteenth century were all very capable men. Von Reutern, A.A. Abanza, Nikolai Bunge, Ivan Vyshnegradskii, and Count Sergei Witte were effective and reliable, and each contributed to Russian industrialization. These were, with only minor exceptions, the most powerful ministers within the imperial government.<sup>61</sup> They used this power to ensure that, whatever skepticism towards industrialization might have existed in other departments, the various emperors were committed to it. However, whatever power within the autocratic system the Finance Ministry might have wielded, it could not escape the institutional shortcomings of its broader environment.<sup>62</sup>

One of the first priorities was the financing of an ambitious railroad construction agenda. Even though private companies were building the railroads, the government was spending as much on railroads as it was on its army and navy combined by the end of the 1860s.<sup>63</sup> Under Witte in the 1890s, during Russia's most aggressive period of state-led economic growth, the railroad expenses were as much or more than every other budget line item combined.<sup>64</sup> However, by this time, the Ministry of Finance had adjusted its system and given up on private contractors, so that the state was building and operating the lines itself.<sup>65</sup> Unfortunately, for the government, very few of these lines were in any way profitable whether run by the government or a private

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<sup>61</sup> Occasionally, such as when Pan-Slav influence overcame common sense during the Turkish War of 1878, they would be forced into a temporary position of helplessness, but this period rarely lasted very long.

<sup>62</sup> Rieber, *The Imperial Russian Project: Autocratic Politics, Economic Development, and Social Fragmentation*, p. 288.

<sup>63</sup> Ibid.

<sup>64</sup> P. Saburov, *Materialy dlia russkikh finansov* (St. Petersburg, 1899), appendix 1-2.

<sup>65</sup> Making railroad construction even more expensive to the state.

company. Russia was hardly alone in this regard, as most of the western powers were running substantial deficits on their railroads. However, Russia was uniquely hampered because it had allowed for the awarding of contracts on a very arbitrary basis. A standardized tendering process was not a component of the Russian system, and the result was that the uncompetitive bids of favourites were frequently selected.<sup>66</sup> This is an excellent example of the shortcomings of the Russian approach to industrialization. The state tried to spur economic growth by spending lavishly on railroads and transportation infrastructure, but the lack of an established tendering process ensured that contracts were awarded to inefficient bids.

Russian finance officials were aware of the classical economic doctrine of “division of labour”, and the global trade extrapolation of that concept into “comparative advantage”.<sup>67</sup> The vast cereals production and capacity of the Empire meant that, given perfect comparative advantage, Russia was well positioned to become the primary agricultural region for all of Europe. However, given that it would mean being overwhelmed by industrial armies in the west, Russia was hardly satisfied with such a proposition.<sup>68</sup> Accordingly, the Ministry of Finance willingly sacrificed agricultural and natural resource output for industrial growth.<sup>69</sup>

The envisioned industrialization’s requirement of unprecedented amounts of state spending led to concerns about inflation.<sup>70</sup> This inflation would not only badly affect Russians’

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<sup>66</sup> For analysis of Russian railroad tenders, please see part 2 of Rieber’s *Imperial Russian Project*, particularly chs. 8-9.

<sup>67</sup> Heinrich Storch had introduced classical economics to a Russian audience with his 1815 book *Cours d’économique politique*. He recommended that Russia invest her limited capital in agriculture, the opposite of what was considered orthodoxy in Russia during the industrializing period.

<sup>68</sup> This is something that most scholars (such as Arcadius Kahan) applaud, as they also succumb to this line of thinking. Both the Russian government and economic historians frequently undervalue how agriculture and natural resource production can lead to a diversified and modern economy. However, that does assume unfettered access to global industrial goods.

<sup>69</sup> Arcadius Kahan, “19<sup>th</sup> Century Imperial Russian Economic History”, ed. Roger Weiss (Chicago: University of Chicago Press, 1989), p. 5-12.

<sup>70</sup> *Ibid.*

and the state's purchasing power but would also have a terrible effect on the government's and domestic firms' ability to borrow abroad. Accordingly, the Finance Ministers embarked on a deflationary fiscal policy to accompany the government's industrial spending. Given that the nobility had to endure emancipation, it was considered politically irresponsible to have them bear the brunt of this deflationary exercise.<sup>71</sup> It would have also been humiliating for the nobility to pay the type of taxes that the government intended to introduce, illustrating that fiscal and social factors were closely related in Russian society.

Imperial Russian society was divided into four major estates (*sosloviia*). Although more fluid than is commonly conceived, membership in these groups was hereditary and each estate came with its own prerogatives and responsibilities. The most powerful estate, the nobility, was exempt from most types of taxation, compulsory military service (until 1874), and corporal punishment. It was also the only estate permitted to own serfs until emancipation. The privileged estates were particularly proud of their exemption from the *soul tax* which was applied to all townspeople and peasants. The soul tax was a marker of social inferiority, and the privilege of not paying it was closely guarded by the nobility (and eventually the upper merchants and clergy). Accordingly, in Imperial Russia, taxation was closely linked to social relations, and a government looking to concurrently raise revenue and reduce inflation could not be cavalier in its approach to taxation.

There was also a practical necessity of the Russian merchant estate having easy access to capital to invest and spend if industrialization was going to be a success, so the burden of a deflationary monetary policy would fall almost entirely on the estates of the peasantry and

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<sup>71</sup> Ibid.

townspeople.<sup>72</sup> Thus, in addition to the continuation of the soul tax, substantial excise taxes were applied to most purchases (even kerosene, which we will discuss later) and high tariffs were slapped on foreign agricultural equipment.<sup>73</sup> Additionally, redemption payments and obligations to the commune (*mir*) reduced labour and social mobility.<sup>74</sup> According to Gerschenkron, communal land ownership not only prevented individual peasant proprietors from accumulating disposable income, but assured that much of the consumption would be accountable to the commune.<sup>75</sup> Therefore, in order to prevent one of the effects of industrialization being ruinous inflation, the Russian Finance Ministry was forced to artificially suppress the domestic consumption market. As Kahan argues, the suppression of peasants' consumption would come at a substantial social and economic cost to the empire.<sup>76</sup>

Although the broad industrialization strategy of the Ministry of Finance was largely one of continuity from von Reutern to Witte, there were some important differences in approach that would have policy implications. These differences in approach can be partly attributed to the brand of reformist ideology embraced by the individual ministers and their subordinates. As mentioned above, most Russian officials in the second half of the nineteenth century understood that reform was necessary and can be very loosely divided into two reformer camps.<sup>77</sup> The first group were the *Rechstaat* reformers, who believed that Russia would eventually transform into a rational state governed by legality, but the autocracy had to remain able to act arbitrarily until the

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<sup>72</sup> Ibid.

<sup>73</sup> The redemption payments through the *mir* (commune) could also be included.

<sup>74</sup> Gerschenkron, p. 123.

<sup>75</sup> Ibid.

<sup>76</sup> Kahan, "19th Century Imperial Russian Economic History", p. 12.

<sup>77</sup> Andrew Verner uses five categories. I think Verner might be more correct, but the various ideologies of Russian officialdom is not the sole purpose of this study, and unpacking all of these groups might take up more time than is warranted for this study. Accordingly, we can be satisfied with the two major ones listed.

peasantry had achieved a certain degree of consciousness.<sup>78</sup> These were the officials who led the Great Reforms, whom Tsar Alexander II usually relied upon for senior positions in the bureaucracy, and who were frequently the favoured party at Court under his reign. Their overall approach to reform is articulated by Mikhail Loris Melikov's appraisal of his "constitutional" proposal in 1880, "I know there are a lot of people who dream of parliaments, about a central zemstvo дума, but I do not belong to their number. That task will fall to our sons and grandsons, whereas we have to prepare the groundwork."<sup>79</sup> The other type of reformer, preferred by Tsar Alexander III, were the "counter-reformers" who had become disillusioned by the reform efforts of the 1860s and 70s.<sup>80</sup> This group of reformers desired to modernize the state and the bureaucracy but preferred to do so through the strengthening of the autocracy, as well as strengthening the relationship between the central government and its subjects.<sup>81</sup> Their goal was not to "lay the groundwork" for parliaments or constitutions, but to create an effective autocracy that could modernize the state without sacrificing the political regime. Of the powerful "counter-reformers" that surrounded Alexander III the most intellectual was a jurist named Konstantin Pobedonostsev. According to him, those who sought "to replace power (*vlast'*) with the authority of the law" were condemned to failure.<sup>82</sup> He believed that, unlike the political regimes of the west, the Russian situation required a strong autocrat, and that the autocracy could be made permanent if it could be made more effective.<sup>83</sup> The "counter-reformers" were not a homogenous

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<sup>78</sup> Verner, p. 73.

<sup>79</sup> Francis Wcislo, *Reforming Rural Russia: State, Local Society, and National Politics*, p. 59.

<sup>80</sup> And, had indeed, coalesced around Alexander III when he was still Tsarevich. In the 1870s it was possible to identify a Tsar Party, and a Tsarevich Party.

<sup>81</sup> Verner, p. 86.

<sup>82</sup> *Ibid*, p. 87.

<sup>83</sup> Counter Reformers is a more appropriate term than the "reactionary" label that many would apply to them. For instance, according to Verner officials like Pobedonostsev did not want the regime to outpace society. As society progressed, so would the regime. He and his compatriots believed that the Great Reforms had made the regime more progressive than the state it was overseeing. This was why political violence had become so widespread. Therefore, the state needed to retreat a bit on certain issues in order to be more in line with Russian society. These

group so Pobedonostsev's opinions should not be assumed to have been shared by all of them, but he was one of the most influential through the 1880s and early 1890s. The Ministry of Finance was typically led by reformers of the first type until Witte emerged as a synthesis between the two types during the 1890s.<sup>84</sup>

Although largely following the approach of his predecessors, Witte significantly expanded the breadth and scope of the Ministry's industrialization efforts and structured these changes in order to give himself more personal ad hoc authority. Witte, unlike those who saw Germany's reliance on predictable systems as its reason for success, believed that its success was due to the man at the centre of the system, Otto von Bismarck. Witte believed that Bismarck's success lay in the fact that "he (Bismarck) recognizes the necessity of enhancing the state's intervention in the economic life of the country"<sup>85</sup> to accommodate the modern world with the traditional prerogatives of the Crown.<sup>86</sup> According to Francis Wcislo, Witte likely perceived himself as Russia's Bismarck.<sup>87</sup> Therefore, he wanted to ensure that he had enough power to make ad hoc decisions whenever he thought it was necessary.

Witte's political economy beliefs were strongly influenced by the economic writings of Friedrich List.<sup>88</sup> List rejected the methodological individualism of the classical economists in the

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were the stated purposes of the "Counter-Reforms". Unsurprisingly, they tended to congregate around the Department of the Interior.

<sup>84</sup> Witte, although a synthesis in the 1890s, very quickly turned into a liberal during the twentieth century. Years before the Revolution of 1905 he came to the conclusion that significantly more reform was going to be needed if any vestiges of the autocracy were to survive. This badly affected his standing at Nicholas II's court, but would lead to him being relied upon in the most urgent days of the 1905 Revolution to recommend and draft changes to the political regime, which eventually emerged as the October Manifesto. (Francis Wcislo, *Tales of Imperial Russia: The Life and Times of Sergei Witte, 1849-1915*, (Oxford: Oxford University Press, 2011), p. 190-191.)

<sup>85</sup> Francis Wcislo, *Tales of Imperial Russia: The Life and Times of Sergei Witte, 1849-1915*, p. 100-110.

<sup>86</sup> Ibid.

<sup>87</sup> Ibid.

<sup>88</sup> Sergei Witte, *The Memoirs of Count Witte*, translated by Abraham Yarmolinsky (Toronto: Doubleday, Page, and Company, 1921), p. 63.

Smithian tradition. Rather, he believed that economics should be viewed from the perspective of the “nation”.<sup>89</sup> Accordingly, rather than a foreign trade policy that was designed to favour the individual consumer, he argued that the trade policy should be focused on the prosperity of the nation.<sup>90</sup> This was the centrepiece of his “national system”. His argument was that heavy tariffs on imports would encourage domestic production, leading to a growth of national prosperity. Although List was a firm believer in private capital, he argued that an energetic state needed to substantially invest in industry in a developing economy.<sup>91</sup> Consequently, the state would have to substitute as investor for the still emerging domestic capital. Although Russian industrialization had largely relied on state substitution and intervention before Witte, the scale of the substitution and intervention under Witte was unparalleled. Witte’s enthusiasm for List was so significant that he published a pamphlet introducing Russian readers to List, along with dedicating several pages to him in his memoirs.<sup>92</sup>

List’s emphasis on ‘nation’ and state authority accommodates autocracy more easily than the classical economists. Although he later abandoned his more conservative views, during his first decade as Finance Minister Witte believed that personalized authority in the person of the tsar was Russia’s best tool for industrialization. A Russian approach utilizing List’s emphasis on state entrepreneurship would continually reassert the authority and influence of the central government (and by extension the tsar) in all aspects of the economy. According to Gianni Kotsonis, “When he tutored the Grand Prince Mikhail Aleksandrovich in 1900-02, Witte explained that a national economy was newly understood as an integral whole, but only the state

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<sup>89</sup> W.O. Henderson, *Friedrich List: Economist and Visionary 1789-1846* (London: Frank Cass and Company, 1983), p. 146.

<sup>90</sup> Inside of national boundaries however, he favoured an elimination of tariffs. In List’s case, he emphasized the benefits of free trade within the Zollverein.

<sup>91</sup> Henderson, p. 147.

<sup>92</sup> Witte, p. 63-69.

gave it unity; ‘The whole aggregate of economies in the country is united in one national, organically self-contained whole, fastened together by the unity of state undertakings.’”<sup>93</sup> Witte later stated his ambition to “subordinate ever broader spheres of economic activity to the state.”<sup>94</sup> Therefore, List’s philosophy justified an approach to modernization whereby ambitious state intervention in the economy could intersect with more conservative political beliefs.<sup>95</sup>

Witte’s philosophy was more clearly articulated in an 1898 secret memorandum. Intended only for other ministers, the memorandum was developed to blunt his peers’ criticism that his persistent attempts to attract foreign capital would destroy the empire. From the very beginning of industrialization, attracting foreign capital had always been an integral part of the Finance Ministry’s strategy. Given the low amount of available domestic private capital, foreign capital was seen as a means of supplementing state investment. It also allowed domestic industrialists to take advantage of capital accumulated in countries with more advanced industry.<sup>96</sup> By the mid-1890s, a skepticism of foreign capital had bubbled up among “counter-reformer” ministers and officials who had begun to sway a malleable Nicholas II to their anti-foreign capital perspective.<sup>97</sup> According to Theodore von Laue, the crisis for Witte became acute when the Tsar criticized a Russian factory owner for the crime of using Belgian capital for financing.<sup>98</sup> This memorandum was designed to sway the Tsar away from Slavophile advisers

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<sup>93</sup> Yanni Kotsonis, *States of Obligation* (Toronto: University of Toronto Press, 2014), p. 149.

<sup>94</sup> *Ibid.*, p. 150.

<sup>95</sup> Interestingly, Witte’s more politically liberal approach in the twentieth century did not result in his abandonment of List.

<sup>96</sup> Stuart Tompkins, “Witte as Minister of Finance: 1892-1903”, *The Slavonic and East European Review*, Vol. 11, No. 3, (April, 1933), p. 593-594.

<sup>97</sup> Theodore Von Laue, “Sergei Witte’s Report of the Minister of Finance to His Majesty on the Necessity of Formulating And Thereafter Steadfastly Adhering to a Definite Program of a Commercial and Industrial Policy of the Empire, 1899”, *Journal of Modern History*, Vol. 26, No. 1 (March 1954) p. 63.

<sup>98</sup> *Ibid.*

who opposed Witte, and to reconcile the Tsar with the Ministry of Finance's approach.<sup>99</sup> As a good 'Listian', Witte never mentions the effect of policies on individuals, but constantly sets his argument in terms of the nation, empire, and state. Unlike classical economists, Witte argued that the best means of creating a society that fostered "creative forces of knowledge, mobility of capital, and the spirit of enterprise"<sup>100</sup> was through a "perfectly planned" system of "interconnected parts".<sup>101</sup> The Ministry of Finance would "direct investment" into the sectors and regions that could most benefit, with a focus on creating finished goods for sale and export.<sup>102</sup> Consequently, the Minister of Finance would be able to personally direct investment into 'value added products'. Raw materials, meanwhile, were considered "dangerous" because foreign powers could purchase these items and turn them into finished products for sale in Russia, thus competing with Russia's native manufacturers.<sup>103</sup> In summary, although the bulk of his memorandum was designed to convince his colleagues that the Russian Empire needed foreign capital so that Russian capitalists could found factories and industries that manufactured finished goods to compete with foreign goods, he also emphasized his importance to the overall project. The prosperity of the nation relied on industrialization based on a perfectly planned system of interconnected components, all of which were designed, financed, and directed from the Ministry of Finance with the Minister at the centre. This approach would have a significant effect on the emerging petroleum industry.

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<sup>99</sup> Ibid.

<sup>100</sup> Ibid, p. 68.

<sup>101</sup> Ibid, p. 73.

<sup>102</sup> Ibid.

<sup>103</sup> Ibid, p. 71.

*Russian Petroleum Industry: Merchants, Commerce, and the Law*

Oil production on the Apsheron Peninsula was introduced to western readers through Marco Polo in the late thirteenth and early fourteenth century. His travelogue described “a fountain from which oil springs in great abundance, insomuch that a hundred shiploads might be taken from it at one time. This oil is not good to use with food, but good to burn, and is also used to anoint camels that have the mange. People come from vast distances to fetch it, for in all the countries round about they have no other oil.”<sup>104</sup> Thus, oil production in the Baku region has a history that went back almost a millennium before the dawn of the modern petroleum industry.<sup>105</sup> After the Russian annexation of the Baku Khanate in 1813, the Russian government continued the Khanate’s practice of restricting oil mining rights to a government monopoly (the *otkupchina* lease system).<sup>106</sup> For the next sixty-five years, the oil industry remained largely unchanged from its pre-annexation state. According to Daniel Yergin “the development was severely restricted both by the region’s backwardness and its remoteness and by the corrupt, heavy-handed, and incompetent Czarist administration, which ran the miniscule oil industry as a state monopoly.”<sup>107</sup> Fortunately, a radical reorienting of the industry was just around the corner.

After witnessing the successes of the Pennsylvania oilfields for a decade, the Russian government decided to change its approach to oil production on the Apsheron by 1870. Rather

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<sup>104</sup> Marco Polo, *The Travels of Marco Polo*, (3<sup>rd</sup> ed.) transl. Henry Yule, Book One, Chapter III. Accessed through University of Adelaide Library. <https://ebooks.adelaide.edu.au/p/polo/marco/travels/index.html>

<sup>105</sup> Sabit Bagirov, President of the *Center for Economic and Political Research* as well as a researcher for the *Coalition in Support of the Extractive Industry Transparency Initiative*, has argued in favour of Charles Marvin’s contention from his 1883 book *The Petroleum of the Future; Baku and the Petrolia of Europe* that the industry goes back at least 2500 years. He has suggested that reports of the oil industry on the Apsheron peninsula can be found in the travelogue of Prisk of Pontus from the 5<sup>th</sup> century. Sabit Bagirov. “Azerbaijani Oil: Glimpses of a Long History” <http://sam.gov.tr/wp-content/uploads/2012/01/1.-AZERBAIJANI-OIL-GLIMPSES-OF-A-LONG-HISTORY.pdf>.

<sup>106</sup> Yergin, p. 58.

<sup>107</sup> *Ibid.*

than restricting production to a government monopoly, the government auctioned off land parcels in the region to private companies with specific production requirements.<sup>108</sup> That is to say that leaseholders had to drill and produce a given amount within a certain timeframe, otherwise the land would return to the auction block. In many ways this auction style anticipated the method by which modern governments auction off oil concessions for development.<sup>109</sup> By abandoning the earlier monopoly system and introducing a rational auction system, the Russian government created an environment through which a modern petroleum industry could blossom. The results were tremendous. The first modern wells were drilled in 1871-72, and twenty refineries were operating by the end of 1873.<sup>110</sup> Even though the industry's growth was restricted by the government's refusal to sell plots of land to companies owned by foreigners until the late 1890s, the introduction of the auction system can be considered an unqualified success.

After the introduction of modern petroleum drilling and refining methods, transportation was the most significant obstacle that needed to be overcome. Although the peninsula jutted out into the Caspian Sea, the region was still extremely remote. According to Daniel Yergin, even supplying the small Russian domestic market was a challenge:

The oil was shipped in wooden barrels from Baku over an inefficient and lengthy route - carried by boat six hundred miles north on the Caspian Sea to Astrakhan, then transferred to barges for the long journey up the Volga River, eventually reaching one or another rail line to which it was transferred for further shipment. Handling costs were enormous. Even the barrels were costly. No local wood was available in sufficient quantity, and wood was brought from a distant part of the empire or imported from America, or second-hand American barrels were brought in from Western Europe.<sup>111</sup>

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<sup>108</sup> Ibid.

<sup>109</sup> See, for instance, this recent announcement in Ukraine: <https://emerging-europe.com/business/ukraine-to-auction-concessions-for-30-onshore-petroleum-blocks/>.

<sup>110</sup> Yergin, p. 58.

<sup>111</sup> Ibid, p. 59.

It was not until the end of the first decade of modern Russian production that a more efficient means of transporting petroleum would be invented.

The logistical challenge of reliably supplying Russian kerosene to the Russian market was resolved by the largest company operating in Baku, *Branobel*. Founded by the Nobel brothers, Ludvig and Robert, Branobel emerged as the largest Russian oil company by 1876.<sup>112</sup> Ludvig and Robert's technical proficiency and ability to conceive of products on a large scale, helped them dramatically improve on pipeline and refinery technology that had been imported from the United States.<sup>113</sup> In 1878, Ludvig conceived of a steam-ship that would carry kerosene loose within its hull (in bulk), rather than inside of casks, allowing for considerably more kerosene to be transported at a time.<sup>114</sup> By filling up the tanker through a series of pipelines that came right from the refineries, it meant that labour was not required to fill up casks and then transport the casks. They called this type of a ship a "tanker" and the first one, the 'Zoroaster' launched in 1878. It was only as the tanker fleet expanded that transportation costs were reduced enough to drive American oil out of Russian markets.<sup>115</sup> However, the effects of the deflationary monetary policy on the peasantry meant that the Russian domestic market for kerosene (a product largely purchased for home consumption) was always going to be limited.<sup>116</sup> Accordingly, finding export markets for the kerosene was essential for producers. Exporting it, however, seemed an impossible task.

In the early 1880s it was 3,200 kilometres to the nearest Baltic port (St. Petersburg) from Baku which, due to the Volga, was easier for Baku petroleum to reach in large quantities than the

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<sup>112</sup> *Ibid*, p. 58.

<sup>113</sup> *Ibid*, p. 59.

<sup>114</sup> *Ibid*, p. 59.

<sup>115</sup> *Ibid*.

<sup>116</sup> Kahan, "19<sup>th</sup> Century Imperial Russian Economic History", p. 12.

geographically closer Black Sea ports.<sup>117</sup> According to Yergin, Tiflis (modern day Tbilisi) consumers found it cheaper to import kerosene from the United States 9,100 kilometres distant than to purchase kerosene from 341 kilometres away in Baku.<sup>118</sup> If Russia was ever to become an important exporter of petroleum, the transportation issue would have to be resolved.

In the late 1870s a Russian company with oilfield interests (*Bunge and Palashkovsky*) began constructing a railroad with government support from the oilfields at Baku to the Black Sea port of Batumi. Unfortunately, the price of oil plummeted before construction was completed and the Russian financiers ran out of money.<sup>119</sup> The French Rothschilds' Bank stepped into the breach and bailed out the financiers by finishing the project.<sup>120</sup> In return for their finance, the Jewish Rothschilds acquired mortgages on oil facilities in Baku leading to the formation of their petroleum company *The Caspian and Black Sea Oil Company*, usually referred to (and hereafter within this study) by an acronym for its Russian name, BNITO (*Batumskoe Neftepromyshlennoe i Torgove Obshestvo*). Although this transaction was beneficial for all parties involved, it ran afoul of the 1882 "May Laws" in Russia which strictly limited where and what Jewish proprietors could own.<sup>121</sup> Accordingly, in order to allow for the railroad to be financed despite its illegalities, the Minister of Finance made a significant exemption for the Rothschild bank.<sup>122</sup> The importance of completing the railroad in 1883 (not to mention the Rothschilds' position on international financial markets, which the Russian Finance Ministry desperately wanted to leverage for its borrowing purposes) ensured that the Rothschild Bank

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<sup>117</sup> Yergin, p. 60.

<sup>118</sup> Ibid.

<sup>119</sup> Ibid.

<sup>120</sup> Ibid.

<sup>121</sup> For an exhaustive analysis of the background and legislative process behind the May Laws, please see Hans Rogger, "Government, Jews, Peasants, and Land in Post-Emancipation Russia," *Cahiers du Monde Russe et Sovietique*, Vol. XVII (Avril – Septembre. 1976), pp. 171-211.

<sup>122</sup> Yergin, p. 60.

would be granted such a dispensation. In this instance, the government's persecution of Jews was overcome by the Ministry of Finance's ability to grant exemptions or dispensations.

The importance of maintaining a favourable balance of trade led the Ministry of Finance to exempt kerosene for export from the excise tax imposed on kerosene purchases in 1887.<sup>123</sup> Given the volatility of global petroleum prices, and the efficiency of the Standard Oil production and distribution system, Russian exporters needed any and all cost saving methods that were available. Domestically, the excise tax was consistent with the government's deflationary approach to individual consumption. For export, however, an exception to the tax was always going to be necessary for Russian oil to be competitive in international markets with Standard Oil.

Although falling outside of industrialization policy, and thus largely outside of the purview of the Finance Ministry, the Russian government substantially helped the Russian petroleum industry by insisting on its annexation of the city of Batumi during the negotiations of the Treaty of Berlin in 1878.<sup>124</sup> In what was, generally, a disappointing series of negotiations for the Russian Empire, Russia being given jurisdiction over Batumi was about the only bright spot for the Empire. Although not necessarily done with the petroleum industry in mind (the concerns were more generally commercial and naval), it gave the petroleum industry access to the Black Sea and international markets which it did not have when limited to Baku.<sup>125</sup> Initially, by Article 59 of the Treaty of Berlin, the city was intended to remain as an "open port" with a character "essentially commercial", but by 1886 the Russian government fully annexed Batumi after a spat

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<sup>123</sup> Peter Gatrell, "The Russian Fiscal State, 1600-1914", ed. Bartolome Yun-Casalilla, and Patrick O'Brien, *The Rise of Fiscal States: A Global History* (Cambridge: Cambridge University Press, 2012), p. 209.

<sup>124</sup> Barbara Jelavich, "Great Britain and the Russian Acquisition of Batum, 1878-1886", *The Slavonic and East European Review*, Vol. 48, No. 110, (Jan. 1970), p. 44.

<sup>125</sup> *Ibid*, p. 44-50.

with the British government over Bulgarian unification. Although largely done in a fit of pique, the Russian government claimed that the 1886 annexation was related to the expense and deleterious effect of the customs cordon around the port.<sup>126</sup> As a part of their justification, they claimed that the petroleum trade was being particularly harmed by the state of affairs.<sup>127</sup> Although their reasoning seems false, the next chapter will show that the petroleum export industry does not really begin in earnest out of Batumi until shortly after the port was fully annexed. Therefore, it is possible that the Russian government's justification was not entirely erroneous.

Although extremely beneficial to the Russian petroleum industry, the positive effects of the Russian annexation of Batumi appear to be largely accidental. However, the Ministry of Finance's development of an auction system in Baku, its ability to arbitrarily exempt the French Rothschilds from inconvenient legislation, and willingness to exempt petroleum exporters from the excise tax exemplify how the *Rechtstaat* reformers believed that the Ministry of Finance should approach industrialization. A rational auction system with clearly articulated and enforceable laws was a small step forward to the creation of an entire political regime based on such a system. Meanwhile, ministry officials were also able to leverage their ad hoc decision-making power to exempt parties from inconvenient legislation when they perceived it as being in the government's interest. It was believed that such action would be required until the entire system could be rationalized and legalized, but that might be several generations away. Meanwhile, they would make progress towards the *Rechtsstaat* where possible and rely on arbitrariness where it was required. When they did resort to arbitrariness, it was to reduce state

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<sup>126</sup> "The Closing of Batoum: Why Russia has Violated the Treaty of Berlin", *The New York Times*, (July 10, 1886), <https://timesmachine.nytimes.com/timesmachine/1886/07/10/103961323.pdf>, First Accessed April 30, 2019.

<sup>127</sup> *Ibid.*

interference in the operations of producers without leaving them vulnerable to other infringements on their activities. This conclusion dovetails nicely with John McKay's interpretation of the state's involvement in the early years of the Russian petroleum industry. He argues that "during the critical emergence of the modern Russian industry between the late 1860s and about 1883, the State renounced its long-established tutelage as the principal obstacle to successful development and confined itself to facilitating private enterprise and free competition."<sup>128</sup>

As Witte's secret memorandum indicates, the Ministry of Finance intended to direct industrialization through frequent attention to industrial sectors.<sup>129</sup> This attention would prevent capitalists and producers from suffering from exposure to the inhospitable Russian commercial environment.<sup>130</sup> Branobel, BNITO, and the other major producers were very successful in the region, but the government's attention was rarely directed towards the oilfields and the oil industry. Although this saved the oil industry from some of the Ministry's more damaging meddling, it also prevented the industry from forming a sustainable part of Russia's industrial development. Given how important petroleum was to the United States' corporate modernization and later to the Soviet economy, the Imperial government's inattention resulted in a considerable lost opportunity.

By the mid 1890s, petroleum was frequently one of Russia's two or three most valuable export industries outside of cereals production every year.<sup>131</sup> The other two were most frequently

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<sup>128</sup> John McKay, "Baku Oil and Transcaucasian Pipelines, 1883-1891: A Study in Tsarist Economic Policy", p. 608.

<sup>129</sup> Von Laue, p. 65.

<sup>130</sup> Ibid.

<sup>131</sup> John Michell "Report on Trade and Commerce For Russia and Consular District of St. Petersburg for 1895", in *F.O. Annual Series 1801; St. Petersburg No. 1801 Diplomatic and Consular Reports on Trade and Finance*, (London: Harrison and Sons, 1897), Commercial Reports II, 1897 [c.8277-19] XCII, p. 23.

flax and timber.<sup>132</sup> According to Brian Taylor and the research team at Global Financial Data, the oil and gas industry was one of the most heavily capitalized sectors of securities on the St. Petersburg Stock Exchange.<sup>133</sup> Not only did they provide the exchange with a lot of its capitalization, but oil and gas was frequently the leading sector outside of railroads and finance on the exchange as far as trading volume.<sup>134</sup> Given its relative position by trading frequency, share value, and export rank the inattention paid to the industry by the Ministry of Finance becomes even more remarkable to the contemporary analyst.

It is important to define inattention in this context. It was indicated above that the Ministry did not entirely ignore the petroleum industry, and that by introducing the concessionary reform was largely responsible for the fact that there was any petroleum industry to speak of. Accordingly, inattention cannot be defined absolutely, but relatively. In this case, the attention paid to the petroleum industry will be compared to the other significant industries of the late nineteenth century Russian Empire. By doing so, it will be possible to see what little consequence the Ministry of Finance must have believed the petroleum industry to be to the overall goal of industrialization.

Sergei Witte's secret memorandum of 1899 was in many ways Witte's industrialization manifesto. Although it largely dealt in broad strokes, he did take time to identify several of the Empire's most important industries. Petroleum is a notable exception. It is especially curious

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<sup>132</sup> Ibid.

<sup>133</sup> Brian Taylor, "The Russian Stock Market Before the Revolution", on *Global Financial Data*, <https://www.globalfinancialdata.com/Blog/Details/127>. March 21, 2018. First Accessed on July 18<sup>th</sup>, 2018.

given that the subject of the memorandum related to foreign capital, and that by 1899 British foreign capital in Russia was overwhelmingly directed towards the petroleum industry.<sup>135</sup>

This was not the last time that Witte would curiously omit any references to the Russian petroleum industry. In his memoirs he identifies his activities within many industries, and how those activities were related to Russia's successful industrialization, but no mention is made of the Russian petroleum industry.<sup>136</sup> Given the industry's tremendous growth during his time as Finance Minister, and the fact that he was writing his memoirs during the First World War when petroleum had proven itself to be a resource of considerable strategic value, it is hard to imagine how something so significant does not even warrant a single mention.

At the 1893 World's Fair in Chicago, the Russian government sponsored an immense pavilion to showcase the products and services that were being exported from Russia. Both private companies and government agencies sponsored booths and exhibits to entice international buyers to import Russian goods. Unsurprisingly, agriculture formed the largest wing of the pavilion.<sup>137</sup> Over two hundred different booths were sponsored by farming groups and government agencies.<sup>138</sup> Given that this was a year after the devastating Russian famine had attracted so much international attention and relief, this focus on agriculture was a way of showing the world that the industry had recovered. There was another wing with over a hundred booths showcasing Russian textiles and cotton manufacturing from all corners of the empire, many of the booths being sponsored by Russian government agencies.<sup>139</sup> Russian industrial

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<sup>135</sup> See Chapter Two

<sup>136</sup> Sergei Witte, *The Memoirs of Count Witte*.

<sup>137</sup> Ministry of Finance, *World's Columbian Exhibition 1893 Chicago: Catalogue of the Russian Section* (St. Petersburg: Imperial Russian Commission, Ministry of Finance, 1893).

<sup>138</sup> *Ibid.*

<sup>139</sup> *Ibid.*

goods also warranted another full wing where individual factories, industrial associations, and local governments sponsored booths and exhibits so an international audience could see the latest and greatest Russian industrial innovations.<sup>140</sup> Meanwhile, there were only two booths in the entire pavilion for Russian oil production, tucked inside of the mining wing.<sup>141</sup> One was the Branobel booth, and another booth sponsored by the City of Baku that, rather than truly being about oil, was more about business travel and investment.<sup>142</sup> No government agencies sponsored booths showcasing the remarkable innovations such as the state-of-the-art refinery and petroleum tanker technology that had been pioneered in and around Baku. Hundreds of booths were dedicated to cotton, textiles, and industrial goods, none of which were even remotely as valuable exports to the Russian economy as petroleum was. When compared to the entire pavilion at the Chicago World's Fair sponsored by Standard Oil, visitors could be forgiven for overlooking the swelling Russian petroleum industry. If, as is possible, the Russian government did not want to waste resources on an industry that was not likely to sell any product in the United States, given the dominance of Standard Oil in the American marketplace, then the same reasoning could have been applied to Russian grain. Due to the United States' position as the largest grain producer in the world, and American consumption being satisfied by domestic production, the Russian grain industry had no real prospects of selling to American consumers at the Fair. Accordingly, the rationalization that the petroleum industry was also unlikely to sell any product at the Fair falls apart.

The lack of attention to the industry also extended to the poor harbour works that existed at Batumi. It was a frequent complaint that ships mooring at the inner or petroleum harbour were

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<sup>140</sup> *Ibid.*

<sup>141</sup> *Ibid.*

<sup>142</sup> *Ibid.*

unable to ride out a storm there.<sup>143</sup> Accordingly, if a storm happened upon Batumi while a ship was in dock, captains preferred to take the ship out to sea rather than see it capsize in the harbour, as was common for ships that did not head out to open sea.<sup>144</sup> Complaints and requests for infrastructure were frequent, but the government spent very little money in the 1890s on harbour upgrades.<sup>145</sup> Breakers existed, but they were built to protect the outer harbour, which was not where the largest oceangoing petroleum tankers docked. Captains frequently complained about the hassle of having to unmoor a tanker and take it out to the open sea in a storm.<sup>146</sup> This would have led to significant interruptions in port, where quick turnaround times are always important. Other ports, meanwhile, regularly received upgrades throughout the 1890s. Even nearby Poti, where some petroleum carrying trade existed but which was primarily a grain exporting port, received significant infusions for harbour improvements.<sup>147</sup> Batumi, meanwhile, continued to suffer.

The obvious question is why the Ministry of Finance did not give the attention to the petroleum industry that its success likely warranted? It is possible that because the Ministry of Finance did not view petroleum as a “value added” export like industrial machines and equipment, its officials did not believe that the industry’s growth had many positive spillover effects for the overall economy, and therefore only had an insignificant positive effect (or even a negative effect) on industrialization. Ministers, particularly Witte, frequently emphasized the importance of manufacturing “value added” products to the development of industrial labour and

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<sup>143</sup> Paul Stevens, “Report for the Year 1895 on the Trade and Commerce of the Batoum Consular District”, in *F.O. Annual Series 1717; Batum. No. 1717 Diplomatic and Consular Reports on Trade and Finance* (London: Harrison and Sons, 1896). Commercial Reports II. 1896 [c.7917-85] LXXXVIII, p. 14.

<sup>144</sup> *Ibid.*

<sup>145</sup> *Ibid.*, p. 15.

<sup>146</sup> *Ibid.*, p. 14.

<sup>147</sup> *Ibid.*, p. 27.

the Russian economy, so this is a very plausible explanation for their inattention.<sup>148</sup> Cereals are also not a “value added” product, but it was exported in such overwhelming quantities that it could not be ignored as much as the finance ministry may have preferred to deemphasize it. However, the emphasis and attention that the cotton growing industry received serves to undermine this argument. Accordingly, there must have been some other reason as to why the petroleum industry was not considered as important to industrialization as the other major sectors.

It is possible that many Russian officials, including the Finance Minister, did not fully recognize the power and importance of the industry. Statistics were only beginning to be well kept, and this was a new industry whose full importance would only be apparent with the emergence of the internal combustion engine automobile. Even though petroleum sales for kerosene had created the world’s first multinational corporation in Standard Oil, and companies like BNITO and Branobel were willing to spend millions of pounds to develop the infrastructure for the long-term development and sale of petroleum, it was still a relatively new industry. Cotton production and the textile mill had been the means through which Great Britain had first industrialized.<sup>149</sup> The manufacturing of equipment and other industrial goods was currently fuelling the industrial development of Germany, France, and the United States. Few, if any, contemporaries believed that petroleum production could play the same role. However, they should have been aware. After all, it was because of petroleum that the largest ships in the world had been constructed,<sup>150</sup> and because of petroleum that whole regions and cities were being

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<sup>148</sup> For example Witte’s secret memorandum. Frequent mentions are made to “value added” products. Von Laue, p. 67-71.

<sup>149</sup> List’s major focuses in his book *The National System of Political Economy* are on railroad construction and textile manufacturing.

<sup>150</sup> Branobel had built the *Zoroaster*, a 2000 tonne tanker, in the 1880s. By 1893, Shell had built the *Murex* which had a capacity of almost 4000 tonnes. Its sister ships were even larger.

settled and developed.<sup>151</sup> Accordingly, although there is no excuse for it, ignorance about the industry could explain why it was only of secondary status in the halls of St. Petersburg.

Additionally, it could be because the industry was located so far away from Russia's Central Industrial Region. Muriel Joffe, in a 1984 essay, examines the means through which the Moscow textile manufacturers cooperated to politically manipulate the government to favour their regional industry over that of the textile manufacturers based around the city of Lodz in the western part of the Russian Empire (in modern-day Poland).<sup>152</sup> Representatives of the Central Industrial Region's textile manufacturers like S. F. Sharapov (Secretary of the Moscow Society for the Encouragement of Moscow Industry and Trade) publicly argued in 1885 that the textile industry around Lodz, primarily owned and managed by ethnic Germans and Poles, was of "German character", and was therefore alien to the Empire.<sup>153</sup> These industrialists' success in the battle against Lodz indicates that they were able to affect influence over the ministry. Previously, particularly when the Ministry was run by von Reutern, ethnic German and Polish merchants were usually preferred to the Great Russian merchants consolidated in the Central Industrial Region. However, after Great Russian merchants in the Central Industrial Region (in parallel with other ethnic Russian merchants in Odessa) began to act as an interest group against this policy, they were able to make greater inroads into the bureaucracy.<sup>154</sup> This will be discussed in greater detail below, but their emergence as a successful interest group coincided with the beginning of russification. Accordingly, they were able to use this new atmosphere to their advantage. Given that government power was so centralized, this domination by the CIR

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<sup>151</sup> The city of Baku was growing at a much faster rate than the populations of London or Paris between 1856 and the turn of the century.

<sup>152</sup> Joffe, p. 398.

<sup>153</sup> *Ibid*, p. 400.

<sup>154</sup> Alfred Rieber, *Merchants and Entrepreneurs in Imperial Russia*, p. 236.

industrialists and their organizations could have left little time for the petroleum industry in the hinterland. Dmitri Mendeleev, the Russian chemist who invented the periodic table of elements, even proposed having the state move the refineries from Baku to the Central Industrial Region “the center of our productive forces.”<sup>155</sup> It was also an industry that involved few ethnic Russians. Ethnic Russians were engaged as specialists, and a few did have some capital invested, but this was only a handful. Most of the petty merchants around the industry were ethnic Armenians, Tatars, Persians, Germans, and Jews, while the labour force was largely Azeri and Armenian.<sup>156</sup> The two largest petroleum companies were owned by ethnic Swedes and foreign Jews, while the most prominent other industrialist was an Azeri Muslim named Hajji Zeynalabdin Taghiyev.<sup>157</sup> Consequently, it is just possible that the lack of attention paid to the industry arose from the ethnic prejudice that was so evident in all other parts of the Empire beginning in the 1880s. Unless the industry was going to fill the pockets of ethnic Russian producers and employ ethnic Russian labour, attention was diverted elsewhere.

Lastly, the neglect could have resulted from the fact that management of the industry had been shuffled into the Ministry of State Domains from 1883-1894. Despite significant attention from its minister during this period, Dmitrii Ostrovskii, the central government rarely followed through on his recommendations.<sup>158</sup> Perhaps this was because the Ministry of State Domains was, in many respects, a ‘junior ministry’ by this period.<sup>159</sup> Ostrovskii appears to have been expected to submit proposals to the Ministry of Finance, who would decide whether or not to

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<sup>155</sup> McKay, p. 614.

<sup>156</sup> Stevens, “Report for the year 1895 on the Trade of Baku” p. 5. The one exception was the *Branobel*, whose labour force was approximately 40% Russian.

<sup>157</sup> More on the composition of Baku industrialists below, including more information on Taghiyev.

<sup>158</sup> For example: McKay, “Baku Oil and Transcaucasian Pipelines, 1883-1891: A Study in Tsarist Economic Policy”, p. 612.

<sup>159</sup> The Ministry was at its height before emancipation, when its primary purpose was to manage the state peasants.

pursue them. John McKay, in an example that will be discussed in more detail below, outlines a case where Minister Ostrovskii spent significant time and resources on a report for the development of critical transportation infrastructure for the oil industry. Apparently, Witte took possession of the report and shelved it.<sup>160</sup> The infrastructure was not developed for a decade. Therefore, the Minister of Finance was clearly able to overrule the Minister of State Domains, and the Minister of Finance may have been willing to ignore the petroleum industry because he was more concerned about pursuing projects that would benefit industries directly under his management. However, that is only speculation.

Although the petroleum industry suffered from the lack of attention received from the Ministry of Finance, it was not altogether ignored. McKay, in his 1984 article “Baku Oil and Transcaucasian Pipelines 1883-1891”, gives an excellent example of how the Ministry would ignore an issue until it became a crisis, and then try to solve it in the least helpful way possible.<sup>161</sup> By the end of the 1880s petroleum exporters realized that the Baku-Batumi railroad did not meet their capacity needs.<sup>162</sup> Additionally, given that all of the exporters relied on that rail line for supply, any interruption in service on the railroad would result in their supply being entirely cut off. A pipeline running alongside the Baku-Batumi railroad would help alleviate the capacity issues and provide a backup in the event of a rail interruption. Several financiers proposed to build the project without the need for government support, include Alphonse de Rothschild.<sup>163</sup> However, the military was concerned that competition with the railroad would result in the railroad losing money and eventually discontinued and fall in disrepair.<sup>164</sup> From a

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<sup>160</sup> Ibid, p. 613.

<sup>161</sup> McKay, “Baku Oil and Transcaucasian Pipelines, 1883-1891: A Study in Tsarist Economic Policy”, p. 610-620.

<sup>162</sup> Ibid. 611.

<sup>163</sup> Ibid.

<sup>164</sup> Ibid, 617-618.

military perspective this would negatively affect troop movements in the Caucasus, and become a strategic liability in the event of conflict. The Ministry of State Domains, led by Ostrovskii, was quite vocal about the importance of the project, but the military's case won out.<sup>165</sup> Had the Ministry of Finance backed up the Ministry of State Domains' case with its more significant clout, it is possible that the concerns of the military could have been addressed, and the pipeline could have been built. However, as was mentioned above, the Ministry of Finance merely acknowledged the Ministry of State Domain's report on the pipeline, and then proceeded to ignore it for several years. By not constructing the pipeline itself, or permitting a private concession to construct the pipeline, export capacity continued to be limited and it left the export industry vulnerable to an interruption in railroad service. That interruption occurred in 1895.

As is discussed in more detail in Chapter Two, flooding badly damaged the Transcaucasian railway in November 1895, devastating the export industry in the process.<sup>166</sup> It was the better part of a year until petroleum could regularly roll over the railway to Batumi from Baku again, leaving exporters in Batumi with nothing to export once reserves had run out. British tankers stopped docking at Batumi, and almost no Russian kerosene was exported to eastern markets in the first half of 1896.<sup>167</sup> This led to Standard Oil being able to recapture the eastern market by default. If a pipeline had been built when it had first been proposed in the mid 1880s, this export pause would never have occurred. How much revenue was lost because the export industry was not supported by the Ministry of Finance?

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<sup>165</sup> Ibid.

<sup>166</sup> See Chapter 2.

<sup>167</sup> Paul Stevens, "Report for the Year 1896 on the Trade &c. of the Consular District of Batoum", in *F.O. Annual Series 1903; Batum. No. 1903 Diplomatic and Consular Reports on Trade and Finance* (London: Harrison and Sons, 1897). Commercial Reports II. 1897 [c. 8277-121] p. 3.

The flooding finally convinced the Ministry of Finance to revisit the pipeline issue, and to intervene so that it would be constructed.<sup>168</sup> Unfortunately for the industry, the Ministry of Finance's solution would exacerbate its original error of ignoring the issue. By 1895, the government had nationalized the Transcaucasian railroad, meaning that a pipeline would directly compete with the government. Consequently, a private pipeline was no longer an option that the government would consider, and that financing would need to be entirely provided by the government. Therefore, in order to keep expenses down, the government only agreed to build a partial pipeline between the stretch of the track that had been damaged (which, not coincidentally, was also the steepest part of the track with low speed and freight limits) and Batumi.<sup>169</sup> This still satisfied exporters as it meant that petroleum could leave Baku by rail to modern-day Khashuri, then be moved into the pipeline to Batumi for export. Railcars could travel more quickly with more freight from Baku to Khashuri, allowing for economies of scale and eliminating the entire reliance on the most vulnerable stretch of railroad.<sup>170</sup> Therefore, it seemed like the government had managed to come to a compromise with the industry. However, policy blunders would prevent the pipeline from being fully operational until 1907.

Witte's Listian approach to trade led him to mandate that the pipe be constructed inside the Russian Empire. Unfortunately, of the pipe construction facilities that existed inside of the Empire, none were able to make the size, quality, or quantity that was needed for an oil pipeline like this.<sup>171</sup> A rational purchaser would have looked externally for a supplier of pipe which could then be transported to Russia and installed, but the Ministry of Finance was committed to the

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<sup>168</sup> *Ibid.*

<sup>169</sup> *Ibid.*

<sup>170</sup> *Ibid.*, p. 9.

<sup>171</sup> *Ibid.*

protection and growth of Russian industry. Consequently, in order to comply with the ‘Made in Russia’ mandate, the Russian government acquired a pipeline factory in Maryland and moved the entire factory to Mariupol on the Sea of Azov.<sup>172</sup> Now, the pipeline could be manufactured inside of the Russian Empire.<sup>173</sup> This process took substantially longer than sourcing and purchasing of pipe to import would have taken. It was almost two years before the factory was able to deliver any pipe for installation, and even then it was another year before it started to deliver pipe that was of a high enough quality to meet the high engineering standards for an oil pipeline going through the treacherous terrain of the Caucasus Mountains.<sup>174</sup> In the meantime, Russian exporters continued to be limited to the capacity that could be carried by rail from Baku to Batumi. Additionally, as it was cheaper to transport petroleum through pipe than by rail,<sup>175</sup> exporters continued to pay higher production costs than were necessary.

This pipeline experience compares very unfavourably to the American and local Baku ones at the time. Many American oil pipelines were built between the late 1870s and 90’s by independent producers to outflank Standard Oil’s control of the railroads (most notably the Tidewater Pipeline).<sup>176</sup> The few remaining eastern competitors to Standard Oil were able to carve out a small piece of the industry for themselves due to having access to a pipeline network.<sup>177</sup> After witnessing the success of the independents, Standard itself began to purchase and construct

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<sup>172</sup> Ibid.

<sup>173</sup> Fortunately, the government at least allowed purchases from Worthington in Brooklyn of steam powered pistons.

<sup>174</sup> Paul Stevens, “Report for the Year 1898 on the Trade and Commerce of Batoum and District”, in *F.O. Annual Series 2264; Batum. No. 2264 Diplomatic and Consular Reports on Trade and Finance* (London: Harrison and Sons, 1899). Commercial Reports II. 1899 [c. 9044-903].

<sup>175</sup> For a recent discussion of pipeline vs. rail economics please see: John Fritelli, Anthony Andrews, et al. “U.S. Rail Transportation of Crude Oil, Background and Issues for Congress” (Washington DC: Congressional Research Services, 2014), p. 5. <https://fas.org/sgp/crs/misc/R43390.pdf>

<sup>176</sup> Yergin, p. 43-44.

<sup>177</sup> Yet with the exception of Tidewater, where Standard only owned a minority stake, pipeline capacity was wholly owned by subsidiaries of Standard Oil by the mid 1880s.

a large network of pipelines between the oil producing regions and their refineries.<sup>178</sup> In Baku, the Nobel brothers built several pipelines that linked wells to their refineries and then to the docks and to the railroads.<sup>179</sup> Given the success of pipelines in Baku and in the United States, had the Baku-Batumi pipeline been built in the late 1880s it is realistic that the export industry would have been substantially larger than it was without the pipeline.

The nationalization of most of the Empire's railroads in 1892, including the Transcaucasian, also served to handicap the industry. Although, when the government took control, it could prevent any one company from benefitting from preferred freight rates along the railroad as had happened in the United States with Standard Oil, it also prevented any competition emerging between transportation methods. The lack of an alternative to the government owned railroad meant that the government was free to charge the oil companies whatever freight rates it wanted for use of its railroad. As the government was free to prevent any competing transportation medium from ever being built, there was never any incentive for the government to discount rates. Given how important it is and was for any oil company to control production costs, especially in an industry where the pricing is as volatile as petroleum, the difference between a high and low freight rate could be the difference between a company making and losing money. This was something well understood by Standard Oil.

When Rockefeller came to agreements with the major railroads that transported petroleum from the Midwest to the Atlantic, there were several factors working in his favour. It is important to realize that Standard Oil was only briefly an oil production company in this

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<sup>178</sup> Yergin, p. 44.

<sup>179</sup> *Ibid*, p. 59.

period. It was, primarily, a refining and distribution company.<sup>180</sup> Accordingly, Standard Oil would typically purchase oil from the producers in Pennsylvania or Indiana (initially from exchanges, but after 1895 right at the wellsite), transport the oil to one of its many refineries, refine it, then send it off by rail to one of its coastal facilities for packaging and distribution.<sup>181</sup> Rockefeller's goal was to be able to turn a profit from oil refining and sales even when prices were low. The main reason that Rockefeller was able to dominate the 19<sup>th</sup> century American oil landscape was because he was able to make money when no one else was, and he was able to buy his frequently overleveraged competitors who suffered when prices were low for long periods.<sup>182</sup> Rockefeller achieved this by vertically integrating as much as possible and by making agreements, which have frequently been criticized by detractors (and the federal government) as collusion, with certain railroads that offered Rockefeller preferred rates over his competitors.<sup>183</sup> This was only possible because there were multiple railroads that were competing for Rockefeller's business, important business because he had proven himself to be the only refiner capable of reliably producing at very high volumes.<sup>184</sup> Accordingly, railroads that operated in areas where petroleum was an important part of their business were eager to ensure reliable traffic by offering very low rates.<sup>185</sup> These low freight rates allowed Standard Oil to dominate the American and global petroleum industry until the Russian industry forced its way into international markets in the late 1880s.

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<sup>180</sup> Ralph and Muriel Hidy, *History of the Standard Oil Company of New Jersey*, Vol. 1 (New York: Harper and Brothers, 1955), p. 13-19.

<sup>181</sup> Yergin, p. 139.

<sup>182</sup> Cleveland Massacre for example. That week, in 1871, Rockefeller purchased all of his local competitors. See Chernow p. 133-48.

<sup>183</sup> Ron Chernow, *Titan: The Life of John Rockefeller, Sr.* (New York: Vintage Books, 1998), p. 135-144.

<sup>184</sup> *Ibid.*

<sup>185</sup> *Ibid.*

The nationalization of the Transcaucasian Railway prevented a Standard Oil from being able to exist in Russia in the 1890s. Although this was a positive development if the goal was to foster domestic competition, it prevented the emergence of a giant like Standard. Both Branobel and BNITO were very large firms, but neither of them compared in size to Standard.<sup>186</sup> Had one of them been able to cut a preferred freight deal with the owners of the Transcaucasian railroad (in this case the government) in exchange for volume, perhaps they would have been in a better position to compete with Standard globally. Had there been a competitor to the Transcaucasian (even a pipeline) then a company would have been able to exchange freight volume for preferred rates, but no incentive existed for the government to do this. No competitors to the government owned railroad were permitted to exist by the government, so there was no need for the one existing railroad to cut a deal on freight rates. Accordingly, the private Russian companies were able to refine or not refine depending on the prices currently available. The incentive that existed for Standard Oil, which was to economize so that it was consistently profitable producing at high levels in order to meet its volume obligations to the railroads, did not exist for Russian companies.

The Finance Ministry believed the greatest threat to the oil industry was low prices caused by supply gluts.<sup>187</sup> Thus, on several occasions, it urged the Russian industry to combine

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<sup>186</sup> To give the reader an idea of relative size, in 1895 the three major global oil companies signed (although did not ratify) a "Grand Alliance" whereby Standard Oil would be given sole access to 75% of global petroleum distribution, while Branobel and BNITO would split the other 25%. Yergin speculates that the Russian government got in the way of this deal being signed, but there is no evidence to support this claim. BNITO eventually merged their eastern operations with Shell Transportation and Trading and Royal Dutch to form the Asiatic Petroleum Co. in 1903. This creation was the largest petroleum firm other than Standard Oil. Even then, none of them vertically integrated to the degree that Standard did. (Yergin, p. 71).

<sup>187</sup> Paul Stevens, "Report for the Year 1893 on the Trade and Commerce of the Consular District of Batoum", *F.O. Annual Series 1371; No. 1371 Diplomatic and Commercial Reports on Trade and Finance* (London: Harrison and Sons, 1894), 1894 [c.7293-41].

into a cartel.<sup>188</sup> The belief was that a cartel could enforce production limits on producers, ensuring prosperity for all while preventing a few rogue producers from overproducing (for their own benefit) and driving down prices. In order to encourage this “cooperation” in the Russian oilfields, the government would offer uniform preferred freight rates on the Transcaucasian to any producers who had signed up for the cartel.<sup>189</sup> Those who were not in the cartel were discriminated against with high freight rates and limited access to storage facilities.

Alas, the cartels were not successful. There were three attempts at setting up cartels in the 1890s, and none of them lasted longer than a couple of years. The problem was that there were too many reasons for the producers to distrust each other, and the goals of some companies were not the goals of the others inside of the cartel. Consequently, they all fell apart and the government was unwilling to continue preferred freights.<sup>190</sup>

The government’s policy agenda was wrong. A cartel designed to control production was less productive than a private monopoly or oligopoly able to make money at all price levels. A single railroad owned by the government, with no potential competitors, had no self-interest in cutting deals that would give individual companies preferred rates over others. The only time the government was willing to offer preferred rates was to a cartel that fit its policy agenda, namely controlling production. Meanwhile, in the United States, the railroad owners had no interest in cutting petroleum production as a response to low petroleum prices. They wanted the maximum amount of rolling stock possible. Accordingly, American railroads were willing to offer preferred rates to a provider that would provide high levels of freight regardless of the price they were able to charge consumers. This created an incentive for Standard Oil to economize its production

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<sup>188</sup> *Ibid.*

<sup>189</sup> *Ibid.*

<sup>190</sup> See Commercial Reports for Batoum: 1893, 1895, and 1898.

costs to such a level that it could expect to make money at a much lower price point than any of its competitors. This led to the illusion that Standard was constantly engaging in price manipulation.<sup>191</sup> It was believed that, in order to gain control of a market, Standard would charge prices in that market well below the market price. In order to compensate itself for these losses, Standard would charge substantially higher prices in jurisdictions where it controlled the entire market.<sup>192</sup> Although Standard certainly engaged in this type of activity, more frequently its production costs were just so low that it was able to sell petroleum for a profit at levels that no other competitor could.<sup>193</sup> This situation emerged out of the railroad deals where the railroads demanded volume in exchange for low freight prices, so Standard had to learn how to survive while constantly producing at high volumes. This is not to suggest that there was no private sector incentive for Russian oil companies to reduce production costs to maximize profit. Of course there was. Oil prices were set globally and Russian exporters, as much as Standard Oil, wanted to be as profitable as possible. However, the Russian state's policy was focused on restricting supply to ensure the highest possible prices, as opposed to maximizing production. The American railroad deals that Rockefeller cut incentivized Standard Oil to maximize production. Had the Russian railroads been private and a competitor to the Transcaucasian railway existed, whether pipeline or otherwise, it is far more likely that BNITO or Branobel could have turned into a Standard Oil.

According to Alfred Chandler, Standard Oil could never have replicated its success as a broad association or cartel. This is because even the largest member in a cartel is only truly able to influence production output, prices, and to potentially craft joint shipment and purchasing

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<sup>191</sup> Chernow, p. 257-259.

<sup>192</sup> Ibid, 257-259.

<sup>193</sup> Hidy and Hidy, p. 287-289, Chernow, p. 257-259.

arrangements.<sup>194</sup> By the 1880s, Standard Oil was for all intents and purposes a holding company of many other much smaller operating companies. Some of these explicitly carried the Standard name, some did not.<sup>195</sup> Hundreds of companies existed for small parts of the production or distribution process that, from a day-to-day perspective, functioned entirely independently.<sup>196</sup> However, those small companies were owned, directed, and financed from its headquarters in New York City at 26 Broadway. What this did was allow Standard the ability to centralize strategic planning, while permitting their subsidiaries to focus solely on output. Standard subsidiaries were frequently dissolved, created, or merged with others depending on the legal, regulatory, financial, and commercial requirements. The constant organizational restructuring would never have been possible within Imperial Russia. Given that any corporate restructuring required approval from the Tsar, the structural flexibility of a Standard Oil was impossible for a domestic Russian company like Branobel or BNITO.

It has been suggested throughout the chapter that the Russian commercial and legal environment had a negative effect on the petroleum industry. Whereas the effect of bureaucratic interference and non-interference in the petroleum industry has already been examined, what follows is an analysis of the nature of the Russian commercial, cultural, and legal environment and its effect on the emerging petroleum industry.

Douglass North, while attempting to explain why modern economic development lagged in areas of Spain and parts of the former Spanish Empire, argued that poor property rights protection in the Spanish Empire created disincentives that hindered industrialization.<sup>197</sup> A

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<sup>194</sup> Alfred Chandler, *The Visible Hand: The Managerial Revolution in American Business* (Cambridge, MA: Harvard University Press, 1977), p. 418.

<sup>195</sup> *Ibid.*

<sup>196</sup> *Ibid.*, p. 419.

<sup>197</sup> Douglass C. North, *Structure and Change in Economic History* (New York: Norton, 1981), 7-8.

similar effect is visible in Imperial Russia. The political and legal system provided very little stability or incentive for commercial pursuits. Additionally, cultural prejudices against commerce and trade within many factions of the nobility and bureaucracy, reactionary business and political attitudes amongst the merchant estate, and limited available capital constituted substantial barriers to industrialization. One of the most significant factors in the growth of these attitudes was the social estates system (*soslovie*).

The merchant *soslovie* (*kupeshestvo*) was the smallest of Imperial Russia's major estates, amounting to fewer than 41,000 members in European Russia in 1847.<sup>198</sup> The estates system was created by Peter the Great as a means of categorizing an individual's (and household's) obligations to the state, for which certain privileges would be granted. In the case of the merchants, the estate was further divided into two or three guilds depending on the era. The guild one could belong to depended on declared capital, which would then be used to calculate a household's share of the city's taxes.<sup>199</sup> By 1865, membership in one of the top two merchant guilds provided an exemption from the *soul tax*, military conscription, and corporal punishment.<sup>200</sup> It also conferred privileges related to the type of commerce and trade that a household could participate in. Unless one had noble status, membership in a merchant guild was required to carry out business. Unlike the other estates merchant status was not hereditary, meaning that a businessman who no longer had the capital to afford the annual membership in a guild could fall out of the estate and lose its privileges. As will be discussed below, this had a significant effect on a merchant's risk tolerance for investment. The flip side of that rule meant that anyone, with the requisite capital, could join the merchant estate. Consequently, although

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<sup>198</sup> Rieber, *Merchants and Entrepreneurs in Imperial Russia*, p. 35. Table 1.1

<sup>199</sup> Fitzpatrick, p. 112.

<sup>200</sup> *Ibid.*

merchants regularly dropped out of the estate, it was frequently replenished with successful peasant entrepreneurs.<sup>201</sup> After 1865 it is important to note that membership in a merchant guild did not necessarily mean that one was a member of the merchant estate. Hereditary noble industrialists who joined a merchant guild for the purposes of conducting a certain trade did not lose their noble privileges, and therefore were not subject to the possibility of becoming eligible for the soul tax if they did not maintain a certain declared capital. Practically, other than for nobility whose privileges were further protected, membership in the guild was most important. This state of affairs is evidence that, although the government attempted to reinforce the estate categories in the 1892 Collection of Laws, the great reforms began a slow dissolution of the estate system that continued until the revolution.<sup>202</sup>

Even though guild membership was what made one eligible to participate in all aspects of trade and commerce after 1865, it was still the traditional merchant estate that continued to dominate commercial affairs. This is reflected when examining the social status of those who purchased booths at the 1892 Nizhnii Novgorod fair. 52.3% of those with booths were from the traditional merchant estate and only 18% were peasants.<sup>203</sup> Given that the 1897 census showed that only 0.5% of the entire population of the empire were listed as members of the merchant estate (compared to the 1.5% who were members of the nobility), the fact that this 0.5% was still purchasing 52.3% of booths in 1892 suggests that little had changed since 1865.

The unique character of Russian industry is also evidenced by the fact that only 3.7% of the 1892 fair booths were for commercial firms (*Torgovyee doma*), 2.4% by commercial partnerships (*Tovarishestva*), and only five of the more than three thousand booths were joint

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<sup>201</sup> Rieber, *Merchants and Entrepreneurs in Imperial Russia*, p. 50.

<sup>202</sup> *Ibid*, p. xxiii.

<sup>203</sup> Fitzpatrick, p. 108.

stock companies (*Aktsionernye Obchestva*).<sup>204</sup> The rest of the booths were purchased by sole proprietors or informal partnerships.<sup>205</sup> The insignificant presence of firms and joint-stock corporations at Russia's premier fair in 1892 reflects a very conservative approach amongst Russian merchants and traders towards firm structure.

Anne Fitzpatrick argues that “one of the great paradoxes of nineteenth century Russian history emerges from the fact that the economy modernized far more quickly than did the merchants as a social group. Although the typical Russian merchant or industrialist eagerly welcomed economic growth, improved transportation and better commercial credit facilities, he was slow to alter his traditional views on the conduct of business, on education and on politics.”<sup>206</sup> Fitzpatrick's description is most aptly applied to the ethnic Russian members of the merchant estate in Moscow and the surrounding Central Industrial Region. This group, made up of traditional Russian merchant families along with a significant group of Old Believers and peasants who had become prosperous enough to join the guilds, reflected the conservative and traditional values that were commonplace in Moscow at the time. They were also, in the post-emancipation era, the controllers of the overwhelming majority of private domestic capital.<sup>207</sup> Rather than becoming a bourgeoisie, the merchants of Moscow had a romantic and historical conception of their status and role within the empire which they wished to protect.<sup>208</sup> Frequently dressing in the same manner as their Muscovite ancestors, these merchants were some of the most fiercely loyal subjects of the autocracy.<sup>209</sup> Their political activity, until the end of the

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<sup>204</sup> Fitzpatrick, p. 108.

<sup>205</sup> Ibid.

<sup>206</sup> Ibid, p. 109.

<sup>207</sup> Gregory Guroff, Fred Carstensen, *Entrepreneurship in Imperial Russia and The Soviet Union* (Princeton, NJ: Princeton University Press, 1983), p. 62.

<sup>208</sup> Rieber, *Merchants and Entrepreneurs in Imperial Russia*, p. 128-129.

<sup>209</sup> Ibid.

nineteenth century, was largely about protecting the status and privilege of the Moscow merchants.<sup>210</sup> Accordingly, the political activity of merchants within the Russian empire hardly resulted in a unified bourgeoisie.<sup>211</sup> Rather, it was groups of merchants whose loyalties were to merchants in their regions, co-religionists, or of a certain ethnicity. The split was particularly noticeable between the traditional ethnic Russian merchants around Moscow, on the one hand, and the entrepreneurs of the “periphery” and St. Petersburg, on the other, who were frequently ethnic non-Russian or noble.<sup>212</sup> Blame for this can largely be laid at the feet of the bureaucracy due to their active erosion of the privileges and prominence of the traditional merchants since the eighteenth century, without correspondingly reducing their service obligations to the state.<sup>213</sup> Much of the bureaucracy considered the traditional Moscow merchants incompetent, anachronistic, and anti-progressive relics of the Muscovite past.<sup>214</sup> Accordingly, at least until Alexander III’s reign and the emergence of a policy of russification, government policy tended to favour the ethnic non-Russian merchants whom the bureaucracy was familiar with in St. Petersburg, or members of the nobility who engaged in manufacturing.<sup>215</sup> This led to significant animosity between the bureaucracy and the traditional merchants of Russia’s heartland, but did not dampen the latter’s enthusiasm for autocracy.

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<sup>210</sup> Ibid.

<sup>211</sup> This possibility was further reduced due to the existence of two or three guilds (depending on the date) for merchants to belong to. The first guild had certain privileges over the second guild, and the second guild had privileges over the third guild. This led to individual groups of merchants looking to protect their own political and social privileges from other merchants. Hardly a recipe for class consciousness.

<sup>212</sup> One major point of contention between Moscow and St. Petersburg was the ability of nobility engaged in commerce to own and use serfs in their enterprises. Wealthy merchants in Moscow wished for the same privileges but were denied it. This is another example of how practicality and social relations often intersected in order to create friction within the Russian Empire.

<sup>213</sup> For a summary of the merchant class’ post-Petrine plight, please read Alfred Rieber’s *Merchants and Entrepreneurs in Imperial Russia*, Part 1.

<sup>214</sup> Rieber, *Merchants and Entrepreneurs in Imperial Russia*, p. 14-17.

<sup>215</sup> Ibid.

In the second half of the nineteenth century, the conservative attitude of the Moscow merchants frequently intersected with Slavophilism. Given that many Russian merchants perceived pre-Petrine Muscovy as a time when merchants had far more status and privileges than in post-Petrine Russia, this is understandable.<sup>216</sup> Slavophiles believed in the moral superiority of ordinary Russian people and their traditions, which they contrasted to the morally depraved West. Although this attitude may have endeared the Moscow merchant community to the nationalist press, it prevented them from being able to make meaningful linkages with the Ministry of Finance until the 1880s.<sup>217</sup> For example, when putting railroad bids out to tender in the late 1860s and early 1870s, Mikhail von Reutern discriminated against bids of the Moscow merchants because he believed that their ‘eastern preferences’ made them an unreliable partner for the state.<sup>218</sup> This conflict between the Finance Ministry and the Moscow merchants, along with the division between ethnic Russian merchants and foreign ones, would prevent the emergence of a meaningful and cohesive industrial bourgeoisie until the twentieth century.

It was suggested by contemporary commentators, as well as many modern historians, that the preference for traditional methods of doing business also prevented Russian capitalists from taking too many investment risks.<sup>219</sup> As mentioned earlier, this was likely linked to a merchant’s practical concern for his household’s fragile status. One bad investment could reduce the

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<sup>216</sup> Interestingly, this nostalgia for pre-Petrine Russia led to a rapprochement between Great Russian merchants and Old Believer merchants. Old Believers, who became some of the most prominent and prosperous merchants of the nineteenth century in Moscow and the CIR, were perceived as preserving the “true Russia”. The Russia before the western innovations of Nikon and Peter. Accordingly, there was a significant push within the Moscow merchantry for freedom of worship for Old Believers even among Russian chauvinists. See Rieber, *Merchants and Entrepreneurs in Imperial Russia*, 139-148.

<sup>217</sup> Rieber, *The Imperial Russian Project: Autocratic Politics, Economic Development, and Social Fragmentation* (Toronto: University of Toronto Press, 2017), p. 244-48.

<sup>218</sup> Ibid.

<sup>219</sup> Guroff and Carstensen, p. 62.

merchant into the ‘petty tradesman’ category, which was little better than an urban peasant.<sup>220</sup> Along with cultural taboos that emerged about stock speculation and equities trading, a merchant’s vulnerability to poverty and social exclusion limited the available pool of domestic investment, especially given that ethnic Russian merchants possessed the majority of the empire’s capital.<sup>221</sup> This conservative approach even extended to an aversion to foreign trade among Russian merchants. In the 1850s they counted for only 3% of the entire empire’s foreign trade.<sup>222</sup> These attitudes would not bode well for an emerging, capital-intensive industry that relied heavily on foreign markets like petroleum.

Henning Hillman and Brandy Aven, in their 2011 article on entrepreneur networks in late imperial Russia, argue that poor investment institutions and infrastructure provided by the government meant that entrepreneurs and industrialists tended to limit their investment to their own trusted private regional networks.<sup>223</sup> This is confirmed by the fact that relatively few ethnic Russian merchants, industrialists, or entrepreneurs were active in the far-flung Russian oilfields. Some industrialists in the region were indeed members of the Moscow or Great Russian group of merchants, but none were counted among the major players.<sup>224</sup> The most prominent industrialists in the Russian oilfields were the St. Petersburg-based ethnic Swedish Nobel Brothers, and the foreign Rothschilds. The most significant Baku based industrialist was Hajji Zeynalabdin Taghiyev, an Azeri who rose to become the most affluent Muslim in the Russian Empire.<sup>225</sup> He

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<sup>220</sup> Ibid, p. 61.

<sup>221</sup> Ibid, p. 62.

<sup>222</sup> Ibid.

<sup>223</sup> Henning Hillman and Brandy Aven, “Fragmented Networks and Entrepreneurship in Late Imperial Russia,” in *American Journal of Sociology*, Vol. 117, No. 2 (September 2011), p. 488.

<sup>224</sup> The four major industrialists in the industry were Nobel (Swedish), Rothschild (French/Jewish), Taghiyev (Azeri), Mantashev (Armenian). After 1897, the group of British investors who owned the oil company Oleum would join the group.

<sup>225</sup> James Marriott, Mika Minio-Paluello, *The Oil Road: Journeys from the Caspian Sea to the City of London* (New York: Verso Books, 2012), p. 25.

is still revered as a national hero in Azerbaijan due to the profound effects of his charitable donations. His considerable philanthropy even extended to being the largest individual donor to the construction of the Alexander Nevsky Orthodox Cathedral in Baku in 1907 (likely a testament to russification policies). His oil investments eventually became consolidated under the British Oleum Company in 1897.<sup>226</sup> This suggests that the risky nature of petroleum investments did not attract ethnic Russian investors from the Moscow region in large numbers, and the industry was therefore reliant on non-Russian industrialists whose business and investment practices were more suited to it. Not being embedded within the Moscow industrialists' commercial web meant that a considerable amount of capital within the Empire was unavailable to the petroleum industry. Therefore, the petroleum industry's ability to help spur industrialization within the empire was curtailed.

Available capital was further eroded by the government's 1836 ban on futures trading.<sup>227</sup> Commodities, particularly petroleum, were and are frequently traded as futures. The reason for this is that purchasing on the spot can be both impractical and risky for both buyers and sellers. Purchasing a futures contract, as opposed to relying on spot pricing, gives certainty to a buyer that they will be able to take possession of a certain amount of a commodity at a given future date at an agreed upon price. Hence, there is no risk that low supply will prevent that buyer from being able to take possession or force the purchaser to pay exorbitant prices at the spot. Conversely, it provides certainty to the seller that a given amount of a good will be sold, ensuring that he/she will not be surprisingly victimized by a market where supply wildly outstrips demand. Although spot pricing has a long history in the petroleum industry, the

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<sup>226</sup> A. A. Fursenko, "The Oil Industry", Rondo Cameron, V.I. Bovykin (eds.), *International Banking: 1870-1914*, (New York: Oxford University Press, 1991), p. 454.

<sup>227</sup> Hillman, Aven, p. 493.

preferred means of purchasing and selling petroleum has usually been futures contracts.<sup>228</sup>

Unfortunately, in Russia, investors were not permitted to participate in futures markets.

Accordingly, not only did the domestic Russian petroleum have to rely entirely on spot or forward pricing, which created a significant amount of uncertainty for both buyers and sellers, but it also prevented the emergence of a secondary market for futures contracts. Secondary markets provide peace of mind to investors by allowing them to recover cash flow by quickly disposing of a contract to other investors. Therefore, the inability to trade in futures contracts in Russia would have prevented investors from entering the market. Although this particularly hurt domestic distributors producers like Branobel, even exporters like BNITO were forced to rely on spot purchasing (if not distribution). This exacerbated the tight capital available to the petroleum market in Russia, limiting its growth prospects.

Even though the export industry was largely built on foreign capital, it did not mean that foreign capital was readily available to the petroleum industry. After 1892, petroleum companies in which foreigners owned stock could only purchase land with the permission of the Minister of State Domains.<sup>229</sup> Hence, Russian companies that wished to purchase concessions were prevented from soliciting foreign investment or offering their stock on a foreign exchange. Not only did this harm Russian companies that wished to purchase concessions, but it also harmed those who were looking to sell their concession. This law artificially reduced the price of these concessions (and therefore the potential gain wrought by purchasing the land in the first place),

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<sup>228</sup> For an excellent analysis of the costs and benefits of commodities futures exchanges, please see Lester G. Telser, and Harlow N. Higinbotom, "Organized Futures Markets: Costs and Benefits," *Journal of Political Economy*, Vol. 85, No. 5, (October 1977), pp. 969-1000.

<sup>229</sup> Owen, p. 120. After the dissolution of the Ministry of State Domains in 1894, the Minister of Finance's permission was required.

reduced the land's liquidity, and prevented operators from accessing the foreign capital that might have allowed them to become larger and more efficient.

Even foreign companies that had already been approved to operate in the Russian petroleum industry faced repeated hurdles. It was mentioned above that a company was required to seek government permission if it wished to restructure or reorganize, a rule that even applied to a company's desire to increase its capitalization. In 1887, the Rothschilds requested the Finance Ministry's permission to increase the capitalization of BNITO from 1.5 million roubles to 4.5 million roubles.<sup>230</sup> Vyshnegradskii refused, which forced the Rothschild bank to lend BNITO the 3 million roubles. It was not until the end of 1895 that the government finally gave its permission for the increase in capital.<sup>231</sup>

Circumventing foreign land ownership restriction on petroleum concessions became one of the main business activities of a Russian citizen named James Whishaw. Whishaw, who was born in Russia but raised in England, frequently purchased oil concessions in the Russian oilfields on behalf of British firms.<sup>232</sup> Being a Russian citizen, he was exempt from the foreign ownership law, and became the primary facilitator of British petroleum concession purchases in Baku. In his memoirs, he claims that by 1895 he was the official owner of all of the British owned land in the Russian oilfields.<sup>233</sup> Although this workaround was successful for British petroleum investors, it forced a reliance on an individual's good faith that was hardly conducive to long term stability and success.

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<sup>230</sup> Fursenko, p. 452.

<sup>231</sup> Ibid.

<sup>232</sup> James Whishaw, *Memoirs of James Whishaw*, ed. Maswell S. Leigh (London: Methuen and Co., 1935), p. 109-110.

<sup>233</sup> Ibid, p. 109.

In addition to foreign ownership restrictions, any foreign company that wished to operate in Russia was subject to a series of very strict conditions. Russian corporate law was generally quite unfriendly to corporations (something addressed below), but its restrictions on foreign corporations were particularly severe. According to Thomas Owen,

By 1887, foreign companies operated under a set of ten conditions that opened the way to the most arbitrary treatment by tsarist ministers, including the requirement to establish a special agency in Russia, publish annual reports, refrain from corporate mergers without governmental permission, pay a fee to the State Bank, and submit to Russian law for the settlement of any legal disputes. Especially onerous was the provision that a foreign company must cease operations entirely whenever the tsarist government withdrew its permission; in such a case, the Russian officials could act "without any explanations of the reasons" for the ultimate action.<sup>234</sup>

Until the 1894 trade agreement with Germany, the government did not even recognize foreign corporations without a Russian headquartered subsidiary.<sup>235</sup> Accordingly, a foreign corporation would have to organize a new entity in order to operate at all in Russia. All of this was expensive and onerous on the company that wanted to do business in Russia, but the worst part of the law was the provision that had been carried over from the 1830s. A foreign company not only needed permission from the Emperor in order to operate in Russia, but must cease operations if the Emperor withdrew his permission. The Emperor could withdraw his permission at any time, leading to substantial investment loss. Evidently, this potential for an arbitrary withdrawal of approval from the Tsar prevented British companies from investing much in

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<sup>234</sup> Owen, p. 120.

<sup>235</sup> Henry Howard, "Report on the Russo-German Commercial Treaty and its Possible Effects on Trade With Russia", *F.O. Miscellaneous Series; Russo-German Commercial Treaty, No. 338, Reports on Subjects of General and Commercial Interest* (London: Harrison and Sons, 1894), 1893 [c:7294-14], p. 7.

Russia after 1887.<sup>236</sup> The arbitrary termination clause was not expunged until Witte finally did so in 1898.<sup>237</sup>

The earlier discussion about the very few joint-stock companies that bothered to purchase a booth at the 1892 Nizhnii Novgorod Fair illustrates how unpopular the joint-stock system of firm ownership was in Imperial Russia. Although there are some cultural factors for the disinclination to incorporate, the major rational obstacle was government policy. Practical men were unwilling to subject themselves to the substantial hurdles that existed in order to incorporate. Unlike other European jurisdictions, where by the second half of the nineteenth century incorporation by registration was all that was required in order to be granted a charter of incorporation, in Russia permission of the tsar was still required.<sup>238</sup> Additionally, if any changes to the charter were required after approval had been granted, resubmission to the Ministry of Finance was required.<sup>239</sup> This fits into the overall institutional reliance on ad hoc decision making. It shows the autocracy's distrust of corporations, not unlike its distrust for civic organizations, due to their ability to wield power and influence separate from the state. Accordingly, in order to receive a charter, a prospective company not only had to meet onerous legal compliance standards, but also had to meet the subjective standards of individual finance ministers and tsars. Even their permission was only possible if councillors and bureaucrats saw fit to actually submit an application for such a charter to the Tsar for approval on behalf of said

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<sup>236</sup> John Michell, "Report on the Trade and Agriculture of Russia and the Consular District of St. Petersburg" in *F.O. Annual Series 2343; St. Petersburg, No. 2343, Diplomatic and Consular Reports* (London: Harrison and Sons), Commercial Reports II, 1899 [c. 9497-7] CII, p. 2.

<sup>237</sup> This is an example of how Witte was not a reactionary. He really believed in modern things like corporations and private enterprise. He just believed that they should be largely dependant on and in service to the State. As has been seen, he was not opposed to foreign corporations operating in Russia, he was largely worried about foreign companies selling their goods in Russia. Remarkably, earlier more "liberal" reformers were unable to get rid of this clause. Only Witte was.

<sup>238</sup> Owen, p. 5.

<sup>239</sup> *Ibid.*

prospective company which, according to Andrew Verner, was very hard to predict.<sup>240</sup> This could be an expensive and time-consuming exercise. Consequently, a company would require substantial incentives in order to bother with the hassle of incorporation.

The major incentive to incorporate in most jurisdictions is to receive limited liability. Limited liability ensures that the financial obligations of the shareholders do not exceed their investment in the corporation. This means that the corporation can liquidate without affecting the shareholders beyond the loss of their investments. The Russian Imperial government acknowledged no such thing in the 1890s, meaning that there really was no incentive for companies to deal with the hassles of incorporation.<sup>241</sup>

Historians such as Paul Gregory and Thomas Owen have emphasized the negative role played by the Russian government's corporate law in the private sector industrialization of the economy.<sup>242</sup> There can be no arguing with this point, but even Owen admits that the concept of limited liability was a pretty new one in Europe.<sup>243</sup> In Britain, limited liability was only granted to corporations in 1857. In France, limited liability legislation was only passed a decade later. In Prussia/Germany, it was not until 1870 that the privilege was signed into law. Therefore, even though Russian corporate law was out of date, in relative terms it was not as backwards as it may appear when compared to its European counterparts.

The effect of no limited liability was showcased in the petroleum industry by the fact that few companies bothered to incorporate. Even Branobel, the largest domestic oil company,

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<sup>240</sup> Verner, p. 52.

<sup>241</sup> Owen, p. 5.

<sup>242</sup> See: Thomas Owen, *The Corporation Under Russian Law* (Cambridge: Cambridge University Press, 1991), Paul Gregory, *Before Command: An Economic History of Russia from Emancipation to the First Five Year Plan*, (Princeton: Princeton University Press, 1994).

<sup>243</sup> Owen, p. 5.

operated under a traditional partnership agreement. By the 1890s in Russia, these traditional partnerships were permitted to sell shares on an exchange. Thus, provided the capital was domestic, it was still possible for these companies to raise capital. However, the absence of limited liability could have a significant impact on investment decisions. As mentioned above, the controllers of the majority of private Russian capital, the Moscow merchant group, were very conservative investors, a symptom of their fragile social status. Without limited liability, even a very wealthy investor was one bad investment away from losing the household's privileged merchant estate membership. By dropping to an unprivileged estate, members of the household could become subject to corporal punishment and the *soul tax* (until 1886), in addition to suffering social exclusion from those within the merchant estate. This also explains the merchant preference for bond holding to equity purchases. Without limited liability, only those protected by noble status would be protected against dropping into an unprivileged estate. Logically, this must have had an effect on firm behaviour. If limited liability protection had existed for its investors, how many more risks would a company like Branobel have been willing to take? Interestingly BNITO, the major foreign-owned oil company, did incorporate in Russia in 1883<sup>244</sup>, but that did not stop the Russian government from refusing its request to expand their capitalization in the late 1880s and early 1890s.<sup>245</sup>

BNITO's existence, where the Finance Ministry was willing to break stifling laws when it felt it was to the benefit of the Empire, shows that there were some benefits to allowing the Finance Ministry and autocracy to make ad hoc decisions. However, the perceived benefits of arbitrariness meant that there was no incentive to decrease arbitrariness. Consequently, even a

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<sup>244</sup> Yergin, p. 61.

<sup>245</sup> Fursenko, p. 454.

business friendly Finance Minister like Witte was unwilling to put laws in place that would hinder his ability to act arbitrarily, which he frequently did. An example is evident in an exchange between himself and James Whishaw, the Russian citizen who owned several oil producing properties around Baku on behalf of British petroleum firms. Witte, upon discovering Whishaw's scheme, invited Whishaw to his office. Whishaw recounts:

[Witte announced:] "You are an Englishman, but for purposes of business you have become a Russian subject. I know everything you are doing. I know also that you are within the law, but you are doing acts that must be put a stop to. I am, however, going to help you, for I wish to milk the English cow." I had wit enough to say in my execrable Russian that the cow was plentifully supplied with milk. He then told me that all the companies owning land held by me must be legalized in Russia, and the land transferred from my name to them, not to the English companies but to holding companies in Russia, that is to say that every company in England must also have their [sic] company in Russia, and that I would be the responsible agent. He told me how this was to be done, and he guaranteed that every company I brought forward, provided it satisfied the conditions imposed by a council of Ministers in Russia, would receive Imperial sanction.<sup>246</sup>

Therefore, in order to "milk the English cow", Witte was willing to personally supervise land ownership transition from Whishaw (a Russian citizen) to the British firms that he represented. This occurred despite the 1887 law that prevented companies with foreign stockholders from owning land for the purposes of oil production. In this case, Witte's intervention to circumvent the law likely served to benefit the British firms, Whishaw, and the Russian petroleum industry. However, a Finance Minister who was empowered to act so arbitrarily could do as much harm with that power as good.

Therefore, it can be confidently stated that the Imperial Russian government's policy of restricting foreign private property, its antiquated approach to limited liability, and limiting of corporate opportunities significantly handicapped the Russian petroleum industry along with

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<sup>246</sup> Whishaw, p. 110.

Russian industrialization generally. Frequently, arbitrary action from the Ministry of Finance, Finance Minister, or Emperor himself was needed for the petroleum industry to be given the resources it needed to succeed. This arbitrary approach created extreme uncertainty around foreign or domestic investment in the petroleum industry. Given the significant commercial risks embedded in the industry anyway, these additional legal and political risks would make Russia a daunting place to invest for the purpose of producing petroleum. Along with the effect of restrictions imposed upon foreign corporations on available capital, was the traditional aversion to high risk investment among the Russian merchant estate. Investment into a high-risk capital-intensive industry like petroleum fell outside of the Russian merchant estate's traditional investment comfort zone. The unintended consequences of government policy in restricting the flow of ethnic Russian merchant capital to the petroleum industry was compounded by the legal prejudices against another significant group of commercial actors within the Empire, the Jewish community.

Antisemitism was a significant cultural and legal feature of Imperial Russia. An increase in Russian chauvinism combined with the upsurge in terrorist activity in Russia led to a large and devastating wave of pogroms following the assassination of Tsar Alexander II in 1881. According to Hans Rogger, these pogroms had been the impetus for the 1882 restrictive "May Laws".<sup>247</sup> Along with being restricted as to where they could reside, more and more legal restrictions would be applied to the Jewish subjects of the Russian Empire throughout the 1880s and 90s, including significant educational and commercial disabilities, not to mention the violence with which the authorities frequently enforced these edicts. In 1893, Grand Duke Sergei Alexandrovich (Tsar Nicholas II's brother) violently expelled twenty thousand Jewish

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<sup>247</sup> Rogger, p. 173.

shopkeepers, artisans, and skilled workers from Moscow.<sup>248</sup> According to Rieber, the expulsion was so sudden and arbitrary that even the frequently anti-Semitic Moscow merchants unsuccessfully petitioned the government to reverse the decision.<sup>249</sup> The petition was ignored and the Grand Duke was elevated into the State Council. This sort of official antisemitism in the Russian Empire would have profound effects on the petroleum industry.

The May Laws could have snuffed out the Russian petroleum export industry had it not been for the willingness of the Finance Ministry and Tsar to ignore the law in order to attract Rothschild investment in the Transcaucasian railroad. As much as BNITO turned out to be a great investment for the French Rothschilds, their investment in officially anti-Semitic Russia led to frequent quarrels with the English branch of the family. At least in the early twentieth century, many letters of concern were written by the English Rothschilds to their French cousins about their willingness to invest in Russia, as well as their willingness to sponsor Russian government bond issuances on the French exchange.<sup>250</sup> Presumably, these conversations were not limited to the years after the turn of the century. Although these letters hardly succeeded in convincing the French branch of the family to abandon their profitable petroleum business in Russia, it did make them more circumspect. They were willing to refuse certain Russian government requests on the basis of antisemitism in Russia and were certainly anxious of the reliance their petroleum

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<sup>248</sup> Rieber, *Merchants and Entrepreneurs in Imperial Russia*, p. 61.

<sup>249</sup> *Ibid.* He does suggest that perhaps their petition was less from altruism so much as concern for the local silk industry. However, given the time this chapter has spent criticizing the Moscow merchant's chauvinism, it is worth mentioning that they were capable of putting up resistance to extreme policies.

<sup>250</sup> Herbert R. Lottman, *The French Rothschilds* (New York: Random House Publishers, 1995), p. 143.

business had on the Russian oilfields.<sup>251</sup> By 1909, the Rothschilds were very eager to sell their Russian petroleum holdings to Royal Dutch and Shell.<sup>252</sup>

By 1899, it was almost impossible for a foreign Jewish merchant to even visit Russia. A law was passed that forced any business travelers to Russia to register and pay a fee at a government office.<sup>253</sup> Jewish business travellers however, faced the additional requirement of the specific approval from all three of the Minister of Finance, Minister of the Interior, and Minister of Foreign Affairs before being able to conduct any business in Russia.<sup>254</sup> These laws were severe enough that British diplomats in St. Petersburg suggested that Jewish businessmen just not bother to do any business at all in Russia.<sup>255</sup>

This law had a unique effect on the petroleum export industry when it is considered that the two largest companies that managed exports on behalf of the Russian petroleum industry were owned by Jews. The Rothschild owned BNITO, and Marcus Samuel owned Shell Transportation and Trading Company. According to the law, only the combined permission of the three most powerful ministers in the bureaucracy would permit the Rothschilds or Samuel into Russia in order to conduct business. What negative impact this had on the Russian petroleum industry is impossible to quantify, but it did lead to Marcus Samuel actively looking for alternative sources of supply by the end of the century.<sup>256</sup>

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<sup>251</sup> Ibid, p. 144.

<sup>252</sup> By then both Royal Dutch and Shell were capably led by the "Napoleon of Oil" Henri Deterding, a non-Jewish person.

<sup>253</sup> Michell, "Report for the year 1898 on Trade and Agriculture of Russia and the Consular District of St. Petersburg," p. 13-14.

<sup>254</sup> Ibid, p. 14.

<sup>255</sup> Ibid.

<sup>256</sup> Apparently, it was one of the factors that led Samuel into his disastrous 1901 investment in the Texas oilfields at Spindletop.

## Conclusion

This chapter has used the early Russian petroleum industry to examine how the Russian Ministry of Finance, particularly the Minister, used its authority to trigger and manage the Empire's industrialization. Two approaches are evident, which relate to the Minister of Finance's attitude towards autocracy. In the earlier period, largely coinciding with the reign of Alexander II, ministers like von Reutern, Abaza, and Bunge believed that the job of the Russian government was to lay the groundwork for the transition to a *Rechtstaat* in a couple of generations. Although not afraid to act in an ad hoc manner, they desired to establish rational-legal systems like the 1871 concessionary system in the Baku oilfields consistent with their *Rechtsstaat* ambitions. The second group of ministers, Vyshnegradskii and Witte, believed that a modernization of the autocracy was the critical avenue through which Russia should industrialize, and that a *Rechtsstaat* was not an inevitable or (necessarily) desirable outcome. Therefore, they were committed to a reliance on ad hoc dispensations to manage industrialization. Both approaches had positive effects on the oilfields, but the second approach also included a variety of negative aspects associated with its inherent arbitrariness.

This reliance on centralization and ad hoc decision-making made the government's inattention to the petroleum industry particularly harmful. Onerous commercial restrictions meant that the Ministry of Finance was expected to provide dispensations<sup>257</sup> so that these restrictions could be overcome. The state was also the largest investor in Russia. Consequently, state attention was required as a means of providing capital and investment. However, as has

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<sup>257</sup> It is worth reinforcing that the Ministry of Finance did not legally provide dispensations. Only the Tsar could do that. However, the Ministry of Finance would provide the Tsar with the dispensations he was to grant. According to Verner, the failure rate was around 3% of all dispensations under Nicholas II. It is reasonable to presume that the dispensation requests from the Ministry of Finance had an even higher success rate. (Verner, p. 51).

been shown, the state was less interested in the petroleum industry than it was in many other industries, despite the petroleum industry's significant share of Russian exports. This lack of state attention, on both fronts, combined to prevent the Russian oilfields from reaching their potential.

The ad hoc decision making also had negative consequences. As was discussed during the pipeline fiasco, the central government's insistence on having the pipeline manufactured in Russia led to tens of millions of barrels of oil not being exported. This may have reinforced the authority of the central government, but its effect on the petroleum industry was disastrous. The same effect can be seen by the government's insistence on limiting supply in order to protect price levels. This was the opposite approach to the one that Standard Oil took in the United States, resulting in a cap on firm growth in Russia. This *might* have had a positive impact on the domestic market, but it certainly handicapped the industry when competing against Standard Oil in foreign markets. Therefore, the determination of the state to dictate industrial policy in Imperial Russia, combined with its ad hoc way of administering the policy, resulted in significant lost potential for one of its most important industries.

Russian social and commercial law also combined to limit the industry. The holders of the largest amount of private capital, the Great Russian merchants around Moscow, were not incentivized by the government to invest aggressively. Their privileged legal status was vulnerable to a decrease in capital, and financial regulation had been organized in such a way to limit opportunities for growth and security. The absence of limited liability was the crowning of the edifice, meaning that even a small investment could have a ruinous outcome. These factors, combined with their cultural isolation, prevented them from taking an active role in a capital-intensive industry on the periphery of the Empire.

It is therefore worth asking, why was the petroleum industry so successful in Russia? If the commercial and social environment only limited the potential of the industry, and the state was rarely anything other than unhelpful, why was Russia able to produce between 30-50% of the global supply of oil during the 1890s? Chapter Two will discuss the fortuitous external factors that coincided with the emergence of the Russian petroleum industry in the 1890s. These external factors were powerful enough to overcome the dizzying array of internal obstacles to the industry's success.

## Chapter 2

### Globalization and the Russian Petroleum Industry

Manuel Castells, in his book *The Rise of the Network Society*, defines a globalized economy as one in which the “activities of production, consumption, and circulation, as well as their components (capital, labour, raw materials, management, information, technology, markets) are organized on a global scale.”<sup>258</sup> Borrowing from the disciplines of political science and economics, the relatively new field of globalization history has unearthed an array of examples of global interconnectedness from our past. Accordingly, rather than perceiving globalization as merely a phenomenon of the late twentieth and early twenty-first century, historians have begun to use it as an analytical category to describe the global marketplace of the second half of the nineteenth century. To begin, an examination of why the pre-First World War economy can be considered “globalized” is required.

Kenneth O’Rourke and Jeffrey Williamson argued that the rapid integration of global economies in the second half of the nineteenth century led to a globalized economy, and that commodity market integration is evidence of this phenomenon.<sup>259</sup> If the world consisted of separate national economies, as opposed to integrated ones, then an observer would expect to see no correlation between commodity prices in different countries. The prices of grain in Chicago or Liverpool would have no relationship to one another. What they discovered is a general (and rapid) price convergence throughout the second half of the nineteenth century.<sup>260</sup> O’Rourke and

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<sup>258</sup> Manuel Castells, *The Rise of the Network Society* (Malden, MA: Blackwell Publishers, 1996), p. 66.

<sup>259</sup> Kenneth O’Rourke and Jeffrey Williamson, *Globalization and History: The Evolution of the Nineteenth Century Atlantic Economy* (Cambridge MA: The MIT Press, 1999), pp. 2, 32.

<sup>260</sup> *Ibid*, p. 42.

Williamson credited this development to technological innovations in the transportation and communication sectors.<sup>261</sup> As it was substantially cheaper and more efficient to transport commodities by railroad and steamer than by cart and sail, perishable and staple commodities began to be exported all over the world. Additionally, the completion of transoceanic telegraph cables allowed for immediate global dissemination of pricing information, meaning that pricing at different global exchanges became sensitive to one another. Whereas before it would take the length of a transatlantic voyage for traders in London to become aware of commodity prices in New York, the transatlantic cable permitted information to be transmitted in a matter of minutes. Therefore, the combination of transport innovation and instantaneous communication led to market integration.

Michael Miller has a more limited view of nineteenth century globalization. He perceives nineteenth century globalization as regional economic networks connected, via European shipping, to other regional economic networks.<sup>262</sup> Consequently it is not so much a “global economy”, as a web of regional networks with European managed connections between them. He argues that it was advances in European shipping (specifically increased speeds, capacity, range, and turnaround times in port) that connected these regional markets in a reliable and economical manner, allowing producers and consumers to sell in and purchase from different regional networks.<sup>263</sup> As the technology continued to improve, the regional networks became progressively more embedded.

Michael Miller’s model of globalization allows for a synthesis between the new ‘globalization’ history of O’Rourke and Williamson and the older concept of the 19<sup>th</sup> century

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<sup>261</sup> Ibid.

<sup>262</sup> Miller, p. 2.

<sup>263</sup> Ibid.

Pax Britannica. Jeffrey Friedan's updated approach to Pax Britannica, in his book *Global Capitalism*, emphasizes the enormous effect of British shipping, enforcement of liberal trade laws, and finance on the global economy at the end of the nineteenth century. He argues that it was British supervision and insurance of global shipping and communication, along with their management of investments, banking, and trading that allowed for the integration of 'comparatively advantaged' national economies.<sup>264</sup> Although much of this is evidenced below, the Pax Britannica was hardly a uniform layer of British hegemony over the high seas. Through Miller, we can more accurately perceive that the Pax Britannica was the largest and most reliable of a collection of long distance (mostly European) trading networks. These trading networks did not operate in isolation from one another, but could be co-dependent and similarly affected by pricing changes and technological innovation. The size of the British commercial empire meant that access to its network was desirable for most producers and distributors, ensuring that British rules and regulations would be adopted by participants in other networks which amplified the influence of the British Empire.<sup>265</sup>

Using Miller's model, this chapter will show that the Russian petroleum industry was embedded within both a global economy and the Pax Britannica. That is to say that, apart from being integrated within its own market, it was connected to overseas British markets by British shipping. Its growth was the result of the remarkable size of that market, consequential technological change, and the influence of certain British firms. In the first chapter it was argued that factors internal to the Russian Empire impeded the industry's growth during the late 1880s

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<sup>264</sup> Friedan, p. 21.

<sup>265</sup> Although not for discussion in a paper about Russian petroleum, there could be an opportunity to blend this idea with the "Imperialism of Free Trade" theory of the British Empire, introduced by John Gallagher and Gregory Robinson in 1952.

and 1890s, while this chapter will argue that the industry's incredible success in this period was due to factors external to the Russian Empire. It will become evident that, as long as Russian producers had access to the British trading network, industry participants could overcome the domestic internal obstacles.

In terms of sources, this chapter predominantly relies on British Consular commercial reports from the Consular District of Batumi ("Batoum" at the time). One of the primary responsibilities of a British Consul was to inform British businessmen of the challenges and opportunities of doing business within the region.<sup>266</sup> This information was frequently provided through the medium of annual commercial and trade reports intended for broad consumption by merchants and businessmen. These reports provide an excellent insight into the higher-level issues of commercial importance within a Consular District. As a part of this exercise, the Consuls also attempted to gather as much precise data about their region's trade as possible, making these reports an excellent resource for aggregate data. Although the data is a challenge to verify outside of using other consular reports to cross-check, leaving the question of Consular competence unanswered, this chapter will assume that the high-level data being provided is relatively correct.

The Consul who staffed the Batumi office for much of the period under study appears to have been particularly competent. Paul Stevens, who served as Batumi Consul from 1892 onwards, had previously been Consul at Odessa where, given the city's importance as the predominant grain exporting centre in the Empire, reliable data was of considerable importance to British businessmen. His experience with this indicates that he was comfortable providing a

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<sup>266</sup> M Hughes, *Diplomacy Before the Russian Revolution: Britain, Russia, and the Old Diplomacy, 1894-1917* (London: MacMillan Press, 2000), p. 98.

significant amount of reliable data. After Stevens assumed the role at Batumi, he was almost always the first British Consul in Russia to provide his annual report to the British government. This might be a function of Batumi relying on petroleum as opposed to grain, in which numbers might be able to be collected more rapidly, but it does speak to the conscientiousness of the person as well.

### The Global Market

Adam Smith's theory that "division of labour is limited by the extent of the market" suggests that being a part of a larger network creates a greater opportunity for a country to leverage its comparative advantage.<sup>267</sup> Throughout the 1890s, petroleum products were the Russian Empire's third most valuable export behind timber and cereals.<sup>268</sup> Accordingly, if properly leveraged, the Russian Empire stood to enjoy a substantial economic benefit from its ability to export petroleum.

Other than the United States, the oilfields concentrated around Baku were the largest in the world. Before the mid-1880s, Russia primarily produced oil for domestic kerosene consumption.<sup>269</sup> Despite the completion of the Rothschild financed Baku-Batumi railroad, oil exports continued to be sporadic until 1887-1888. Some Branobel oil had been shipped into Britain by the prominent London firm of Lane and McAndrew in 1884, but the Nobels preferred to focus on the domestic rather than export trade.<sup>270</sup> It was not until the late 1880s that Lane

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<sup>267</sup> Adam Smith, *The Wealth of Nations* (New York: Modern Library, 2000 Paperback Edition), p. 19.

<sup>268</sup> For Example: John Mitchell, "Report for the Year 1894 on the Trade of St. Petersburg and District", in *F.O. Annual Series 1635; St. Petersburg, No. 1635 Diplomatic and Consular Reports on Trade and Finance* (London: Harrison and Sons, 1895). Commercial Reports II. 1896 [c. 7917-3], p. 23.

<sup>269</sup> Yergin, p. 58-59.

<sup>270</sup> Yergin, p. 60.

partnered with the Rothschilds' BNITO to distribute Russian petroleum to global markets.<sup>271</sup> As explained in Chapter One, the French Rothschilds had formed BNITO after being given oil concessions around Baku in exchange for their financing of the Transcaucasian railroad. Rather than challenging the well established Branobel for the Russian domestic market, they chose to focus on export. Therefore, much of BNITO's oil was transported from Baku across the imposing Caucasus Mountains to Batumi on the Transcaucasian Railroad.

By the late 1880s, Batumi exported almost nothing but petroleum. For example, 1888 petroleum exports out of Batumi were estimated at being worth £1,724,446, whereas grain exports (the next most valuable export from Batumi) were only worth £141,224.<sup>272</sup> Given the dominance of grain exports at every other European Russian port, Batumi stands out for its emphasis on petroleum.

Following O'Rourke and Williamson, globalization can be illustrated by determining the sensitivity of a commodity's price to global developments. Consequently, if the Russian petroleum industry was a part of a global market in the late nineteenth century, then the spot-prices of Russian petroleum should have been subject to the same pricing trends at different ports in different parts of the world.<sup>273</sup> What emerges is a significant difference between the global sensitivity of crude oil's well-price as opposed to its spot-price.<sup>274</sup>

In the early 1890s, pricing at the well was more affected by local rather than global factors. Local supply and demand could have a significant impact on the immediate price a

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<sup>271</sup> Ibid, p. 61.

<sup>272</sup> Thomas Sandwith, "Report for the Year 1888 on the Trade of Batoum", in *F.O. Annual Series 616; Batum Trade. No. 616 Diplomatic and Consular Reports on Trade and Finance* (London: Harrison and Sons, 1890). Commercial Reports II. 1890 [c.5895-19] LXXVI, p. 4.

<sup>273</sup> A spot-price is the price of a commodity that will be delivered immediately.

<sup>274</sup> Well-price is the price a petroleum driller will sell his good for right at the well.

producer was getting for his product. For instance, the closing of the Volga River in 1890 almost halved the per barrel well-price that Baku drillers were able to get for crude.<sup>275</sup> This is because purchasers of crude were unable to get the product to the markets in the heartland of Russia with a frozen Volga, and only exporters were interested in purchasing crude during the months that the river was closed. This meant an oversupply at the well, allowing those purchasing from the well for export to dictate pricing.

Unlike the well-price, spot-pricing of refined and exported petroleum was already heavily embedded within global exchanges by the early 1890s. In the winter of 1890-91, global oil spot-prices and futures-prices began to collapse from dizzying heights the year before as a global supply glut emerged. The overseas spot-price got so low, that the storage facilities in Batumi were completely full and refiners could not sell at all to exporters.<sup>276</sup> Interim British Consul Alexander Murray suggested that the global spot-price decline was as much as 70% at one point from 1890.<sup>277</sup> In the United States the effect was the same, causing the average price in 1891 to be only 75% of what it had been the year before.<sup>278</sup> Therefore, by the beginning of the 1890s Russian petroleum pricing was significantly affected by overseas trends.

We see another example of global factors causing a significant spot and future-price swing in 1895. In that year, the price skyrocketed all over the world due to a substantial increase in global demand. The average spot-price in the United States was 75% higher than it had been

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<sup>275</sup> J.C. Chambers. "The Petroleum Trade of Russia," *The Board of Trade Journal of Tariff and Trade Notices*, Vol. XI July-December 1891. P. 383-384. Chambers was the part-time US Consul to Batumi. He was also on the payroll of Standard Oil.

<sup>276</sup> Alexander Murray, "Report for Year 1891 on the Trade of the Consular District of Batoum", p. 4.

<sup>277</sup> Ibid.

<sup>278</sup> "The Petroleum Market of Tuesday December 9<sup>th</sup>, 1890," *Paint, Oil, and Drug Review*. Wednesday December 10<sup>th</sup>, 1890. P. 24. Accessed via *Hathi Trust Digital Library*.

the year before.<sup>279</sup> The same effect was seen for Russian petroleum in London. According to *The Chemist and Druggist*, the price was so high that the stores committee of the London County Council was unwilling to sell any kerosene, because they could find no purchaser willing to take it off of their hands at a price even remotely close to the spot-price that they had paid for it.<sup>280</sup> Its sensitivity to global pricing trends confirms that the 1890s Russian petroleum industry met O'Rourke and Williamson's standard for being in a global market, but what did that global market actually look like?

When Russian petroleum was exported overseas during the 1890s it was largely to markets within the British Empire. France, Russia's main ally after 1892, was only a modest customer compared to British markets due to a well established relationship between the top domestic distributors (*Demarais Frères* and *Deutsche de la Meurthe*) and Standard Oil.<sup>281</sup> Therefore, although sensitive to global pricing, in the 1890s Russian petroleum exports were largely contained within British trading networks.

Britain and its Indian colony were the most reliable purchasers of Russian petroleum throughout the entire decade. In 1891, Britain and India's allocation of Russian petroleum exports was 33%.<sup>282</sup> India imported 182,591 tons of Russian petroleum, while Britain imported 127,011 tons.<sup>283</sup> Petroleum exports to Britain were valued at approximately £634,000, while

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<sup>279</sup> On January 25<sup>th</sup> of that year Standard Oil, by initiating a policy to no longer purchase oil on exchanges and to only purchase oil at the well, ending the era of oil exchanges across the United States. The largest one was in Oil City, Pennsylvania. The closure of these exchanges led independents, who had traditionally relied on selling oil on the exchange to Standard, to form the Pure Oil Company in Chicago. (Bruce Wells, "End of Oil Exchanges", *American Oil and Gas Historical Society Website*, April 15, 2019. First Accessed on April 17, 2019. [www.aoghs.org/oil-almanac/end-of-oil-exchanges](http://www.aoghs.org/oil-almanac/end-of-oil-exchanges).)

<sup>280</sup> *The Chemist and Druggist*, July 27 1895, P. 106.

<sup>281</sup> Yergin, p. 68.

<sup>282</sup> Murray, "Report for the Year 1891", p. 11.

<sup>283</sup> *Ibid.*

exports to India were valued at £628,000 of a total petroleum export value of £4,120,510.<sup>284</sup> The only other country to import over half a million pounds worth of Russian petroleum was the Ottoman Empire, whose border was under fifty kilometres from the port of Batumi.<sup>285</sup> 1892 saw no diminishment in the importance of Britain and its possessions to the Russian petroleum industry. Of the 738, 546 tons of kerosene that were exported from Batumi in 1892, India imported 154, 217 while Britain imported 147,463 tons.<sup>286</sup> Combined, this represented 40% of all kerosene exported in 1892 from Batumi. Consequently, the Russian petroleum business relied on Britain and its possessions in India as export markets.

It was not until 1894 that a country other than Britain and India would be the number one export market for Russian petroleum: France.<sup>287</sup> However, this owes far more to a substantial decrease in the demand for Russian petroleum in India and Britain than it does to any increased amount of French demand.<sup>288</sup> Although discussed in more detail below, changes in technology affected preferences on how petroleum was to be imported by 1894, which was misread by an infant Russian oil cartel leading to poor production allocation. This disruption was particularly bad at Indian ports like Calcutta.<sup>289</sup> Overall, 115,002 fewer tons of refined oils were exported in 1894 than 1893,<sup>290</sup> resulting in a 36% revenue drop for exporters from 1893.<sup>291</sup> However, despite the substantial decrease in demand for Russian petroleum in India and Britain, those two markets

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<sup>284</sup> Ibid, p. 8.

<sup>285</sup> Today, the Turkish (and former Ottoman) port of Trabzon is only 200 km away from Batumi by car.

<sup>286</sup> Paul Stevens, "Report for the Year 1892 on Batoum", in *F.O. Annual Series 1191; Batum Trade. No. 1191 Diplomatic and Consular Reports on Trade and Finance* (London: Harrison and Sons, 1893). Commercial Reports II. 1893-94 [c. 6855-78], p. 9.

<sup>287</sup> Ibid, p. 18.

<sup>288</sup> Ibid, p. 20.

<sup>289</sup> Paul Stevens, "Report for the Year 1894 on the Trade of the Consular District of Batoum", in *F.O. Annual Series 1562; Batum Trade. No. 1562 Diplomatic and Commercial Reports on Trade and Finance* (London: Harrison and Sons, 1895). Commercial Reports II. 1895 [c.7581-102], p. 20.

<sup>290</sup> Ibid, p. 6.

<sup>291</sup> Ibid, p. 17.

continued to be the number two and number three export markets for Russian petroleum respectively. Thus, despite a significant drop in British and Indian demand, the Russian petroleum industry's connection to the British imperial network continued to determine the markets it was exporting to.

After the disaster in 1894, a new cartel more appropriately assigned production in 1895, ensuring that British and Indian demand for Russian petroleum would return to its previous levels. Whereas in 1894 only 12, 446 tons were exported to Calcutta, that number increased to 80,644 tons in 1895.<sup>292</sup> Great Britain also significantly increased its Russian kerosene imports in 1895, retaining its place as the second largest Russian kerosene importer behind India.<sup>293</sup> Even though France continued to import more petroleum products than Great Britain (although less than India in 1895), it was importing more fuel oil, a product that was less in demand in Britain due to the prevalence of Welsh coal.<sup>294</sup> Fuel oil, being outside of the kerosene distribution arrangements between Standard and the two main French distributors, meant that it was an opportunity in France for Russian exporters. Therefore although Russia's ally was importing more of a new material, the more established product of kerosene was still embedded within its traditional network.

As discussed in Chapter One, the flooding along the Transcaucasian Railroad in November and December of 1895 devastated the petroleum industry at Batumi. Flooding badly damaged the tracks in a number of locations along the line, meaning that no traffic could reach

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<sup>292</sup> Paul Stevens, "Report for the Year 1895 on the Trade and Commerce of the Batoum Consular District", in *F.O. Annual Series 1717; Batum. No. 1717 Diplomatic and Consular Reports on Trade and Finance* (London: Harrison and Sons, 1896). Commercial Reports II. 1896 [c.7917-85], p. 21.

<sup>293</sup> *Ibid.*, p. 19.

<sup>294</sup> *Ibid.*

Batumi from Baku in November and December.<sup>295</sup> Given that the Transcaucasian Railroad was the only way for Baku oil to reach Batumi, the halt in traffic meant that export stopped after the storage tanks at Batumi had been depleted.<sup>296</sup> Delays in repair would have a considerable negative impact on the industry throughout 1896.

High global prices meant that 1896 should have been an excellent year for the Russian petroleum industry, but the flood damage along the Transcaucasian severely hampered export efforts.<sup>297</sup> As a result, 286,544 fewer tons were exported from Batumi in 1896, including a 25,643-ton drop in exports to Britain.<sup>298</sup> More damaging to the Russian petroleum industry was the effect of the lost exports on the Indian market. The inability to supply Russian oil to India led America's Standard Oil to be able to recapture a significant market share.<sup>299</sup> Whereas in 1895 Russia exported more than the United States to India, in 1896 Russia only exported 4,793,682 cases to India compared to 10,788,194 from America.<sup>300</sup> The industry was concerned that this loss of market share might be permanent.<sup>301</sup> However, the effectiveness of the British shipping network ensured that the Indian market continued to be a reliable customer of Russian petroleum throughout the decade.

Other than the British imperial network, Russian petroleum continued to be heavily traded only within its own regional network. In 1897 the Ottoman Empire imported £458,960 of

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<sup>295</sup> Ibid.

<sup>296</sup> Ibid.

<sup>297</sup> Paul Stevens, "Report for the Year 1896 on the Trade &c. of the Consular District of Batoum", in *F.O. Annual Series 1903; Batum. No. 1903 Diplomatic and Consular Reports on Trade and Finance*, (London: Harrison and Sons, 1897). Commercial Reports II. 1897 [c. 8277-121], p. 3.

<sup>298</sup> Ibid.

<sup>299</sup> Ibid, p. 9.

<sup>300</sup> Ibid.

<sup>301</sup> Ibid.

Russian petroleum, the second largest amount of any country.<sup>302</sup> This substantial increase in Ottoman imports was due to the Greco-Turkish war that took place that year, where the modernizing Ottoman army swiftly defeated the unprepared Greeks. Persia, Russia's Caspian neighbour, was also becoming a significant importer of Russian oil from Baku. Stevens was optimistic enough about Persia as an export market for Russian oil that he wrote "it is unlikely that any oil source could ever compete with Russian oil in Persia."<sup>303</sup> Otherwise, the leading export markets in 1897 were in the British Empire. India was once again the top export destination for Russian petroleum, importing £478,400 worth.<sup>304</sup> Britain was in third place (behind India and the Ottoman Empire), importing £245,124.<sup>305</sup> It is notable that France dropped all the way to fifth, showing how robust the industry's connection was to British markets by comparison. Accordingly, apart from the British Empire, Russian petroleum was predominantly exported to other countries within its own region.

By 1898, the two leading export markets for Russian petroleum were the same as they had been at the beginning of the decade. £581,510 worth of petroleum was sent to Indian ports, while £425,091 worth of petroleum was sent to Great Britain.<sup>306</sup> This accounted for approximately one third of all Russian petroleum exports for the year, about the same ratio of Russian petroleum as those markets had imported at the beginning of the decade. The consistency with which Britain and India were the two largest export markets for Russian petroleum shows how much petroleum exporters relied on the British Empire.

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<sup>302</sup> Paul Stevens, "Report for the Year 1897 on the Trade and Commerce of Batoum and District", in *F.O. Annual Series 2067; Batoum. No. 2067 Diplomatic and Consular Reports on Trade and Finance* (London: Harrison and Sons, 1898). Commercial Reports II. 1898 [c.8648-89], p. 17.

<sup>303</sup> *Ibid.* Showing how dangerous any long-term oil related predictions are.

<sup>304</sup> *Ibid.*

<sup>305</sup> *Ibid.*

<sup>306</sup> *Ibid.*, p. 15.

The Russian petroleum industry also relied on the British Empire for imports. The most substantial import of the Russian petroleum industry was Siemens tinsplate from Swansea, for use in the manufacture of petroleum barrels.<sup>307</sup> After the Russian government imposed a new tariff regime in 1891, one of the few imports into Batumi that continued unabated was Swansea tinsplate. By 1890 the Swansea region was producing 547,000 tons of tinsplate annually, significantly more than any other region in the world.<sup>308</sup> Given that there were no significant tinsplate manufacturers in Russia at the time, the petroleum industry depended on a reliable supply from south Wales. In 1898, the Russian petroleum industry imported 21,204 tons of Swansea tinsplate worth £360,468.<sup>309</sup>

The reliance of Russian petroleum exporters on India and Great Britain appears to situate the Russian petroleum industry comfortably within the British imperial trading network. However, the fact that Russian petroleum was sensitive to the same changes in supply and demand as affected the American petroleum export industry suggests that it is not quite as neat and tidy as that. Also, the largest export company (BNITO) was owned by the French Rothschilds, and it was their money that had allowed the supply connection between Baku and Batumi to be constructed in the first place. Therefore, however much the Russian petroleum industry relied on its linkages with the British imperial trading network, it was hardly a phenomenon of the British Empire.

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<sup>307</sup> Sandwith, p. 8.

<sup>308</sup> Gareth Jones, *Modern Wales: A Concise History* (Cambridge: Cambridge University Press, 1984), p. 170.

<sup>309</sup> Paul Stevens, "Report for the Year 1898 on the Trade of Batoum and District", in *F.O. Annual Series 2264; Batum. No. 2264 Diplomatic and Consular Reports on Trade and Finance* (London: Harrison and Sons, 1899). Commercial Reports II. 1899 [c. 9044-903], p. 14.

The majority of overseas Russian exports were carried on British ships, and petroleum was no exception.<sup>310</sup> Of the thirty-two oil tankers that visited Batumi in 1891 (making a total of 209 visits), twenty-five were different British vessels making 124 trips. This means that 78% of the vessels involved in this trade from Batumi were British, and that they were making 60% of all visits.<sup>311</sup> This discrepancy between vessels and visits can be explained by the fact that only three Russian tankers visited the port in 1891, but they made 66 trips between the three of them. As many of them were delivering petroleum to Odessa and other Russian ports within the Black Sea, their voyages were significantly shorter than those of the British vessels, allowing for more regular visits to Batumi. Other than by British vessels, Russian petroleum was only exported out of Batumi by four vessels making eight trips in total.<sup>312</sup> Therefore, it can be stated with significant confidence that the Russian petroleum export market of the early 1890s depended almost entirely on British shipping to transport petroleum to any overseas market.

Significant technological advances, which will be analyzed below, allowed the British to maintain their dominance of shipping Russian oil from Batumi throughout the decade. In 1894 188 British vessels, with a tonnage of 298, 517, cleared the port.<sup>313</sup> Even in other ports like Novorossiisk, where a small amount of Grozny-produced oil was sent for export, export was dominated by British shipping. Although significantly lower than the shipping numbers at Batumi, in the year 1895 forty thousand tons were shipped on thirteen British tankers. This was more than double the carrying capacity of ships from any other country.<sup>314</sup>

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<sup>310</sup> John Michell "Report on Trade and Commerce For Russia and Consular District of St. Petersburg for 1895", in *F.O. Annual Series 1801; St. Petersburg No. 1801 Diplomatic and Consular Reports on Trade and Finance* (London: Harrison and Sons, 1897), Commercial Reports II, 1897 [c.8277-19], p. 7.

<sup>311</sup> Murray, "Report for the Year 1891 on the Trade and Commerce of the Consular District of Batoum", p. 2.

<sup>312</sup> *Ibid.*

<sup>313</sup> Stevens, "Report for the Year 1894 on the Trade and Commerce of the Consular District of Batoum", p. 16.

<sup>314</sup> *Ibid.*, p. 22.

By 1896 the global oil market no longer consisted of just the Russians and the Americans. Galician oil was beginning to be produced at levels that would allow it to satisfy most of the Habsburg lands' demand, and oil production on Java by the newly established company *Royal Dutch* was making substantial inroads into the Chinese market.<sup>315</sup> Even though global demand was increasing, the emergence of these competitors was forcing Russian firms to begin to look for more efficient transportation and distribution models.<sup>316</sup> Although the British initially feared that this would result in a lower demand for British shipping, it was unlikely that the merchant fleets from any other country would have been able to provide efficient enough transportation to allow the heavier Russian crude to compete with the lighter American variety.<sup>317</sup> Accordingly, the discovery of additional supplies of petroleum around the world likely made the Russian petroleum industry more reliant on British shipping, rather than less.

The only substantial decrease in British ships docking at Batumi was caused by the flooding of the Transcaucasian in 1895. Far fewer British ships docked at Batumi in 1896 because there was no petroleum available to export.<sup>318</sup> In fact, early in the year, twenty British tankers were actually turned away before entering the port.<sup>319</sup> Eighty-seven fewer vessels docked in Batumi in 1896, seventy-three of which were British.<sup>320</sup> This ratio suggests that the Russian petroleum industry relied on British shipping more than exporters of other goods. This indicates that whatever the ratio of British vs. non-British ships that docked at Batumi in a given year, the ratio of British ships carrying petroleum was much higher. As we will see in the next section,

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<sup>315</sup> Stevens, "Report for the Year 1896 on the Trade &c. of the Consular District of Batoum", p. 10.

<sup>316</sup> *Ibid.*

<sup>317</sup> *Ibid.*

<sup>318</sup> *Ibid.*, p. 3.

<sup>319</sup> *Ibid.*

<sup>320</sup> *Ibid.*

part of this is due to substantial technological innovations in British shipping specific to shipping petroleum.

1897 witnessed a return to a normal state of affairs in Batumi with 210 British vessels clearing the Batumi harbour with a combined tonnage of 376,778 tons, which was three and a half times the tonnage of any other shipping nation.<sup>321</sup> In the following year, British ships with a combined tonnage of 368,815 tons docked in Batumi, accounting for 40% of all tonnage that came into the harbour.<sup>322</sup> French shipping, Russia's closest ally, only accounted for 15% of all tonnage.<sup>323</sup> Given that British ships were more sensitive to changes in petroleum output at Batumi, it is reasonable to assume that Britain carried more than 40% of the petroleum exported.

A crucial aspect of overseas shipping is the role of insurance companies. Traversing the ocean with a shipload of goods is a very risky financial venture. Consequently, the existence of an organization that, for a fee, will bear the financial risk for the owners of the ship and the goods it carries is vital to the existence of such an industry. By the 1880s London insurers and reinsurers, particularly those associated with the Lloyd's of London network, owned more contracts with more premium than any other country in the world.<sup>324</sup> Even ships that were not British-flagged relied on British maritime insurance.<sup>325</sup> The influence of Lloyd's will be seen again below, where their willingness to offer insurance on a new kind of tanker ship provided Russian petroleum producers with a competitive advantage over Standard Oil in eastern markets.

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<sup>321</sup> Stevens, "Report for the Year 1897 on the Trade and Commerce of Batoum and District", p. 15.

<sup>322</sup> Ibid.

<sup>323</sup> Ibid.

<sup>324</sup> Virginia Haufler, *Dangerous Commerce: Insurance and the Management of International Risk* (Ithaca, NY: Cornell University Press, 1997), p. 43.

<sup>325</sup> Ibid.

This reinforces Friedan's argument about the role of British transportation and British capital in the growth of nineteenth century globalization. By the end of the decade 40% of petroleum exported from Batumi was carried on ships owned by British companies, and predominantly insured by British insurance firms like Lloyd's of London. Thus, British ships and finance allowed the Russian petroleum industry to connect a heretofore remote part of Transcaucasia with bustling ports all around the British Empire and the world.

A careful reader might infer that, given that BNITO had identified India and Great Britain as high potential export markets, that using British ships for conveyance was politically advantageous in order to ensure access to British markets. However, Britain had pursued a policy of free-trade within the Empire since the 1850s. Consequently, having access to British shipping on its own made no difference as to the competitiveness of Russian petroleum within the British Empire. For instance in 1894, the year that Indian demand for Russian petroleum largely evaporated due to the Russian cartel not adapting to the new preference for bulk transport, American petroleum was able to fulfill Indian demand. American petroleum was usually carried by Standard Oil owned ships by this time, so access to British ports hardly relied upon using British ships.<sup>326</sup> Thus, the reliance of the Russian petroleum industry on British shipping must have been in the industry's economic best interest.

In 1891, 158,700 tons of petroleum were exported from Batumi in total.<sup>327</sup> By 1893 India alone imported 164,890 tons while Britain imported 152,095 tons.<sup>328</sup> There were two causes for this significant jump in exports: a substantial increase in demand and the development of the

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<sup>326</sup> For example, the USS *Maverick* which came into operation in 1890. United States Department of the Navy, *List of Wireless Telegraph Stations of the World: Including Shore Stations, Merchant Vessels, Revenue Cutters, And Vessels of the US Navy* (Washington DC: Government Printing Office, 1910), p. 77.

<sup>327</sup> Murray, "Report for the Year 1891 on the Trade and Commerce of the Consular District of Batoum", p. 3.

<sup>328</sup> *Ibid*, p. 4-5.

bulk tank steamer which allowed for the transportation of crude or refined oil in bulk. By 1893 the bulk tankers of Marcus Samuel's newly founded Shell Transportation and Trading Company (one of the predecessors to modern Royal Dutch Shell) were regularly arriving in Batumi, significantly increasing the export potential of the Russian petroleum industry.<sup>329</sup> After signing a deal with the Suez Canal Company in 1891, Shell was contracted by BNITO to transport their oil in bulk from Batumi to eastern markets. When these ships began to regularly arrive in Batumi in 1893, the British combined tonnage rose to 400,836 tons.<sup>330</sup> This was a significant improvement on the 158,700 tons that were exported only two years earlier. As Batumi Consul Stephens explains, these new ships had the potential to transform British trade with the far-east:

An important feature which well deserves notice has recently been very successfully introduced by a London firm into the carrying trade of petroleum from Batoum to eastern ports beyond the Suez Canal, in the shape of tank steamers of a new type which carry oil in bulk, and which, after thoroughly cleansing their tanks with comparative speaking quick despatch and little expense by means of forced ventilation pressure of steam and chemical treatment are enabled to load homeward bound cargoes such as tea, coffee, rice and other goods particularly liable to deterioration and deliver them in fine order to the UK.<sup>331</sup>

The effect of the introduction of these ships on Batumi was considerable, as by 1893 significantly more than 50% of all petroleum exported from Batumi did so in bulk (607,777 tons).<sup>332</sup> Only 414, 973 tons were exported in cases and only 20,831 tons in barrels.<sup>333</sup>

Not only were Shell's ships significantly larger, and easier to clean and to turnaround in port, but they had permission from the Suez Canal Company to sail through the Suez Canal.<sup>334</sup> This saved a considerable amount of time for ships travelling from Batumi to India. If sailing

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<sup>329</sup> Stevens, "Report for the Year 1893 on the Trade and Commerce of the Consular District of Batoum", p. 8

<sup>330</sup> Ibid.

<sup>331</sup> Ibid.

<sup>332</sup> Ibid, p. 5.

<sup>333</sup> Ibid.

<sup>334</sup> Yergin, p. 67.

through the Suez Canal, the trip from Batumi to Calcutta (the highest volume port for Indian petroleum imports) was 6,719 nautical miles. If sailing around the Cape of Good Hope to Calcutta, the trip from Batumi was 15,252 nautical miles. Travelling at 10 knots, the trip around the Cape of Good Hope would take over sixty days to complete. Meanwhile, travelling at the same speed through the Suez Canal would take only twenty-eight days. In order to take advantage of the shorter distance afforded by the canal, the ships had been designed with the Suez's strict safety precautions in mind.<sup>335</sup> It was hoped that, by transporting oil in bulk through the canal, Shell would be able to undercut Standard Oil's pricing in the east and become the region's predominant supplier.<sup>336</sup> Previously the Suez Canal Co. had, due to safety concerns, prevented oil from being transported in bulk through the canal. Even Standard's tankers had been refused permission.<sup>337</sup> Shell convinced Lloyd's of London to create a specific type of insurance policy to insure against any damage to the Suez Canal or its infrastructure by one of its bulk tankers, which was enough to get the Suez Canal Company to agree to the arrangement.<sup>338</sup> It was the considerable advantage of Shell's bulk steamers that could sail through the Suez Canal to eastern ports from Batumi which ensured that Russian petroleum companies like BNITO would end up heavily relying on British shipping.

Whatever advantage given to the Russian petroleum industry by Shell's tankers was not necessarily enough to always overcome negative Russian internal factors. By 1894, concerns over volatile pricing had led the Russian Ministry of Finance to apply pressure on exporters, producers, and refiners in order to form a cartel. This new cartel, which included case

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<sup>335</sup> *Ibid.*

<sup>336</sup> *Ibid.*

<sup>337</sup> *Ibid.*, p. 65.

<sup>338</sup> *Ibid.*

manufacturers, poorly allocated the amount of petroleum to be exported in bulk as opposed to cases in 1894.<sup>339</sup> The reason that case vs. bulk mattered was that substantial storage facilities, designed to be filled with oil from a tanker, had been built in India by 1894.<sup>340</sup> Unfortunately, the cartel did not recognize the importance of Indian infrastructure and mistakenly assigned unrealistic amounts for case production.<sup>341</sup> As mentioned above, this mistake led to a substantial reduction in Indian demand for Russian petroleum, resulting in a 36% revenue drop in 1894 from 1893.<sup>342</sup>

Internal factors also led to a substantial disruption in Russian petroleum exports from 1895-96. In Chapter One it was mentioned that flooding forced the closure of the Transcaucasian railway from late 1895 through the middle of 1896. For several months, the exporters of Batumi were cut off from their supply. This led to a renewed demand for the introduction of an oil pipeline between Batumi and Baku that the government had been unwilling to construct earlier in the decade. Even without flooding, the Caucasus Mountains were a formidable barrier with a very low rail speed limit.<sup>343</sup> Accordingly, exporters were desperate for a pipeline.<sup>344</sup> Not only would a pipeline increase capacity and efficiency, but it would also have been a reliable backup against the catastrophe that was witnessed in 1895-6. The result was 286,544 fewer exported tons of petroleum from Batumi in 1896 than 1895.<sup>345</sup> Standard Oil took advantage of this interruption and became the major supplier of kerosene to India again.

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<sup>339</sup> Stevens, "Report for the Year 1894 on the Trade of the Consular District of Batoum", p. 3.

<sup>340</sup> Ibid.

<sup>341</sup> Ibid.

<sup>342</sup> Ibid, p. 20.

<sup>343</sup> Stevens, "Report for the Year 1896 on the Trade &c. of the Consular District of Batoum", p. 9.

<sup>344</sup> Ibid.

<sup>345</sup> Ibid, p. 3.

Miller's globalization model relies heavily on technology's impact on markets. We have already seen how Marcus Samuel's bulk tank steamer made Russian petroleum competitive in eastern markets like India, but changes to what the product could be used for would radically alter petroleum markets as well. Into the 1890s, petroleum was largely purchased as a means to manufacture kerosene for illumination. However, petroleum's value as a power source would expand opportunities for petroleum producers in the 1890s. By 1894, the fuel oil market began to look more and more promising for Russian producers. The demand for fuel oil had increased dramatically in 1894, resulting in a substantial price increase in exports.<sup>346</sup> Given that electricity was emerging as a substantial competitor to kerosene for the illumination market, finding another use for petroleum was vital to the industry's long-term survival. From an export market perspective, fuel oil allowed the Russian industry to make inroads into markets from which Standard Oil's kerosene distribution network had previously excluded it. As was mentioned earlier, Standard Oil's established presence in France largely limited Russian kerosene opportunities in the country, but there was an opportunity to sell fuel oil there. And, it was not only the exporters that were able to take advantage of this new opportunity. Domestically most Russian railways, all steamship companies and factories along the Volga and Caspian, as well as more and more manufacturers each year were moving away from coal and towards fuel oils for power generation.<sup>347</sup> Even the Russian navy was experimenting with fuel oil as a replacement for coal by 1897.<sup>348</sup> Thus, changes in technology allowed petroleum producers to expand into different markets, ensuring that demand would not be linked to only kerosene. The same process would occur when automobiles with internal combustion engines, which would utilize a new

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<sup>346</sup> Stevens, "Report for the Year 1894 on the Trade of Consular District of Batoum", p. 7.

<sup>347</sup> Stevens, "Report for the Year 1897 on the Trade and Commerce of Batoum and District", p. 11.

<sup>348</sup> Ibid.

petroleum product called ‘petrol’ or ‘gasoline’, began to be purchased in substantial quantities all over the world in the twentieth century.

To a reader familiar with the history of foreign affairs in the second half of the nineteenth century, Russian exporters choosing to be integrated within the British imperial network would seem odd. Famously, Russia and Great Britain were locked in diplomatic struggles over control of Central Asia (‘The Great Game’), the far-east, as well as the Straits and Near Eastern Questions. Keith Nielson, in his great book *Britain and the Last Tsar*, has argued that, by 1894, the conflict between Great Britain and Russia in this period was as likely to result in war as the rivalry between Great Britain and Imperial Germany that eventually led to the First World War.<sup>349</sup> According to Nielson, by 1894 British naval planning was almost exclusively concerned with checking Russian ambitions.<sup>350</sup> Additionally, the increased spending and size of the Russian navy affected the British navy’s perceived supremacy, because if the Russian fleet was added to the French one it could potentially match Britain’s, leading to a significant degree of hand-wringing within the British admiralty.<sup>351</sup> In 1895, during the Armenian Crisis, Prime Minister Salisbury was so concerned about a Russian assault on Constantinople he was willing to send a naval fleet through the Straits, even to force them if the Ottoman government was not willing to permit it.<sup>352</sup> In addition, there was the diplomatic spat between Britain and Russia over Bulgaria that led to Russia’s annexation of Batumi in the first place. Given the tense diplomatic background, the reliance of Russian exporters on British markets and British shipping is interesting. It is also surprising that a British businessman like Marcus Samuel was willing to

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<sup>349</sup> Keith Nielson, *Britain and the Last Tsar* (Oxford: Oxford University Press, 1995), p. 367.

<sup>350</sup> *Ibid*, p. 111.

<sup>351</sup> *Ibid*, p. 117.

<sup>352</sup> *Ibid*, p. 113-114.

make a sizable investment into the ability to transport Russian petroleum through the Suez Canal to British markets. Remarkably, there is no mention of the diplomatic conflict raging in the various foreign offices and the press in any of the consular or commercial reports. Accordingly, it must be concluded that those invested in the Russian petroleum industry did not believe that a conflict was likely to break out between the two powers. That does not, of course, mean that war was unlikely between the two powers, as the trade between Germany and Great Britain on the eve of 1914 was considerable. Indeed, war seemed unlikely enough as late as July 1914 that a report was published in the *Journal of the Royal Statistical Society* where the author was enthusiastic about upcoming British opportunities in the German “goods of fashion and modern luxury” market.<sup>353</sup> Accordingly, whatever the likelihood of war was, trade between the two empires was hardly determined by the warmth of their relations.

### Conclusion

Above it has been shown how the Russian petroleum industry was positively affected by factors external to Russia in the 1890s. The industry was embedded within a global web of regional trading networks, connected through European shipping, which gave the industry access to substantial export markets like Great Britain and India. In order to satisfy O’Rourke and Williamson’s criteria for a nineteenth century market to be considered global, this chapter established the sensitivity of Russian petroleum spot-prices to global supply and demand levels,

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<sup>353</sup> Edgar Crammond, “The Economic Relations of the British and German Empires,” *Journal of the Royal Statistical Society*, Vol. 77, No. 8, (Jul. 1914), p. 794.

levels that had similar effects on American producers. This chapter has also shown how global technological innovations could improve the industry's efficiency, as well as provide new market opportunities. Lastly, the French Rothschilds' ownership of BNITO along with financing of the major transportation corridor between the oilfields at Baku and the port of Batumi indicates the role played by foreign capital in the industry. Therefore, the fact that the Russian petroleum industry was embedded within a global marketplace provided it with an array of opportunities that would not have been available to it had it been captive to its own domestic market.

Russia also substantially benefitted from its relationship with British shipping and commerce. By working with London based Fred Lane and Marcus Samuel's Shell Transportation and Trading Company, BNITO benefitted from the most technologically advanced transportation method for petroleum in the world. In addition, the fact that the technology was built purposely so as to meet the high standards of the Suez Canal gave the Russian petroleum industry preferred access to eastern markets over its American competitor. This was a considerable competitive advantage that allowed the Russian industry to claw back much of its Indian market share in 1897 after supply was cut off by the 1895 flooding of the Transcaucasian. In addition, the imagination and influence of British maritime insurance organizations like Lloyd's of London provided peace of mind for stakeholders by being willing to insure significant inventories of petroleum and the ships that inventory was transported in. These factors were all critical in the Russian petroleum industry's remarkable overseas success.

Given the fact that the Russian petroleum industry was supplying fifty percent of the world's petroleum supply by 1899, the industry had to have some factors working in its favour. This chapter has argued that the industry benefitted from external factors like a global marketplace that emerged in the second half of the nineteenth century, the rapid global

dissemination of technological innovation, and integration into the world's most powerful trading network. These external opportunities allowed the industry to overcome the internal obstacles inherent to the Russian state and to become a global petroleum powerhouse.

## Conclusions

The Russian petroleum industry's emergence coincided with Imperial Russian industrialization and nineteenth-century globalization. This was not a coincidence, as the nineteenth-century Russian petroleum industry was closely linked to both of these phenomena. Industrialization, in Russia and around the world, created a demand for a product that could provide reliable and affordable illumination and, eventually, a demand for a more efficient industrial fuel source than coal. Reformers within the Russian Ministry of Finance perceived the opportunity at Baku, and implemented a rational system for private sector development which the Nobel Brothers capitalized on to construct *Branobel* one of the largest corporations in Russia. Eventually, the Russian government's willingness to attract foreign capital provided private sector industrialists at Baku a means through which the industry could gain access to the Black Sea. Once access to the sea was achieved, British shipping and commerce was perfectly positioned to connect this industry to its array of global markets. These were the factors that allowed the Russian petroleum industry to become the largest in the world by 1900.

The petroleum industry around Baku probably only existed in the nineteenth century due to its annexation into the Russian Empire. Had Baku still been a part of Persia, it is unlikely that it would have become the world's leading producer of petroleum, as Iran did not begin to industrialize until the 1930s. The British owned *Burmah Oil Company* did begin, shortly after 1900, exploiting the Persian petroleum reserves that would lead to the company's reorganization into the powerful *Anglo-Persian Oil Company* (Now *British Petroleum* or *BP*), but Baku had already been successfully producing petroleum on a large-scale for thirty years by that time.

Russia's determination to industrialize provided the context in which the industry could emerge, and Russia's access to the Black Sea provided an export outlet for the industry.

Whatever benefits the industry received from having access to the Russian Empire's capital and infrastructure, it still suffered from the empire's institutional, bureaucratic, legal, and cultural environment. It has been explained that two events in the 1890s led to the Russian industry's inability to access markets it had come to rely on. In 1894, the government initiated cartel was unable to cope with technological changes at Indian ports, resulting in Russian petroleum being largely shut out of its largest market until the following year. In 1895-96, the flood damage on the Transcaucasian railway resulted in exports stopping completely for several months. These sort of things did not happen to Standard Oil. However much Standard Oil would end up clashing with American state and federal governments, the institutional and cultural environment of the United States would allow Standard to flourish despite political hiccoughs.

Ultimately, Russia's autocratic political environment forced the Empire to rely on a bureaucratic-led industrialization which, unlike in Germany, the bureaucracy did not have the resources for. Although the top-end of the bureaucracy was staffed by some extremely intelligent and able officials, the bureaucracy did not have the systematic processes nor the freedom of the German bureaucracy. The arcane Russian legislative process meant that the bureaucracy had to govern through ad hoc decisions, making the private sector dependent on access to the bureaucracy. As was seen with the petroleum industry, this was by no means a guarantee. Therefore, without access to dispensations, the private sector was forced to contend with out of date legislation that only reinforced cultural and social patterns that limited investment and commercial opportunity.

Although only lightly touched upon above, the personality and desires of the Tsar made a difference as well. Many historians of the Russian bureaucracy emphasize that the *Rechtsstaat* reformers, who were favoured by Alexander II, had opportunities to make liberal reforms that were not possible under his son or grandson until 1905.<sup>354</sup> In 1881, after being commanded by Alexander II to draft a new set of laws that would provide for a more systematic legislative process and more popular representation, Mikhail Loris-Melikov is rumoured to have said that “some boy with a toy revolver could destroy all my plans.”<sup>355</sup> This prediction came to fruition with Tsar Alexander II’s assassination in March of that year. His son, Alexander III, believed that such reforms only bred disorder and thus halted such efforts.<sup>356</sup> He elevated ministers who shared his skepticism of such reforms, who then reoriented the bureaucracy in a more authoritarian direction. Alexander III’s successor, Nicholas II, largely tried to imitate his father until the revolution of 1905 forced radical reforms upon the government. Therefore, the Tsar’s personality did have an impact on industrialization and on the petroleum industry. The petroleum industry benefitted from the men that Alexander II elevated into positions of prominence within the bureaucracy, and suffered from the ones elevated by his two successors. The relatively technocratic nature of the Ministry of Finance insulated it from the real counter-reformers, but Vyshnegradskii and Witte were a very different type of reformer than what had predominated under Alexander II.

The Russian petroleum industry may have been negatively affected by its complicated position within a rapidly changing Russian Empire, but it was only positively affected by its

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<sup>354</sup> For example: Francis Wcislo, and Andrew Verner.

<sup>355</sup> Frank Wcislo, *Reforming Rural Russia: State, Local Society, and National Politics, 1855-1914*, p. 59.

<sup>356</sup> Given the rampant terrorism during the 1870s and the fact that his father had just been killed by a terrorist’s bomb, this attitude is understandable if unfortunate.

relationship with the nineteenth century globalized world. Beyond having access to global markets for customers, neither the capital nor technology that allowed for the industry's success was entirely domestic. The capital that allowed the Russian export industry to develop was French, and the technology that allowed it to penetrate markets had developed globally. Although Branobel's refining and tanker technologies were domestic innovations, these were possible because of earlier American and European technologies that were improved upon. Returning the favour, British and American companies integrated the Branobel innovations into their enterprises and improved upon them further. Therefore, along with access to global markets, it was access to global flows of capital and technology that allowed for the Russian petroleum industry to grow so rapidly.

The value of integration within the global economy is exemplified by a comparison of Baku oil in the period of this study and under Soviet rule. Unlike the earlier period, in the Soviet period the entire industry was subject to whatever allocation whims possessed the central government on a given day. For instance, according to Felix Rehschuh, Stalin seemed blind to using Baku petroleum for industrialization and preferred to focus on coal for domestic purposes, while petroleum was deemed unnecessarily expensive and therefore only produced for export.<sup>357</sup> Rehschuh argues that it was not until the German invasion in 1941 that the Soviet government began to see the value in a further development of the Baku oilfields, especially given the fact that its military had to rely on American oil for much of the war.<sup>358</sup> After the war, when the Soviet Union once again became the world's largest producer of petroleum, Baku had to compete for scarce government funds with other Soviet oil and gas producing regions like the

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<sup>357</sup> Felix Rehschuh, "From Crisis to Plenty: The Soviet "Oil" Campaign Under Stalin", *Cold War Energy*, Jeronim Perovic ed. (Cham, Switzerland: Palgrave Macmillan, 2016), p. 50.

<sup>358</sup> Ibid.

Volga-Urals region in Siberia. Although production figures varied quite a bit during and after the war, by the early 1950s the Azerbaijan SSR was consistently producing approximately 107 million barrels of petroleum per year.<sup>359</sup> In 1900, meanwhile, Baku alone was producing close to 80 million.<sup>360</sup> Thus, although the Soviet Union had become the world's largest petroleum producer, Soviet energy allocation and development decisions were being made from an all-union perspective, and there was therefore no guarantee that a desire to increase petroleum development would result in investment into Baku oil production. By the late 1980s, the lack of recent Soviet investment in the extractive infrastructure around Baku meant that it was largely obsolete, and production had steadily dropped to levels not seen since the 1890s.<sup>361</sup> It was only with the 1994 "Contract of the Century" agreement between the independent Azerbaijani government and eight different major oil companies that investment in infrastructure returned to Baku. By 2008 the return of global investment meant that Azerbaijan was producing over 300 million barrels of petroleum annually.<sup>362</sup> This emphasizes how important access to global markets was and is to the Azerbaijani petroleum industry. What had looked like an industry in decline was, by the mid-2000s, once again one of the leading petroleum producers in the world.

Using the nineteenth century petroleum industry as a lens through which to analyze Russian industrialization illustrates the importance to capitalist development of reliable legal, bureaucratic, legislative, and financial institutions. Although bureaucrats within the Ministry of Finance desired to industrialize in a fashion similar to the German states, necessary compromises

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<sup>359</sup>Central Intelligence Agency, "The Petroleum Industry in Economic Region V of the USSR" (Central Intelligence Agency: Office of Research and Reports, 1955), p. 8. First Accessed on May 1, 2019.

[https://www.cia.gov/library/readingroom/docs/DOC\\_0000496309.pdf](https://www.cia.gov/library/readingroom/docs/DOC_0000496309.pdf)

<sup>360</sup> Raymond Sorenson, "19<sup>th</sup> Century Petroleum from Baku: An American Perspective," *Oil Industry History*, Vol. 15, No. 1, (2014), p. 91.

<sup>361</sup> Aitor Ciaretta, and Shahriyar Nasirov, "Analysis of Azerbaijan oil and gas sector," *United States Association for Energy Economics Research Paper Series*, (2010), p. 43.

<sup>362</sup> Ibid.

to the personalized regime of Russian autocracy prevented the creation of such institutions. Without these institutional reforms, the Russian private sector lacked incentives to abandon their traditional commercial practices and to embrace capitalist ones. The importance of strong institutions to economic development is the major conclusion that economist Douglass North drew from his career-long analysis of economic history. He argued that “together with the standard constraints of economics they define the choice set and therefore determine transaction and production costs and hence the profitability and feasibility of engaging in economic activity.”<sup>363</sup> The *Rechtsstaat* reformer ministers of finance understood the importance of legal institutions to capitalist development and, although making concessions to personalized autocracy, did attempt to lay the foundations for a future legal state. These reforms were of considerable benefit to the Russian petroleum industry, and laid the foundation for an industry that was capable of overcoming many of the institutional obstacles that remained.

Sergei Witte, however, did not believe in the importance of institutional reform in the 1890s. Instead, his strategy was to develop a robust capitalist economy through state investment and centralized ad hoc decision making.<sup>364</sup> The “Witte System” did not fail, but it left capitalists and entrepreneurs frequently dependent on the state for dispensations and capital. Although this reinforced the authority of the state, it did very little to incentivize independent private sector development. Not only did this institutional somnolence limit capitalist modernization but, according to Rieber, it isolated and fragmented commercial society in such a way that

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<sup>363</sup> Douglass C. North, “Institutions,” *Journal of Economic Perspectives*, Vol. 5, No. 1, (Winter, 1991), p. 97.

<sup>364</sup> Wcislo, *Reforming Rural Russia: State, Local, Society, and National Politics, 1855-1914*, p. 120.

commercial society was prevented from playing any political role in the upcoming upheavals that would destroy everything that Witte and his predecessors had worked so hard to build.<sup>365</sup>

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<sup>365</sup> Alfred Rieber, "Businessmen and Business Culture in Imperial Russia", *Proceedings of the American Philosophic Society*, Vol. 128, No. 3, (Sept. 1984), p. 239.

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