The Soviet oil industry is in trouble. Soviet oil production will soon peak, possibly as early as next year and certainly not later than the early 1980s. The maximum level of output reached is likely to be between 11 and 12 million barrels per day (b/d)—up from the 1976 level of 10.4 million b/d. Maximum levels are not likely to be maintained for long, however, and the decline, when it comes, will be sharp.

The Soviets have two basic problems: one of reserves and one of production. Barring an extremely unlikely discovery of a massive new field close to an existing field, new deposits will not be found rapidly enough to maintain acceptable reserves-to-production ratios, and those fields that account for the bulk of Soviet production are experiencing severe water encroachment. As a result, increasingly large quantities of water must be lifted for each barrel of oil produced, and high-capacity submersible pumps—obtainable only from the United States—will be required if production declines are to be staved off even temporarily.

During the next decade, the USSR may well find itself not only unable to supply oil to Eastern Europe and the West on the present scale, but also having to compete for OPEC oil for its own use. This would be a marked change from the current situation, in which exports of oil to the West annually provide 40 percent of total Soviet hard currency earnings. The USSR has large reserves of coal and natural gas, but those scheduled for exploitation over the next decade are east of the Urals, far from consuming centers in the western USSR. Distance, climate, and the rain will make exploitation and transport difficult and expensive. Exports of gas will increase, but will not compensate for the loss of earnings from the export of oil. Although some substitution of coal and gas for oil in domestic use will be possible in the long run, the effect of such substitution will be minimal.

Note: Comments and queries regarding this memorandum are welcome. They may be directed to the Office of Economic Research.
in the short run. Neither hydroelectric power transmitted from the east nor construction of nuclear electric plants (mainly in the western USSR) can be expected to afford much relief in the Soviet energy situation for more than a decade.