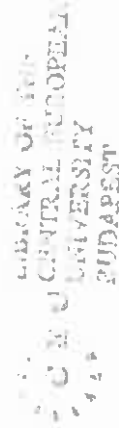


SHORT LOAN

Oil Empire

*Visions of Prosperity
in Austrian Galicia*

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110 oil wells, and four large refineries.¹¹⁸ Stefan Bartoszewicz claimed that although Premier's nominal capital was 38,960,000 crowns, its real capital was around £4 million, or 100 million crowns.¹¹⁹

Controlled by larger groups like the Credit Anstalt (of Vienna), Premier Oil (of London), the Deutsche Bank, Deutsche Erdöl, and Standard, these large organizations struck the government as suspiciously powerful. In Russia, Minister of Finance Sergei Witte pushed through foreign investment, in particular that of the French and British, to benefit industry even when landowners opposed it.¹²⁰ In contrast, the Austrian government seemed to share the disquiet of those who cursed foreign money and foreign influence in the exploitation of a natural treasure, a disquiet that only grew as the fear of imminent European conflict increased.

The turn of the twentieth century was a tumultuous period for Galicia's oil industry. Convinced that the key to Galicia's prosperity was economic growth, oil producers built up a visible lobby to represent their interests in Vienna. Producers were able to direct considerable attention to what came to be known as the "crisis in the oil industry"—a crisis caused not by dwindling supply, but by an overabundance of oil. By persuasively connecting their own profits to the greater economic health of the province and thus of the empire, producers were able to solicit support from the government in saving their industry from the devastation they claimed threatened it. Together, producers and government officials guaranteed a new supply of consumers, private and public, whose increased demand would alleviate price collapse. The government provided the producers with the military assistance they needed to avoid making major concessions to an increasingly vocal and dissatisfied workforce. As long as the industry's problems remained the same—disgruntled workers, uncontrollable production, and unstable prices—the steps taken by the government and the producers to alleviate the crisis remained effective. Neither the producers nor the government that offered to rescue them were prepared for what the next few years would bring—a sudden and unexpected decrease in production and a devastating war.

Blood of the Earth

The Crisis of War

The problem of petroleum supply was not universally recognized in 1914, but it would become one of the great lessons of the First World War—a war that taught the director of France's Comité Général du Pétrole that oil, "the blood of the earth," was also "the blood of victory."¹ In retrospect, it is clear that the great difference in fuel supply between the Entente and the Central Powers was one of the former's fundamental advantages. Everyone needed oil. Writing shortly before the outbreak of the Second World War, geologist and jurist Ferdinand Friedensburg argued that "conducting the war over an extended period without gasoline for automobiles and airplanes, without oil for lighting in dugouts and on the homeland's flat soil, without diesel oil for submarines, and without lubricating oil for the innumerable machines in industry and transportation would have been unthinkable."² Toward the end of the war, Georges Clemenceau claimed that a drop of oil was worth a drop of soldier's blood, but at its outbreak, he dismissed oil's significance with the (apocryphal) remark "When I want some oil, I'll find it at my grocer's."³ As shortsighted as his attitude appears today, it was all too common among political leaders ill prepared to provide their military colleagues with the materiel they would need in the event of an extended conflict.

Austria-Hungary entered the war in a position to cover its own petroleum needs with production on its own soil. Despite greater production sums in Romania, during the war itself, the oilfields of Galicia provided approximately 60 percent of the Central Powers' petroleum supply.⁴ What should have been an advantage to Austria-Hungary's war effort, however, was also a disadvantage in its preparations. The fact that Galicia was a constituent part of the empire and that its oil fields were "domestic"

masked the fact that they were also terribly remote from those places in which oil would be most desperately needed during a conflict: the industrial centers of Bohemia and Lower Austria (including Vienna) and, even more important, the naval bases on the Adriatic. Austrian consumers had become confident that oil would always be available in Galicia should it be worth the trouble to retrieve it, without taking any steps to significantly reduce how much trouble retrieving it would be. In the years before the First World War, political, industrial, and military leaders alike were well aware of the problem of too much oil—the producers' desperate attempts to find consumers and prevent price collapse were well known. Overproduction had inspired a relatively early conversion to petroleum use in the empire, enabling oil to compete with coal in industry, the railroads, and the navy. The problem of too little oil, on the other hand, garnered little attention.

The crisis in the oil industry and concomitant low prices had won new consumers and encouraged those who otherwise might not have done so to consider conversion to a source of fuel that appeared to be practically free in the worst years of price collapse.⁵ Much had been done to improve the appeal of petroleum for industrial heating and firing in the period of rock-bottom prices that made coal look like a luxury in comparison. Comparisons of the "caloric value" of coal and oil (i.e., how much heat or power could be generated per unit) suggested that oil and coal were equally cost-effective when oil cost 3.40 crowns per 100 kilograms.⁶ If the oil price rose above that level, coal was more cost-effective; below it, oil was preferable. When the price of crude oil fell to 0.80 crowns per 100 kilograms in 1909, producers were delighted to find a new market for oil among the growing number of devotees of internal combustion engines, especially given that the market for kerosene had flattened. It is perhaps indicative of how far behind the United States the Austrian Empire was in terms of industrial use of petroleum that the GLPV could proudly predict (rather than report) in 1901 that the use of petroleum for fuel would one day surpass that of kerosene. With their eyes to the west, oil producers intended to speed up the transition to an industry fueled by cheap, plentiful petroleum and "considered it [their] task to supply the engine rooms with this surplus of oil."⁷

An entire industrial branch soon developed based on providing new-style engines to factories interested in switching from coal to petroleum fuel. The Mödling Boiler Factory argued that oil was far superior in per-

formance and price to coal and deserved to be called "the most ideal and best fuel of our time."⁸ The Leobersdorfer factory management recalled the hazards of coal dependence, pointing to the "sad example" of England, where a protracted national coal strike had brought industry to its knees in February 1912.⁹ That same year, Austria's oil-powered motors represented a total of 50,000 horsepower (80,000 to 90,000 horsepower if one included Hungary), and Austria alone had eighty-two power plants providing municipal and rural electricity that were fitted with diesel motors.

Nor were industrial concerns the only ones whose interest in oil was piqued. The Galician producers' desperate search for new consumers had come at the same time that the War Ministry was trying to modernize its navy, having noticed steps taken by the English and Japanese admiralities to use oil as the fuel for warships.¹⁰ Recognizing how valuable this new market could be for his province, Minister for Galicia Władysław Ritter von Dułęba encouraged the War Ministry's interest in a 1910 report. "The crisis in Galician production caused by the extraordinary richness of the Galician crude oil terrain (whose value not only for that province, but for the entire empire is always acknowledged) has led the imperial royal government to take steps to prevent any further waste of the crude oil treasures lying dormant under the soil." Dułęba supported his argument in favor of naval conversion with comparisons to the successful conversion of state railways from coal to fuel oil: "one of the most important steps to rehabilitating the Galician crude oil industry was the introduction of crude oil heating on the Galician state railways, which met with complete technical and economic success."¹¹ Similarly, he argued, it was the need for ever-increasing markets, given the bitter struggle with Standard, that had initially led the imperial Parliament to consider introducing petroleum on the ships of the Imperial and Royal Navy. It was of critical importance to the military, he continued, that the Galician oil supply did not fall into foreign hands. Here Dułęba touched on a point of weakness of the navy's fuel supply. Because domestic coal was not suited for warship use, the navy turned to Great Britain for its coal stocks. From 1897 to 1904, 98 percent of the navy's coal was purchased from British mines.¹² This reliance on foreign energy could be corrected by switching to petroleum: "it is significant, disregarding the advantages of a technical nature emphasized by experts, that crude oil is a domestic material, for which reason in a case of emergency the Imperial and Royal

Navy would be made independent of the need to draw fuel from abroad (Dardiff coal).¹³ But when the navy took steps to investigate exploiting its domestic source of energy, it found that this was easier said than done.¹³

Just as low prices and concern over dependence on coal were winning new consumers, the government had taken steps to boost crude oil prices during the 1908–1909 crisis. These measures were not popular among industrialists who had stepped up to the cutting edge of fuel consumption. By 1910, domestic refiners (who refined not only Galician but also Romanian oil) represented about 500 million crowns in domestic capital, employed 18,000 to 20,000 workers, and were responsible for exports worth 60 million crowns. They argued that they, too, were punished by measures aimed at hemming Standard and were forced to work at a loss when the price of their raw material was driven up.¹⁴ Those who had profited from the very sharp decrease in the price of oil were distressed at the prospect of rising prices buoyed by the state's large purchases (which were, after all, intended to have just that effect).¹⁵

The government's action was not solely responsible for the increase in prices. Just when the state refinery in Drohobycz was completed, just when the railways had been converted to fuel oil, and just when producers were eyeing their guaranteed 2.84 crowns per 100 kilograms with relief, statistics collected by the LVRP began to show that oil production was slowing. Month after month, Boryslaw, Tustanowice, and the basin's other villages were returning less oil. From 1909 to 1911, Galician production dropped by 58 percent.¹⁶ Not surprisingly, at the same time, the price of crude oil steadily rose. While the government had contractually ensured itself a rate that even the producers admitted had been generous at the time, producers were easily able to sell petroleum to other purchasers for as much as 4.20 crowns per 100 kilograms in the same period.¹⁷ The government contract, once a gesture of munificence, had become a burden, and crude oil, once cheaper than coal per calorie, was now more expensive.

From the perspective of the navy, the rise in prices caused by decreasing production was only part of the problem. The incredibly high cost of transporting the oil from where it was unearthed to where it would be burned was a greater problem still. The difficulty with this domestic supply of oil stemmed from its location. Galicia was part of the Austro-Hungarian Empire, but it could hardly have been farther away from the empire's major Adriatic seaport, Trieste, or its naval base in Pola. Prime

Minister Ernest von Koerber's ambitious plans to use government investment in infrastructure and economic development to glue together the empire had come to naught, despite their initial enthusiastic reception. His proposed second railway route to Trieste was never constructed, and its lack was lamented too late: only after the outbreak of war in 1914 did the strategic significance of Koerber's main railroad become clear.¹⁸ Nor did the proposed expansion of transportation routes out of Galicia (the trans-Carpathian railroad and a network of navigable waterways) ever materialize to connect Galicia directly with Austria-Hungary's industrial centers and military bases. Even in the days when the price of the oil itself had been minimal, the cost of transporting it had been horrendous.¹⁹

Under these conditions, to its immense frustration, the navy found itself unable to win contracts with domestic refiners (outside of Trieste and Fiume) who would agree to provide it with the necessary fuels at its offered price. Naval Commissioner Oskar Lorenz was outraged at the Naval Administration's inability to find an affordable source of domestic oil. During a conference held to discuss the mineral oil industry in Austria in 1912, he went so far as to hint that the LVRP was actually a dangerous cartel, setting prices at unreasonable rates. "The prices [for diesel oil] are so high that a consideration of domestic industry is not possible."²⁰ David Fanto, one of Austria's most prominent refiners, explained that refineries north of Trieste and Fiume were at a disadvantage because of the high cost of transportation. Their cost to deliver to Pola was 3.5 crowns per 100 kilograms higher than to deliver to Oderberg.²¹ His colleague, Julius Priester, added that the freight costs from Drohobycz to Trieste for fuel oil were as high as those for lighting oil, although the latter was still a much more valuable product.²²

It may therefore come as a surprise that the navy should have continued to express interest in Galician oil, especially since the conservatism of the navy had hindered advances in the powering of its vessels in the past.²³ Undaunted by its reputation for obsolescence, in the early twentieth century, Austria-Hungary turned its attention to building up a powerful fleet. Amid growing popular support for a strong Austrian presence in the Mediterranean, the Austrian Navy League was founded in 1904. Like the German Navy League upon which it was modeled, the Austrian Navy League supported the contention, championed by the American admiral Alfred Thayer Mahan, that only a naval power could be a great

power. In 1909, the navy proudly announced its plan to launch a new period of modernization.²⁴ Across Europe, naval strategists recognized that a modern navy was a petroleum-driven navy.

No country was more enthusiastic about the potential of petroleum than Great Britain. Starting with Winston Churchill's appointment as first lord of the admiralty in 1911, Great Britain's navy found itself headed by one of petroleum's most influential champions. Churchill argued that the technical advantages of oil over coal (e.g., greater speed, the more efficient employment of human labor, and the ability to refuel at sea) warranted the risks in securing a supply from foreign sources.²⁵ Spurred on by reports that the Germans were building ocean liners powered by oil and that the German navy had plans to experiment with internal combustion engines, Churchill sought the cooperation of the founder of Shell, Marcus Samuel. Samuel wrote to Admiral John Fisher (first sea lord from October 1904 to January 1910 and later the leader of Churchill's Royal Commission on Fuel Oil), "The development of the internal combustion engine is the greatest the world has ever seen for so surely as I write these lines it will supersede steam," an opinion Churchill himself came to share.²⁶ Fisher, to whom Churchill turned regularly for council,²⁷ wrote to Churchill, "When a cargo steamer can save 78 percent in fuel and gain 30 percent in cargo space by the adoption of internal combustion propulsion and practically get rid of stokers and engineers—it is obvious what a prodigious change is at our doors with oil!"²⁸ As important as gains in fuel efficiency and space were the four to five knots in increased speed that would come with a conversion to fuel oil. Fisher encouraged Churchill to "remember the recipe for jugged hare in Mrs. Glasse's Cookery Book! 'First catch your hare!'"²⁹ The British navy had fifty-six destroyers and seventy-four submarines that ran on petroleum even before Churchill's naval programs of 1912, 1913, and 1914 created a fleet of new petroleum-powered battleships.³⁰ Nor was the navy Great Britain's only military consumer of oil. Continuing investment in and expansion of a fleet of motorized vehicles enabled Great Britain to prove by the end of the First World War that reliance on railways was inferior to access to a fleet of more flexible motor vehicles.³¹ Here, too, Britain took the lead. British Expeditionary Forces could take advantage of the services of 827 automobiles and 15 motorcycles at the outset of the war, but by November 1918 the British army had 56,000 trucks, 23,000 automobiles, and 34,000 motorcycles.³²

Germany required gasoline for stationary engines, automobiles, and airplanes, as well as diesel oil for trains and ships.³³ Similarly, Austria-Hungary dramatically increased its naval dependence on oil in the last years before the war. By 1910, a dozen 110-ton coastal torpedo boats burning oil instead of coal were operational. Starting with the *Erzherzog Ferdinand Max*, all Austro-Hungarian battleships were equipped to burn oil.³⁴ In January 1909, the submarine station in Pola was officially opened. Several months later, in August 1909, the first Austro-Hungarian submarine, the *U4*, was put in service, proudly fueled by two petroleum motors of three hundred horsepower each.³⁵ By 1914, the Austro-Hungarian navy boasted six submarines, all of which required petroleum fuel or gasoline.³⁶ The petroleum-burning motors themselves were objects of fascination on these new boats: when the new fleet inspector visited the *U5* in October 1912, an explanation of the operation of its gasoline motor formed a prominent part of his tour.³⁷

Because of the high costs of transport from Galicia, in the prewar period, the supply of fuel oil needed to run the navy was provided almost exclusively from overseas or from Romania.³⁸ But as Austria-Hungary's military commanders prepared for a possible European conflict, their concern about state control over industries of strategic importance grew. Just as the Ministry for Public Works preferred to have Austrian citizens control Austrian oil fields, so did the Ministry of War prefer to supply the Austro-Hungarian army and navy with Austrian oil. Despite earlier rebuttals, the Ministry of War looked with renewed interest at the oil fields of Galicia. In May 1914, the Naval Section reported to the Imperial and Royal Sea Arsenal Command in Pola that it was again considering purchasing gasoline and submarine fuel from the state refinery in Drohobycz.³⁹

At the same time, the army also voiced concern over the empire's ability to secure access to oil as necessary. At the outset of the war, the army's Department 5/M demanded that "the great quantities of gasoline that the army requires in case of war must be guaranteed *within the borders of the empire*" and that depots be established throughout both halves of the empire. At the same time, it warned of the vulnerability of the Galician oil fields because of their proximity to the Russian Empire and recommended "a sufficient securing of the crude oil sources and refineries in Galicia, which find themselves in an exposed position."⁴⁰

Some historians have argued against concentrating exclusively on the

Balkans as the fulcrum of prewar conflict and ignoring the role that Galicia played in exacerbating tensions between Austria-Hungary and Russia.⁴¹ It was clear to both Russia and Austria-Hungary that Galicia's location would make it an important military theater in the event of a conflict between the two empires.⁴² Austro-Hungarian officials, including joint finance minister Baron István Burián and Austrian prime minister Karl Count Stürgkh, recognized the strategic significance not only of Galicia's location, but also of its residents. Given that both empires shared large Polish- and Ukrainian-speaking populations, these could be—and would be—played against one another in a complicated game of preventing insurrection at home and promoting it abroad. Irredentists agitating within Galicia for an independent Poland, on the one side, and an independent Ukraine, on the other, represented a greater threat to Russia than to Austria-Hungary. If Ukrainian nationalists, free to speak and organize within the constitutional structure of Austria, were successful in separating Ukraine from the Russian Empire, Russia stood to lose 76 percent of its iron ore production, 78 percent of its coal production, and significant portions of its oil, wheat, rye, and barley production.⁴³ Burián, who “regarded the ‘Ukrainian bogey’ as far more crucial in determining Russia's attitude to the Monarchy than ‘secondary’ Balkan issues,” sug-



Loading gasoline for war automobiles. New technologies required secure sources of oil for the military. (Reproduced by permission of the Österreichisches Staatsarchiv, Kriegsarchiv.)

gested that if Austria could guarantee an end to Polish and Ukrainian nationalism in Galicia, this might suffice to convince Russia to remain neutral in a Balkan conflict.⁴⁴

More common within the upper echelons of the monarchy's administration, however, were plans to employ Polish and Ukrainian nationalism against their Russian rival, both before and during the war. There was no doubt in the Austrian administration's mind that Poles would be loyal to Austria over Russia in the event of a conflict between the two empires, but they were not as certain about the sentiments of the Ruthenian population. Even after the prominent Ruthenian parliamentary delegate Mykola Ritter von Vasylyko assured the readers of the *Neue Freie Presse* that Ruthenians would remain loyal to Austria in the event of a Russo-Austrian war, concern that Ruthenians were vulnerable to anti-Austrian propaganda flowing out of Russia remained.

Throughout the early twentieth century, Galicia's sizeable Ruthenian population was a common target for pro-Russian propaganda. As tension between Russia and Austria-Hungary mounted in the wake of the annexation of Bosnia-Herzegovina in 1908, Austrian officials were increasingly concerned by what they feared could become widespread Russophile tendencies within the Ruthenian population. They were alarmed by “the grave security risk posed by Pan-Orthodox, Slavophile propaganda promoted by nationalist circles in Russia close to the Tsarist regime and operating amongst the Ruthene peasants of eastern Galicia.”⁴⁵ Steps taken by the government to encourage Poles to grant the Ruthenians concessions in Galicia were thus not made on the basis of sympathy for the Ruthenians, but rather out of a calculated attempt to guarantee that nationalist Ukrainians would not become a fifth column working on behalf of the Russians. As Stürgkh wrote to Hungarian prime minister István Count Tisza shortly after the “Galician compromise” of January 1914, “If the situation there [in Galicia] is secure, then something has really been won for the monarchy vis-à-vis Russia and its politics.”⁴⁶ From 1909 onwards, Prime Minister Stürgkh became an enthusiastic advocate of a Ukrainian university, increased subsidies for cultural and educational institutions such as the Shevchenko Society, and a reform of the curial Galician electoral system.⁴⁷ Constitutional guarantees and electoral privileges did not go unnoticed by the Russian government; Russian officials suspected that Austria not only tolerated but even encouraged nationalist agitation in Galicia at Russian expense.⁴⁸

When the war broke out, conquering eastern Galicia became one of

Russia's primary war aims. Only control over that territory would enable it to eliminate the Ukrainian nationalism it had so fervently opposed within its own borders in what threatened to become a Ukrainian Piedmont next door.⁴⁸ Likewise, Austria encouraged its Ruthenian subjects to spread news of the pleasures and freedoms of constitutional rule among Ukrainians on the eastern side of the international border. In August 1914, the Austrians were faced with the demands of Ukrainian nationalists for autonomy within the empire. The only way to retain the support of Ukrainian nationalists would be to promise them some sort of autonomy once the war was won—a concession that would only be able to overcome Polish resistance if it were combined with a promise for an enlarged Polish province to include Congress Poland and western Galicia after a defeat of Russia.⁴⁹ Thus, within a month of the war's outbreak, Galicia and its reorganization had become central to the planning of imperial authorities who recognized the need to secure the continued loyalty of a population they had too often neglected. The division of Galicia along nationalist lines, enabling the creation of an expanded Polish national political unit, as well as a Ukrainian national political unit, became a wartime strategy designed to strengthen domestic support in Austria and, in turn, weaken it in Russia. All of these plans were based on the idea that the Central Powers would be able—with the help of the Poles—to wrest control of Congress Poland away from Russia. They would all come to naught if Russia were able instead to gain control of Galicia for itself.

Galicia's proximity to Russia made it and its oil supply particularly vulnerable to invasion. This, combined with transportation difficulties exacerbated by the outbreak of the First World War, only made Galicia seem more distant from oil's prime markets than ever before. In July 1914, during the last hours of peace, the Ministry for Public Works, which was in charge of the Imperial Royal Mineral Oil Factory in Drohobycz, suggested that in times of "deteriorating political relations"—and certainly July 1914 qualified as such—the state refinery could send fuel oil to the Adriatic via rail. Once again negotiations foundered on transportation difficulties and the Naval Department of the Ministry of War's confidence that the fuel oil needs of the navy were easily covered by current stocks.⁵¹ According to the Sea Arsenal Headquarters in Pola, gasoline and diesel oil were cheaper from Drohobycz than from Trieste or Fiume even given high transportation costs. The problem was not primarily the cost, but rather the logistical difficulty caused by the distance.⁵²

In addition, since the Ministry of War was required to purchase the same amount of refined petroleum products from Hungarian as from Austrian sources, and since the Hungarians' oil was provided in free tanks, Hungarian sources were more attractive than those in Galicia.⁵³ Thus the Ministry of War entered the war with the Trieste and Fiume refineries as its only prearranged sources for refined oil products, although large portions of the crude on which they were dependent came from neutral Romania.

The decision not to build a second railway line from the northern part of the empire to Trieste and the decision not to collect stocks of oil near naval bases both point to the general conviction among Austria-Hungary's war planners (as well as those of all the other belligerents) that the war would be short, a mistake that historians have long acknowledged to have been very costly.⁵⁴ This error had devastating consequences in the empire's fuel preparedness. According to one historian, "The most important prerequisite for the maintenance of the k.u.k. Navy's ability to act proved to be its sufficient supply with engine fuel. . . . The need for these materials—because of numerous new assignments which were given to the navy—increased to an unanticipated degree compared to peacetime demand. Since no one had anticipated a longer duration for the war, the stored supplies of these fuels were insufficient for longer-lasting fleet operations from the very beginning."⁵⁵

Before the war, the annual oil consumption of the Austro-Hungarian navy was approximately 16,000 to 20,000 tons.⁵⁶ The navy had stocks of fuel and gas oil that, combined, amounted to 32,000 tons, but only 200 tons of the gasoline required by submarines and airplanes.⁵⁷ It therefore could have reasonably assumed that, at the current rate of use, its fuel and gas oil stocks would last for two years, much longer than anyone expected a war to last. So, although the naval command anticipated that war would break out, that Italy would enter the conflict on the other side, and that, in the event of war, its fuel supply needs would increase, none of this caused too much distress.⁵⁸ This same lack of concern was manifested in the provisioning of the naval port at Pola. Not only were no steps taken to ensure sufficient stocks of petroleum, but there was also no attention paid to constructing adequate docks or living quarters for navy personnel, lacks that were sorely felt when the war had commenced.⁵⁹

Although it was Germany's experiments with oil that had initially

started the naval fuel race, Germany's conversion never approached the thoroughness of that achieved by Great Britain, in part because of an anticipation of the difficulty of securing access to sufficient oil. Its High Seas Fleet remained primarily coal driven throughout the entire war. Although oil burners had been installed in forty-eight destroyers, even modernized ships were only partly adapted to the new fuel: if three boilers were installed on a cruiser, one would be petroleum fueled and the other two would use coal. Although Germany's navy may have recognized the strategic superiority of oil over coal, it did not have the luxury of allies with enormous domestic oil reserves. Germany and Austria-Hungary had airplanes, trucks, armored cars, and ships with oil-burning engines, but, compared with the Allies, they also had an acute shortage of fuel. Germany's annual consumption of oil before the war had been 1,250,000 tons, of which 77 percent came from the United States and 3 percent from Russia. This 80 percent would no longer be available after the outbreak of a European conflict. The remaining 20 percent, drawn from Romania and Galicia, did not seem to be enough to support a petroleum-based fleet.⁶⁰

Austria-Hungary did its part to supply the German military with the oil it did need. Romania's ban on petroleum exports denied both Germany and Austria-Hungary access to Romanian oil until an agreement could be reached in December 1914.⁶¹ Completely dependent on its ally for oil, Germany persuaded Austria-Hungary to supply mineral oil products at the request of the German government even after all other oil exports from the empire had been forbidden.⁶² As the German navy grew desperate for oil to power its submarines, the occasional exception was contractually transformed into regular deliveries of 10,000 tons a month.⁶³ In order to meet its own petroleum needs and to fulfill its contractual obligations to Germany, the Austro-Hungarian Ministry of War was obliged to find a way to get oil out of Galicia and into its own storage tanks.

Shortly after the war broke out, the Austro-Hungarian Ministry of War became much more interested in Drohobycz. Already in the first week of August it purchased fuel oil for test runs of the new Danube monitors.⁶⁴ Four weeks later, on 3 September 1914, the navy requested another 700 cisterns (7,000 tons) of fuel oil for various ships and boats to be sent to Pola, at a rate of 300 to 400 tons a week. Neither the high price of 7.85 crowns per 100 kilograms (excluding transport costs) nor the requirement

that purchasers provide their own tanks for delivery deterred the navy. Recognizing the need for a cost-effective supply of oil, the Ministry of Finance decided to allow tax-free preparation of fuel oil for naval use only for the duration of the war.⁶⁵ At the same time, the navy purchased gasoline for submarines at a cost of 37 crowns per 100 kilograms.⁶⁶ These short-term contracts bound the Ministry for Public Works to supply oil at unfavorable prices; news of imminent military disaster in Galicia drove prices up faster than contracts could be renegotiated.⁶⁷ The absence of qualified workers after mobilization and the onset of an economic depression only exacerbated producers' inability (and reluctance) to produce large quantities of oil; drilling activity nearly ceased altogether.⁶⁸ Crude oil prices threatened to rise indiscriminately. Offered the option to purchase 50,000 tons of crude oil from a Boryslaw producer eager to unload his stocks before being forced to evacuate the region, the Ministry of War considered the suggested price of 10 crowns per 100 kilograms exorbitant. It forwarded the offer to the Ministries of Commerce and Public Works, requesting that they "take the necessary steps to prevent the anticipated enormous price hikes" (without specifying what those steps would be).⁶⁹ Despite unfavorable prices, the Ministry of War had no choice but to negotiate.

By mid-September 1914, the military situation in the province had become urgent. Bad news from the Russian front forced the navy to speed up its attempts to secure several months' worth of petroleum from Galicia. "Since, given the current situation, the shipment of this fuel appears absolutely necessary, and the same is most urgently needed by the navy," the navy decided to purchase oil from any refinery willing to sell it rather than limiting itself to the Drohobycz state refinery.⁷⁰

But it was too late to secure any significant stocks of oil from Galicia. The Russian army captured Drohobycz and Boryslaw on 6 September and the rest of the oil basin on 13 September.⁷¹ For the next eight months, until the Central Powers ended the Russian occupation of the province by breaking through the Russian line at Gorlice in May 1915, Galicia's oil fields, pipelines, wells, and storage reservoirs were all under the control of the Russian army. The operation of the state refinery in Drohobycz ceased immediately.⁷² Soon after the loss of the Galician oil fields, the government took steps to deal with an inevitable oil crisis. The Ministry of Railways demanded that all exports of petroleum products be prevented, that domestic demand be assessed, and that this demand be com-

pared with the available supply. After collection of all the necessary information, measures would have to be taken to secure the systematic provision of the military, then other state organs (including the railways), and then private operations. This would only be feasible, the ministry argued, if all mineral oils were requisitioned, and it recommended setting up a state-controlled petroleum *Zentral*e (Exchange) to regulate its distribution, a step that was not taken until October 1916.⁷³

The delay in setting up a central body to coordinate petroleum acquisition and distribution was mirrored by similar delays in other sectors. Centralization of mobilization in general was hindered by a fear that it would not be politically acceptable to Hungarians. This concern led to a tripartite administration of mobilization machinery. Following the German model, *Zentral*e should have been the spine of civilian war organization, but in many sectors of the Austrian economy, they were simply founded too late. Even when the Petroleum Exchange was founded, it was not permitted to take full responsibility for all petroleum procurement and distribution, but rather shared this task with the Ministry of War and other government agencies.⁷⁴ Because of this shared responsibility, the Ministry of War joked that the *Zentral*e should actually be called *Dezentral*e. But the decentralization of the centrals was no joking matter. The Petroleum Exchange failed to guarantee adequate supplies of materiel to the War Ministry and was not even able to prevent price hikes, since it did not have jurisdiction over all the oil fields in the monarchy.⁷⁵

In the absence of centralized control over oil, the Ministry of War was forced to embark on a multifaceted plan to secure access to petroleum. Transport tanks had been sequestered by the government at the war's outset, and bans on exports of gasoline and heavy lubricating oil had been introduced in August 1914.⁷⁶ On 5 October 1914, a more extensive ban forbade all exports of any mineral oils (the only exception was exports to Germany).⁷⁷ In late November, the military administration requisitioned all stocks of refined petroleum products, restricting sales to civilians and private companies until after the needs of the military had been met. Shortages of kerosene affected all of the empire's cities, particularly in the cold winter of 1914–1915, when nights were long and prices for kerosene reached sixty-two crowns in Austria and ninety crowns in Hungary.⁷⁸ The mayor's office in Vienna took immediate notice of the end of the Russian occupation of Vienna and begged the Ministry of Public Works to make supplying Viennese civilians with petroleum a top

priority.⁷⁹ In order to monitor availability of refined products, on 18 November 1914, all Austrian and Hungarian refineries were required to divulge their stocks of airplane gasoline, crude oil, diesel oil, and other refined products by 30 November.⁸⁰ Without access to Galician oil, however, none of these measures would prove sufficient for long. Although Austria-Hungary was finally able to reach an agreement with Romania that allowed for the export of Romanian oil in 1915, Austrian imports from Romania that year reached only 280 tons.⁸¹

When the Galician oil fields were recovered in May 1915 and the damage done by the Russian occupation was assessed, the Ministry of War breathed a sigh of relief. When the Russians marched into the province, they set off a chain reaction in which thousands of Galicians chose to leave their homes rather than endure the notoriously brutal treatment of Russian troops. The roads were flooded with refugees, seeking—but unlikely to find—food, work, and safety in Vienna or elsewhere in the monarchy. The refugees' fears were justified. The Russian occupying forces' policies stood in stark contrast to prewar attempts on the part of the Viennese administration to win friends in eastern Galicia by supporting Ukrainian cultural development. Eastern Galicia was officially considered a "Russian province restored to the fatherland" and became the site of an intensive Russification program, to which both Poles and Ruthenians were subjugated. Polish and Ruthenian schools were closed; only Russian-language teaching was tolerated.⁸² The Russian forces' attacks on the Greek Catholic Church began the moment they occupied the city of Lviv on 22 August 1914. Eastern Orthodox clergy were sent in to convert Greek Catholic Ruthenians, and the metropolitan of the Greek Catholic Church, Count Andrei Sheptytskyi, was placed under house arrest and subsequently deported to Russia. Later, Greek Catholic priests, as well as members of the secular intelligentsia, were rounded up by Russian military forces and sent into exile. The total number of Galicians deported to Russia and Siberia reached into the tens of thousands.⁸³ The occupying administration tried to replace Polish and Ukrainian with Russian throughout the educational system.⁸⁴ According to one Ukrainian historian, Russian soldiers organized pogroms in both Drohobycz and Boryslaw within a fortnight of gaining control of the region.⁸⁵

In a study of the problems surrounding Ukrainian subjects of the Russian Empire under German occupation, Geoff Eley has suggested that the

war created a "demographic earthquake" because of its massive civilian casualties, epidemics of influenza and other diseases that prey on the vulnerable, and migrations that disrupted work patterns. Reflecting on the gravity of the damage done to Ruthenian and Polish subjects of the Austrian Empire who had to endure the Russian occupation of 1914–1915, Eley argues that the lasting effects of this occupation can be seen in the weakness of local regimes as they attempted, unsuccessfully, to create viable independent states in the aftermath of the war.⁸⁶

During their retreat, the Russians took the opportunity to wreak considerable damage on large portions of the oil fields. Commandos of Russian soldiers burned down 229 out of 319 existing derricks (the vast majority of which were constructed of wood).⁸⁷ The Russians also destroyed all of the fire-extinguishing equipment in the region.⁸⁸ They set forty-two of seventy-nine productive wells in Tustanowice on fire, but did not touch a single well in Boryslaw.⁸⁹ Stranger still, they left most of the refineries and transfer sites undisturbed. The oil fields did not seem to have been prime targets of Russian aggression, and the wholesale destruction of the oil fields expected by their owners did not occur. During over eight months of occupation, the Russians did not dip substantially into local oil stocks.⁹⁰ When the Russian retreat began in May 1915, Galician storage tanks contained 830,000 tons of oil. Some of these were set aflame during the retreat, giving Austrian soldiers in the region the opportunity to shoot some of the more dramatic photographs in the Ministry of War's Picture Collection.⁹¹ Nevertheless, after the Russians were gone, about 480,000 tons of crude oil remained to be reclaimed by their rightful owners.⁹²

This should not imply that no damage was done. Because of a near-total cessation in production and the partial destruction of reservoirs by fire, Austria had access to an estimated one million tons of oil less than it would have had had Galicia not been lost.⁹³ Friedensburg suggested that the Russians could have inflicted far greater damages if they had systematically set about destroying the oil fields: "This effect would have been doubtless much greater—perhaps even decisive for the war effort—if the retreating Russian troops had burned all the stocks and thoroughly destroyed the installations. They certainly had the time and the technical possibility to do so, and the loss of at least another million tons would have been a major blow to the Central Powers."⁹⁴ Friedensburg could only explain the Russians' failure to make the most of this opportunity

by positing a general ignorance of the strategic importance of petroleum fuel supply during the First World War.

The military went to great lengths to secure tighter control over Galicia and its oil fields now that they had been regained. With the breakthrough at Gorlice, a fair and competent governing of the province once again became a hot topic, and the Army High Command (AOK) increased pressure on the emperor to create a military administration of Galicia. The head of the Second Army, Field Marshal Eduard Böhm-Ermolli, submitted a request to the Military Chancellery to attend to the AOK's request promptly. In it, he wrote, "A spirit of order, justice, and fairness must rule in this land, in great part very rich in natural endowments, but very poor in reality. A spirit that, above all, thinks black-yellow Austrian and speaks Polish-Ruthenian, a spirit that is politically absolutely neutral and economically independent. Considering all of the above, it is my deepest conviction that only a k.u.k. general who is neither Pole nor Ruthene can be called upon to represent such a new spirit at the head of this sorely tried land."⁹⁵

In advocating military control, the AOK hoped to prevent the return



Burning oil wells in Boryslaw. The War Ministry records damage done by the retreating Russian army. (Reproduced by permission of the Österreichisches Staatsarchiv, Kriegsarchiv.)

of Polish hegemony in the largely Ruthenian areas of eastern Galicia, thereby reducing alleged Russophile sentiments that the AOK feared would make Ruthenian subjects disloyal to Austria.⁹⁶ Fears of Russophile sentiments among Austria's Ruthenian subjects, though not well founded, were common among both civilian and military authorities within Austria-Hungary. On 3 August 1914, all of the political parties representing Ruthenians in the empire formed the general Ukrainian Council, which declared that "the victory of the Austrian-Hungarian monarchy will be our victory, and the greater the defeat of Russia, the sooner will come the hour of Ukrainian liberation."⁹⁷ Such protestations of loyalty notwithstanding, fear of Russophile tendencies remained high. In the hope that the military could gain control of the situation, the emperor approved the AOK's request, and on 19 July 1915, Viceroy Witold Korytowski resigned and was replaced by General Hermann von Colard—the first non-Pole to head the administration of Galicia in half a century.⁹⁸

The introduction of military law was intended to reduce national tensions, but it also gave the military command closer control over the oil region and its products. The Ministry of War was confronted by demands for increased supplies of petroleum from all sides, military and civilian, including the Vienna Magistrate's Office, which reproached the Ministry of War for denying the civilian population kerosene all winter.⁹⁹ To meet its own fuel needs more efficiently, the government requisitioned all crude oil as soon as it reached the earth's surface in a decree dated 10 August 1915.¹⁰⁰ To ensure compliance, on 18 December 1915, the minister of commerce required that any companies that produced mineral oil products had to report their supply on 1 January 1916 and from then submit semimonthly reports of any growth or decrease in the same.¹⁰¹ Refined petroleum products could only be bought or sold with permission from the Ministry of Agriculture or of Commerce. At the same time, price ceilings were set for all petroleum products.¹⁰² On 31 May 1916, the Ministry of War took over the Limanowa refinery (previously controlled by a French company) and placed it under its own administration.¹⁰³

These measures eliminated any financial incentive producers would have had to continue extracting oil, not to mention pursuing costly drilling or exploration activities. Galicia's military administrators tried to prevent production from dropping with threats of monetary fines and imprisonment for those who shut down their companies. Petroleum producers did not hesitate to point out that these measures forced them to produce at a loss. The government justified its decision:

For quite some time, due to the events of the war, the crude oil produced in the Galician oil region could not be made available for refining of the products . . . that are indispensable for the conduct of the war, the running of railways, industry, agriculture, and general consumption, so that a bitter shortage of more or less all mineral oil products set in. After driving out the enemy from this region, it was therefore a dictate of the most pressing necessity to take measures so that not only the crude oil stocks, but also ongoing crude oil production could be refined as quickly as possible and in the most efficient manner. . . . In order to reach the above goals under the extraordinary circumstances prevailing at the time, a measure had to be taken through which the crude oil, while completely safeguarding all entitled interests, was withdrawn from the free market and placed under the disposition of the state.¹⁰⁴

Providing sufficient oil workers for Galician production companies was another part of the military's attempt to keep production going at a steady pace. The Ministry of War tried to support the oil industry by exempting oil workers from military duty, beginning in the first months of the war. From the start, the Ministry of War tried to balance its need for soldiers with the need for trained workers to keep the oil fields running. The army observed a labor shortage in Galicia after the outbreak of the war with care. The Ministry of War reported to the Front High Command on 12 August 1914:

In the interests of providing the army with gasoline, it appears necessary to maintain drilling operations in the oil region. Due to the calling up of the *Landsturm* [the Austrian reserve], many of the qualified workers serving there have departed, so that individual companies had to be shut down. This undesirable circumstance could be alleviated in that the *Landsturm* formations from Galicia and Bukovina would collect workers qualified for oil work and set up separate divisions in Cracow, Przemysł, and Lviv that could then be used for the maintenance of these companies.¹⁰⁵

The Imperial Royal Ministry of National Defense passed on the Ministry of Labor's report that it was possible that several companies in the oil districts in Galicia would close down. The Ministry of National Defense pointed out that "this measure would not only touch on a vital interest of the army leadership, but it is also easily possible that the fired workers would endanger the oil wells."¹⁰⁶ In order to prevent this disaster, the

Ministry of War suggested "laying claim to such operations for the purposes of the army administration, on the basis of the war production law, in order to keep them running."¹⁰⁷ The importance of protecting the oil fields justified maintaining five companies in the Boryslaw basin to guard them, even though these same soldiers were needed elsewhere.¹⁰⁸ When the Front High Command called the troops away, Department 5/M insisted that they be sent back immediately. In late August, the Ministry of Commerce itself intervened to ensure that 250 soldiers would be sent back to Boryslaw to support the 50 gendarmes and reservists still there.¹⁰⁹

Maintaining order in the region became even more difficult when rumors of impending Russian victory began to circulate, leading to requests for more troops to guard the state refinery in Drohobycz and the oil depot: "The moral impression on the population due to the exposure of the refinery would also be significant. For this reason, an arming of workers for guard duty would be an insufficient measure, above all because of lack of people, as well as the unreliability of such a guard."¹¹⁰ After the Russian occupation was over, the Ministry of War continued to receive requests for relief from military duty from workers in the oil industry, many of which were accepted.¹¹¹ In a further gesture of favor toward oil producers, the government took special care to ensure that they continued to have access to iron, an increasingly rare commodity.¹¹²

In December 1916, four months after Romania had declared war on Austria-Hungary, the German army was able to capture the Romanian oil fields. Hoping to secure access to vast quantities of Romanian oil, the Germans found that the British had set fire to the oil wells and refineries, destroying seventy refineries and eight hundred thousand tons of crude oil and refined products in a vindictive (and very effective) blaze. It took nearly half a year of recovery and reconstruction work before the oil fields could be made productive, and even then they returned only one-third of their 1914 production.¹¹³ Dozens of oil workers and engineers from Boryslaw were sent to Romania to take part in the reconstruction efforts, a measure that met with the energetic resistance of the Ministry for Public Works, which claimed that "a withdrawal of even the smallest number of workers would lead to a disruption of operations, which in the case of productive drill holes would have the effect of a loss of crude oil production. This must be avoided at all costs in the interests of the conduct of the war."¹¹⁴

Despite demands that all workers, in particular skilled workers, be

treated as vitally necessary, the government did not actually do everything in its power to provide the industry with the workers it needed. Apparently one concern overrode its fear of oil shortages: fear of enemy aliens in Galicia, even if they had been working in the oil industry for decades. As the Russians had marched ever deeper into Galicia in 1914, tens of thousands of Galicians had marched out, including many owners of oil companies and their employees. After the occupation was over, they wished to return to Galicia, assess the damage to their wells and installations, and take advantage of the immense demand for petroleum by continuing production. This required obtaining travel permission from the Ministry of War. Although innkeepers, secretaries, and office workers who had Austrian passports were quickly given approval to return to Galicia, those among Galicia's most prominent oilmen who held foreign passports were less fortunate.¹¹⁵

Jacob Perkins, for example, who had been born in Canada sometime around 1855, had come to Galicia in 1885, and had worked there for the following thirty years, was employed as the director of the Galician Petroleum Production Company. His sons, Herbert and Carl, were also employed in the oil industry and were each married to Austrian subjects. Like many of their colleagues, Perkins and his sons had fled the advancing Russian troops, traveling first to Zakopane and then moving on to Vienna in November 1914. Perkins was desperately needed back in Humniska by his employers, who wished to recommence production. Given the dire shortage of skilled oilmen in the province, his application for travel documents was supported not only by the Vienna Floridsdorf Mineral Oil Factory Company, but also by the Railway Ministry. The Ministry of Labor requested a recommendation from the District Mining Office in Jaslo, which reported that Perkins—whose first name it spelled "Jakob" was reliable and trustworthy. To demonstrate his loyalty, the Ministry for Public Works pointed out that Herbert volunteered at the Imperial and Royal Automobile Repair Workshop in Bielitz for the Red Cross. After due consideration of all of these factors, the Ministry of War denied Perkins's application because, born in Canada, he was a British subject.¹¹⁶

Perkins's son Carl fared little better. Despite the energetic petitions of the Carpathian Company, as well as the support of the Imperial Royal Provincial Mining Office in Cracow, the Ministry of War rejected his application "on principle."¹¹⁷ His Austrian wife could offer him no assistance in this matter: according to Austrian law, female Austrians who

married foreigners living in Austria were subsequently considered to be foreign, as were their children.¹¹⁸ The Perkins family disappears from the records after the First World War, but one can assume that their attempts to endear themselves to the Austrian Ministry of War, prove their "fidelity," and continue producing oil for the Austrian war effort would not have endeared them to the British or Canadian authorities in the war's aftermath.

Fear of enemy influence in Galicia extended beyond foreign citizens within the empire's borders. In 1916, any correspondence caught by the censor that contained offers to sell Galician oil terrain to foreigners was confiscated, because "it is not in the interest of the Galician oil industry that foreign capital of unknown origin should participate in it."¹¹⁹ The discovery of English-language pamphlets promoting investment in Galician oil-bearing real estate that were sent from Copenhagen to Wacław Wolski in Lviv only deepened pervading insecurity. The pamphlets' conclusion caused particular alarm: "Should it come under Russian administration, however, then the value of this property will be practically limitless."¹²⁰ In 1917, the Ministry for Public Works decided that all intercepted letters containing offers to neutral foreigners to sell Galician oil fields should be confiscated and sent to the Ministry for Public Works in the original. No foreign interest in oil fields, not even from neutral parties, could be tolerated.¹²¹

In the last months of the war, the nationality of Austrian citizens had become as problematic as that of interested outsiders, leading to a public relations fiasco in the oil basin regarding Polish legionnaires. On 16 August 1914, the AOK had approved the creation of two Polish legions in Galicia (one western and one eastern), to be commanded by Austrian generals of Polish descent. In so doing, the AOK hoped to redirect Polish national patriotism to the empire and to "put an end to the Polish 'national independence movement.'" Led by Józef Piłsudski, champion of Polish independence, the western Legion's First Brigade was openly contemptuous of Austria and promoted Polish nationalism.¹²² In August and September 1915, recruitment was briefly extended to Russian Poland. In July 1917, a proposal to subordinate the legions to the German army was rejected by Piłsudski, who was subsequently arrested by the Germans, marking the official end of sanctioned First Brigade activity. At that time, some members of the First Brigade were arrested, and others (including eight riflemen from Boryslaw) were labeled "politically suspect" and

shipped off to the Italian front. Some made their escape, taking refuge in the oil fields of Boryslaw, where rumor had it that labor was scarce and papers not obligatory. Arriving there with nothing, they were provided with housing and an opportunity to earn their bread.¹²³

A second wave of legionnaires came to the oil basin in February and March 1918. After a peace treaty between the Central Powers and the Ukrainian Council was signed at Brest-Litovsk in February 1918 that granted independence to a new Ukrainian state that would contain territory considered Polish by Polish irredentists, protests broke out throughout Galicia (including Boryslaw) among Poles who called this a "fourth partition of Poland."¹²⁴ In defiance of the treaty, General Józef Haller, formerly commander of the Second Brigade (the only surviving remnant of the ill-fated eastern legion), led the Polish Auxiliary Corps across the Austrian border and into independent Ukraine. Those legionnaires who were left on the Austrian side of the border, now representing a renegade paramilitary body, realized their vulnerability and sought to hide under cover. Józef Partyk, a legionnaire who had himself escaped from Russian imprisonment to Boryslaw, recalled many years later that the legionnaires found themselves welcomed with open arms by the population of the oil region. A committee for the protection of Polish soldiers was established to hide legionnaires until they could be brought away to safety; civilian clothes and papers were found for those who wished to stay in Boryslaw openly. Legionnaires easily found positions at the oil wells working for sympathetic employers.¹²⁵

Haller's mutiny made Austria even more suspicious of the loyalty of all Poles, in particular the legionnaires. That many had turned to the oil fields did not escape notice. Oil companies suspected of employing legionnaires were searched for weapons; homes where legionnaires were given shelter were subjected to regular and violent inspections.¹²⁶ Finally, in what was considered a transparent attempt to forcefully remove the legionnaires from the oil basin, local military officials in Boryslaw ordered that all companies send their workers, whether Austrian or Polish subjects (i.e., Poles who had been recruited from former Russian Poland), who had been released, furloughed, or otherwise relieved from duty in the Polish Legion to Drohobycz on May 18. From there the Austrian subjects would be sent to Sambor and the Polish subjects to Żurawica for a so-called medical examination.¹²⁷ The legionnaires themselves had little doubt that this was a thinly veiled plan to search them, control their

identification papers, and then force them into internment camps.¹²⁹ The Workers' Union, as well as the Drilling Technicians' Society, the Miners' Society, the Metal Workers' Society, and the Petroleum Officials' Society, all objected that the medical examination should take place in Boryslaw, adding that "the Polish subjects have acquired citizenship here, and it would be a serious injustice if they were to be removed from here to a dormitory in Żurawica."¹²⁹ On 16 May 1918, any oil workers who were Polish legionnaires and who had not reported to Drohobycz voluntarily were arrested by the Austrian authorities, outraging the local population and leading to the intervention of a Polish parliamentary delegate who argued that "this decree will call the normal course of work into question, injure national feeling, and heighten social conflicts."¹³⁰ The treatment of the legionnaires, who had evoked general sympathy among the local population, only alienated the residents of the oil basin further.¹³¹ It was not only Poles whom the Austrians feared as disloyal. Ruthenians, long regarded as the "Tyrolians of the East" with unquestioning loyalty to the monarchy, were suspected of falling under the influence of Russian propaganda. They were deported into the inner portion of the monarchy by the thousands.¹³² Many of them were held in prison camps at Thalerhof and Theresienstadt, where some were executed.¹³³

The Ministry of National Defense cautioned that nationalist sentiment virtually assured that a malevolent attack on the oil companies was in the works. This claim was rejected by Johann Holobek, an expert on the local industry who had been writing reports on social and economic conditions in the Galician oil basin for decades. Nevertheless, the report he submitted in June 1918 on the conditions of the oil workers in Boryslaw was hardly optimistic. The economic element of local tension far outweighed the political element. He stressed the familiar distinction between professional, "skilled" oil workers and officials and the common "rabble." The former were mostly owners of small farms or properties in western Galicia, had a strongly developed self-consciousness, and were quick to resent treatment unworthy of them. They were "oriented to their fatherland and have kept themselves at a distance from serious disturbances of the peace and acts of violence, as the workers' movement of the past twenty years, the period of the real development of Galician oil mining, has proven."¹³⁴ The workers who enjoyed making trouble for trouble's sake, on the other hand, were day laborers, employed only in times of labor shortage. Holobek suggested that protests after Brest-Litovsk, considered

so alarming by the Ministry of National Defense, were actually understandable. It was only natural, he argued, that the peace treaty with Ukraine, the imprisonment of Polish legionnaires who had sought sanctuary and occupation in Boryslaw, factory and house searches for weapons conducted by the military, and the decree that legionnaires who were Austrian citizens be separated from those who were formally Russian subjects aroused the indignation of the local population.

According to Holobek, the oil basin's biggest problem hit everyone equally, regardless of nationality. Food shortages had led to undernourishment. It was impossible to obtain clothing, linens, or shoes because of inflationary prices. There was too little bread and flour, and there had been no fat and no sausage for two months. Families received meat twice a week at five hundred grams per family, regardless of the number of family members. Potatoes were distributed only when they were available. Cornmeal and beans were given out to replace bread, but the beans were inedible. When food was available, prices were unpayable. The workers themselves demanded a pay increase, better housing, lighting and heating at no cost, and better schools for their children. In October 1918, anger about insufficient primary and secondary schooling for their children led four thousand oil workers to go on strike.¹³⁵ Although the AOK had responded to similar demands made by miners in the Moravian-Silesian industrial district by ordering a pay raise to avert the possibility of a strike, in this case, Holobek agreed with the GLPV's claim that raising wages would only lead to inflation.¹³⁶ Between July 1914 and April 1918, the cost of white flour had already risen 5,600 percent, the cost of rye bread 4,200 percent, the cost of onions 3,330 percent, the cost of men's clothing 1,430 percent, and the cost of shoes 1,700 percent.¹³⁷

Boryslaw's social and economic balance, considered precarious before the war, had come undone. Once a mecca for adventurers and now a haven for deserters and persecuted Polish nationalists disguised as oil workers, Boryslaw was too chaotic to be a reliable source of materiel for the war effort. Occasionally there were lucky strikes; eruptive wells were proudly publicized by the Ministry of War, which distributed photographs of Boryslaw, "the submariners' larder," with its "fully operational oil wells."¹³⁸ Nevertheless, production in the Boryslaw oil basin was slowly but surely grinding to a halt. By December 1917, the number of skilled workers in Boryslaw had dropped to 192, 126 of whom were drillers—barely enough to keep the oil wells operating at all. By September 1918,

the number had plummeted to 75. A lack of manpower, of water, and of fuel to run the various engines meant that the three hundred-odd wells that were in operation could not be run regularly. Boryslaw's annual production dropped to 48,380 tons in 1917.¹³⁹

The signs that the flow of petroleum had clogged abounded all over the empire. Civilian complaints grew louder. In the 1917-1918 session of the Parliament, representatives from across the empire made dozens of complaints about shortages of petroleum.¹⁴⁰ Delegates petitioned on behalf of artisans in Tyrol, Styria, Moravia, and Bohemia who could no longer work after sunset, on behalf of the Czech-speaking glassmakers and weavers in the mountain villages of Bohemia (who insisted that their German-speaking neighbors had plenty of kerosene), and on behalf of farmers for whom going to collect their petroleum rations in distribution centers five to eight hours away was an impossible burden, especially since "one cannot use Russian prisoners" for the task.¹⁴¹ Because of the desperate situation of the military, itself suffering drastic oil shortages, the complaints of farmers, artisans, and city dwellers fell on deaf ears.

BORYSLAW DIE SPEISEKAMMER DER U-BOOTE. DAS KAPITÄL-REWER VON BORYSLAW MIT DEN IN VOLLEM BETRIEB STEHENDEN BOHR-TÜRMEN



"Boryslaw, the 'Submarines' Larder': The Oil Fields of Boryslaw with Derricks in Full Operation." The Ministry of War puts a positive spin on declining wartime production. (Reproduced by permission of the Österreichisches Staatsarchiv, Kriegsarchiv.)

In many ways, 1917 marked the beginning of the end for the Central Powers. The United States declared war on Germany in April and on Austria-Hungary in December. Despite the withdrawal of the Russians from the war as a consequence of the October Revolution, the weakness—above all in men and materiel—of the Central Powers vis-à-vis the Allies began to reveal itself. The year 1917 also marked the beginning of the military's real oil crisis. The Austro-Hungarian armed forces had never enjoyed a surplus of fuel, and their consumption had only grown over the course of the war because of an increasing reliance on oil-powered ships, submarines, planes, and motor vehicles. Stocks, on the other hand, were at an all-time low, as the Naval Section explained:

For a long time the navy was singularly dependent on deliveries from the k.k. Mineral Oil Refinery in Drohobycz . . . and the peacetime stocks of fuel oil and gas oil, mostly of Romanian origin, have been significantly reduced during the war due to insufficient delivery. Our own monthly use comes to around 3,500 tons, compared with a delivery allotment of only 2,000 tons. The navy's stocks of gas oil, fuel oil, and tar oil at the end of 1914 were around 40,000 tons. At the end of 1915 they were around 26,000 tons, and due to significant deliveries from Romania they even grew in 1916 and reached 27,310 tons at the end of 1916, but over the course of the next year they were reduced and were in September of this year 15,189 tons, which means in the past nine months they were reduced by 12,100 tons.

In case the implications of these statistics remained unclear, the Naval Section spelled them out: "A further sinking of stocks must be prevented at all costs, in order to avoid endangering the responsiveness of the fleet, whose expenditure of fuel oil, gas oil, and tar oil in the near future will continue to grow, because of the present influx of new motor vehicles and submarines."¹⁴²

Demand increased as production dropped and used stocks were not replenished. Contributing to the increased demand was the constant use of torpedo units for transport convoys and for patrols, as well as the growth of the number of German and Austro-Hungarian submarines based in the Adriatic Sea to over fifty units.¹⁴³ From January to November 1917, the Austro-Hungarian navy acquired thirteen new submarines, bringing the total number of imperial submarines that saw action during the war to twenty-seven.¹⁴⁴ The Austro-Hungarian Danube Flotilla, used to assist military operations of the army both by supporting its own

operations and by obstructing those of the enemy, had acquired new oil-powered units, more than doubling its fuel-oil needs.¹⁴⁵ Naval air units also increased considerably over the course of the war, from sixty-four combat-ready planes in January 1915 to three hundred in May 1917.¹⁴⁶ By the end of 1917, these additional oil-consuming units led to an increased monthly oil consumption that exceeded 5,000 tons. Together, Galician and Romanian sources could only supply around 2,000 tons a month,¹⁴⁷ causing a fuel crisis. The Romanian oil fields reached only one-third of their prewar production in 1917,¹⁴⁸ leading the army's Division 5/M to conclude that "because of the devastation of the Romanian oil companies carried out by our enemies, the only available source of supply of mineral oil products for Austria-Hungary in the next months is Galician crude oil production." The army thus called on the navy to join with it in initiating drastic savings measures for gasoline and benzene, diesel oil, and lubricants. Gasoline-fueled engines should be replaced wherever possible by steam engines, water power, or electricity "without consideration for the cost."¹⁴⁹

At the same time that the army was making this appeal, the navy had itself calculated that the present total production from Romania was 80,000 tons of crude oil, of which Romania was allowed to keep 10,000 tons. By treaty, Austria-Hungary could lay claim to one quarter of Romanian production, which meant that Austria-Hungary would get 17,500 tons of crude. This could be expected to produce 3,500 tons of diesel oil, far short of the military's monthly requirement.¹⁵⁰ Given the current supply and demand, stocks could be expected to last only to March 1918, at which point "all modern torpedo units and all submarines would have to be turned off and as a consequence the submarine war would have to be ended."¹⁵¹ Desperate to squeeze every last drop of oil out of the available resources, the Austro-Hungarian military began to eye its monthly shipments to Germany. The Austro-Hungarian Ministry of War was well aware that the German navy was desperately in need of Austrian diesel oil for its submarines. Nevertheless, given the miserable oil situation, the justification for continuing to supply Germany with 10,000 tons of oil a month seemed weak.

Recognizing Austria-Hungary's dire situation, on 1 September 1917, Germany had agreed to return "the diesel oil used by German submarines in the Mediterranean," which would provide 800 tons in September and in the future 1,000 tons monthly.¹⁵² That represented only one-tenth of

the amount of oil that Austria-Hungary was still obliged to provide Germany every month. The Austro-Hungarian navy soon concluded that it would be able to avoid running out of oil completely before the war's end only by introducing drastic savings measures, which proved unpopular domestically.¹⁵³

Even more problematic from a political and diplomatic perspective, but equally necessary, was its decision to demand a complete refund of the monthly amount of oil it had been providing to German navy units stationed in the Adriatic.¹⁵⁴ The Naval Section wrote to the naval attaché of the German embassy in Vienna, Commander Albrecht Freiherr von Freyberg, in an attempt to explain its inability to continue to honor its contract:

According to the existing agreement, 10,000 tons of naval oil are to be delivered monthly to Germany from the production of the Austro-Hungarian mineral oil refineries. With the exception of the modest needs of the Danube fleet . . . the Imperial and Royal Navy is completely dependent on domestic production. This must cover the total needs of the monarchy, that is, also the absolutely indispensable needs of private industry—companies working for the army, agriculture, etc., which have already been drastically reduced. Altogether the Imperial and Royal Navy can claim 1,600 tons of gas oil. These amounts and the delivery of 400 tons of tar oil monthly—more cannot be brought in—that is, 2,000 tons of gas oil and tar oil together—cover hardly one-half of the demand, as 3,500–4,000 tons are used.

Since the navy had been reduced to receiving 1,000 tons from Drohobycz a month, it had been forced to deplete its stocks, which were now dangerously low. "We have not demanded it before, in consideration of the necessity of supplying our ally Germany sufficiently and to the furthest extent possible with gas oil, in order to carry out the *U-boot* war. Even so, in order to secure our own quick responsiveness, an agreement to provide the Imperial and Royal Navy with sufficient gas oil must be reached between the two navies."¹⁵⁵ The Naval Section concluded that the imperial and royal navy could afford to deliver only 2,000 tons of oil to Germany a month, leaving 4,000 tons of gas oil, naval oil, and tar oil for the Austro-Hungarian navy itself.¹⁵⁶ Germany rejected this request.¹⁵⁷

The anticipated crisis came before March 1918 (the date the k.u.k. Fleet Commando had predicted that it would run out of oil). On 22 December

1917, the Fleet Commando in Pola reported to the Naval Section in Vienna by telegram that "stocks of fuel oil in Pola 2,632 tons, in Trieste 66 tons, of this 1,093 tons total is diesel oil, if fresh supplies not sent immediately and forcefully employed all traffic and then the war-readiness of torpedo units and submarines in both ports will cease in no later than twenty days."¹⁵⁸

How much did all of this matter? The Austrian navy, often dismissed as irrelevant by military historians, was able to hold its own in the first months of conflict in the Mediterranean. To quote naval authority Arthur Marder, "In the first four months of war the Austrians, at a cost of only two submarines and a few aeroplanes, inflicted these losses on the Italian Fleet: two cruisers, a destroyer, two torpedo boats, three submarines, and two dirigibles (in addition to damaging the British light cruiser *Dublin* by torpedo). 'In four months,' wrote the [British Naval] Attaché [in Rome], 'the Austrian fleet has established a moral ascendancy in the Adriatic, and has played the part of the weaker force with conspicuous success. Not only has it succeeded in weakening the Italian fleet, but it has mobilised a force very considerably superior to itself.'¹⁵⁹ One should thus resist the temptation to scoff at the idea that Austria's military—on sea as much as on land—had little to contribute to the Central Powers' efforts.

The Central Powers clearly had a host of other problems as significant as oil shortages. Nevertheless, the importance of petroleum in contributing to the outcome of this conflict was acknowledged by contemporaries, including Lord Curzon, president of the Inter-Allied Petroleum Conference and future British foreign secretary. Curzon, who seems to have had a poetic strain, claimed that "the Allied cause had floated to victory on a wave of oil." The energy crisis that dogged Austria-Hungary during the First World War was a result of a combination of circumstances that were beyond the empire's control, on the one hand, and planned decisions (or, perhaps more important, their absence) that reflected the priorities and weaknesses of the prewar administration, on the other. Austria-Hungary could boast of a domestic source of oil that was sufficient for its own energy needs at the beginning of the war. So why did Austria-Hungary have such problems with fuel supply? Could the great discrepancy in this matter between the Central Powers and the Allies have been avoided? Given the vast supplies of American, Russian, and

later Persian oil, probably not. But Austrian prewar policies did nothing to alleviate their natural disadvantage.

When Churchill first suggested a conversion from coal to petroleum, skeptics in Great Britain had pointed out that they had no domestic source of oil. German blockades during the war did hinder Britain's oil supply from overseas. Nevertheless, years before the war, Churchill had boldly decided to cast aside Welsh coal in favor of petroleum, predicting that "mastery itself was the prize of the venture." Churchill recognized that flexibility was the key to guaranteeing a continued source of petroleum. "On no one quality, on no one process, on no one country, on no one route and on no one field must we be dependent. Safety and certainty in oil lie in variety and variety alone."¹⁶⁰ It is perhaps unfair to hold the Austrians responsible for not foreseeing some of the contingencies that led to the reduction of their oil supply during the war: the temporary loss of the Galician oil fields, Romania's export limitations at the beginning of the war, and then the extensive destruction of Romanian stocks and productive capacities in late 1916.¹⁶¹ On the other hand, even leaving aside the question of relations with Romania, the Austrian authorities had done remarkably little to ensure that their Galician oil fields would remain accessible and productive. Austrian prewar policy exacerbated these problems by making even the Galician oil that was produced before and during the war less accessible to the military and civilian consumers who needed it most. Despite the warning cries of various Cassandras in the Ministries of War and Public Works, attempts to secure access to Galician oil in case of emergency had come to naught. Insufficient stocks in the empire's naval ports meant that regular shipments of oil from Galicia to the Adriatic were mandatory. The absence of a second railway to Trieste, along with the absence of completed waterways, worsened traffic delays, causing insurmountable transport problems. It was transportation difficulties rather than insufficient production that caused fuel shortages in Austria-Hungary, leading one historian to conclude that "there probably would have been no petroleum shortage at all if it were not for transportation difficulties and the tripartite organization of the distribution apparatus."¹⁶² In the months and years before Archduke Franz Ferdinand's assassination in Sarajevo, the Austrian Ministry of War embarked on a program to reinvigorate its navy and army with new technologies that required a steady and significant flow of oil. These plans were not,

however, placed alongside available statistical tables that recorded black-on-white a steady drop in Galician production, nor were they compared with telegrams reporting formidable transportation problems and high prices. There is, perhaps, a certain irony in the fact that the central government's attempt to rescue a provincial industry (by forcing up prices and encouraging private consumption) only contributed to its own subsequent inability to exploit that industry's product to the fullest.

A Hotly Disputed Territory

The Struggle for Eastern Galicia

When, on 3 November 1918, the Austrian emperor Karl I agreed to an armistice with the Allies, this marked an end of hostilities for the Austro-Hungarian army. When, on 4 November, he withdrew from politics, turning Austrian affairs over to the leaders of the German-Austrian Democratic Republic along with the various newly declared governments of his non-German territories, this marked the end of the Habsburg dynasty and, with it, the end of the Austro-Hungarian Empire.¹ But for many of the emperor's former subjects, neither of these momentous transitions marked an end to the war. Despite armistices, despite negotiations in Paris, and despite even the signing of the Treaty of Saint-Germain, the war in Eastern Galicia continued unabated until 1921. One of the foremost objectives of this conflict was to gain control over the region's oil fields, which held out to new regimes the promise of financial solubility. At the same time, the Allies themselves had an interest in the stability of the oil region and in its continued accessibility. It was the intersection of local activity and influence from outside Galicia that determined the fate of Eastern Galicia and its oil fields. Just as central Viennese institutions cooperated with local and provincial powers and in many cases were even overridden by local interests, so, too, did the Allies find their ability to control the peace process in Galicia limited by their inability to control the behavior of Galicians.

After four years of taking Europe apart with the weapons of war, the Great Powers turned in 1919 to the process of taking it apart with the weapons of diplomacy: censuses, maps, and treaties. Point 10 of Woodrow Wilson's Fourteen Points asserted that "the peoples of Austria-Hungary, whose place among the nations we wish to see safeguarded and assured,