US-Soviet detente has already brought a succession of economic and technological benefits to the USSR: grain to offset a crop failure, access to technology, and equipment previously denied, and long-term credits to finance imports. If detente continues, these gains will accumulate. Nevertheless, overall Soviet economic growth is unlikely to be affected appreciably. Machinery imports from the United States will be small relative to total Soviet investment, and the USSR will continue to have problems in assimilating new technology. The USSR, moreover, has alternative sources of goods and technology if US-Soviet relations sour. Moscow could benefit substantially, however, if it is able to acquire key military-related technology under the umbrella of detente.

The size and terms of the grain purchases from the United States undoubtedly were influenced by the detente atmosphere. The prices paid for the grain were favorable, and Commodity Credit Corporation credits helped the USSR at a time when it was incurring its largest hard currency deficit in history. The US-Soviet maritime agreement also saved the USSR hard currency, as the USSR was able to move several million metric tons of grain on its own bottoms rather than on third-country ships.

Under detente, export controls were relaxed, and some highly prized US equipment and technology became available to the USSR for the first time. Third-generation computers and components and equipment for their manufacture were high on the Soviet shopping list. If science and technology agreements just signed with US computer firms are implemented, Moscow could modernize its computer industry and thus boost productivity in both military and civilian industry. If negotiations for advanced semiconductor production are successful, the Soviets also could be helped in developing complex electronics systems and instrumentation for advanced weapons.

Heavy industry has also received technological aid from the United States. For the Kama truck complex, the Soviets have been able to buy US equipment and technology for the most advanced foundry in the world as well as other equipment not available elsewhere. US technology probably can also help to alleviate the many serious problems confronting Soviet oil and gas industries, particularly exploration and drilling in permafrost and offshore.
To a substantial degree, these machinery purchases — like the grain imports — have been facilitated by US long-term credits, both Eximbank and private. The terms of the Eximbank credits are comparable with or better than those offered in Western Europe and Japan, contributing to the already-existing world competition in promoting exports to the USSR.

US-Soviet trade in technology still has a large potential for growth. Cooperative ventures with US companies for the development of Soviet resources offer important advantages to the USSR. US companies are able to provide the USSR with advanced equipment, technology, and know-how to carry out the large internal development projects currently scheduled. Equally important, the Soviets need to tap US financial markets for government-backed credits if the massive Soviet imports needed for such projects are to be financed at reasonable interest rates.

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So far in the detente period, the USSR has obtained US technology mainly through the trade channel. At the same time, however, a network of officially sponsored government-to-government bilateral agreements has been built up which could provide the Soviet economy with a good deal of US technology on an exchange basis. The US-USSR Science and Technology Agreement has led to the conclusion of more than 20 agreements between Soviet agencies and private firms. Most of the agreements call for general cooperation, joint research and development, and exchanges of delegations, information, processes, know-how, and licenses. Most agreements are also in high-technology industries of prime interest to the USSR such as electronics, chemicals, energy, and construction.

The growing imports of machinery and equipment together with cooperative ventures and bilateral agreements will transfer a substantial amount of Western technology to the USSR — whether in the form of informal (and sometimes inadvertent) disclosure of know-how, exchanges of technical data, or finished products. But the ultimate economic effect of technological transfer through either machinery imports or informal contacts and bilateral exchanges depends on how rapidly the technology is assimilated. Soviet R&D and economic administration have been weakest in carrying technology from research through the development and testing stages into production. Many of the reforms in economic administration, science, and education in the past decade attempted to deal with just this problem, but the reforms seem to have petered out. The Soviet economy must do better in this area if imports of US technology are to have a substantial effect.

Other factors will also reduce the impact of US-Soviet trade and technological relations on the USSR. First of all, US leverage is limited because the USSR can go elsewhere for credits and roughly equivalent machinery and technology, except in a few sectors or for a few giant projects. Second, the scale of such relations — although increasing — will remain small relative to total production or trade. For example, imported US equipment will be equal to no more than 1% of the total value of equipment scheduled to be installed in Soviet industry in 1971-75.
35. (continued)

The effect on military capabilities is another matter. Some US technology could help the Soviets considerably in developing new weapons, especially in modernizing their strategic weapons systems. Although thus far the trade, contacts, and technical agreements associated with two years of detente have not transferred discernible amounts of military technology, the changes in US-Soviet relations under detente have the potential to upgrade Soviet military capabilities. While continuing their efforts to acquire such technology by espionage and theft and by purchase from other countries who evade COCOM controls, the Soviets will attempt to acquire military-related technology directly from the United States by opening up new channels of transfer and widening existing channels. Whether the full potential of transfer is realized depends in part on the care with which US firms, scientists, engineers, and technicians treat the developing contacts. In this regard, the guidelines set and administered by the US Government will be influential in determining private attitudes and decisive in limiting the transfer of military-related technology.