

Andreas R.D. Sanders

Democracy and resource nationalism: The Norwegian Concession Laws

Johan Castberg, Minister of Justice and author of the first permanent concession law, did not mince words: “We have in our natural resources greater riches than any other country in Europe. The rain of heaven, which is naturally stored up on the mountains like white coals, is a wealth which we will not cast out like scraps to **foreign vultures**. We will not give away to foreign capital that which can be used for our **common benefit**.”¹ For his prime minister and co-agitator for resource nationalism, Gunnar Knudsen, the danger was not to be underestimated: “One knows how things fared in the war in South Africa. We know things fared with China, we know how things fared with Egypt. There is hardly anyone who doubts that what has happened in these places, primarily leads back to the economic interests from certain European powers[.]”.² Taking no action was sure to lead the recently independent Norway into a semi-colonial status. The concession laws were necessary – and needed to be strengthened!

Abroad the reactions ranged from concern to bewilderment to outrage. In keeping with the understated manners of Edwardian civil servants, the British Board of Trade remarked that the Norwegians were taking “rather a novel attitude!”³ in their policy towards foreign investors. A contemporary private investor was less circumspect as he decried the country for “trying to run Hayti [sic] a close second in burlesque”.⁴

The issue at stake were who should have the right to own and use Norwegian natural resources – especially its abundant hydropower. This question had become the biggest political issue in the young kingdom. By introducing new laws – the Concessions Laws – that would give the state extensive political control over the country's natural resources, the Norwegians broke with a century of liberal economic policy. But with this transformation, the question quickly became not just how to handle the issue of foreign ownership, but fundamentally who had the right to own and profit from the country's natural resources. Finding a way to balance the desire for growth with control and political concerns proved to be far from a straightforward matter in the tumultuous decades of the early 20th century.⁵

Norway and 19th century economic liberalism

Norway was and is an odd little country on the northern periphery of Europe. In 1814 it was forced to accept a personal union with Sweden, but was allowed to keep its constitution and parliament. In the century before it peacefully gained full political independence in 1905, Norway was essentially self-governing in domestic matters, governed by a comparatively democratic parliament. In 1814, about 40-45% of the male population was given the right to vote, based on property requirements. Parliamentarism (i.e. the right of parliament to dismiss the government) was introduced in practice in 1884. Universal male suffrage was introduced in 1898 and extended to women in 1913.

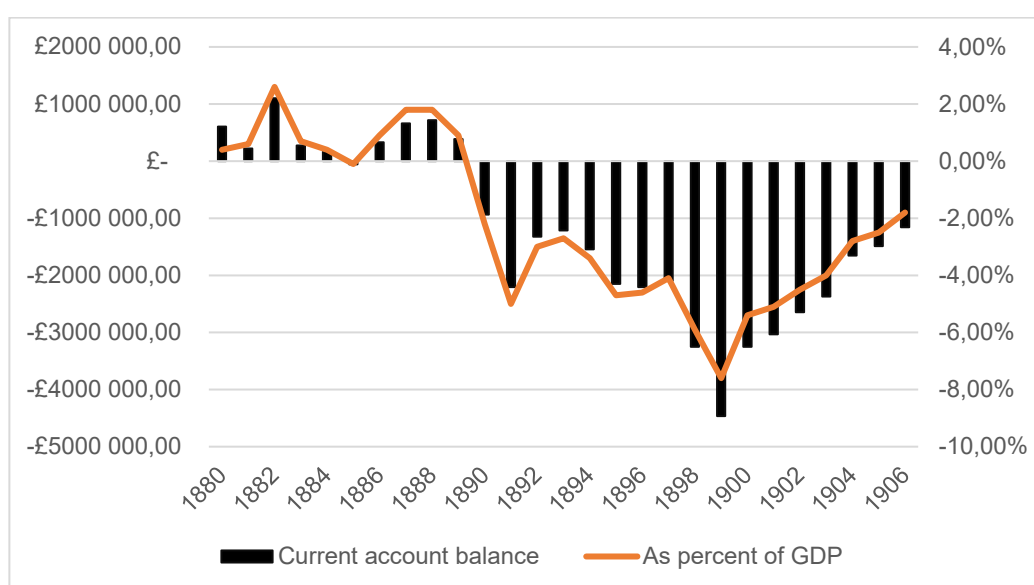
While resource nationalism was to become a powerful ideological force in Norwegian politics, Norway had long had a distinctly liberal approach to natural resource ownership. In the decades following the late 1830s, a series of reforms were introduced to liberalise the economy, inspired by the prevailing ideas of economic liberalism of the time. Previous privileges for the establishment of mines and later sawmills were removed. The sale of timber was also liberalised. From 1842, any prospector had the right to stake a claim to discovered minerals, regardless of land ownership and the state. At the same time, import duties on grain were reduced. The liberal and reform-minded bureaucratic elite that had come to dominate Norwegian political life wanted the Norwegian economy to prioritise its comparative advantages in international trade in order to increase economic growth.⁶ However, the liberal economic reforms did not end with the decline of this elite's dominance from the 1870s. In 1887, the Norwegian parliament passed a law that fully recognised private ownership of running waters, such as rivers, streams and waterfalls, and granted broad rights to dam and regulate them for economic gain. In this respect, Norway followed the same trends as much of the rest of Europe. Old economic privileges were abolished and trade tariffs were lowered. In addition, most European and American states had abolished restrictions on foreign ownership.⁷

Norway had arguably benefitted economically from the liberalization of the global economy. The liberalisation of international trade opened up new markets for traditional Norwegian exports such as fish, timber and other wood-based products. The liberalisation of shipping was particularly beneficial, and the Norwegian shipping fleet soon became one of the country's main export earners. During this period, real wages grew for the population as a whole - and grew fastest for the poorer sections of the population. By European standards, Norway was a middle-income country. Per capita it was poorer than the UK, Germany and Denmark, but on a par with Sweden and Italy, and richer than the rest of southern and eastern Europe.⁸ The benefits of liberalisation were not evenly distributed. Some traditional industries, such as iron making, could not survive without a protected market. Farmers also experienced a relative decline compared to the general population, as competition from abroad increased, especially for grain.

But economic liberalism was not monolithic in Norway. Norway-Sweden had not signed treaties guaranteeing foreigners equal rights to buy property, and in Sweden a foreigner needed government permission to do so. Eventually, this became a question in Norway as well - should there be a way to prevent unwanted foreign acquisitions of Norwegian land? Should foreigners be required to obtain permission before buying real property? This question was raised in 1888

when Norway passed its first formal citizenship law. The Norwegian parliament was strongly in favour, but there was no clear understanding of what sort of foreign ownership the law meant to prevent. Some of those in favour of the law cited fears of British traders buying up trading posts in northern Norway, which were important hubs in the coastal fishing economy. Others cited negative experiences with a British timber export company that had recently gone bankrupt after logging large areas of forest in the Vefsn region, apparently with little regard for the longevity of the forests or the employment of the workers the boom had attracted.⁹ But the minister who drafted the bill denied that such examples were relevant. Instead, he saw the law as a safeguard against cases that could lead to unwanted foreign entanglements, since without it “a foreign state or a complex of foreigners could buy land and raise fortifications, if they so desire.”¹⁰

FIGURE 1: NORWEGIAN CURRENT ACCOUNT BALANCE, 1880-1906



Despite this new regulation, foreign investors poured into Norway as never before. Investors, especially from Britain, increasingly invested in the export of Norwegian raw materials or semi-processed goods. The new law was not applied, with one notable exception. In 1893, the British pulp and paper company Kellner-Partington (now Borregaard), wanted to acquire the Hafslund estate, which lay just across the Sarpfossen waterfall from Kellner-Partington's own paper mill. This would give the company full control of the waterfall, including the potential energy generated by it, as well as over the timber floated down Norway's largest river, Glomma. After an intense campaign from Norwegian sawmill owners who feared competition for timber, the Norwegian government refused to allow the acquisition in 1894. However, the conservative Norwegian government was keen to stress that it had not acted to prevent competition with Norwegian sawmill owners, but rather to avoid 'possible international conflicts' that might result from a future government settling disputes over access to timber floated down the Glomma.¹¹

Cheap power and big business

In the years that followed, Norwegian rivers and waterfalls became an increasingly sought-after investment, but not for timber floating – but for their potential to generate electricity. As the rights to these rivers and waterfalls could be freely traded like any other piece of real property, a minor mania developed in which enterprising Norwegians would begin to buy these rights from the local farmers who usually had little idea of the potential value. Having acquired enough rights, the *waterfall speculator* (as they were often derisively called) could then try to sell of these rights to a (usually foreign) investor who could put together the necessary capital to build a hydroelectric plant.¹²

By the turn of the 19th century, electricity was becoming more than just a nice new way to light up the living room or the factory floor. Electricity itself became a raw material in various electrochemical and electrometallurgical processes, producing many highly desirable products. One of these products was aluminium, and the electrolysis of aluminium oxide produced a light and strong metal that had previously cost more than gold. However, the electricity intensive product that showed the most promise at the time was undoubtedly nitrates. Nitrates, or fixed nitrogen, were a key ingredient in fertilisers and in the manufacture of explosives. Demand for both products had grown enormously by the end of the 19th century. But while nitrogen is abundant in the air, fixed nitrogen is rare in nature, and large deposits of saltpetre were almost exclusively found in the arid Atacama Desert in northern Chile.

Chile had become a massive exporter of saltpetre after conquering the desert in a bloody war with Bolivia and Peru.¹³ Saltpetre was so valuable that export taxes on the commodity directly financed up to half of the Chilean state's expenditure.¹⁴ But these deposits were non-renewable, and leading western scientists were concerned that the world would soon face a critical nitrate shortage. In 1898, the renowned British chemist and physicist Sir William Crookes had warned the British Association of this impending crisis, calling on chemists to save "civilised mankind" from starvation.¹⁵



"Svalgfos" Theodor Kittelsen (1907). Svelgfoss was Norsk Hydro's first hydropower plant.

The world's chemists seemed ready to answer Crookes' call, provided they had access to enough cheap and plentiful electricity. By 1905, two new processes for fixing nitrogen were ready for large-scale industrial production: the *cyanamide process* and the *electric arc process*. The latter was perfected by the Norwegian physicist Kristian Birkeland, at the request of Sam Eyde, a Norwegian businessman and “waterfall speculator”. This became the basis for the company *Norsk Hydro*, which soon became the largest industrial company in Norway. While the technology and the founders of the company were Norwegian, the money behind it was mainly French.¹⁶ A competing company based on the cyanamide process would also soon be established in Norway, backed by British capital.¹⁷

The surge of interest in Norwegian hydropower brought a new urgency to the issue of regulating foreign ownership and control of natural resources. While many saw the birth of these electrochemical giants as a welcome sign of the future of the country, which had just gained political independence from Sweden, the press was also full of warnings about the possible negative consequences of widespread foreign ownership of Norway's natural resources. This was fuelled by a public scandal when it emerged that the top bureaucrat at the Norwegian Water Authority had also acted as an adviser to foreign buyers and had been a 'waterfall speculator' on his own behalf.¹⁸

The concerns raised in the public debate were numerous and frequently related. One was that the newly independent Norway might lose its sovereignty to foreign influence. Another was that foreigners would now reap the richest rewards from Norway's resources, while the Norwegians themselves would merely become penniless crofters to the new foreign capitalists. Many feared that private hydroelectric companies would monopolise electricity production and raise prices for Norwegian small businesses and domestic consumers. There were also those who saw big industry itself as a problem, as it might create an underclass of poor and dirty proletarians susceptible to socialism, similar to other European industrialised countries. This underclass could threaten the dominant position of the Norwegian yeoman farmers, who formed a significant part of the parliament at centre of the political spectrum, as both liberals and conservative. They were also commonly seen (not least by themselves) as the true bearers of Norwegian national culture.

Behind the scenes, the Norwegian government had also quietly begun reconsider the open-door policy towards foreign investors. After lengthy deliberations the Norwegian government decided not to allow a British investor to buy the land, forests and factories of the Norwegian pulp mill *Follum Bruk*. In response to this, the British investor instead purchased the shares of the company itself.¹⁹ The law only applied to foreign individuals and foreign legal entities. However, a company registered in Norway was considered a Norwegian legal entity, regardless of whether it was owned by Norwegians or foreigners. The existing law thus proved to be completely ineffective in regulating foreign acquisitions.

The issue of foreign ownership was further exacerbated by how international law was understood at the time. Common international practice afforded very strong protection to private property rights. If a host country was to expropriate any property held by a foreign investor, compensation had to be prompt and paid in full. Failure to do so would be considered theft of property and would give the investor's home country the right to intervene on the investor's behalf. Such intervention could take any form, from politely written protests to sanctions and military action. Given the rapidly rising market value of Norwegian hydropower, any attempt by the state to expropriate foreign owners could well prove prohibitively expensive as well as politically dangerous.



„Vær saa artig, mine Herskaber! Vandfald, Gruber og Skoge til Dagens billigste Priser!“

“Go ahead, my Lords! Waterfalls, mines and forests for sale for the lowest prices of the day”. Caricature from Vikingen, 31.03.1906

Faced with mounting criticism from the press and the opposition and with no legal means to block foreigners even if they wanted to, the government decided that the time had come for radical action. On 3 April 1906, the government convened a closed session in the Storting and passed a law requiring all joint-stock companies to obtain a government concession to buy waterfalls or other water rights. A few months later, a similar law was introduced for minerals and forests.

Resource nationalism in practice

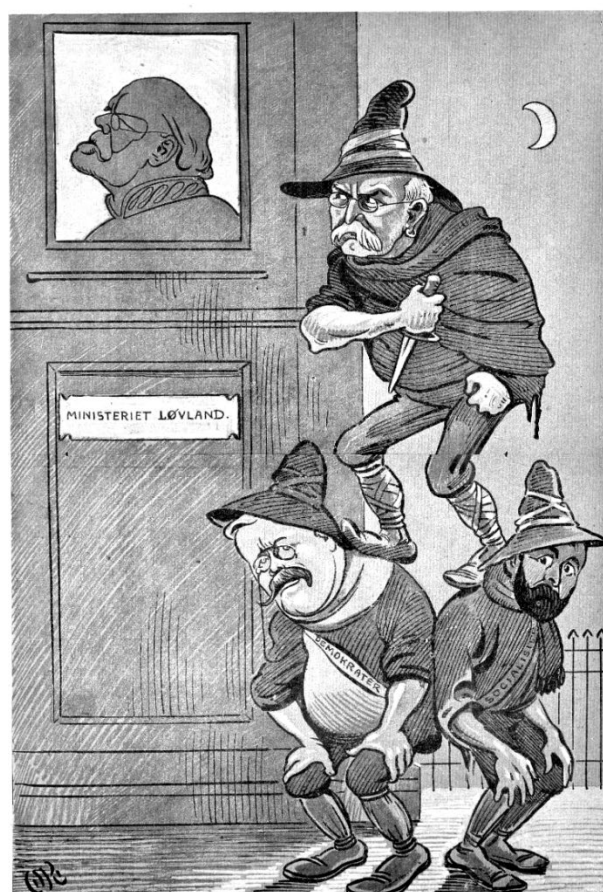
With this newly won “concession law”, derisively dubbed the “panic law” by the conservative press, the Norwegian government had an entirely new tool to regulate foreign acquisitions of Norwegian natural resources. But the question remained: how should this new law be used? As in 1888, there was widespread agreement that there might be a point at which the proportion of Norwegian natural resources in foreign hands had gone too far, but no agreement on where that point was. There were few, if any, Norwegian investors willing or even able to provide the amounts of capital necessary to undertake the costly developments in hydroelectricity and mining that foreign investors were backing, excluding foreign ownership would mean an abrupt halt to the development of these new industries. And there was certainly no widespread support for such a policy.

The solution for the Norwegian government was to set conditions for new concessions. The law did not specify that this was an option, but the government decided to interpret the law in such a way that if it allowed the government to say “yes” or “no”, why not “yes, but...”? Soon, foreigners who wanted to buy Norwegian minerals or hydropower had to agree to a list of conditions that the government felt would negate some of the possible negative consequences of foreign ownership. They had to agree to use only Norwegian labour, and to buy Norwegian materials and machinery on a preferential basis. In the case of hydropower concessions, they also had to complete the development within a certain period of time. This was to prevent companies from buying up water rights only to leave them undeveloped in order to prevent competition. To prevent price gouging, they also had to set aside a certain amount of their electricity production (usually 5%) to be sold at fixed low prices by the local municipality.

In 1907, the government introduced the most radical condition yet. When a group of German-Swiss investors sought a concession for the Kinsarvik waterfall in the Hardangerfjord, they were persuaded to agree to hand over the waterfall, dams and power station to the Norwegian state after 75 years without compensation. This introduced the principle of 'hjemfallrett' or 'right of reversion' into Norwegian hydropower policy. The concept, as well as the name, was probably taken from a similar principle in Swiss hydropower policy (Heimfallsrecht). Similar clauses were sometimes used for railway concessions to private developers, and sometimes for other mineral concessions.²⁰ This principle became a cornerstone of Norwegian hydropower policy and was required in all future hydropower concessions.

The right of reversion seemed to solve many of the popular concerns over foreign hydropower development. It was thought that the clause would have little impact on the financial decisions of developers, as 75 years was simply too far in the future to deter foreigners from continuing to invest in hydropower development. At the same time, "foreign domination" would only be temporary. In a few generations, Norwegians would enjoy the fruits of an inexhaustible resource, just as good as when it was first developed, but without having to pay exorbitant prices - or any price at all!

However, this did not put an end to the controversy surrounding Norwegian hydropower policy. First there was the problem of companies circumventing the law. In 1906, a few months after the first concession law was passed, a heated controversy erupted over the government's decision to grant permission to regulate the water level in Norway's largest lake, Mjøsa, in order to increase the output of hydroelectric power stations further downstream on Norway's largest river, the Glomma. The concession law only applied to new acquisitions; existing plants and acquisitions could continue to operate without concession conditions. This outraged the centre-left opposition, which pushed through a revision of the water regulation law that allowed similar conditions to the concession law for regulation permits. The permit to regulate Mjøsa was passed by a narrow margin after the hero of the dissolution of the union with Sweden, Prime Minister Christian Michelsen, threatened to resign over the issue. But from this point on, the accusation that the government was too soft on foreign capitalists became a common refrain of the centre-left opposition. This opposition eventually came to power in 1908 under Prime Minister Gunner Knudsen.



Gunnar Knudsen (top) and Johan Castberg (left) getting ready to topple Prime Minister Jørgen Løvland. From Vikingen, 25.01.1908.

How to prevent circumvention also became an issue when it came to deciding how to deal with Norwegian investors. So far, Norwegian owned joint stock companies had been given concessions without conditions. However, what made a Norwegian company a Norwegian company, and how it could be controlled that such a company remained a Norwegian company, was a very open question with few clear answers. Moreover, even if a company had only Norwegian shareholders, if they sold all their power to a foreign industrial company at almost cost price, how would this alleviate concerns about foreign ownership and benefit Norwegians? There were virtually no Norwegian companies willing to put up the large sums of money needed to develop large hydroelectric plants, and the possibility that a Norwegian company would only enter such a venture after borrowing money from the industrial company that would be leasing the power was a distinct possibility. For the new Norwegian government, led by the progressive industrialist Gunnar Knudsen and his ally, the social reformer

Johan Castberg, the solution to the problem of evasion was as simple as it was radical. In 1909, they passed the first permanent concession law, under which all new hydroelectric concessions would be granted on the same terms, regardless of the nationality of the shareholders.

‘National interests’ and ‘common benefit’

The introduction of the right of reversion for Norwegian-owned companies was widely despised by the conservatives. One of the things that made the right of reversion so radical in the Norwegian context was that, unlike Swiss hydropower and Persian subsoil resources, the state did not actually own the resource in question. In other words, the waterfall did not revert to its previous owner, but to the Norwegian state. Norwegian landowners were very uncomfortable with the precedent set by the law, as it seemed to go against the established principles of private property. What if someone started to impose similar conditions on the ownership of farmland? Conservatives also accused the new government of abandoning the nationalist intent of the concession laws. Now, they argued, potential Norwegian latecomers would have to abide by all the conditions that foreign-owned companies that had obtained their rights before 1906 (such as the giant Norsk Hydro) did not have to abide by, putting them at a significant disadvantage. This criticism played a major role in the defeat of the ruling Liberal Party in the 1909 election.

The concession laws also did little to allay the fears of those who were uneasy about the growth of big industry and the creation of an industrial proletariat in general. Both the government of Michelsen and the progressive Liberal government had followed a policy where practically no hydropower concessions were denied as long as they agreed to the terms. After the 1909 law was passed, there was a brief lull in incoming concession applications. Leading conservative critics seized on this as proof that the Liberals had finally frightened off investors and urged a liberalisation of the laws. By 1913 the tide seemed to be turning again, with another major British hydroelectric nitrate project on the horizon. The proposed plant at Sunndalsøra would rival the largest in the country, including Norsk Hydro. At the same time, some predicted that the world would need a new nitrate plant the size of Norsk Hydro every year to keep up with the growing demand for nitrates. Given the importance of cheap hydroelectric power in nitrate production, many either hoped or feared that many of these plants would be built in Norway. This meant many new jobs for Norwegian workers. For Norwegian farmers, however, it meant increased competition for the same workers, who could now earn many times as much working in these new industries, instead of working as seasonal labourers in Norwegian agriculture. In these circumstances, Norwegian farmers were less concerned with the principles of property rights and voted against the Conservatives and their ideas of liberalising the concession laws, bringing Knudsen and his Liberal Party back to power.

Gunnar Knudsen's Liberal Party, however, did not want to deny the British company a concession at Sunndalsøra. However, the projected demand for hydroelectric power also seemed to give Knudsen and his government a strong hand in negotiating this new concession. The concession fees were higher and the concession period shorter. To appease the farmers, the government even included a clause requiring the company to sell 10% of its production to Norwegian farmers at 15% below export prices. In this way, Knudsen felt he could show that he was both tough on foreign capital and not stifling economic growth.

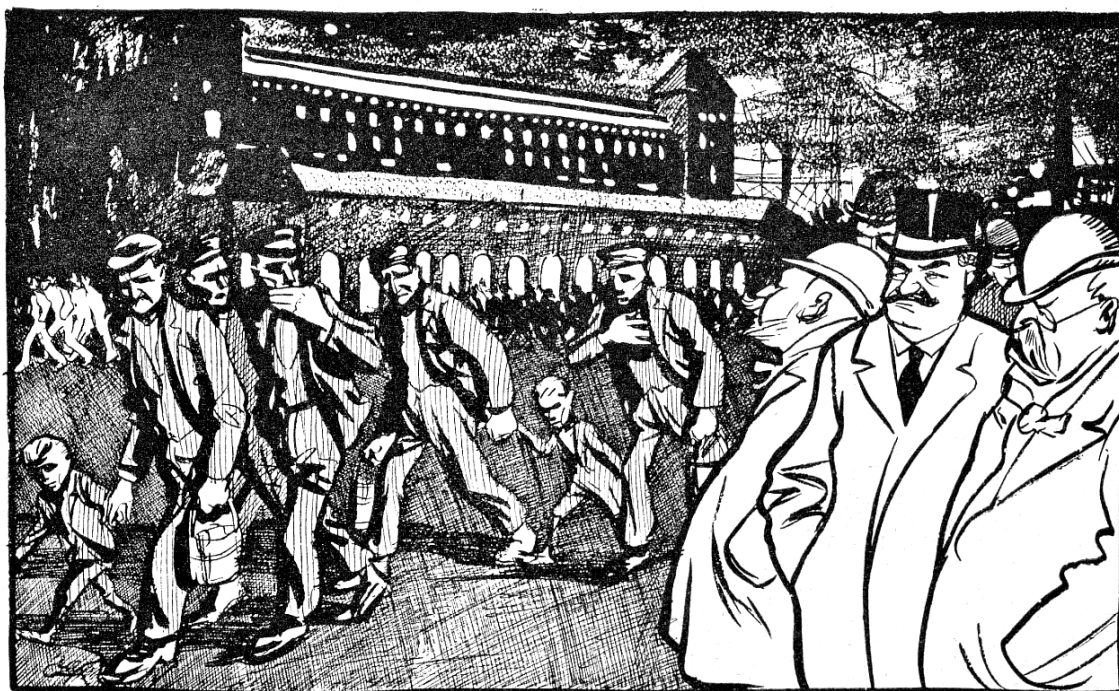
With "his" 1909 concession law safe from conservative revisionism, Knudsen was elated and optimistic about the future. Speaking at the opening of parliament in 1914, Knudsen remarked that "the political skies of the world seem to be as clear as they have been for many years". It was

a statement that would become a source of eternal ridicule as, just a few months later, the First World War broke out, throwing all pre-war certainties and preconceptions into a cauldron of carnage.

As with so much else, the First World War also transformed the prospects for Norway's hydropower industry. Initially the industry almost came to a standstill, with workers laid off and construction work put on hold. However, there was soon a massive surge in demand for many of Norway's raw materials, as well as energy-intensive products, such as nitrates and aluminium. At the same time, the Norwegian shipping industry saw a manifold increase in shipping rates. This meant that money was flowing into the country like never before. Norwegian shipowners began to invest this money in industries that had previously seemed too expensive and adventurous, such as Norwegian hydropower. Suddenly, the prospect of a wholly Norwegian hydroelectric industry did not seem as remote as it had a few years earlier. As wholly Norwegian-owned companies entered the fray, the Liberal government found itself caught in a political crossfire: it had to rebut its critics on the right who accused it of lacking sympathy for Norwegian-owned industry, while on the other hand many farmers wanted it to stop "runaway industrialisation" so that their farms would not be completely without workers. Instead of liberalising the concession laws, the Liberal Party began to make the laws even stricter. Norwegian-owned companies would still have to respect the right of reversion and all other conditions. However, the government also began to change its policy on concessions to foreign-owned companies. New concessions would normally be reserved for 100% Norwegian-owned companies, whether private or public.

Norway was not the only country where foreign ownership of natural resources was a more hotly contested issue during the war, as the new Norwegian-owned companies were soon to discover. One of these new Norwegian owned companies was Norsk Aluminium Company, Høyangfaldene (Naco). Backed by generous investment from Norwegian shipowners, Naco's ambition was to control the entire value chain, from raw material to finished product. But unlike electrochemical nitrate production, which uses electricity and air as its main raw materials, aluminium has two 'raw materials' - bauxite and electricity. Despite the mineral-rich Norwegian mountains, there were no viable bauxite deposits in Norway, so the company had secured a bauxite mine in southern France instead. Or so they thought. The French authorities used wartime measures to prevent Naco from operating unless the company was French-owned. Naco saw it as the work of the French aluminium industry trying to keep out a new competitor, while the French government said it was about French ownership of French resources and that "in this regard, France would follow Norway's example".²¹ As it happened, France's largest aluminium company (Pechiney) was at the same time seeking a new hydroelectric concession in Norway, but the Norwegian government had so far been unwilling to accept it. Naco then took it upon itself to try to broker a four-way deal between the Norwegian and French governments and the two respective aluminium companies. In 1918, the parties agreed that both companies would be granted concessions in their respective countries, while Pechiney would agree to sell a large pyrite claim to the Norwegian state.

Videnskapens triumf. Fra naturforskernes lysttur til Rjukan.



Sam. Eyde.

«Jo den kemiske industri har nok gjort vældige fremskridt i Norge, det hører man tydelig paa arbeidernes hosteanfald.»

Caption: "Triumph of science: Yes, the chemical industry has made remarkable progress in Norway, you can clearly hear it in the workers coughing fits." From Hvepsen 29.07.1916

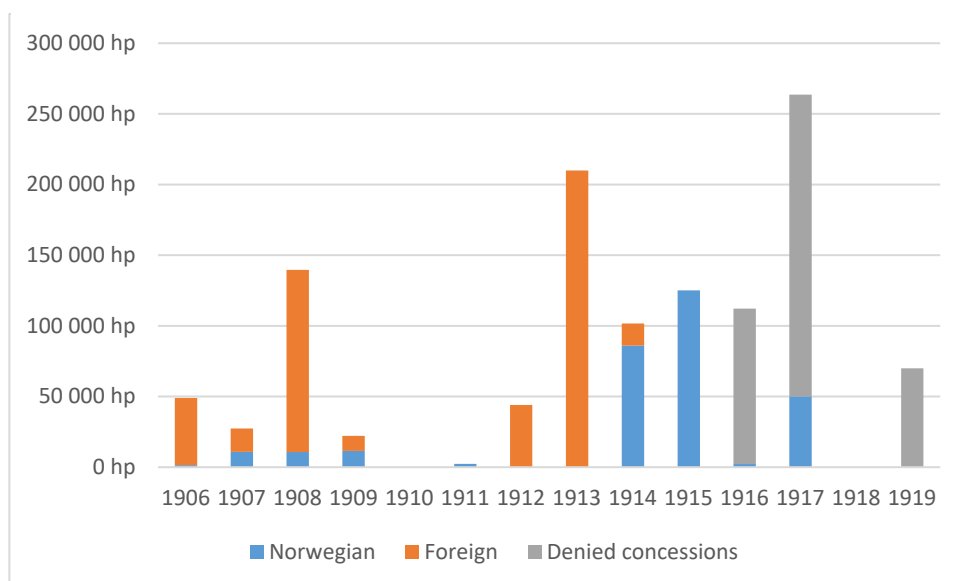
The war did not only bring a new foreign political edge to natural resources, but also greatly intensified competition for scarce resources within the country. Demand for labour and building materials increased, as did demand for food and other consumer goods. This resulting in a massive increase of both prices and wages. In addition, the war also exposed the vulnerabilities of the trade dependant Norwegian economy, which became only more acute as the war dragged on. Especially from 1916, the Entente powers began to use Norway's dependence on imports to force it to reduce its exports to the Central Powers, including the blockade of coal in the winter of 1916-1917. Norway was more or less completely dependent on foreign coal imports for both heating, cooking and transport. In 1917, coal in the capital was six times more expensive than in 1914. Coal-fired domestic heating and cooking could be replaced by hydroelectric power, although this had only begun on a small scale by the outbreak of the war. But was there enough power available in Norway to supply cheap electricity to the masses? In the 1910s, it was still not fully understood exactly how much electricity could practically be generated from Norwegian rivers and waterfalls. Moreover, the potential for hydroelectric power was unevenly distributed across the country, and building a long-distance transmission system was expensive and difficult. This meant that even if there was enough electricity in the country as a whole, there could be regional shortages. This was particularly the case in the south-east around Oslo – the area where most Norwegians lived.

The question of whether electricity should be reserved for households instead of industry created further controversy to Norwegian hydropower politics, just as the question of foreigners seemed

to have been decided. In order to meet the growing demand for electricity, many municipalities had begun to invest heavily in electricity generation and distribution. Municipal electricity for households and small businesses was widely seen as a guarantee against private monopoly price gouging, and the municipal and state companies did not need concessions to obtain watercourses. Faced with increased competition for labour and resources, the Norwegian government finally decided in 1917 to temporarily restrict new concessions, even to wholly Norwegian-owned private companies.

In the same year, the concession law was to be revised once again. Knudsen's Liberal party had a solid majority in parliament, but was on the defensive, under heavy attack from the left for failing to do more to alleviate the cost-of-living crisis facing Norwegian workers. The socialist Labour Party was on the rise. Castberg had also broken with his former ally, and his own independent party had gained many votes at the expense of Knudsen's Liberals in the previous election. Even though the concession law Knudsen's government presented to parliament in 1917 would be a lot stricter than it had been in 1909, with higher taxes and shorter maximum concession periods – the opposition wanted it to be much stricter. Castberg aligned with the Labour Party and demanded that “acquisition and industrial exploitation of the natural wealth of our waterfalls should no longer be left to big private capital”, but as this was not going to pass, they proposed instead to make the conditions for private investors much more stringent. Here they succeeded to win the support from a sizable faction of Knudsen's Liberal Party, which was fast losing control of the situation as well as its cherished status as the party that was tough on hydropower. Only after a strong personal intervention by Knudsen himself did he regain some control over the parliamentary “bidding war” over who could be the toughest on big industry. In the end, he got his party to agree to a compromise between his government's original proposal and the more radical proposal of Castberg and the socialists, yet it was hardly a triumph for Knudsen.

FIGURE 2: GRANTED CONCESSIONS FOR PRIVATE HYDROPOWER ACQUISITION (1906-1919)



Instead, Knudsen proposed a new solution to the controversy over new private hydropower concessions – the Norwegian state should start developing and leasing out hydropower itself. In 1918, when a Swedish owned company offered to sell its unfinished hydropower plant in Glomfjord in northern Norway to the Norwegian state, Prime Minister Gunnar Knudsen jumped at the chance. Knudsen, who had been a long-time enthusiast of hydropower and had engaged in early hydropower investments as a private individual, was convinced that the venture would be very profitable. By leasing out power to industry in remote and sparsely populated areas, there was little conflict with demand from households. The profits could then potentially subsidise more expensive developments further south aimed at meet household demands. As the financing for the purchase of Glomfjord was being approved by parliament, Knudsen foresaw that the state would now take the leading role as direct owner of the country's rich hydropower resources, stating that

*now there will not be given a single concession to a foreign company, unless it is subject to singular circumstances – not even to a private Norwegian company, unless it is subject to singular circumstances.*²²

Yet, contrary to the predictions to the ever-optimistic Knudsen, the governments that followed his would be faced with a lot of “singular circumstances” in the years to follow.

The not so roaring 20s

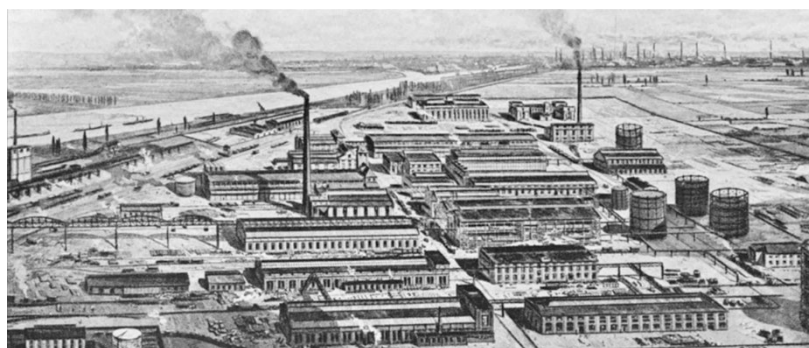
The end of the First World War brought with it a new and grim economic outlook for the young Scandinavian kingdom. In 1920, Norway, like most other European countries, was hit by a severe post-war depression. Demand from the energy intensive industries fell dramatically. Construction works were halted, and production was reduced, suspended or stopped altogether. Labour shortages had been a recurring political issue before and during before the war. Suddenly, the country had exactly the opposite problem. Between 1920 and 1921, unemployment among industrial workers rose from 4% to 16%. Many of the companies that had invested in the energy-intensive industries ran into financial difficulties as they had borrowed too much money in the inflationary wartime economy. Moreover, the commercial banks that had lent large sums to these companies were also on the verge of bankruptcy, and were placed under receivership by the Norwegian Central Bank in 1924. The Norwegian Central Bank was also determined to return the Norwegian currency to its pre-war value, which meant a harsh deflationary policy with high interest rates for years to come.

With little Norwegian capital available to revive the ailing industrial companies and the bankrupt commercial banks back on their feet, there seemed to be few alternatives to new foreign investments. In quick succession, Naco was sold to the American aluminium giant *Alcoa* and *Saudefaldene* was sold to another American giant, *Union Carbide*. Both sales required new concessions, with the new investors driving a hard bargain and pushing through more or less as lenient terms as the law allowed. This exposed the Norwegian government to massive criticism from the opposition for its ‘unmanly’²³ posture vis-à-vis foreign capitalists. The opposition also proposed new stricter terms, which predictably failed to win the necessary votes. But it gave the opposition the chance to show themselves as ‘tough on foreigners’.

Political wrangling over the right approach to foreign investors continued when, in 1925, a couple of concession proposals were made for new industrial hydroelectric developments.

Both concessions were for the production of aluminium, for which there was a growing demand in the 1920s. The British Aluminium Company (BACo) was already producing aluminium near Kristiansand in southern Norway and wanted to expand its production. To make their expansion more politically palatable, they had struck a deal with the local municipal power company to lend them the money to build new hydroelectric generating capacity which they could then lease for their aluminium plant. But the plan backfired. A majority in the parliament, against the wishes of the government, decided to reject the concession in favour of forcing BACo and the local municipal power company to accept a different arrangement whereby a different county power company would produce the electricity instead. For much of the opposition, it was important to show that it was Norwegian politicians, not foreign capitalists, who could set the terms for the use of Norwegian resources. After the humiliation in parliament, the government decided to postpone the presentation of the second aluminium concession, which would see Alcoa build a large new smelter in western Norway. Both concessions were finally granted a year later, after more bitter political wrangling. By then, however, both BACo and Alcoa had abandoned their Norwegian plans, opting instead to expand production in Scotland and Canada respectively.²⁴ For the rest of the inter-war period, there would be no major expansion of hydroelectric capacity for hydroelectric industry. The Glomfjord project would also be without customers for long periods and would continue to lose government money.

There had also been some major changes in the key markets for energy-intensive industries. Before the war, most industrial hydropower developments were aimed at the nitrate market. Shortly before the war, however, the German chemical giant BASF had developed an alternative way of producing nitrates through high pressure ammonia synthesis. The process was technically more complicated and capital intensive, but required much less electricity. As the cost of power was less important to the profitability of the ammonia synthesis, it was less important to locate the plant near a source of cheap hydroelectric power. The war had also shown that nitrate production was a strategically important industry, and both France and the UK were keen to expand their domestic nitrate production. However, there was a growing demand for aluminium, where cheap electricity was still a major factor in the cost of production. But aluminium had also proved to be a crucial product for waging war on an industrial scale. As a result, the major powers of Europe were all keen to produce their own aluminium in their own country, rather than import it from cheaper neutral countries such as Norway, and put considerable resources into supporting this. This largely negated the comparative advantage of cheap hydroelectric power in Norway.²⁵



The Haber-Bosch method for ammonia synthesis came to outcompete the more energy-intensive nitrate fixation processes. Copy of Otto Bollhagens painting of BASF's ammonia plant in Oppau, 1914.

When it finally became clear to Norwegian politicians that the country's hydropower was not in such great demand, there was a deep crisis of confidence in the future of the Norwegian hydropower industry. Many, particularly on the more market-liberal political right, blamed the concession laws for scaring off investors - both foreign and domestic.

There were some attempts on the political right to revise and liberalise the concession laws, but these were never put forward - probably due to a lack of sufficient political support. When Norway entered a new economic crisis in the 1930s, there were many Norwegian politicians who argued against the merits of export-oriented heavy industry at all. If such industries were to exist, it was argued, it would be better for them to be foreign-owned, because at least it would not be Norwegians risking their capital. Instead, it was argued that the country should prioritise industries aimed at the domestic market or import substitution.

After the Second World War, energy intensive industry would be a cornerstone of the Labour Party's industrialization effort. The concession law and the Right of Revision would remain Norwegian law also after the Second World War. However, the vast majority of large new hydropower developments after the Second World War would be undertaken by the state, usually in close cooperation with international aluminium companies who leased the electricity generated. The right of reversion was finally ruled illegal under the EEA Agreement in 2007. In response to this, the Norwegian parliament amended the concession law to only allow new large hydropower concessions to public owned companies.²⁶

Appendix 1: List of Norwegian Governments (1905-1939)

11.03.1905–23.10.1907	Michelsen	Center-right (V, H, MV, Saml.)
23.10.1907–19.03.1908	Løvland	Center-right (V, MV, Indep.)
19.03.1908–02.02.1910	Knudsen I	Liberal
02.02.1910–20.02.1912	Konow	Conservative (FV, H)
20.02.1912–31.01.1913	Bratlie	Conservative (H, FV)
31.01.1913–21.06.1920	Knudsen I	Liberal
21.06.1920–22.06.1921	Halvorsen I	Conservative (H, FV)
22.06.1921–06.03.1923	Blehr II	Liberal
06.03.1923–30.05.1923	Halvorsen II	Conservative (H, FV)
30.05.1923–25.07.1924	Berge	FV, H
25.07.1924–05.03.1926	Mowinckels II	Liberal
05.03.1926–28.01.1928	Lykke	Conservative (H, FV)
28.01.1928–15.02.1928	Hornsrud	Labour Party
15.02.1928–12.05.1931	Mowinckels II	Liberal
12.05.1931–14.03.1932	Kolstads	Agrarian
14.03.1932–03.03.1933	Hundseids	Agrarian
03.03.1933–20.03.1935	Mowinckels III	Liberal
20.03.1935–25.06.1945	Nygaardsvold	Labour Party

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¹ Johan Castberg, "Grundlinjen i vor politik -- samfundssolidariteten," *Dagbladet*, 12. august 1912. My emphasis.

² Gunnar Knudsen and Johan Castberg, *Politiske Foredrag ved Venstretevenet i Fredrikstad den 21 juni 1908* (Kristiania: Norges venstreforening, 1908), 13.

³ Quote from the minutes of a meeting in the Board of Trade, 20.04.1908. FO 368/208, The National Archives of the UK

⁴ "The Norwegian Farce," *The Mining Journal*, December 19 1908.

⁵ This case study is closely based on Andreas R. D. Sanders, "Europe's Northern Resource Frontier: The political economy of resource nationalism in Sweden and Norway 1888-1936" (Ph.D. European University Institute, 2018). **All paragraphs that do not specify further sources are based on this work.**

⁶ Pål Thonstad Sandvik, "Getting to Scandinavia: Liberaliseringen av de skandinaviske landene før 1870," in *Historikere i oppdrag: Festskrift til Trond Bergh, Sverre Knutsen og Lars Thue i anledning 70-årsdagene i 2015 og 2016*, ed. Harald Espeli and Finn Erhard Johannessen (Oslo: Novus forlag, 2016), 231-32; Pål Thonstad Sandvik, *Nasjonens velstand: Norges økonomiske historie 1800-1940* (Bergen: Fagbokforlaget, 2018), 61-68, 80-82; Maren Dahle Lauten, "Jacob Aall og bergverksloven," in *Jacob Aall som politiker og jernverkseier - nasjonalt og lokalt*, ed. Gunnar Molden and Knut Holt Sandbløst (Tvedestrand: Næs Jernverksmuseum, 2013).

⁷ Notable holdouts were Portugal, Sweden, Russia and a number of individual states in the United States.

⁸ Based on statistics from Jutta and Jan Luiten van Zanden Bolt, "Maddison Project Database, version 2020.," (2020).

⁹ More information about the history of this venture can be found here: Kjell Jacobsen, *Overgangstid: Vefsnbygdene ca. 1820-1900*, vol. II, Vefsn bygdebok, (Mosjøen: Mojøen Kommune, 1975), 210-33.

¹⁰ No. "Nu kan en fremmed Stat eller et Komplex af Udlændinger købe Grund og opføre Fæstningsværker, om de lyster». *Behandling Odelstingstidene 1888*, vol. 8D, 69.

¹¹ Sanders, "Europe's Northern Resource Frontier: The political economy of resource nationalism in Sweden and Norway 1888-1936," 63.

¹² A brief overview of the phenomenon of the "waterfall speculator" can be found in Johan Vogt, *Elektrisitetetslandet Norge* (Oslo: Universitetsforlaget, 1971), 44-54.

¹³ Bruce W. Farcau, *The Ten Cents War: Chile, Peru, and Bolivia in the War of the Pacific, 1879-1884* (Westport, Conn.: Praeger, 2000).

¹⁴ Gabriel Palma, "Trying to 'Tax and Spend' Oneself out of the 'Dutch Disease': The Chilean Economy from the War of the Pacific to the Great Depression," in *An economic history of twentieth-century Latin America. Vol. 1, The export age: the Latin American economies in the late nineteenth and early twentieth centuries*, ed. Enrique Cárdenas, José Antonio Ocampo, and Rosemary Thorp (Basingstoke: Palgrave, 2000), 234-35.

¹⁵ William Crookes, "Address of the President Before the British Association for the Advancement of Science, Bristol, 1898," *Science* 8, no. 200 (1898). Crookes was particularly concerned that it would be the wheat-eating Europeans who would suffer from this shortage, and leave them at a disadvantage to the rice-eating Asians.

¹⁶ Nanna Paaske, "Fransk Hydro? Om fransk innflytelse i Norsk Hydros etableringsfase 1902-1914" (Hovedfagsoppgave Universitetet i Oslo, 1998); Ketil Gjølme Andersen, *Flaggskip i fremmed eie: Hydro 1905-1945* (Oslo: Pax forlag, 2005).

¹⁷ Anders Rokne, *Odda smelteverk A/S i femti år: 1924-1974* (Odda: Odda smelteverk, 1974).

¹⁸ "Vore Vandfald – Et Coup de main – Kanaldirektøren," *Verdens Gang*, March 21 1906; "Kanaldirektøren," *Verdens Gang*, March 23 1906.

¹⁹ Kristofer Anker Olsen, *Follum gjennom 75 år: et bidrag til norske treforedlingsindustriens historie* (Oslo: E. Moestue A.s., 1948), 93ff; Sanders, "Europe's Northern Resource Frontier: The political economy of resource nationalism in Sweden and Norway 1888-1936," 94-95.

²⁰ "Heimfall," in *Enzyklopädie des Eisenbahnwesens*, ed. Victor von Röhl (Berlin & Wien: Urban & Schwarzenberg, 1914). The d'Arcy oil concession in Persia included a

²¹ «Frankrige vile i saa henseende følge Norges eksempel.» This statement is relayed from a French diplomat the via Norwegian diplomat Fritz Wedel Jarlsberg. Sanders, "Europe's Northern Resource Frontier: The political economy of resource nationalism in Sweden and Norway 1888-1936," 236.

²² [...] jeg tør si, at der vil ikke nu bli git en eneste koncession til utenlandsk selskap, med mindre der knytter sig særlige hensyn til det – ikke engang til privat norsk selskap, undtagen der knytter sig særlige hensyn til det.» Stortingstidende 1918, p. 1808

²³ [...] umandig[...]” quote from Agrarian Party MP, Nils Nersten. Stortingsforhandlingene 1925, 2845-8

²⁴ Pål Thonstad Sandvik and Espen Andresen, *Kristiansand energiverk i elektrisitetens århundre, 1900-2000* (Kristiansand: Agder Historielags Årsskrift, 2000), 70-73; Espen Storli, "Out of Norway falls aluminium : the Norwegian aluminium industry in the international economy, 1908-1940" (Ph.D. NTNU, 2010), 175-88; Sanders, "Europe's Northern Resource Frontier: The political economy of resource nationalism in Sweden and Norway 1888-1936," 293-97.

²⁵ Storli, "Out of Norway falls aluminium," 147; Sanders, "Europe's Northern Resource Frontier: The political economy of resource nationalism in Sweden and Norway 1888-1936," 281-83.

²⁶ Ot.prp. nr. 61 (2007-2008)