between the company and the British government. But there was still one last obstacle; the Treasury insisted that any appropriation required Parliamentary approval, and that test had yet to be passed.

On June 17, 1914, Churchill rose in the House of Commons to introduce a historic measure. The bill he proposed had two essential elements: First, the government would invest £2.2 million in Anglo-Persian, acquiring in turn 51 percent of the stock; second, it would place two directors on the company's board. They would have a veto on matters involving Admiralty fuel contracts and major political matters, but not on commercial activities. Another contract was drawn up separately, so it could be kept secret; it provided the Admiralty with a twenty-year contract for fuel oil. The terms were very attractive, and in addition, the Royal Navy would get a rebate from the company's profits.

The debate in the House was highly charged. Charles Greenway sat in the official box with senior Treasury officials in case Churchill needed any special information. Also present in the Commons was the member from Wandsworth, one Samuel Samuel, who, working for many years by the side of his brother, Marcus Samuel, had helped to create Shell—and who, that day, became increasingly fidgety and aggravated as Churchill spoke.

"This afternoon we have to deal, not with the policy of building oil-driven ships or of using oil as an ancillary fuel in coal-driven ships," Churchill began, "but with the consequence of that policy." The oil consumer, he declaimed, had freedom of choice neither in regard to fuels nor in regard to sources of supply. "Look out upon the wide expanse of the oil regions of the world. Two gigantic corporations—one in either hemisphere—stand out predominantly. In the New World there is the Standard Oil. . . . In the Old World the great combination of the Shell and the Royal Dutch, with all their subsidiary and ancillary branches, has practically covered the whole ground, even reached out into the New World." Churchill proceeded to argue that the Admiralty, along with all private consumers, had been subjected to "a long steady squeeze by the oil trusts all over the world."

Early in the debate, Samuel Samuel popped up three times to object to Churchill's characterizations of Royal Dutch/Shell. He was ruled out of order. "He had better hear the case for the prosecution," Churchill acidly said after the third interruption, "before he offers an argument for the defense." Samuel resumed his seat but not his composure.

"For many years," Churchill went on, "it has been the policy of the Foreign Office, the Admiralty, and the Indian Government to preserve the independent British oil interests of the Persian oil-field, to help that field to develop as well as we could and, above all, to prevent it being swallowed up by the Shell or by any foreign or cosmopolitan companies." Since the government was going to give such a boost to Anglo-Persian, it was but reasonable, he added, that it share in the rewards. And "over the whole of these enormous regions we obtain the power to regulate developments according to naval and national interest." Declaring that "all the criticisms" of such a plan "so far, have flowed from one fountain," Churchill then launched an attack on that fountain—Royal Dutch/Shell and Marcus Samuel—though adding, "I do not wish to make any attack upon the Shell or the Royal Dutch Company."
“Not the least!” Samuel Samuel called out from the back bench.

Churchill's oratory was full of sarcasm. Were the bill to fail, he said, Anglo-Persian would become part of Shell. "We have no quarrel with the 'Shell.' We have always found them courteous, considerate, ready to oblige, anxious to serve the Admiralty, and to promote the interests of the British Navy and the British Empire—at a price. The only difficulty has been price." With the leverage of Persian oil "at our disposal, we do not think we shall be treated with less courtesy, or less consideration, or shall we find these gentlemen less obliging, less public spirited, or less patriotic than before. On the contrary, if that slight difference of opinion which has hitherto existed about prices—I am obliged to return to that vicious and sordid matter of prices—were removed, our relations would be better; they would become . . . the sweeter, because no longer leavened with the sense of injustice."

Samuel finally had his chance, later in the debate, to reply. "I do protest most strongly on behalf of one of the greatest British commercial industrial companies, that the attacks that have been made are wholly unjustifiable." He catalogued Shell's services to the Navy and its championing of oil-powered propulsion. He asked the government to make public the prices that Shell had charged, which had been kept secret, and which, he said, would prove that the company had never gouged the Admiralty.

"The attack we have heard had nothing on earth to do with the question before the Committee," said another M.P., Watson Rutherford. Criticizing Churchill for raising the specter of monopoly and for "Jew-baiting," he declared that the rising prices of fuel oil had resulted not from "the machinations of some trust or ring" but from the fact that an international market for fuel oil—as opposed to those for gasoline, kerosene, and lubricants—had only arisen in the "last two or three years, in consequence of these new uses which have been found for this oil. . . . There is a world shortage," he continued, "of an article which the world has only lately begun to see is required for certain special purposes. That is the reason why prices have gone up, and not because evilly-disposed gentlemen of the Hebraic persuasion—I mean cosmopolitan gentlemen—have put their heads together in order to try and force prices up."

Churchill's proposal for government ownership of a private company was indeed unprecedented, save for Disraeli's purchase of shares in the Suez Canal a half century earlier—a step also taken on strategic grounds. Some M.P.s, representing their local interests, argued for the development of oil from Scottish shale and liquids from Welsh coal (many years later known as synthetic fuels). Both, they said, would provide more reliable supplies. Yet, despite the strong criticism inside Parliament and out, the oil bill passed by an overwhelming vote—254 to 18. The margin was so large that it surprised even Greenway. After the vote, he asked Churchill, "How did you manage to carry the House with you so successfully?"

"It was," Churchill replied, the "attack on monopolies and trusts that did it." 16

But his assault on foreigners and "cosmopolitans" also helped. Moreover, Churchill had been more than a little cynical in his presentation. For there was no evidence that Shell had ever served the Admiralty poorly. Indeed, years
before, Marcus Samuel had actually asked the government to place a director on the board of Shell. And while Churchill had taken a dislike to Marcus Samuel, who had been Lord Mayor of London, he had developed a most favorable opinion of Deterding, who was, after all, the foreigner.

Here, in the matter of Deterding, Churchill was following Admiral Fisher’s lead. Fisher wrote to Churchill that Deterding, “is Napoleon and Cromwell rolled into one. He is the greatest man I ever met . . . Napoleonic in his audacity: Cromwellian in his thoroughness! . . . Placate him, don’t threaten him! Make a contract with him for his fleet of 64 oil tankers in case of war. Don’t abuse the Shell Company. . . . [Deterding] has a son at Rugby or Eton and has bought a big property in Norfolk and [is] building a castle! Bind him to the land of his adoption!” Churchill did exactly that. Despite the new agreement, Anglo-Persian was not to be the sole supplier to the Admiralty, and in the spring of 1914, he took over personally in negotiating with Deterding on Shell’s fuel oil contract with the Navy. Deterding was responsive to Churchill’s attention. “I have just received a most patriotic letter from Deterding,” Fisher wrote to Churchill on July 31, 1914, “to say he means you shan’t want for oil or tankers in case of war—Good Old Deterding! How these Dutchmen do hate the Germans! Knight him when you get the chance.”

Deterding was a practical man and understood the rationale for the Anglo-Persian arrangement. Still, there were those perplexed by the government’s purchase. The Viceroy of India, Lord Hardinge, had served two years in Tehran, leaving him with a lasting suspicion of all things Persian. His view, and that of his senior officials in India, was that it was altogether unwise to become dependent upon a most insecure foreign source of oil when Britain was blessed with an abundance of secure coal. As the Secretary of State for India declared, “It is rather as though the owners of the premier cru vineyards in the Gironde went about preaching the virtues of Scotch whisky as a beverage.”

The critics had a point. Why the troubles of Scotch whisky when one produced a fine wine? Quite simply, the decision was driven by the technological imperatives of the Anglo-German naval race. Even as the Germans sought equality, the British Navy was committed to maintaining naval supremacy, and oil offered a vital edge in terms of speed and flexibility. The deal assured the British government a large supply of oil. It provided Anglo-Persian with a much-needed infusion of new capital and a secure market. It spoke directly to the need for survival of Anglo-Persian, and indirectly, to that of the empire. Thus, by the summer of 1914, the British Navy was fully committed to oil and the British government had assumed the role of Anglo-Persian’s majority stockholder. Oil, for the first time, but certainly not the last, had become an instrument of national policy, a strategic commodity second to none.

As First Lord of the Admiralty, Churchill would often say that his goal was to have the Navy ready, as though war might erupt the very next day. Yet during the weeks leading up to the June 17, 1914, Parliamentary debate, Europe had seemed more at peace, and war farther away, than had been the case for several years. No major issue riled the passions of the Great Powers. Indeed, British naval units were making courtesy visits to German ports at the end of June. Later, many would look back on those spring and early summer days of 1914.
for a long struggle. The man in charge was Albert Speer, Hitler's personal architect. The intensely ambitious Speer had much earlier established himself as one of Hitler's favorites. He had caught Hitler's attention a decade before with his various plans for a grand panorama of flags, hundred-foot-high eagles and spotlights for the 1933 Nazi party rally in Nuremberg. Himself a frustrated artist, Hitler was captivated by Speer's conceptions and by his personality and put him in charge of all the monuments of the Reich. Hitler also gave him a personal commission to construct the new Reich Chancellery and to rebuild Berlin. In 1942, the Führer appointed Speer Minister of Armaments and War Production. In early 1943, as the magnitude of the failures in Russia and North Africa became clear, Speer's brief as Minister of Armaments was much expanded; he was given sweeping powers over the entire German economy. He now controlled, or at least influenced, virtually all phases of economic life.

The architect, formerly in charge of the stone monuments to the eternal glory of the Thousand-Year Reich, proved himself remarkably adept in dealing with the Reich's more immediate and urgent problems of industrial mobilization. Speer drove the slack out of the German economy. The two and a half years after his initial appointment would see a more than threefold increase in the production of aircraft, weapons, and ammunition, and a nearly sixfold increase in tanks. And these remarkable production records were being set at the same time that Allied forces were carrying out an extensive if not particularly successful strategic bombing campaign against a variety of German targets, such as the aviation industry and railway depots and ball-bearings factories. German industrial production was still rising; indeed it registered its highest level of the entire war in June 1944. The great potential claimed for strategic bombing was far from being realized. "Oil, which was Germany's weakest point," wrote the British military historian Basil Liddell Hart, "was scarcely touched." Yet both the German military chiefs and Speer worried. Would the Allies make the destruction of the synthetic fuels industry a major objective? For it offered a critical, concentrated, sensitive target in the way that other industrial activities did not, and a campaign against it could well jeopardize the entire German war economy.

The synthetic fuels industry was headed on the same upward trend as the rest of the war economy. By 1942, the industry had, on all fronts, recorded a considerable advance over the 1930s—new production technologies, better catalysts, higher grade output, and a capability to accept a much wider variety of coals as raw material. And production was increasing quickly. Between 1940 and 1943, synthetic fuel production almost doubled, from 72,000 to 124,000 barrels per day. The synthetic fuels plants were the critical links in the fuel system; in the first quarter of 1944, they provided 57 percent of total supply—and 92 percent of aviation gasoline. And the throttle was open; in the first quarter of 1944, production was running, if annualized, at an even higher rate. Altogether, during the Second World War, synthetic fuels would account for half of Germany's total oil production.19

It could not have happened without immense effort and all the normal tools and techniques of the Nazi war economy, including slave labor. Hitler had transformed the Viennese streetcorner anti-Semitism of his youth into a mon-
strous and diabolical ideology, at the center of which was the murder and de-
stuction of the Jews. The concentration camps were the mechanisms for
achieving this "Final Solution," which was decided upon in a mere two hours
at the Wannsee Conference in January 1942. But, until the "Final Solution"
could be completed, those Jews who were fit—along with Slavs and other pris-
one—were to be put to work to further the objectives of the Reich that had
already pronounced a death sentence upon them. And so a continuing supply
of concentration camp prisoners was drafted into I. G. Farben's hydrogenation
plants, as well as into its synthetic rubber plants. The company, in fact, was
building synthetic fuel and rubber plants adjacent to the Auschwitz concentrat-
camp in Poland. Auschwitz was the largest of the Nazi mass murder factories;
upwards of two million people, mostly Jews, were put to death there with gas
manufactured by an I. G. Farben subsidiary. The I. G. Farben officials described
the Auschwitz site, with its ample supplies of coal and labor, as "very favorably
located." The synthetic fuels plant at Auschwitz was under the directorship of
the same chemist who had represented the company in the June 1932 meeting
with Hitler in Munich.

I. G. Farben used both so-called "free" and slave labor in this enterprise.
The chemical company paid a per diem for each slave laborer—three or four
marks for an adult, depending upon skills, and half price for children. The money
went, of course, not to the workers but into the coffers of the SS, Hitler's elite
military force. The slave laborers subsisted, at most, on a thousand calories a
day and slept on wooden racks. They would work for a few months, then die
from the horrible living conditions or the beatings or be killed in the death camp,
and then would be replaced by others taken from newly arrived trains packed
like cattle cars with more prisoners.

I. G. adjusted to the requisites of its partnership with the SS. At one point,
it asked that the guards cease severely flogging prisoners in front of the "free"
Poles and Germans on the site. "The exceedingly unpleasant scenes" were having
a "demoralizing effect. . . . We have therefore asked that they should refrain
from carrying out this flogging on the construction site and transfer it to the
inside of the concentration camp." Several months later, however, the I. G.
Farben management came to agree with the methods of the SS: "Our experience
so far has shown that only brute force has any effect on these people."

Eventually, I. G. Farben became disenchanted with the quality of slave
labor from the main camp at Auschwitz; the daily four-mile hike in each direction
tended to debilitate the prisoners, and they became too prone to the diseases
in the main camp. To prevent that, the company built its own private enterprise
"branch" concentration camp, Monowitz, along the same model as the main
camp. The records that survived indicate that three hundred thousand prisoners
passed through I. G. Farben's portals at Auschwitz. The plants were so large
that they used more electricity than the entire city of Berlin.

One of those was Prisoner Number 174,517, a young Italian named Primo
Levi, who managed to survive only because he could recall enough of the organic
chemistry he had studied in Turin to be put to work in a lab. "This huge
entanglement of iron, concrete, mud and smoke is the negation of beauty," he
said of I. G.'s industrial complex. "Within its bounds not a blade of grass grows,
and the soil is impregnated with the poisonous saps of coal and petroleum, and
the only thing alive are machines and slaves—and the former are more alive
than the latter.” Monowitz was a death factory. It was also a business, down
to the camp staff who made money selling in the nearby market the clothes
and shoes of those who died at Monowitz and those who had been stripped
naked to be sent to crematoriums of the neighboring camps. The stench of
the crematoriums at Auschwitz and Birkenau suffused the air at Monowitz. To
Levi, it was “world of death and phantoms. The last trace of civilization had
vanished.”

By 1944, according to one estimate, a third of the total work force in the
German synthetic fuels industry, throughout the Reich, was slave labor. I. G.
Farben had become a deeply involved and enthusiastic partner in its joint venture
with the SS at Auschwitz. And, naturally enough, the two parties engaged in a
good deal of mutual socializing. Just before one Christmas, the resident I. G.
Farben managers at Auschwitz joined men from the local SS in a holiday shooting
party. The bag totaled 203 rabbits, one fox, and one wildcat. The head of
construction at the Farben complex was “proclaimed champion hunter,” with
a bag of one fox and ten rabbits. “A good time was had by all,” according to
the record of the hunt. “The result was the best in this district so far this year
and will probably only be surpassed by the hunt the concentration camp is holding
in the near future.”

“The Primary Strategic Aim”

Following the haphazard and ineffectual Allied strategic bombing campaign
against Germany, General Carl Spaatz, the commander of the United States
Strategic Air Force in Europe, decided that a change had to be made. On March
5, 1944, he proposed to General Dwight Eisenhower, who was in charge of the
preparations for the Normandy invasion, that a new priority target be set—the
German synthetic fuels industry. Its output, he promised, could be cut by half
within six months. He noted an expected added benefit: So critical to the Ger-
mans were these plants that such attacks would flush out the Luftwaffe, and
also force the diversion of many planes and pilots from France, where the
invasion was targeted.

The British opposed Spaatz’s plan, insisting instead on the need to target
the French railway system. But, finally, Spaatz received a tacit go-ahead from
Eisenhower for the synthetic fuel targets. On May 12, 1944, a combat force
involving 935 bombers, plus the fighter escorts, bombed a number of synthetic
fuels factories, including the giant I. G. Farben plant at Leuna. As soon as
Albert Speer realized what had happened, he rushed by plane to Leuna to see
the damage for himself. “I shall never forget the date May 12,” he later wrote.
“On that day the technological war was decided.” The results of the attack, and
the broken, twisted pipe systems that he now saw as he toured the plant site,
made real “what had been a nightmare to us for more than two years.” A week
after the attack, Speer flew off to report personally to his Führer. “The enemy
has struck us at one of our weakest points,” he told Hitler. “If they persist at
it this time, we will soon no longer have any fuel production worth mentioning.
served with synthetic oil. A system based on the importation of conventional oil in many ships through many ports would be less vulnerable to air attack than one dependent on a few very large, easily identifiable—and easily bombed—hydrogenation plants.

In its planning for war, the British government anticipated very tight and explicit cooperation with the oil industry of a kind that could not have been easily fashioned in the United States. In the United Kingdom, 85 percent of domestic refining and marketing was in the hands of just three companies—Shell, Anglo-Iranian, and Jersey's British subsidiary. At the time of Munich, in 1938, the government decided that, in the event of war, all the "paraphernalia of competition" would be eliminated, and that the entire British oil industry would be run as one giant combine, under the aegis of the government.

The government also had to cope with a different kind of problem—the future of the Royal Dutch/Shell Group. The current management of the Group was no less concerned and apprehensive. For there was a risk that the Group could pass under the Nazi sway. The heart of the problem was Henri Deterding, the grand master of the company. He had continued to dominate the Group through the 1920s. "Sir Henri's word is law," observed a British official in 1927. "He can bind the Board of the Shell without their knowledge and consent." But by the 1930s, Deterding's grip on the company was slipping, and he was becoming an embarrassment to the management and a source of anxiety to the British government. His behavior was increasingly erratic, disruptive, megalomaniacal.

In the mid-1930s, as he entered his seventies, Deterding had developed two infatuations. One was for his secretary, a young German woman. The other was for Adolf Hitler. The determined Dutchman—who had gravitated to Britain before World War I, had been courted by Admiral Fisher and Winston Churchill, and had become a firm and fervent ally during that war—was now, in his old age, entranced with the Nazis. "His hatred of the Soviets, his admiration for Hitler and his idée fixe on the subject of Anglo-German friendship in an anti-Soviet sense are, of course, all well-known," sighed a Foreign Office official. On his own, Deterding initiated discussions in 1935 with the German government about Shell's providing a year's supply of oil—in effect, a military reserve—to Germany on credit. Rumors of these talks so greatly alarmed the Shell management in London that one of the senior directors, Andrew Agnew, asked the government to have the British embassy in Berlin investigate so that Agnew "could take suitable actions with his colleagues on the Board here in good time." Commented one official, "Deterding is getting an old man, but he is a man of strong views, and I am afraid we cannot stop him consorting with political chiefs." He added, "The British members of the Board of the company are keen that the company should not do anything which would be contrary to the views of H.M. Government."

Finally, retiring from Shell at the end of 1936, Deterding acted on both of his new infatuations. He divorced his second wife, married his German secretary, and went to live on an estate in Germany. He also took to urging other European nations to cooperate with the Nazis to stop the Bolshevikhordes, and he himself exchanged visits with the Nazi leaders. By 1937, the Prime Minister of the Netherlands, a former colleague of Deterding's in Royal Dutch, said that he
“could not understand how a man, who had made his name and fortune in England and who had received certain assistance from the country of his adoption, should suddenly migrate to Germany and devote himself to furthering the welfare of that country.” His activities, the Prime Minister added disparagingly, were “infantile and leaving no doubt as to his feelings.” Deterding's last years, not surprisingly, were to undermine what would otherwise have been a considerable reputation as an “international oil man.”

Deterding died in Germany in early 1939, six months before the war began. Strange and deeply disturbing rumors immediately reached London. Not only had the Nazis made much of his funeral, but they were also trying to take advantage of the circumstances of his death to gain control of the Royal Dutch/Shell Group. That, of course, would have been a disaster for Great Britain. The company had virtually been Britain's quartermaster general for oil during World War I. Should it now pass under Nazi domination, Britain's entire system of petroleum supply would be undermined. But it was discovered that the key “preference” shares, which embodied control, could only be held by directors, and at his demise, Deterding's shares had been swiftly distributed to the other directors. At best, the Germans could only get their hands on a tiny fraction of the common shares, which would do them no good at all, either before or after the outbreak of war.1

As soon as the war began, the British oil companies, including Shell, merged their downstream activities into the Petroleum Board, in effect creating a national monopoly. It was done swiftly and without protest. Petrol pumps were painted dark green and the product was sold under the single brand name “Pool.” The industry people continued to operate the business, but they now did so under national control. Britain's oil war was thereafter run out of Shell-Mex House on the Strand in London, just down from the Savoy Hotel. (Shell's own headquarters was moved to a company sports facility on the edge of London.) Overall government direction was eventually lodged in an agency called the Petroleum Department.

The issues facing Britain were global. It had to assume that Germany, as signatory of a new pact with the Soviet Union, would be able to obtain an abundant supply of Russian oil, while British supplies from the Far East would be curtailed if the Japanese invaded Southeast Asia. Closer to home, the rich and convenient resources of Rumania were also available to Germany. A few months after the war began, before France had been overrun by the Germans, the British and French governments, seeking to replicate what had been carried out in World War I, had jointly offered to pay Rumania $60 million to destroy its oil fields, and thus prevent the Germans from taking the output. But the two sides could never agree on a price, the deal was never struck, and Rumanian oil went, as feared, to the Germans. The destruction was left to be done by Allied bombers, much later in the war.

In Britain itself, practical problems of supply had to be quickly dealt with. Rationing was imposed almost at once. The “basic ration” for motorists was first set at eighteen hundred miles a year. It was progressively tightened, as military needs increased and stocks declined, and then it was eliminated alto-
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