

CONSEIL DE L'ATLANTIQUE NORD
NORTH ATLANTIC COUNCIL

EXEMPLAIRE
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N° 308

N A T O C O N F I D E N T I A L

ORIGINAL: ENGLISH
13th May 1983

DOCUMENT
C-M(83)30

IMPLICATIONS FOR THE SECURITY OF THE ALLIANCE OF
THE ECONOMIC SITUATION OF THE SOVIET UNION AND
OF ITS EXTERNAL ECONOMIC AND FINANCIAL RELATIONS

Note by the Secretary General

The attached report by the Economic Committee has been written to meet the requirements of the North Atlantic Council's discussion of 19th January 1983(1), and following the lines of P0/83/4 dated 20th January 1983.

2. The statistical tables at Annex were compiled by the Economics Directorate and might be helpful as background material.

3. The Council is invited to take note of the report by the Economic Committee.

(Signed) Joseph M.A.H. LUNS

This document includes: 1 Annex

NATO,
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(1) C-R(83)2 dated 4th February 1983

N A T O C O N F I D E N T I A L

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OF ITS EXTERNAL ECONOMIC AND FINANCIAL RELATIONS

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Annex

IMPLICATIONS FOR THE SECURITY OF THE ALLIANCE OF
THE ECONOMIC SITUATION OF THE SOVIET UNION AND
OF ITS EXTERNAL ECONOMIC AND FINANCIAL RELATIONS

Report by the Economic Committee

OBJECTIVE

1. The Allies recognise that mutually advantageous trade with the East on commercially sound terms contributes to constructive East-West relations. At the same time they agree that bilateral economic and trade relations with the Soviet Union and Eastern Europe must also be consistent with their broad security concerns which include the avoidance of contributing to Soviet military strength. This study examines the implications for the security of the Alliance of the Soviet economic situation and its external economic and financial relations. It does not pre-suppose any conclusions.

PART I

SOVIET ECONOMIC POTENTIAL AND OUTLOOK

INTRODUCTION

2. Since the end of the Second World War, the USSR has transformed itself from a state of relative economic weakness to a state of economic strength. This feat was accomplished largely by exploiting the country's abundant endowment of natural resources and by massive injections of capital and labour to sustain rapid economic growth. The highly centralized planning system was used to mobilize and concentrate resources in heavy industry and build a strong military capability at the expense of consumer industries. The Soviet Union's success is reflected in the size of the Soviet economy - one of the largest in the world; its labour force, which by world standards is well-trained and well-educated; and by the tremendous accumulation of capital assets.

3. Although the USSR historically has sought a high degree of self-sufficiency, imports play, and will continue to play, a significant rôle in relieving critical shortages, overcoming technological lags, and generally improving Soviet economic performance. The nation has looked to the West for equipment and technology to help increase or maintain production of some of its raw materials, to develop some basic industries, and for agricultural products to improve, or simply maintain, the quality of the Soviet diet. The ability of the Soviet economy still to remain viable in the absence of imports is much greater than most, if not all, other industrial economies, but a further decline in machinery and equipment imports would make it more difficult to ease the severe bottlenecks hampering Soviet growth.

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4. Soviet economic growth, which averaged 4.6% annually from 1950-1981, has steadily slowed in this period, especially after 1978. The traditional growth strategy now seems no longer feasible because of a combination of factors. Some, such as weather, declining growth of the labour force, and increasing inaccessibility of raw materials, are beyond Soviet control. Others such as over-centralization and the setting of unrealistic planning goals reflect weaknesses inherent in the Soviet economic system. Finally, other factors represent policy choices such as the allocation of resources to defence. In any event, a continued slowdown in growth will pose increasingly difficult choices for the Soviet leadership as they allocate resources between defence, consumption and investment.

RESOURCE BASE OF THE SOVIET ECONOMY

(a) Agriculture

5. Throughout the Brezhnev era, one of the stated aims of the leadership was to improve the quality and composition of the Soviet diet by offering greater amounts of meat and dairy products. During this period, cereal production grew substantially and meat output increased by some 50%. Progress was stopped by four consecutive poor grain harvests, when production was about 20% below the Plan targets for 1979 and 1980 and about 30% below the average annual target of 237 million tonnes for 1981 and 1982. Such shortfalls have had to be compensated for by significant increases in grain imports, which reached a record high in the year 1981/1982 of 46 million tonnes, including only one million tonnes from CMEA countries. Grain imports, destined largely for livestock herds, have cost in the order of \$6 billion annually in the last two years. In addition during the same period, the USSR bought about \$5 billion worth annually of other agricultural products (e.g. meat, sugar, soya beans) from non-CMEA countries and also significant quantities of some of these products from its CMEA partners.

6. While weather conditions have played an important part in the recent shortfalls, the underlying causes reflect an inefficient and underdeveloped infrastructure and inadequate inputs. The immediate solution offered by the régime was the Food Programme introduced by Brezhnev at the 24th May 1982 Plenum of the Central Committee. The Programme is not particularly innovative, nor is it far-reaching enough to strike at the real difficulties, although it attempts to deal comprehensively with the manifold economic areas contributing to agriculture.

7. In the light of harvest results for the past four years, it is unlikely that Soviet grain production goals of 238-243 million tonnes annually for the period 1981-1985 and 250-255 million tonnes annually for 1986-1990 will be achieved. As a result, the USSR most likely will continue to import throughout the 1980s some 20-30 million tonnes of grain annually, which will entail a

corresponding convertible currency drain. Agricultural self-sufficiency is the long-term goal, but it is questionable that the Food Programme will be capable of ensuring this. Continued heavy investment may lead to some marginal improvements. Meanwhile, short-term piecemeal remedies might include further encouragement of private plots, of enterprise subsidiary farms, and of kolkhoz markets. While not producing an overall improvement in agriculture, they may ease some shortages and facilitate the distribution and supply of foodstuffs to the labour force of key sectors. A major Soviet need, however, is to reduce the economic burden of large annual food imports and the dependency that this entails. This requires a more flexible and decentralized approach and incentive for private initiatives in agriculture. Some of the more radical measures which have been tested in the past, however, have met with strong opposition for political and ideological reasons.

(b) Energy

8. Rich endowment of energy resources has played a vital rôle in the economic growth of the USSR and of most of its East European allies. Energy resources - particularly oil - also have been a major source of convertible currency for the USSR. In recent years, however, the depletion of easily accessible supplies of energy raw materials has necessitated the USSR's entering entirely new geographic regions requiring the building of a complete oil industry infrastructure. The growth of Soviet oil production has slowed substantially since 1978 and is expected to peak in the 1980s. Soviet oil strategy has resulted in rapid exploitation of the largest and best deposits in order to minimize investment while maximizing output. This strategy worked well as long as large oilfields were being discovered to replace those in decline. No such fields, however, have been found since 1974. The USSR has compensated by keeping oil production rising through increased investment in recovery.

9. The USSR has vast natural gas reserves estimated at 35 trillion m³ and gas output has risen steadily. Since gas deposits in some of the old producing areas are becoming depleted, the USSR has been forced to develop those in West Siberia to sustain the rapid growth in output. The ensuing long distance transport requirement entails the construction of lengthy pipelines, necessitating a great many compressor stations, through inhospitable terrain. Despite these problems, an estimated 150,000 km of pipe already has been laid.

10. Coal is probably the Soviet Union's most immediate pressing energy problem. Until 1982 when it registered a slight increase, coal production had declined three years in succession. Tight coal supplies have hindered Soviet plans to use more coal (and less oil) as fuel for power plants. In addition, shortfalls in coking coal have been a major factor in the poor performance of the Soviet steel industry. Several factors account for the problems now facing the Soviet coal industry including a deterioration in

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mining conditions and insufficient past investment that has resulted in the failure to bring new capacity on stream in time to offset output declines at older basins. The development of the large basins east of the Urals, meanwhile, also has been constrained by the poor quality of the deposits, slow progress in coal enrichment, and the lack of transportation capacity. Finally, coal output generally has been hampered by labour shortages and a decline in labour productivity.

11. The Soviet nuclear power industry, sited mainly in Western USSR, although it has not met the full expectations of the leadership because of numerous equipment and labour problems, has supplied a rising share of electricity needs and now accounts for an estimated 7% of total Soviet electricity output.

(c) Raw materials

12. Because the USSR is also richly endowed in non-energy resources, it has been able to meet its own industrial requirements for a wide range of metal and non-metallic ores and to have an exportable surplus. These exports, besides being especially important to Eastern Europe, have been a major source of convertible currency for the Soviet Union. In recent years, however, many of the most accessible supplies of certain raw materials have become exhausted. As a result, the USSR has been faced with rising exploitation costs because of lower quality ores and the need to shift extraction sites to more remote and inhospitable areas. Inadequate investment and labour shortages have added to the problem.

13. In response to the adverse trend in certain branches of the mining industry, the USSR appears to have adopted a flexible and pragmatic approach. It has displayed an ability to change earlier policy decisions regarding the development of a particular branch by importing needed material rather than opening up new deposits. The Soviet leadership also has taken steps to reduce the consumption of raw materials and promote a more rational use of them. However, the results so far have been only marginal and the ratio of raw materials consumption to total output does not appear to have declined.

14. Among the few important industrial products for which the Soviet Union depends on outside sources to a relatively large extent (at least one-fourth of Soviet domestic consumption) are aluminium raw materials, baryta, tin, molybdenum, tungsten, and fluorspar. Soviet imports of baryta and fluorspar largely come from other CMEA countries and in the future the same should be true for molybdenum as Mongolia exploits its deposits. The USSR's sources of supply for aluminium raw materials are diversified and include both Communist and non-Communist countries while for tin and, above all tungsten, the USSR depends mainly on the world metal markets. The USSR also has become slightly dependent (less than 10% of Soviet domestic consumption) on imports of lead and zinc.

15. Gold and diamonds are of special importance in Soviet efforts to earn convertible currency. The USSR traditionally has offset a significant portion of its convertible currency trade deficit by selling gold: such sales, which in 1981 totalled 200 tonnes worth just under \$3 billion, are used as a residual funding device and depend, for the most part, on the availability and cost of other funding sources (mainly credits) and Soviet interest in maintaining a stable gold market. The USSR apparently has substantial stocks and deposits of gold and production is expected to increase steadily during the 1980s. Meanwhile, convertible currency earnings from diamond sales have registered large increases in recent years because of higher world prices during the second half of the 1970s and because a rising proportion of exports has consisted of cut stones. The Soviets increased the volume of diamond sales in 1981, and this in turn contributed to world diamond prices falling by almost 50% from the 1980 peak. As a result, current Soviet earnings do not match the 1980 level of \$1.3 billion.

(d) Manpower

16. The Soviet Union has a large and relatively well-trained, well-educated, labour force and has relied heavily on increases to this labour force to spur economic development. However, increments to the working age population have been declining since the mid-1970s and this has already contributed to the economic slowdown. The slower growth of the labour force stems from lower birth rates in the 1960s, an increase in the number of workers reaching retirement age, and a rising mortality rate among males in the 25 to 44 age group. Soviet labour problems also have been aggravated by the substantial slowdown in the large-scale migration to urban areas from the countryside, which in the past was a rich source of labour; regional imbalances caused by a more rapidly growing population in the Moslem areas such as Central Asia and Kazakhstan and a substantially slower growing population in the more industrial Slavic areas of the West, and the decline in the growth of labour productivity.

17. The Soviet leadership has already taken several steps to help alleviate the labour difficulties. The measures are designed to encourage pensioners to return to the work force; improve the allocation of labour through strict work assignments and administrative controls; and improve efficiency by work discipline and reducing the high job turnover rate. Material incentives to increase the birth rate have been introduced and the mechanization and automation of labour-intensive industrial processes are treated as priority policies. Workers in labour surplus regions, like Central Asia, are being encouraged (with little success) to move to labour deficit areas, and a shift of investment spending to the labour surplus regions is likely to be under consideration. It is doubtful, however, that these measures will achieve the results expected by the Soviet leadership.

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18. The current population pattern raises additional concern for the Soviet leadership: the impact the pattern will have on the Soviet armed forces. The problem is one of composition as well as of size. Since the birth rate for Moslem ethnic groups in the USSR has been higher than the rate for Slavic groups, Moslems have accounted for a growing proportion of draft-age males. The Soviet leadership is concerned that because of linguistic difficulties, poorer educational training, and greater ethnic consciousness, efficiency of the armed forces may be adversely affected.

SOVIET ECONOMIC STRUCTURE, CIVIL AND MILITARY

19. The allocation of important resources to the military has been a factor in constraining economic growth. Soviet military programmes use high quality manpower, materials, and productive capacity that might otherwise be used to increase civilian consumption or investment. The benefits the civilian sector derives from military expenditures, such as technology spin-off, manpower training, convertible currency earnings from arms exports, and the use of troop labour on civilian construction projects and for harvest support offset the drain of these expenditures only in a small measure.

20. The consumer particularly has suffered from the continuing priority given to the military sector and to heavy industry. Despite the size of the USSR's economy and the country's natural wealth, the Soviet standard of living is far below that of the industrial West and even below those of most East European countries.

21. The military burden in recent years has been heavy. According to Western estimates, real growth in Soviet military spending has averaged 4% a year since 1970 but has declined somewhat in recent years. The share of GNP devoted to the military sector in current prices has increased from 12-14% in 1970 to 14-16% in 1980-81. In constant 1970 prices, the proportion of resources going to the military is somewhat lower: military activities in constant price terms absorbed 13-14% of GNP in 1980-1981. More than one-third of all machinery output now goes to the military and substantial amounts of metallurgical products, electric power, coal, gas and chemicals are either directly sent to the military or embodied in the goods it receives. The military sector also takes about one-seventh of total manpower and a substantially higher proportion of the best qualified scientific and technical personnel.

CURRENT PERFORMANCE

22. Soviet economic growth continued to slow during the first two years of the 1981-1985 Economic Plan according to Soviet statistics. After registering a 3.5% increase in 1980, national income rose by 3.3% in 1981 and by only 2.6% in 1982. The downward slide reflects: four consecutive poor or mediocre harvests;

increased reliance on costlier and more remote sources of energy and other raw materials; declining increments to the labour force; slower growth in investment because of the continued priority for the military and a rising concern over consumer welfare; and bottlenecks in key sectors, such as energy, steel, machinery, construction materials, fertilizers, and transportation.

23. The bottlenecks have caused shortfalls in deliveries of a number of key inputs for industrial production, which traditionally has been the mainstay of Soviet economic growth. After increasing by 3.3% in 1981, industrial output last year rose by only 2.8% - the lowest increase since the Second World War. Key industrial commodities experiencing production problems include steel and steel products, cement, and freight cars. Plagued by tight supplies of coking coal and iron ore, production of steel and steel products over the past five years has remained stagnant. The poor performance is particularly damaging to civilian machine-building and other priority sectors of the civilian economy and, along with shortfalls in the output of building materials, threatens to curtail construction growth. Meanwhile, cement output last year fell below the 1980 level and freight car production declined for the sixth consecutive year.

24. The fuels and power sector overfilled the plan for natural gas production, but failed to reach the 1982 targets for production of petroleum, coal, and electric power, which, nevertheless, registered modest gains. In 1982 gas production maintained its rapid rate of growth and reached 501 billion cubic metres while oil output managed to inch upward to 613 million tonnes - an increase of less than 1%. Coal production reversed its three year decline and in 1982 rose by 2% to 718 million tonnes, or roughly the 1980 output level, but still below the 1978 level. The increase in electricity production last year was partly a result of the rapid growth in nuclear-generated electricity.

25. After three consecutive years of declining output, agricultural production in 1982 fared somewhat better and rose by 4%. However, output was still 3% below the 1978 level. Grain production last year has not been officially announced. While there are indications of an increase from the 1981 harvest, the 1982 crop was definitely below the 238 million tonnes called for in the 1982 Plan. With the exception of cotton, output of nearly all other major categories registered small increases. Nonetheless, agricultural production in 1981-1982 has fallen short of the targets set by the 11th Five-Year Plan and there is little or no hope of fulfilment.

26. With regard to external economic relations, the USSR in 1982 managed to boost convertible currency exports substantially by increasing the volume of oil and oil product deliveries to the West. The additional oil sold to the West came partly from a

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27. The Soviet leadership is aware of the problems the economy faces and recognizes that the traditional growth strategy is no longer feasible. It also is aware of the options that could be taken to reverse the slowdown in economic growth, among which are economic reforms and possibly a reallocation of resources from the military to the civilian sector.

ECONOMIC POLICY OPTIONS

28. It is unlikely that the new leadership will undertake any major reform of the economic system, at least over the next few years. In any event, the positive effects of such reform would not yield dividends in increased productivity for many years. The Soviet bureaucracy probably would resist the introduction of major institutional changes and would try to undermine them as it has done in the case of past reform efforts. A more likely choice, therefore, is the continuation of the "tinkering" that has been going on for nearly two decades. While past efforts have failed to eliminate the problems they were intended to solve, certain measures such as modest price reforms and providing additional material incentives could help improve productivity to some extent. The new leadership's approach to improving economic management seems cautious and moderate thus far. It has emphasized the need for some increase in autonomy for enterprises and close ties between productivity and remuneration. Its major concrete measures to date have consisted of personnel changes and a campaign aimed at keeping workers on the job during scheduled hours.

29. The Soviet leadership also is faced with the question whether or not it wants to maintain military spending at the high traditional rate and, if not, how much to cut it. In so doing, it will have to take into account the large number of weapons development and production programmes already underway, continuing capital construction in the military industries, and the increasing complexity and costs of the new military hardware. If military spending continues to grow faster than the rest of the economy, the share of national resources consumed by the military will further increase to the detriment of investment and consumption. A substantial reallocation of resources between the military and civilian sectors is remote since it would represent a complete reversal of policy. A shift of some resources would be a viable alternative, however. For example, even a

temporary slowdown in the growth of procurement - the largest component of military spending - would perhaps free enough resources to help alleviate bottlenecks in transport, construction materials, and steel, and this could lead to at least a small improvement in overall efficiency. Such a shift, however, would be difficult for Western analysts to monitor.

ECONOMIC OUTLOOK

30. The rate of growth of the Soviet economy continues to decrease. Since 1978 this decline has been more pronounced as the present Five-Year Plan seems excessively ambitious in the light of overall performance. Whatever value is ascribed to recent information about the trends in various sectors, it is unlikely that economic performance in the short and medium terms will be dramatically improved, and that the need to import will lessen. The problems in agriculture, in transportation, in exploiting raw materials, and in providing labour force, can be solved only very gradually.

31. There is no sign that major economic reforms necessary for substantial improvements will be introduced. At the same time, the new leadership has taken steps to reduce absenteeism. It has also indicated that it will act to curb corruption and to provide incentives. Whilst such measures are likely to lead only to one time gains, their cumulative effects over several years eventually could be significant, and have a positive impact on economic growth.

32. The possibility of shifts in resource allocation priorities, from the military to the civilian sectors, cannot be ruled out entirely. Given the current economic problems and the technical complexity of advanced weapons systems, it is difficult to predict future Soviet military spending. However, the above analysis suggests its continued growth through the 1980s.

33. Whatever solution is adopted, it seems clear that the USSR will continue to need, from the West, food, machinery and equipment, metallurgical products, and some raw and semi-finished materials. Whilst adjustments can be made in the annual amounts of convertible currencies to be devoted to such purchases, there seems little scope for more drastic cuts in the present expenditures without calling for sacrifices on the part of enterprises and of the consumer, which, in turn, would impair attempts to improve productivity, and probably adversely affect medium-term economic development.

PART II

EXTERNAL FACTORS AFFECTING THE SOVIET ECONOMY:
SECURITY ASPECTS FOR THE ALLIANCE

INTRA-CMEA ECONOMIC RELATIONS, INCLUDING
INTERDEPENDENCE AND LEVEL OF INTEGRATION
AND THEIR RESPECTIVE IMPACT ON SOVIET
ECONOMIC TRENDS AND OPTIONS

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34. An analysis of economic relations with the USSR would not be complete without a thorough review of intra-CMEA economic relations. Data for the past several years indicate that in relative terms intra-CMEA trade has increased. This turning inward could reflect a deliberate attitude on the part of CMEA countries, or could be just a temporary phase brought about by the financial difficulties facing Eastern Europe and the world-wide economic recession.

35. The East European countries depend heavily on the Soviet Union for both exports and imports, but the USSR depends only 10% or less on any individual East European country for its own foreign trade in which CMEA as a whole now accounts for less than 50%. In the period between 1970 and 1980 the share dropped from approximately 60% to nearly 48%. While price distortions in trade make a complete evaluation of intra-CMEA trade very difficult, it is clear that the East European countries depend on the USSR for the bulk of their energy supplies. On the other hand, Eastern Europe, to a limited extent, can substitute for the West in exports to the Soviet Union of certain types of machinery and of some agricultural products.

36. Soviet exports of machinery, equipment and means of transport to East European countries is considerable, but on average they constitute only 20% of total Soviet exports to these countries. The same category, however, makes up 51% of total Soviet imports from these countries and therefore constitutes the main single trade category. For the more industrialised countries of European CMEA, such as the GDR (65%) and Czechoslovakia (56%), the share of engineering products occupies a more significant place. To some extent, each individual European CMEA country satisfies the Soviet demand for particular types of engineering products; for example, Bulgaria supplies electronic and electrical goods; Czechoslovakia supplies a variety of metal-working machinery and other mechanical engineering products including equipment for nuclear power stations; the GDR supplies railway wagons, machine tools and ships; Hungary supplies buses, cranes, computers and communications equipment; Poland supplies ships and a variety of engineering products; and Romania supplies electrical components and ships. In total, the imports from all other CMEA countries represent two-thirds of equipment and machinery imports of the USSR.

37. Despite the difficulties encountered in production because of lower technological levels, East European products are improving and reaching new possibilities of replacing less sophisticated Western equipment imported by the USSR, thus saving it some convertible currency. It is still unlikely, however, that Eastern Europe will be in a position to replace highly sophisticated Western equipment. The improvement in East European manufacturing capabilities has resulted partly from the specialisation, which began in 1971, in several fields: the volume of trade in specialised products developed accordingly. As a result, the share of specialised trade in total trade turnover of the Soviet Union, which was some 4% in 1971, increased to over 15% in the course of less than 10 years. When Soviet imports alone are considered, this percentage rose from just over 5% to nearly 24%. This form of trade enabled the countries concerned to concentrate on the development of certain products, thus helping development of technology and, at the same time, achieving economies of scale. In addition, all the East European countries play a significant rôle in providing the USSR with consumer items including industrial consumer goods.

38. In Eastern Europe, the GDR, Czechoslovakia and Poland are grain importers; Hungary, Bulgaria and Romania are food exporters. Only Hungary can supply the USSR with significant quantities of grain and even those are modest compared with Soviet needs. CMEA countries (including Cuba) can supply other agricultural products which the Soviet Union needs and were responsible for a quarter of USSR imports of agricultural products in 1981.

39. On balance these countries are more dependent on the Soviet Union than vice-versa. The Soviet Union has so far subsidized the East European economies by charging less than prevailing world market prices for its fuels and raw materials, and by allowing these countries to run deficits in their bilateral trade. According to a UN study(1), this subsidy amounted to \$20 billion between 1975 and 1980, but this situation is changing(2) through pressures which the Soviet Union is putting on its partners to balance trade. At the same time, implementation of the complex

(1) UN Economic and Social Council - ECE - EC.AD(XIX)/R.4, 28th December 1982, which contains the only estimate available to the authors of the present paper.

(2) After the price of oil increased in the early 1970s and again at the end of the decade, the East Europeans were benefitting from the existing CMEA pricing mechanism, which is based on the average world market price of petroleum for the preceding five years. Now that the market price of oil has fallen, the Soviet oil subsidy might soon disappear.

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programme has resulted in some joint investments for developing the USSR's basic raw material resources and its capacity to produce basic materials. The participation of East European countries was necessary to ensure the construction of these projects as the Soviet Union would not have been prepared to finance in full the investment costs of projects which benefitted not only its own economy, but also those of East European countries.

SECURITY ASPECTS OF IMPORTS BY MEMBERS
OF THE ALLIANCE FROM THE SOVIET UNION
AND THE EAST EUROPEAN COUNTRIES

40. Energy products are, more and more, taking pride of place among Soviet exports to members of the Alliance; in 1981 they accounted for approximately three-quarters of all transactions (including more than half for oil alone) and the proportion was probably higher in 1982. Soviet sales to the non-Communist industrialised countries taken as a whole follow the same pattern and reveal the high degree to which the USSR depends on this type of export as a convertible currency earner to pay for its imports. Crude raw materials are the second most important Soviet export item. Finally, the relatively small proportion of capital equipment and consumer durables illustrates Moscow's inability to diversify its sales on Western markets.

41. In general, the problem of Western energy supplies has become particularly important since the 1970s; against this background, supplies of oil and gas from the Soviet bloc have a potential security aspect for the Alliance. The element of risk will be reduced to the extent that member countries pursue and, in some cases, intensify their efforts to conserve energy and diversify.

42. For oil, the risk is greatly reduced because of the relatively low level of such procurements compared with overall imports by members of the Alliance and also because it is possible to switch rapidly to other supply sources, particularly in the present state of the oil market.

43. An increase in purchases of Soviet natural gas beyond the quantities already contracted for would reduce, to a certain extent, the flexibility of Alliance energy supplies because of the technical characteristics of the product and the fixed infrastructure it requires. However, the possible implications of these purchases should be seen in the light of the successful efforts in the West to save energy and to develop other energy sources. They should also be considered in terms of the overall policy of diversifying supply sources which some countries have had to implement and which, by increasing the number of suppliers,

reduces dependence. In the long-term - and subject to the remarks made at the beginning of this paragraph - one possibility could be to conserve gas deposits in the member countries of the Alliance; in the medium-term, promoting the trade of energy products within the Alliance and implementing projects for the transport of gas through secure routes from certain gas exporting countries outside the Alliance; and, in the short-term, to reduce the risk inherent in imports from the USSR through technical measures which would reduce the impact of an interruption in supplies: expansion of storage capacity (with due regard to environmental considerations), back-up oil facilities for substitution, extension of suspendable contracts or linking up of distribution networks. Evaluation of these technical measures requires particular attention. Because of the long lead times in development, gas deposits located in the West could play a rôle in case of interruptions in deliveries only if certain stages of their development were previously undertaken on commercial terms.

44. For its part, the Soviet Union wishes to amortize the large sums it has invested in the development of its gas resources and the necessary infrastructure. Taking into account the eventual reduction of its oil exports to the West, the USSR will depend increasingly on its abundant gas reserves to finance its convertible currency imports. Therefore, the Soviet economy would encounter serious losses should gas supplies to Western Europe be interrupted for any extended period, particularly since it would not have any alternate outlets.

45. On the other hand, the Soviet Union could take actions which are economically costly, but in line with its political and/or military objectives. The possibility that it could decide to cut its prices in order to jeopardize or render uncompetitive exploration and development projects in other parts of the world is conceivable. However, this would pre-suppose that the USSR would have new exportable surpluses, would have the necessary transport means, and would renounce its policy of following world market trends. It also would mean that the countries of Western Europe would allow themselves an excessive concentration of supplies from a single source. Although the USSR until now has been a reliable commercial partner in its trade with the West, it has used trade as a political tool towards other countries to the extent that it could seriously affect their economies by this means, which would not be the case for Western countries.

46. The dependence of members of the Alliance on the USSR for supplies of strategically important industrial raw materials has tended to diminish thanks to the emergence of new supply sources and technical innovations and sometimes because the Russians have

difficulty in keeping up a steady flow of exports to the West. They are important suppliers only of the platinum group of metals and, to a lesser degree, chromium, which are the only two areas where there could be security implications for the Alliance.

47. The USSR is the second major supplier of chromium to Alliance countries (approximately 20% of consumption). However, the degree of risk attached to Soviet supplies is lessened by the availability of supplies from Turkey, by the improved prospects for using lower-grade South African ores thanks to technical innovations, and by the additional supplies which can be obtained from some secondary producers. Moreover, it might be possible to reduce chromium consumption by as much as 30% if available but costly new production technologies were to be applied.

48. For the platinum group of metals, Soviet deliveries (60% of which are palladium) cover some 25% of Alliance countries' requirements. Any sudden withdrawal by the USSR from the Western market would lead to an immediate shortage which would push up prices. However, a return to market stabilization would be made easier by the fact that South Africa, another main producer, has plentiful reserves, probably a high level of stocks and a degree of flexibility in production, which is based directly on primary ores. Furthermore, palladium can easily be replaced by platinum and a high degree of recycling is possible with this product. On the other hand, reliance on only one other supplier in itself involves an element of risk for the security of Alliance supplies.

SECURITY ASPECTS OF EXPORTS FROM MEMBERS
OF THE ALLIANCE TO THE SOVIET UNION AND
THE EAST EUROPEAN COUNTRIES

49. During the period 1971-1981, the three main features of the commodity pattern of Western exports to the USSR were:

- (i) the sizeable increase in grain and other agricultural exports after 1979 as a consequence of poor Soviet agricultural performance and the choice made by the leadership to improve the population's diet;
- (ii) the sharp drop in exports of capital equipment, again between 1979 and 1981;
- (iii) confirmation of the importance of semi-finished goods.

50. Like all other countries participating in international trade, the USSR, with the characteristics attaching to its foreign trade, finds an economic advantage in importing certain goods. Those which come from the West play an important rôle in easing bottlenecks in industry, sustain food supplies, help technological progress and generally contribute to the development of the economy. In general, imports may contribute, to some extent, to the Soviet military effort. This possible contribution is an intricate matter, however, and would be hard to quantify. The economic benefits derived by the West from sales to the USSR must also be taken into account.

51. The Soviet Union has accorded a high priority to the acquisition, by legal and illegal means, of Western equipment for the development of its pacemaker industries, particularly in computers and microelectronics, and this has, in certain cases, helped in the modernization of its armaments programmes. It has also sought systematically to exploit the military applications derived from imported equipment and technologies. Among such military applications, mention should be made of plants for the building of certain types of lorries and engines, the production of titanium, tungsten metallurgy and floating docks for naval repairs.

52. Despite efforts designed to improve the flow of information between research centres and design offices, on the one hand, and industrial establishments on the other, the Soviets are finding it difficult, because of the inflexibility of their system, to master the process of innovation. In view of the importance which this bears for them, they will continue to actively seek access to Western technology. Part of this, however, can be obtained in the context of exports from countries which are not members of the Alliance, and from information available in the public domain, or illegal exports.

53. A major security aspect for the Alliance of certain categories of sales to the USSR, is the importance of the contribution which they might make to the Soviet military build-up. The whole issue of equipment and technology sold to the USSR is complex, and calls for careful definition. A distinction has to be made between two categories: equipment and technologies which have no specifically military applications and which do not raise any direct problems, and those which are sensitive. The latter are covered by COCOM strategic criteria, and in NATO come under CNAD scrutiny. In this field, a growing problem is products and technologies which, in the West, have been specifically developed for use in the civil sector of the economy, but which have significant military relevance, and which could enhance the technological level of Soviet military equipment (e.g. robotics and certain types of microprocessors which are currently being considered in COCOM). COCOM is continuing to pay close and

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increasing attention to this problem area to see whether there are any additional products and technologies which should be controlled. This is an area of considerable concern which requires close consultation and co-operation within the appropriate fora.

54. The part played by the Eastern countries as markets for the members of the Alliance is small overall: the relative share of these countries in Alliance countries' exports has steadily decreased since 1976 and averaged only 3.1% in 1981. It reached a high of 8% in the case of Greece and Iceland, while for several countries (Belgium, Denmark, the Netherlands, Norway, the United Kingdom, and the United States) it was 2% or less.

55. Although the importance of the USSR and Eastern Europe is greater for certain countries in particular sectors (particularly steel and mechanical engineering) exports of industrial products do not at present give rise to security problems. The closure of Soviet and East European markets would, admittedly, give rise to transitional difficulties and organizational problems for some firms which, in addition, would find it harder to diversify in the present depressed economic conditions. This is not only true of transactions with the Eastern countries, however, but it becomes the case as soon as any client country accounts for a relatively large proportion of sales. The markets represented by the Eastern countries are, moreover, tending to shrink as a consequence of the problems encountered by the latter in financing their Western imports.

56. In the agricultural sector, the position of the USSR as a buyer of grain surpluses is far from negligible. A significant withdrawal from the market, particularly in its present depressed state, would have a destabilising effect. While theoretically an irrational withdrawal cannot be ruled out, it is extremely unlikely, and Soviet import requirements are likely to remain high.

57. Given the inability to expand sales on Western markets at the same rate as their purchases, the Eastern countries have made extensive use of the various financial facilities afforded by the West the consequence of which has been a rising level of indebtedness. However, in 1982, and for the first time, there was a net outflow of capital from the East to the West. This reversal in the trend reflects to a large extent the growth of repayments by the Eastern countries and their diminished borrowing ability, resulting from a decrease in confidence on the part of Western banks, which has affected not only this category of countries. A distinction must, however, be made between the position of the USSR, on the one hand, and of Eastern Europe, on the other.

58. The USSR has always followed a cautious borrowing attitude and Soviet indebtedness (around \$12 billion in net terms at the end of 1982) remains low compared with the size of the economy. Repayments do not seem likely to create any major difficulties; based on 1982 current account receipts, the debt service ratio is an estimated 17%. Concerning indebtedness from export credits officially guaranteed by a Western public institution, the USSR, Czechoslovakia, and the GDR were upgraded to the category of "relatively rich" countries in accordance with the new definition (based on per capita income) agreed to under the OECD consensus.

59. In Eastern Europe, the indebtedness of Poland has exceeded the repayment capacity of its economy. Romania and, to a lesser extent, Hungary and the GDR face serious difficulties, whereas the financial situation of the other countries of the region do not appear to pose real problems. The obligation, shared by debtors and creditors, to reschedule or refinance a part of the debts could place various Western creditors in a position of dependence vis-à-vis their debtors. Such dependence may gradually decrease, however, with the introduction of appropriate financial correctives (e.g. constitution of reserves) sometimes used when some banks have written off part of their claims, and by the efforts of indebted countries to redress their balance of payments. In this regard, it must be borne in mind that the amounts owed by the Eastern countries are significantly smaller than those owed by other areas. The problem of external payments in convertible currencies could prompt the East European countries to strengthen their commercial ties with their CMEA partners. The likelihood of a shift of this kind would appear to be small however, given the lack of flexibility of inter-zone trading.

BALANCE OF PAYMENTS OUTLOOK

60. The outlook for Soviet sales in convertible currencies can, to some extent, only be guessed at given the leading part played by energy products combined with the uncertainty surrounding future Soviet oil exports on the one hand, and price trends on the other. The likelihood is, however, that the country's oil surplus will gradually decrease and that this decrease will not be entirely offset by an increase in gas deliveries. Failing a substantial rise in energy prices over the next few years, the prospect of any increase in Soviet trade earnings therefore seems limited and this could confront the country with one of two options: either a significant cutback in oil deliveries to Eastern Europe or an increase in deliveries of non-energy products. However, the possibility for a substantial rise in the latter, as a group, is poor. The Soviets at present are expanding their deliveries of refined products which will increase the value of their oil export receipts, but it is not certain that the USSR will be able to continue this expansion.

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61. The USSR might be tempted, in this context, to step up its arms exports, but here it would come up against the decline in the ability to pay of some of its larger traditional buyers. On the other hand, it could apparently expand its sales of precious metals, particularly gold, the prices of which are subject, however, to major fluctuations.

62. On the import side, one of the main factors of uncertainty is the volume of future grain requirements: these should remain buoyant without however reaching 1981-1982 levels. Against this background, the preservation at a constant level in real terms of overall Soviet procurements would not rule out a slight increase in other imports, for example certain industrial products.

63. The Soviet Union is unlikely, during the eighties, to meet with serious problems regarding external payments in convertible currencies provided that it abstains from a substantial increase in its imports and that prices of oil and gas are not reduced for any great length of time. Its margin of manoeuvre is tending to dwindle however, given the foreseeable continuation of its substantial requirements for agricultural products. The application of a policy of extensive imports of Western equipment over several years, which seems improbable in the light of current problems of absorption, would require a deviation from the traditionally cautious Soviet attitude towards borrowing. Nevertheless, in the event of a shortage of convertible currencies provoked, for example, by a prolonged decline in energy prices and by difficulties in resource allocation, the Soviet Union could - although this does not seem probable at present - relax its cautious policy and borrow more from the West. In any event, such a development cannot be considered without taking into account the attitude of Western lenders.

PART III

GENERAL ASSESSMENT AND SECURITY
IMPLICATIONS FOR THE ALLIANCE

STRENGTHS AND WEAKNESSES OF THE SOVIET ECONOMY
AND ABILITY TO SUSTAIN THE MILITARY EFFORT

64. The Soviet economy is large, diversified and remains powerful notwithstanding that its growth has been steadily slowing down. If this trend and present world market conditions persist, Soviet Authorities will not be able to continue to satisfy simultaneously their military, economic and social objectives to the extent that was possible during the 1970s. This poses increasingly difficult resource allocation choices for the Soviet leadership but it is aware of its power to demand sacrifices from, and to impose harsher living standards upon, the population.

65. The Soviet economy is broadly self-sufficient. Although trade with the West is small in both absolute and relative terms, it is important in several key areas and is likely to remain so. Accordingly, the Soviet Union will continue to use this trade principally to compensate for either quantitative (e.g., grain) or qualitative (e.g., high technology) shortcomings in its domestic economy. It is probable that the USSR also uses trade to aid in the development of its military potential: it seeks to derive whatever benefits from imports from the West which might contribute to the Soviet military effort.

66. The growth of Soviet trade with the West during the 1980s will be constrained largely by the USSR's convertible currency earnings and its traditionally cautious attitude towards borrowing. In this regard, among the important factors will be: the level of Soviet energy exports, which will in turn depend not only on the Soviet Union's production of energy equipment but also notably on the availability of Western energy equipment and technology; access to international markets for its other products, and the availability of Western credit. Prospects for increased earnings are limited if the Soviet oil surplus gradually decreases and world energy prices remain low. Natural gas deliveries most likely will not completely offset the decline in oil earnings even if the development of Soviet gas deposits continues at its current pace. Earnings from the sale of gold, diamonds and platinum group metals will be constrained by the extremely sensitive nature of their markets and the prospects for other non-energy exports are poor. On the import side, the USSR is expected to continue to buy large quantities of Western grain. In case of a substantial convertible currency drain, Soviet imports from the West will be constrained unless there is a departure from its conservative borrowing policies.

SECURITY IMPLICATIONS

67. Those effects of East-West economic relations which have the most important security implications for the Alliance, which are of the greatest significance, and which are the subject of work underway in other international organizations, include:

- (a) The USSR's ability to acquire militarily sensitive Western products and technologies which contribute to the development of its military strength.
- (b) Possible dependence of Alliance countries' economies on imports from, and exports to, the Soviet Union. At the moment, such dependence is limited and manageable. However, conditions are to be avoided where a dependence could permit the Soviet Union to exert political or economic pressures in certain fields. In the case of natural gas, should sufficient commercial alternative energy sources not be developed, imports of Soviet gas could over time exceed a level which is no longer consistent with Allied security interests. As for Alliance exports, a Soviet withdrawal from purchases of cereals and industrial products, which is highly unlikely, would have a destabilizing effect on the grain market and cause transitional repercussions in some industries.

68. Mutually advantageous trade with the Soviet Union and Eastern Europe on commercially sound terms contributes to constructive East-West relations. These bilateral economic relations with the Soviet Union and Eastern Europe must also be consistent with broad Allied security concerns, which include avoidance of contributing to Soviet military strength, and be commercially prudent, which implies that economic and trade relations be conducted on the basis of a balanced advantage for both sides in order to avoid giving the USSR preferential treatment.

N A T O C O N F I D E N T I A LANNEX to
C-M(83)30TABLE 1

USSR: NET DOMESTIC PRODUCT (NDP) BY SECTOR OF ORIGIN AND GROSS DOMESTIC PRODUCT (GDP) AND GROSS NATIONAL PRODUCT (GNP) ESTIMATES FOR 1970-1980
(BILLION CURRENT ROUBLES)

Year	Industry	Agriculture	Transport and Communication	Construction	Trade and Catering	Other Sold Services(a)	Social Services(b)	Collective Services(c)	NDP	Amortization	GDP	Net Property Incomes from Abroad	GNP
1970	148.3	63.1	26.2	30.0	32.2	6.8	16.3	12.9	335.8	41.3	377.1	-0.092	377.0
1971	156.9	62.9	28.0	33.0	34.7	7.7	17.0	13.7	353.9	45.1	399.0	-0.053	399.0
1972	163.6	59.6	29.7	34.7	37.2	8.2	18.2	14.3	365.5	48.0	413.5	-0.072	413.4
1973	173.3	68.4	31.9	36.2	40.1	9.0	19.7	15.2	393.9	53.8	447.7	-0.109	447.6
1974	186.3	65.6	34.5	38.9	41.8	9.9	20.5	16.4	413.8	58.4	472.2	-0.135	472.1
1975	191.2	61.5	37.0	41.3	46.3	10.5	21.2	17.6	426.6	67.3	493.8	-0.787	493.0
1976	199.7	66.2	38.7	43.4	52.5	10.8	21.8	18.3	454.5	74.6	526.0	-0.950	525.1
1977	207.0	71.6	40.4	44.6	57.3	11.9	22.9	19.2	474.9	80.4	555.3	-1.148	554.2
1978	216.2	73.6	41.4	46.0	60.8	12.8	24.4	20.2	500.3(d)	86.4	586.6	-1.289	585.4
1979	226.5	73.2	42.3	46.7	68.6	12.0	25.3	21.2	515.8	92.9	608.7	-1.219	607.5
1980	233.5	69.0	44.6	48.2	81.5	13.2	26.9	22.5	539.3	98.2	637.5	-1.101	636.4

Sources: Columns 1,2,4 and 5: Narkhoz 1980, page 379; Column 3: sum of Columns 1 and 2 of Table 2; Column 6: sum of Columns 14,15 and 16 of Table 2; Column 7: Column 4 of Table 1; Column 8: sum of Columns 5 and 9 of Table 1; Column 9: Column 12 of Table 1; Column 10: Column 4 of Table 3; Column 11: sum of Columns 9 and 10 here; Column 12: Economics Directorate estimate; Column 13 sum of Columns 11 and 12 here.

Notes: (a) Covering: (i) Communal economy; (ii) Everyday services; and (iii) Banking and State insurance;
 (b) Covering: (i) Health, physical culture and social security; (ii) Education; (iii) Culture; and (iv) Art;
 (c) Covering: (i) Science and scientific services; (ii) Government agencies and agencies for administration of the economy and governing bodies of co-operatives and public organizations; and (iii) Military pay and subsistence;
 (d) Including a 3.8 upward revision not included in any sector

N A T O C O N F I D E N T I A L

TABLE 2

USSR: GROSS DOMESTIC PRODUCT (GDP) BY END USE - 1970-1980

(BILLION CURRENT ROUBLES)

Year	CONSUMPTION			CAPITAL FORMATION			Net Exports Losses and Discrepancy	GDP		
	Total	Personal	Social Collective	Total Gross	Net Fixed	Increase in stocks Amortization				
1970	247.2	21.7	27.9	19.7	125.5	51.1	33.1	41.3	4.4	377.1
1971	261.9	29.5	29.5	21.1	132.2	53.7	33.4	45.1	4.9	399.0
1972	277.3	25.6	31.1	22.5	133.3	55.2	30.1	48.0	2.9	413.5
1973	293.1	28.5	33.2	24.3	151.4	60.2	37.4	53.8	3.2	447.7
1974	310.1	30.6	35.1	26.3	156.5	62.0	36.1	58.4	5.6	472.2
1975	329.6	32.7	36.8	28.3	163.9	61.2	34.6	67.3	0.3	493.8
1976	345.4	...	39.1	...	177.9	55.2	48.1	74.6	2.7	526.0
1977	361.8	...	41.0	...	187.3	54.6	52.3	80.4	6.2	555.3
1978	381.8	...	43.5	...	199.1	59.8	52.9	86.4	5.7	586.6
1979	398.8	...	45.3	...	202.2	55.2	54.1	92.9	7.7	608.7
1980	424.4	...	47.9	...	205.4	61.5	45.7	98.2	7.7	637.5

Sources: Column 1: difference of Column 13 less 12 less 7; Column 2: difference of Column 1 less 5 less 6; Column 3: data last published in Narkhoz 1975, page 565; Column 4: difference of Column 2 less 3; Columns 5 and 6: cfr. definitions below; Column 7: sum of Column 8 plus 11; Column 8: Narkhoz 1980, page 380; Column 9: sum of Columns 1 plus 2 less 4; table 3 above, for the years since 1976; for previous years, latest data was published in Narkhoz 1975, page 566; Column 10: until 1975, Narkhoz 1975, page 566; since 1976: difference of Column 8 less 9; Column 11: table 3, Column 4; Column 12: obtained as difference between NMP produced and NMP utilized, Narkhoz 1980, pages 379-380; Column 13: table 4 above, Column 11. Note that Columns 1, 2, 4, 7 and - since 1976 - 9 and 10 are obtained as difference from one or several other columns.

Definitions

Personal consumption closely corresponds to SNA concepts.

Social consumption covers: (i) free education, culture and art (excluding grants); (ii) free health service and physical culture; (iii) social security (excluding pensions and other transfers). These estimates are based on data relating to the "social consumption fund" contained in Narkhoz 1980, page 381.

Collective consumption covers: (i) science and scientific services; (ii) general government ("Apparat"); (iii) the material expenditure of "banking and state insurance", for it was impossible to identify this item separately and transfer it to more appropriate headings; (iv) military pay and subsistence (and possibly a small fraction of armament expenditure). These estimates were obtained by summing the value added in "Civilian collective services", "Military pay and subsistence", and "Material expenditure in scientific institutions and administration" and which were last published in Narkhoz 1975, page 565.

N A T O C O N F I D E N T I A L

TABLE 3
USSR/USA: COMPARISON OF SELECTED OUTPUTS IN 1981

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	Unit	USSR	USA	USSR's rank in world production
Oil	thousand b/d	11,800	8,568	first
Gas	trillion cubic feet	16.4	20.4	second
Coal	mn tonnes	487.0	697.6	third
Iron ore	mn tonnes	242.0	75.5	first
Steel	mn tonnes	149.0	108.8	first
Tractors	thousand	559.0(a)	151.0	first
Automobiles	mn	1.3	6.2	fifth
Trucks and buses	mn	0.9	1.7	third
Grain	mn tonnes	160.0(b)	333.4	second
Potatoes	mn tonnes	72.0	13.9	first
Sugar	mn tonnes	10.3	5.6	first
Meat	mn tonnes	15.2	24.5	second
Milk	mn tonnes	88.5	60.2	first

Source: CIA, Handbook of Economic Statistics, 1982

(a) Narodnoye Khozyaistvo 1982

(b) Estimate

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TABLE 4

USSR: ACTUAL AND PLANNED GROWTH RATES

(%)

	1980	1981	1982	Planned	
				1983	1981-1985
National Income	3.5	3.3	2.6	3.3	3.4-3.7
Industrial Production	3.6	3.3	2.8	3.2	4.7-5.1
Industrial Labour Productivity	2.6	2.7	2.1	2.9	4.2-4.6
Agricultural Production	-3.0	-2.0	4.0	10.5	2.3-2.7

Sources: Narodnoye Khozyaistvo 1979, pp. 45-50, p. 222 (for agricultural output); Pravda, 2nd December 1980; Planovoye Khozyaistvo, No. 4, April 1981; SSSR v Sifrakh 1981; and official Press Releases.

TABLE 5

USSR: ACTUAL AND PLANNED OUTPUT
OF SELECTED COMMODITIES

(%)

	1980	1981	1982	Planned	
				1983	1985
<u>INDUSTRIAL</u>					
Oil (m.Tes)(b)	603	609	613	619	630
Gas (billion m ³)	435	465	501	529	630
Coal (m.Tes)	710	704	718	723	775
Electricity (billion kWh)	1,294	1,325	1,366	1,405	
Steel (m.Tes)	148	149	147		166-170
Mineral Fertilizers (m.Tes, 100% nutrients)	24.8	26.0	26.7		32-33
Cement (m.Tes)	125	127	124		
<u>AGRICULTURAL</u>					
Grain (m.Tes)	189	160(a)	175(a)		238-243
Potatoes (m.Tes)	67	72	78		87-89
Sugar beets (m.Tes)	81	61	71		101-103
Sun flower seeds (m.Tes)	4.6	4.6	5.3		6.7
Cotton (m.Tes)	10.0	9.6	9.3		
Meat (m.Tes)	15	15	15	16	17.0-17.5
Milk (m.Tes)	91	88	90		97-99
Eggs (billions)	68	71	72		72

Sources: Narodnoye Khozyaistvo 1979, pp. 45-50, p. 222 (for agricultural output); Pravda, 2nd December 1980; Planovoye Khozyaistvo, No. 4, April 1981; SSSR v Sifrah 1981; and official Press Releases.

- (a) Estimates
(b) Million Tonnes

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TABLE 6
USSR EXPORTS TO EUROPEAN CMEA 1970-80
(MILLION ROUBLES)

	<u>Bulgaria</u>			<u>Hungary</u>			<u>GDR</u>		
	1970	1975	1980	1970	1975	1980	1970	1975	1980
Total	844	2,059.6	3,660.2	758.3	1,657.7	2,981.6	1,738.1	2,980.3	4,873.4
Machinery, equipment and transport (10-19)	312	649.2	944.6	166.1	329.2	602.7	321.8	565.2	766.9
Fuel and raw materials (20-25)	180.6	689.5	167.2	157.7	509.3	1,289.3	230.4	726.5	2,074.1
Chemical products (30)	14.7	19.9	32.5	19.9	33.3	65.5	21.4	34.8	31.4
Industrial consumer goods (97)	19.2	39.5	63.3	19.3	30.3	44.0	13.7	40.3	41
	<u>Poland</u>			<u>Romania</u>			<u>Czechoslovakia</u>		
	1970	1975	1980	1970	1975	1980	1970	1975	1980
Total	1,214.9	2,447.2	4,405.8	444.6	702.1	1,350.3	1,082.7	2,019.5	3,648.1
Machinery etc., (10-19)	235.6	506.8	1,101.3	97.2	198.5	326.2	141.5	325.5	577.6
Fuel and raw materials (20-25)	285.9	811.8	1,856.4	60.4	168.6	510.9	371.1(a)	955.3(a)	1,968.9(a)
Chemical products (30)	10.5	17.4	24.4	4.5	4.5	15.5	20.8	31.3	66
Industrial consumer goods (97)	22.2	93.6	125.4	7.7	13.5	29.6	11.4	25.8	44.3

Source: "Foreign Trade of USSR", 1970, 1975, 1980

(a) Including Metals

Categories include:

10-19 Machinery, equipment and means of transport.

20-25 Fuel, energy (including electric power), minerals and metal ores.

30 Chemical products (but not manufactures, e.g., paint, fertilizers, etc.).

97 Industrial consumer goods (washing machines, etc.). (Textiles, clothing and other light industrial products are not included.)

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TABLE 7
USSR IMPORTS FROM EUROPEAN CMEA 1970-80
(Million Roubles)

	<u>Bulgaria</u>			<u>Hungary</u>			<u>GDR</u>		
	<u>1970</u>	<u>1975</u>	<u>1980</u>	<u>1970</u>	<u>1975</u>	<u>1980</u>	<u>1970</u>	<u>1975</u>	<u>1980</u>
Total	972.5	1931.2	3438.9	721.6	1616.0	2756.6	1556.9	2643.1	4326.6
Machinery, equipment and transport (10-19)	280.2	779.5	1729.5	339.2	669.3	1284.0	893.7	1668.7	2794.3
Fuel and raw materials (20-25)	1.4	3.4	6.7	17.3	33.4	-	-	-	-
Chemical products (30)	4.3	47.6	42.6	-	-	-	35.2	56.4	90.7
Industrial consumer goods (97)	3.4	-	5.4	7.7	8.1	13.1	79.4	70.5	91.7
	<u>Poland</u>			<u>Romania</u>			<u>Czechoslovakia</u>		
	<u>1970</u>	<u>1975</u>	<u>1980</u>	<u>1970</u>	<u>1975</u>	<u>1980</u>	<u>1970</u>	<u>1975</u>	<u>1980</u>
Total	1134.9	2406.1	3596.1	474.0	823.7	1441.2	1110.5	1891.7	3535.9
Machinery, equipment and transport (10-19)	430.5	899.2	1713.6	92.8	179.7	310.5	597.8	985.8	1982.7
Fuel and raw materials (20-25)	111.8	384.5	36.4	20	27.9	-	126(a)	208.8(a)	333.3(a)
Chemical products (30)	9.1	24.3	10.8	10.9	26.2	56.2	14.9	22.8	44.3
Industrial consumer goods (97)	26.9	47.3	114.3	9	10.6	10.7	12.4	23.6	36.8

Source: "Foreign Trade of USSR", 1970, 1975, 1980.

(a) Including metals.

Categories include:

10-19 Machinery, equipment and means of transport

20-25 Fuel, energy (including electric power), minerals and metal ores

30 Chemical products (but not manufactures, e.g. paint, fertilisers, etc.)

97 Industrial consumer goods (washing machines, etc.). (Textiles, clothing and other light industrial products are not included.)

N A T O C O N F I D E N T I A L

TABLE 8
TREND OF NATO COUNTRIES' TRADE WITH THE EASTERN COUNTRIES

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	1971		1972		1973		1974		1975		1976		1977		1978		1979		1980		1981		1982(d)	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
NATO country exports (FOB)(a)																								
1 - to USSR	1.7	0.5	2.7	1.2	4.3	1.4	4.8	1.2	8.6	1.9	8.9	1.8	9.0	1.6	10.3	1.5	13.2	1.6	13.7	1.4	13.1	1.4	13.3	1.5
2 - to Eastern Europe(b)	4.0	2.1	5.1	2.3	7.5	2.4	10.5	2.5	11.6	2.6	11.9	2.4	11.9	2.2	14.6	2.2	17.1	2.1	18.8	1.9	15.6	1.7	12.6	1.4
3 - USSR + Eastern Europe	5.7	2.6	7.8	3.5	11.8	3.8	15.3	3.7	20.2	4.5	20.8	4.2	20.9	3.8	24.9	3.7	30.3	3.7	32.5	3.3	28.7	3.1	25.9	2.9
NATO country imports (CIF)(a)(c)																								
1 - from USSR	1.9	0.9	2.1	0.9	3.2	1.0	4.8	1.1	5.2	1.2	6.9	1.3	7.7	1.3	9.2	1.3	13.0	1.5	16.4	1.6	15.7	1.6	17.5	1.9
2 - from Eastern Europe (b)	3.7	1.9	4.5	1.9	6.2	1.9	7.7	1.7	8.2	1.8	9.4	1.8	10.3	1.7	12.1	1.7	15.4	1.7	17.2	1.6	14.5	1.5	13.5	1.4
3 - from USSR + Eastern Europe	5.6	2.8	6.6	2.8	9.4	2.9	12.5	2.8	13.4	3.0	16.3	3.1	18.0	3.0	21.3	3.0	28.4	3.2	33.6	3.2	30.2	3.1	31.0	3.3

Sources: AC/127-D/725, AC/127-D/576, AC/127-D/449 and OECD Foreign Trade Statistics, Series A, April 1983

- (1) Value in \$ billions
- (2) % of world trade
- (a) Excluding Spanish transactions
- (b) Including intra-German transactions
- (c) FOB data for United States and Canada
- (d) Preliminary

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TABLE 9

TRADE WITH THE EASTERN COUNTRIES AS A PERCENTAGE
OF THE OVERALL TRADE OF EACH NATO COUNTRY

Data for 1981

	EXPORTS TO			IMPORTS FROM		
	USSR	Eastern Europe	USSR & Eastern Europe	USSR	Eastern Europe	USSR & Eastern Europe
Belgium/ Luxembourg	1.1	0.9	2.0	1.6	0.8	2.4
Denmark	0.6	1.2	1.8	1.6	2.0	3.6
France	1.8	2.0	3.8	2.8	1.3	4.1
Germany(a)	1.9	3.7	5.6	2.4	3.8	6.2
Greece	1.7	6.3	8.0	3.7	2.9	6.6
Iceland	6.2	1.8	8.0	8.0	1.3	9.3
Italy	1.7	1.6	3.3	3.4	1.8	5.2
Netherlands	0.9	1.1	2.0	2.7	1.3	4.0
Norway	0.7	0.8	1.5	1.1	1.4	2.5
Portugal	1.3	0.8	2.1	2.4	0.4	2.8
Spain	1.8	2.1	3.9	1.5	1.2	2.7
Turkey	4.1	2.5	6.6	1.8	7.0	8.8
United Kingdom	0.7	1.3	2.0	0.8	0.8	1.6
Canada	2.2	0.5	2.7	0.1	0.3	0.4
United States	1.0	0.8	1.8	0.1	0.5	0.6

Source: AC/127-D/725 and OECD, Foreign Trade Statistics, Series A

(a) Including intra-German transactions

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TABLE 10
LEADING WESTERN EXPORTERS TO THE EAST

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	VALUE OF EXPORTS (\$ millions)									PERCENTAGE OF TOTAL NATO COUNTRY EXPORTS								
	to USSR			to Eastern Europe			to USSR + Eastern Europe			to USSR			to Eastern Europe			to USSR + Eastern Europe		
	1971	1976	1981	1971	1976	1981	1971	1976	1981	1971	1976	1981	1971	1976	1981	1971	1976	1981
Germany	461	2,684	3,394	1,783	5,255	6,660	2,244	7,939	10,054	26.5	30.1	25.9	45.0	44.3	42.7	39.3	38.2	35.0
United States	162	2,308	2,431	222	1,194	1,900	384	3,502	4,331	9.3	25.8	18.5	5.6	10.1	12.2	6.7	16.8	15.1
France	255	1,119	1,847	472	1,616	2,045	727	2,735	3,892	14.7	12.5	14.1	11.9	13.6	13.1	12.7	13.1	13.5
Italy	295	983	1,291	446	982	1,192	741	1,965	2,483	17.0	11.0	9.8	11.2	8.3	7.6	13.0	9.4	8.6
United Kingdom	217	432	785(a)	399	749	1,409(a)	616	1,181	2,194(a)	12.5	4.8	6.0	10.1	6.3	9.0	10.8	5.7	7.6
Canada	125	544	1,574	41	242	337	166	786	1,911	7.2	6.1	12.0	1.0	2.0	2.2	2.9	3.8	6.6

Sources: AC/127-D/725, AC/127-D/576, AC/127-D/449

(a) estimate

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TABLE 11

STRUCTURE BY PRODUCT OF NATO COUNTRY
EXPORTS TO THE USSR AND EASTERN EUROPE (IN %)

Product	SITC No.	USSR				EASTERN EUROPE			
		1975	1978	1979	1980	1975	1978	1979	1980
Foodstuffs	0	20.2	20.6	25.1	26.9	9.6	12.9	15.2	18.8
Beverages and tobacco	1	0.6	0.6	0.5	0.6	0.8	1.1	1.1	1.2
Crude materials	2	1.4	4.2	6.0	2.5	5.1	6.2	6.6	6.6
Mineral fuels	3	0.3	0.6	0.5	0.8	2.4	2.5	4.0	4.7
Oils and fats	4	0.4	0.3	0.7	0.5	0.9	0.7	0.9	0.8
Chemicals	5	8.0	9.8	10.9	13.7	15.1	15.4	16.2	16.5
Manufactured goods classified by material	6	28.6	25.6	24.9	25.6	27.9	23.2	22.9	20.6
Machinery and transport equipment	7	38.1	34.0	27.5	25.4	33.5	32.3	27.5	25.4
Miscellaneous manufactured articles	8	2.3	3.7	3.7	3.7	3.8	4.7	4.4	4.5
Unclassified	9	0.3	0.6	0.4	0.4	0.9	1.0	1.1	0.9

Sources: AC/127-D/717, AC/127-D/690, AC/127-D/674, AC/127-D/572

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TABLE 12

USSR: GEOGRAPHICAL STRUCTURE OF GRAIN
IMPORTS (x millions of metric tons)

	Jan-Dec 1980	Jan-Dec 1981	Jan-Dec 1982(b)
Soviet imports from:			
- United States	6.794	10.024	11.463
- Canada	5.756	7.735	9.349
- EEC	1.314	2.198	2.339
- Australia	4.361	1.831	2.172
- Argentina	6.830	15.008	8.797
- Other countries(a)	3.645	3.304	2.880
Total Soviet imports	28.700	40.100	37.000

Sources: US Department of Agriculture, "Foreign Agriculture Circular", 13.9.82 and 11.6.81 and 11.3.83.

(a) Data partly estimated

(b) Preliminary

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TABLE 13
LEADING IMPORTERS FROM THE EASTERN COUNTRIES

	VALUE OF IMPORTS (\$ millions)									AS PERCENTAGE OF NATO COUNTRY IMPORTS								
	From USSR			From Eastern Europe			From USSR + Eastern Europe			From USSR			From Eastern Europe			From USSR + Eastern Europe		
	1971	1976	1981	1971	1976	1981	1971	1976	1981	1971	1976	1981	1971	1976	1981	1971	1976	1981
Germany	366	1,702	3,938	1,565	3,853	6,292	1,931	5,555	10,230	19.7	24.8	25.0	42.0	40.8	43.3	34.5	34.0	33.8
France	260	915	3,386	316	1,080	1,573	576	1,995	4,959	14.0	13.3	21.5	8.5	11.4	10.8	10.3	12.2	16.4
Italy	299	1,355	3,112	593	1,096	1,616	892	2,451	4,728	16.0	19.7	19.8	15.9	11.6	11.1	16.0	15.0	15.6
Netherlands	65	386	1,767	190	549	880	255	935	2,647	3.5	5.6	11.2	5.1	5.8	6.1	4.6	5.7	8.7
United Kingdom	501	1,193	868 (a)	351	676	793 (a)	852	1,869	1,661 (a)	26.9	17.4	5.5	9.4	7.2	5.5	15.2	11.5	5.5
United States	58	221	348	165	643	1,202	223	864	1,550	3.1	3.2	2.2	4.4	6.8	8.3	4.0	5.3	5.1

Sources: AC/127-D/725, AC/127-D/576 and AC/127-D/449

(a) Estimate

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TABLE 14

STRUCTURE BY PRODUCT OF NATO COUNTRY IMPORTS
FROM USSR AND EASTERN EUROPE (in %)

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	SITC No.	USSR				EASTERN EUROPE			
		1975	1978	1979	1980	1975	1978	1979	1980
Food	0	1.9	1.2	1.0	0.7	17.9	14.5	12.9	11.3
Beverages and tobacco	1	0.2	0.3	0.3	0.2	1.0	0.9	0.9	0.7
Crude materials	2	19.5	13.8	11.0	9.5	8.2	7.4	7.3	6.9
Mineral fuels	3	54.2	61.2	64.7	71.8	17.0	14.8	20.0	22.3
Oils and fats	4	2.3	0.2	0.1	0.0	0.8	0.5	0.4	0.2
Chemicals	5	4.7	9.3	10.1	6.9	6.1	6.0	6.2	7.5
Manufactured goods classified by material	6	10.9	9.2	7.6	7.1	19.0	22.7	21.8	21.2
Machinery and transport equipment	7	4.9	3.4	3.8	2.4	11.9	13.8	12.5	12.7
Miscellaneous	8	0.9	0.8	0.9	0.6	17.1	18.3	17.0	16.3
Manufactured articles unclassified	9	0.6	0.7	0.6	0.6	1.0	1.0	0.8	0.8

Sources: AC/127-D/572, AC/127-D/674, AC/127-D/690, AC/127-D/717

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TABLE 15

TOTAL NATO COUNTRY OIL IMPORTS (PRODUCT AND PRODUCT EQUIVALENT)
FROM THE EASTERN COUNTRIES (x 1,000 METRIC TONS (DATA FOR 1981))

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	IMPORTS				% of Total Imports
	USSR	Romania	Other East European Countries	USSR + Eastern Europe	
Belgium	389	75	112	585	1.6
Denmark	860	15	416	1,291	10.9
France	7,619	1,433	356	9,408	9.2
Germany	4,926	479	3,577	8,982	8.1
Italy	6,266	-	1,379	7,645	7.6
Luxembourg	-	-	-	-	0.0
Netherlands	8,206	806	746	9,758	14.4
United Kingdom	1,512	-	67	1,579	3.6
Greece	1,556	223	1,279	3,058	14.7
Iceland	293	-	-	293	53.7
Norway	486	-	229	715	12.3
Portugal	604	-	-	604	7.1
Spain	1,208	175	101	1,484	3.0
Turkey	216	501	84	801	6.3
Canada	-	-	-	-	0.0
United States	275	289	-	564	0.2

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Source: International Emergency Agency, Quarterly Oil Statistics, 1982/No. 3.
Remark: The product equivalents have been obtained by converting crude oil into petroleum products using a notional 7% reduction in volume terms.

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TABLE 16

NATO COUNTRY NATURAL GAS IMPORTS FROM THE USSR
(data for 1981)

	Quantities (million cu.m.)	% of Total Imports	% of Primary Energy Consumption
Germany	11,902	31.0	4.0
France	5,670	26.3	2.6
Italy	6,605	50.3	4.0

Sources: "Comité professionnel du pétrole", Paris Oil industry statistics.