

April 22, 1982

THE NORWEGIAN NATURAL GAS OPTION

INTRODUCTION

To many in the European Economic Community, the plan to build a 3,600-mile pipeline from Soviet Siberia to terminals in ten West European nations seemed the final realization of the long anticipated East/West trade bonanza. Not only were the Soviets to sell some \$10.7 billion worth of natural gas annually, but they were committed to buy \$15 billion in equipment, materials and technology from the West as part of the deal. Moreover, the whole package was being financed by a consortium of West European banks offering government-backed loans.

In the U.S., however, the project raised a storm of protest from many, including Reagan Administration officials, who saw the pipeline as a threat to Europe's security. European leaders dismissed the American concerns, arguing that over the years the Soviet Union had proved a more reliable supplier of energy than the Persian Gulf and that even if the Soviets did cut off gas supplies, Norwegian gas could readily provide a substitute.

If the Europeans are correct in their assertions, then the Yamal pipeline is small cause for alarm. If they are wrong, though, their mistake could be near fatal. Western Europe could be making itself a willing hostage to Kremlin whims. Where does the truth lie? Are Soviet intentions truly benign? Does a Norwegian option really exist? What is Europe's most prudent course?

THE CUTOFF SPECTRE

The central issue in the pipeline debate focuses on the likelihood of a Soviet move to cut off gas supplies to further some military or political objective. Although European leaders

argue that such an occurrence is unlikely, past Soviet performance tends to refute their claim. On at least four occasions since the end of World War II, Moscow has used its energy resources for political blackmail. The first was when Yugoslavia broke free of the Soviet orbit; the second in 1961 when Albania allied itself with China; the third was against China itself; and the most recent was against Poland shortly before the declaration of martial law.

In each instance, energy -- in these cases oil -- was cut off. Gas, moreover, lends itself to interruption somewhat more readily than oil. Gas is transported via pipeline and can be stopped by the turn of a spigot. Oil, on the other hand, frequently moves via tanker or truck as well as through pipelines; once en route it is difficult to stop. If Moscow interrupts supplies, can Norway provide an alternative?

NORWAY'S GAS RESERVES

There is no doubt that Norway has enormous reserves of both oil and natural gas. At present, its proved oil reserves are an estimated 4.3 billion barrels, and proved gas reserves total approximately 15.2 Trillion Cubic Feet (Tcf). These impressive estimates only are part of the picture. Total recoverable reserves are estimated to be 6.03 billion barrels for oil and 95.9 Tcf for natural gas. Norway's potential gas reserves thus far outshadow its oil potential. Indeed, Norway's gas reserves are 4.3 times the size of current estimates of the gas reserves found on Alaska's North Slope.

Norway's North Sea deposits now make it a major European oil and gas producer. In 1981, Norwegian oil and gas production totaled 48.8 million tons of oil equivalent (toe). Of this there were 23.6 million tons of oil and 25.2 billion Cubic Meters of natural gas. In more familiar terms, this equalled 172.3 million barrels of oil and 936 billion cubic feet of natural gas. While 1981's production was down slightly from the previous year, it is expected that Norwegian production will continue to rise in the future, levelling out at around 50 million toe through the end of this decade.

Drilling experience in the Norwegian North Sea indicates that Norway will continue to have adequate reserves to meet anticipated needs. In 1981, a total of thirty-nine offshore wells were drilled, of which twenty-five were exploratory and fourteen were appraisal wells. Eleven of the exploratory wells were successful -- an extremely high number. This impressive discovery ratio underscores the richness of the hydrocarbon deposits lying off Norway's coast.

Although there is no question that Norway's gas reserves are enormous, they still present certain problems. A study by the Bergen Bank of Norway stated "Substantial reserves are required for development of gas fields so far from markets." Therein lies

the problem. Marketing the reserves requires that pipelines be built, storage terminals constructed and distribution systems put in place. This costs enormous amount of time, money and effort. It follows that enormous amounts of gas must be produced to support such an endeavor. Until recently, though, the Norwegian government was unwilling to approve the kind of development associated with the gas production volumes needed to ensure full exploitation of her offshore reserves.

NORWEGIAN CONCERNS

The go-slow policy that characterized the Norwegian government's approach to North Sea development in years past is based on two major concerns: protecting the environment and avoiding economic disruption.

The environmental concerns arose largely because fishing has always been an essential element in the Norwegian economy. As a result, fishing interests have mounted considerable pressure on the Norwegian Parliament and have won a series of strict controls governing oil development. As the Bergen Bank report noted: "Environmental matters...and working conditions have been of increasing concern to Norway. Extensive legislation has been prepared over the last few years and a number of authorities are involved in supervising that [sic] offshore activities are carried out in accordance with official laws and regulations."

The second broad area of concern has been the potential disruption of the Norwegian economy if oil and gas reserves develop too rapidly. There is no question that so far development of these resources has had an enormous impact. Between 1974 and 1980, the share of Norwegian exports accounted for by oil and gas rose from less than 1 percent to 30.7 percent. Over the last two years, the softening world economy has led to a slight decline in Norwegian oil and gas exports with such products accounting for 29.5 percent of 1981's exports, and 27.5 percent of 1982's according to current projections. As the world economy recovers, though, oil and gas exports are expected to resume their growing role as an export commodity.

Moreover, oil and gas revenues continue to play an important role as a source of revenue. From the relatively insignificant level of 0.5 billion Norwegian Kroner (NOK) in 1974, oil and gas revenues rose to NOK 44.3 billion in 1981. Lower production and prices caused 1982 oil and gas revenues to decline to an anticipated NOK 43.5, but again, this still represents a significant amount of earnings.

Oil also plays an important role in Norwegian employment, 2.4 percent of Norway's labor force is employed in jobs directly related to oil and gas production. In 1981, oil-related employment rose by 5,700 positions even though production was declining slightly. A total of 14,000 persons are employed on offshore

installations, and 20,300 work for mechanical or industrial firms which provide services to the petroleum sector.

As important as the oil industry is to Norway's employment and exports, its real significance may lie in its role as a major source of revenue for the Norwegian government. At present, the five taxes that Norway levies on oil production account for 20 percent of the nation's budget. More important is the fact that Norway borrowed some NOK 30 billion against future oil and gas revenues through 1980. As oil prices decline, these commitments may be a major source of pressure to increase production. Whatever the case, it is evident that petroleum plays a major role in Norway's economy at all levels. It is understandable, then, why the issue of petroleum policy remains of such crucial importance to its government. But that government has changed recently, and with it, policy may change.

THE NEW GOVERNMENT AND PETROLEUM POLICY

In fall 1981, Norway elected its first conservative government in memory. By forming a coalition with several smaller parties, the Conservative party was able to assemble a working majority in the Parliament. While it remains necessary for the Conservatives to solicit the support of smaller parties on an issue-by-issue basis, there appears to be relatively broad support for their petroleum policy among all elements of the coalition.

Although the full extent to which the new government's policy will depart from that of its predecessor is unknown and will not be known until the next session of the Storting (Parliament) in the fall of 1982, early signs indicate a willingness to allow much more energy development than in the past. In their budget proposal to the Storting, the Conservatives state "the Government will place increased importance on the petroleum activities offshore North and Mid-Norway in the future. There is thus a good chance that the development of commercial discoveries in the North shall be given priority."

This indication of a more favorable attitude toward development is further reinforced by the "Report to the Storting No. 93," which stated a willingness to abandon the production ceilings established by the previous administration. The impression that these two documents give -- that Norway might be amenable to a higher level of oil and gas production -- was further confirmed recently by a high West German official visiting the United States. Norway, he reported, has indicated that it would be interested in increasing its production in order to offset the loss of revenues resulting from declining oil prices.

On balance, then, it would appear that Norway has sufficient reserves to offer an alternative to Soviet gas, and that the new government might be willing to make such a move. The question is, should Norwegian production be viewed as a stopgap in the

event of a cutoff by Moscow, or does the Norwegian option offer something else?

THE NORWEGIAN OPTION

Substituting Norwegian gas for Siberian gas in an emergency is not a viable option. Norway's gas fields are offshore and in some of the world's most treacherous waters. Developing them is a complicated and dangerous task. Needed are a pipeline, gathering system and distribution network. Creating this infrastructure can take from three to five years. More important, it represents an enormous capital investment -- far more than could be justified on the basis of some short-term emergency in the event of a Soviet blackmail threat to cut off Siberian natural gas. This means that Norwegian gas is not much of an emergency substitute for gas from Siberia.

But Norway's gas could be a permanent substitute for Soviet gas.

There are a number of reasons why substituting a Norwegian gas development project for the U.S.S.R.'s Yamal pipeline project might be attractive to both Norway and Western Europe. First, Norway is currently reinjecting natural gas into fields where it is producing oil. By 1985 or 1986, they will no longer be able to reinject the gas without possibly diminishing the amount of oil that could be recovered. Therefore they will have to either find a market for the gas or burn it off at the wellhead (called "flaring"). Since flaring wastes a valuable resource, marketing the gas clearly is preferable. This situation will coincide with the scheduled start of Soviet gas deliveries through the Yamal pipeline.

A second advantage from Oslo's perspective is that long-term gas contracts will tend to stabilize the Norwegian economy. Through them they can hope to avoid the "boom and bust" cycle typical of oil development. A means would have to be found (and could be devised), of course, to index the contracts or even the payments to Norway so that gas revenues would not diminish in real terms. This would allow Oslo to plan budgets and to avoid a hyperinflation that could be triggered by a natural gas boom.

The construction of a pipeline and gathering system will boost Norway's domestic industries, and would create many new jobs -- especially important since offshore exploration is declining in some areas.

For Europe, the advantages are obvious. Norway is a NATO member, not an adversary and potential enemy. The cost of bringing gas from Norway, moreover, is likely to be less than that of a 3,600-mile haul from Siberia. Finally, since all of the construction would take place within Western Europe, there will be enhanced employment opportunities from the pipeline in consuming nations as well as in Norway.

When its advantages are considered, is there any doubt that the Norwegian option is the course that Europe should -- along with other measures -- take to avoid energy dependence on the Kremlin?

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