# CONSEIL DE L'ATLANTIQUE NORD NORTH ATLANTIC COUNCIL

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ORIGINAL: ENGLISH 27th March, 1981

WORKING PAPER AC/127-WP/636 PART III

ECONOMIC COMMITTEE

APPRECIATION OF THE ECONOMIC POSITION OF NATO AND WARSAW PACT COUNTRIES FOR THE PERIOD THROUGH 1988

#### Note by the Chairman

Attached is Part III of the appreciation of the economic position of the NATO and Warsaw Pact countries for the period through 1986, which serves as the basis for the Warsaw Pact countries assessments summarised in Part I. It has been prepared by the Economic Directorate in accordance with the agreed procedures for NATO defence planning review, and is submitted to the Economic Committee for review(1).

(Signed) J-N. GIBAULT

NATO, 1110 Brussels.

(1) See DPC/D(71)10 dated 19th May, 1971. For this purcose the Economic Committee is considered to be composed of the same participating countries as those represented in the Defence Planning Committee.

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# APPREICATION OF THE ECONOMIC POSITION OF NATO AND WARSAW PACT COUNTRIES FOR THE PERIOD THROUGH 1988

# PART III

### THE WARSAW PACT

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#### THE WARSAW PACT

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#### Economic situation and outlook for the 1980s

In 1980 the Soviet Union's GNP, or total estimated output of goods and services, is estimated to have exceeded \$1.3 trillion - around half that of the United States economy, both in absolute terms and on a per capita basis. For the six East European nations of the Warsaw Pact(1), total GNP amounted to around \$400 billion, or one-fifth that of the European Community, and less than half the Community's per capita GNP. Collectively, the Warsaw Pact nations now annually produce two-fifths the volume of goods and services of the NATO member countries, and in per capita terms, half as much. The principal reasons for the Warsaw Pact's lower production levels can be found in a smaller amount of total capital stock(2) and generally lower labour and capital productivity.

2. The Warsaw Pact economies have reached this point of development as a result of a period of relatively rapid economic growth after the Second World War. The USSR in particular, which had a GNP equivalent to approximately one-third that of the United States in the mid-1950s, was able to promote growth by heavy capital investment(3) and by drawing off large amounts of agricultural labour from the farms to the factories. As a consequence, whereas two-thirds of the population of the USSR was rural in 1940, nearly the same proportion was urban by 1977. In Eastern Europe, the strongest annual gains in output have similarly been registered in those countries which heretofore were primarily agrarian and lacked a significant industrial base.

3. Since the 1960s, however, the annual increments to the Gross National Product in the Warsaw Pact countries have tended

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- Bulgaria, Czechoslovakia, the GDR, Hungary, Poland, and Romania
  The capital stock of the USSR in 1980 was reported by Soviet sources to be 1.6 billion rubles (\$2.4 billion at the official rate of exchange), of which 1.1 billion rubles (\$1.7 billion) represented industrial capacity.
- (3) Ranging from 20 to 30% of GNP annually, as compared to around 15-16% for the United States

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have dried up, and as the costs of raw materials and new productive facilities have climbed. Consequently, since the mid-1970s the strategy adopted to promote economic growth in most of the Warsaw Pact countries has emphasized the more efficient use of existing resources.

4. Nonetheless, the Warsaw Pact countries have not responded well to this policy of so-called "intensive" growth. Equipment and materials continue to be used carelessly and wastefully, partially because of artificially low pricing systems and planners' failure to find effective incentives or disincentives to motivate workers and managers to improve the methods and quality of production. Because of the centrally planned nature of the economies, managers usually spend more of their time trying to alter or offset often unreasonable production demands, rather than take the risks associated with attempting to produce improved or better quality output.

5. For these reasons, barring radical changes in labour or management practices, or the successful widespread adoption of technological innovation, the long-term outlook for the Warsaw Pact economies is one of declining growth. With concentrated investment, substantial increases in output might be achieved in certain priority industrial sectors, but at the expense of retarding development in others. Overall, the trends of past growth suggest annual increases in total economic output averaging no more than 2-3% in the 1980s and eventual stagnation

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of output levels by the mid-1990s, at which time the Warsaw Pact economies may be producing a total amount of goods and services roughly equivalent to that produced by the NATO countries in the 1970s(1).

(1) The concept of growth of total national output, although widely used as a measure of economic dynamism, is subject to many difficulties, especially when applied to the centrally controlled and directed economies of the Warsaw Pact and compared with those of the West. In the first place, since the Warsaw Pact countries use different accounting methods than those practiced in the West, and generally artificial, state-controlled pricing systems, their statistics can mislead as to what the total stated value of output actually indicates with regard to productive capacity, let alone how it may be compared to the output and economic capacity of the West.

If Eastern output values are translated into terms of Western currencies, the problem is further compounded by the fact that Eastern currency exchange rates, also state-controlled, are set at different levels for various purposes, and so it is difficult to determine appropriate rates of exchange; since the currencies are not legally exchanged on world money markets, there is no marketdetermined rate for them (other than that on the black To overcome these problems, Eastern output in market). physical terms is sometimes evaluated directly in terms of comparable Western market prices for corresponding goods and services, and totalled using the Western concept of GNP; but this method, too, is subject to accumulated statistical discrepancy and error, and so must be regarded with caution.

Again, comparisons of growth generally fail to take account of basic divergences in the nature of the Eastern and Western economic systems. Western economies are becoming increasingly service-oriented: currently, more than 55% of the US workforce is in service-related occupations banking, stock markets, insurance, education, and government, while the Eastern economies remain primarily industrial. Consequently, rates of economic growth, even if based on common money terms, do not reflect the fundamentally different factors of which this growth is composed.

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The industrial performance

6. For all the countries of the Warsaw Fact, since their economies are still primarily industrial, the principal component of economic output in the coming decade will continue to be industrial production. Although agricultural output and rapidly expanding service sectors will also play an important part, industrial performance will nonetheless provide the greatest impetus to economic growth.

7. Growth in Soviet industrial output, like that of the Soviet economy as a whole, slowed perceptibly in the late 1970s from that of earlier periods. Particular difficulty has been experienced in recent years in such areas as output of highquality steels, coal, and building construction, although virtually all industrial sectors have lagged behind originally set fiveyear plan goals. Principal barriers to more rapid Soviet industrial development have been manpower constraints, investment limitations, labour and management practices, and slowness in adopting new technologies. All these constraints will probably continue to hinder industrial growth throughout the Warsaw Pact in the 1980s and are discussed in greater detail below.

8. In Eastern Europe, growth in industrial output has generally slowed throughout the 1970s. Growth has slowed least in in those countries - Romania and Bulgaria - where it has been possible to draw off the largest numbers of the rural workforce to work in the factories. The possibilities of using this source of labour, however, have now become much more limited. On the other hand, per capita industrial output remains highest in those countries - East Germany and Czechoslovakia - with a historical industrial base; growth in these countries is also declining, however, partially because of an aging industrial plant, and partially as a result of increasing costs of imported raw materials

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and capital equipment(1). Foland presents a special case: Still considerably agrarian, it has not yet been able to feel the effects of extensive capital investment projects planned in the 1970s, partly because of the pressures of resulting foreign debt, and partly because a rise in popular expectations has forced the curtailment of many projects oriented towards the expansion of capital goods production.

9. In all the Warsaw Pact economies, in addition to the previously mentioned long-term constraints, growth in industrial output in the 1980s may be hindered by year-to-year fluctuations in the performance of certain vital economic energy and raw materials production, agriculture, sectors: transport, and indirectly, by consumer goods suppliers. Having a bearing on all of these sectors, as well as the economies as a whole, will be balance of payments considerations. The following paragraphs briefly examine anticipated developments in each of these areas.

(1)Nonetheless, the potential for producing military equipment appears to remain greatest in these countries. Czechoslovakia, for instance, is one of the sixth largest arms exporters in the world, after the US, the USSR, France, the United Kingdom, and the Federal Republic of Germany; the annual value of Czechoslovakia's arms exports amounts to about 1/20 that of the USSR and 1/50 that of the United States.

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#### The energy situation in the Warsaw Pact

10. On the whole, the USSR possesses a variety of potential energy sources which should be adequate to meet its energy needs throughout the coming decade, providing it is able and willing to make sufficient investment in increasingly costly energy resource development, and can import or develop required technology to overcome adverse climatic and geographical Whether it can continue largely to make up conditions. Eastern Europe's energy deficit through oil and gas exports is more problematic. In 1980, the USSR was estimated to have provided about 80% of Eastern Europe's total energy import requirements, excluding electricity, which accounted for about one-third of all energy consumed in the six countries. In the event that the Eastern European nations have to turn elsewhere for an increasing part of their energy import needs, they will probably face greater problems with regard to their already generally severe hard-currency debt and trade deficits.

11. Oil presently provides for over 40% of the USSR's total primary energy production. At 600 million tonnes a year, Soviet oil output is the world's largest; approximately 450 million tonnes is used for Soviet domestic consumption, while 80 million tonnes is exported to Eastern Europe, and the remaining production is exported elsewhere providing over half of all Soviet hard-currency earnings (\$ 6 billion in oil receipts in 1979).

12. Soviet planners predict that throughout the 1980s oil will continue to occupy its prominent place as an energy source, falling to perhaps 37% of total energy output by 1990. This projection rests on the assumption that the USSR can rapidly supplant declining oil reserves in the Western part of the country and at the giant Samotlor Field with production from new wells in Siberia, whose oil reserves are large but unclearly known, and can in any case be developed only at great cost, after considerable lead time, and possibly only with the assistance of Western technology(1).

(1) If the assumption does not hold true, Soviet oil production might fall to around 500 million tonnes annually in the 1980's, in which case the USSR might become a net oil importer, after delivery commitments to Eastern Europe were met; in this case, it might import around 15 million tonnes of oil a year at a cost of around \$5 billion annually in 1985 prices.

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13. Natural gas, whose production is rapidly expanding, and of which the USSR possesses the world's largest reserves, will gradually be used to fulfill the country's growing energy needs; from a level of some 20% in 1975, it is planned that natural gas will provide around one-fourth of all primary energy supplies between 1980 and 1985, and up to nearly 30% toward the end of the century. Soviet natural gas will also probably be exported in increasing quantities to both Eastern and Western Europe. If Soviet gas exports to the West continue expanding at their present rates of volume and value, they may provide the USSR with \$ 6-10 billion annually by 1985(1), as compared to \$ 2 billion in 1979.

14. Coal will probably continue to provide slightly over one-fifth(2) of total Soviet primary energy production throughout the 1980s and 1990s, but may assume increasing importance after the turn of the century. Beginning in the 1980s, nuclear energy production will expand at an increasingly rapid rate, starting from around 1% of total primary energy production in 1980, and growing to around 10% by the year 2000. Hydroelectric power generation is also scheduled to grow significantly, expanding to 3% of total primary energy production by 1985.

15. All in all, Soviet energy resources are vast and diversified enough that the USSR can probably meet practically any energy contingency for itself and partially, at least for its Warsaw Pact Allies in the 1980s. It might have to do so, however, at great investment cost, and possibly with considerable reliance on imported Western technology and material for oil and gas extraction and transport. Increasingly, the USSR will look to the countries of Eastern Europe to provide equipment and manpower for energy investment projects, in return for future guaranteed deliveries of energy.

In 1985 prices.

(2) As compared to over 25% in 1975.

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#### Raw Materials Availability

16. The Soviet Union is one of the world's leading producers of metals and non-metallic minerals; in addition, it holds plentiful reserves of a large range of these materials. In recent years, however, growing domestic industrial requirements have outpaced development of new sources of supply, and some of the most readily accessible reserves are becoming exhausted. As a consequence, the USSR faces the prospect in the 1980's of having to import larger quantities of some vital industrial raw materials at considerable cost, or of having to devote substantial additional investment to domestic raw materials extraction, often in remote areas where development and transport costs are extremely high.

17. To a certain extent, the USSR will probably opt for increased importation of necessary raw materials, either from other communist countries, or under long-term arrangements with developing countries, frequently in return for Soviet assistance in developing these countries' mineral exploitation facilities. The USSR is already dependent on imports for at least a fourth of its consumption of tin, baryta, aluminum (in the form of bauxite), cobalt, molybdenum, tungsten, and fluorspar; for all except the first two, import dependence rose significantly during the 1970s.

18. In the 1980s although reliance on imports might decrease for cobalt, molybdenum, and tungsten, it will probably increase or remain high for aluminum and fluorspar. In addition, throughout the decade the USSR will import from Morocco US \$2 billion worth of phosphates needed in fertilizer manufacture and will import growing quantities of zinc and lead, because of insufficient priority having been given to the development of Siberian deposits of these latter two minerals. The purchase of these commodities should not prove to be a particular burden on the Soviet balance of payments, however, since they can be offset by sales of other raw materials such as natural gas, timber, gold, and to some extent, titanium, platinum, and perhaps chromite.

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19. Eastern Europe will continue to remain largely dependent on imports of most of its industrial raw materials needs, either from other communist countries, such as the USSR, Mongolia, and Cuba, or from other world markets. In the latter case, it will probably try to provide for the bulk of its needs under long-term barter or development project agreements with the developing world, in order to avoid outlays of scarce convertible currency.

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#### Agriculture

20. Subject to varying annual output largely because of highly unstable weather conditions, Soviet agriculture performance has nonetheless improved over the past fifteen years, in response to high levels of investment and other budgetary support(1). The rate of growth of output throughout the 1970s, however, has been about half the 3.9% annual increase in the period 1966-70, which was achieved through extensive mechanisation, land improvement, and increased fertiliser application, as well as considerable expansion of arable land. Long-term reasons for the slowdown in the 1970s, which should continue to act as a brake on Soviet agricultural performance in the coming decade, include management problems and unproductive use of capital(2), limits to arable land expansion possibilities, and a shrinking agricultural labour force.

- (1) Total capital investment in all agricultural activities amounted to 20-23% of all investments in the Soviet economy in 1961-70, 26% in 1971-75, and 27% in 1976-79; Soviet agricultural subsidies, on the other hand, currently come to some 20 billion rubles a year.
- (2) Deficiencies in capital productivity in Soviet agricuture are related at least in part to the organisation of the There are 18,000 state farms, averaging 40,000 acres farms. each and employing approximately 12 million workers, or one worker per 60 acres; the vast size of these farms, though permitting economies of scale - for example, through the use os huge machines - makes management difficult and causes large setbacks in worker productivity where machinery breaks down or is absent. The other principal type of agricultural organisations, the collective farms, number 29,000, average 13,000 acres, and employ around 14 million, or one worker for slightly under 30 acres; although the smaller size of these farms probably makes for more efficient management, workers tend to give more attention to what they produce for private sale there - since it fetches a higher price - than to that produced for sale to the state.

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21. More immediately, Soviet agricultural performance in the 1970s was plagued by a number of disappointing harvests resulting from bad weather(1). Besides the weather. major difficulties centered in transport and storage shortcomings. and lack of an adequately trained labour force to run and repair a growing park of agricultural machinery. Agricultural transport deficiencies stem mainly from inadequate farm roads and insufficient railway facilities for hauling and loading grain. On the other hand, grain storage facilities of some 300 million tonnes' capacity, although probably adequate on the whole to meet present Soviet needs, are poorly placed; an additional capacity of 100 million tonnes would be desirable for maximum efficiency and less loss, particularly near Soviet ports. Again, lack of trained mechanics to service agricultural machinery makes it cheaper for the USSR to produce a new tractor than to repair a broken-down one, and results in an excessive park of canabalised agricultural machinery.

22. In recent years, animal production has been given increasing attention in the USSR in response to growing consumer demand for meat(2). To achieve higher levels of meat production in the 1970s, the USSR reoriented its agricultural sector toward increased production of feedgrains. It also imported considerable quantities of feedgrains annually(3) because of relatively low costs on world grain and shipping markets, and because of the unreliability of Soviet grain harvests.

- The weather was especially unfavorable in 1975 and 1979, but also adversely affected the harvest in 1972, 1974, 1977 and 1980.
- (2) Animal products still supply only 25-30% of caloric intake in the Soviet Union, as opposed to 40% in the United States. In other terms, per capita meat consumption in the USSR remains at around 58 kilogrammes annually, as opposed to the norm sought by Soviet planners of 82 kilogrammes per capita - about the current level of meat consumption in Western Europe.
- (3) Up to 25 million tonnes in some years, or around 10% of the average annual harvest in 1976-80.

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To avoid over-dependence on grain imports in the decade ahead, in which rapidly rising grain prices are expected as a result of strong increases in world demand, the Soviet government has indicated that it will continue to invest heavily in the agricultural sector, which remains under-capitalized by Western standards(1), and expand fertiliser production and use(2). In addition, it will give priority to the development of the non-black earth farming regions and will give more material encouragements to private agricultural activity, which supplies more than 25% of the USSR's total farm output, including more than 30% of its livestock products.

23. In Eastern Europe, agricultural output has been improved in the past fifteen years by the increased use of fertilisers and machinery, and the reorganisation of plots into larger producing units. Nonetheless, East Germany, Czechoslovakia, and Poland still lack self-sufficiency in meeting domestic grain needs, and Romania and Bulgaria lose a considerable portion of their exportable agricultural output because of organisational and transportation shortcomings. Hungary alone in Eastern Europe has built up its agricultural sector to the point where it produces significant export earnings.

24. To improve agricultural performance in the future, the countries of Eastern Europe will probably not attempt any widespread land reorganisation, as optimal farm size has probably been attained in all of the countries except Poland, where private farmers, cultivating 80% of the agricultural land, resist government attempts to form larger state units from the private plots. Rather, the East European countries will try to raise agricultural productivity through improved fertiliSer use and better farm machinery. They will also try to improve farm labour and management practices through the use of monetary incentives, even at the cost of

- In the US, for instance, fixed capital per worker is higher in agriculture than in industry; this is not the case in the USSR.
- (2) Around 55% of Soviet land is considered poor in soil nutrients; 25 kg/ha of fertilizer is currently used annually, as opposed to an ideal of 120-150 kg/ha. In addition, the USSR has no capacity for the production of superphosphate fertilizers, necessary for maximum crop-growing efficiency.

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adding to the government's already heavy food price subsidy burdens in all of the countries except Hungary. Only by providing farmers with what they consider adequate compensation will the East European governments be able to ensure delivery commitments and help prevent the black marketeering that inevitably occurs when food supply falls short of demand. In Poland, Czechoslovakia, and to some extent East Germany, emphasis will continue to be put on promoting grain production, in order to provide greater supplies of meat for the population and to cut down on ever more costly imports from world grain markets.

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#### Transport

25. Transport deficiencies serve to retard the growth of the Warsaw Pact economies principally through delivery delays, which result in forced idleness at factory destinations, spoilage of perishable goods, and theft during transit; through losses due to the generally poor state of repair of transport vehicles; and in the USSR in particular through difficulties in co-ordination and rivalries among the various agencies administering the vast systems.

26. In the USSR, delivery delays often arise on the railways, which still carry over half of all freight in terms of tonne-kilometres, as compared to 80% in 1960 and 65% in 1970. Although the overwhelming emphasis on rail transport has been declining, total volume of goods transported by rail continues to grow, with the result that rail capacities have become choked and the average time required for a rail journey lengthens yearly. The railways' situation has been aggravated by the fact that, since 1955, the Soviet Government has devoted an increasingly smaller share of total transport investment to the railroads in favour of the more rapid development of other means of transport, so that much of the fixed and rolling stock has fallen into disrepair and has not been rennovated with modern technology for more efficient service. The poor state of repair of much rolling stock also contributes to losses through cracks and open doors.

27. Aware of these problems, the Soviet leadership has begun putting more emphasis on railway investment. Whereas investment in railway equipment grew at an average rate of only 5% annually from 1960 through 1977, in 1978 it increased by over 10%, and in 1979 by 20%. Planned increases in railway investment in the 1981-85 period will be constrained, however, by the leadership's concurrent desire to develop oil and gas pipelines, which throughout the 1970s were laid at the rapid rate of nearly 10,000 km a year(1).

(1)	In addition, constraints will be felt by the fact that invest-
• •	ment in transport continues to be given less emphasis than that
	in industry. From 315 in 1960, transport investment as a
	percentage of total investments in industry had declined
	to 22% in 1978.
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28. The Soviet road system, which has also seen rapid expansion in recent years(1), and which has begun to relieve the railways of some of their short-haul burden, nonetheless also suffers its deficiencies. First, because of the climatic conditions in much of the USSR, roads are extremely expensive to build(2). Secondly, since connecting roads are the responsibility of the farms or factories they serve, their construction and maintenance tends to be neglected in favour of meeting planned output levels. As a result, they are either lacking, especially on the farms, or generally in disrepair; consequently they cause much damage and loss as trucks bump over them, or as tractors become stuck in mud where roads should have been.

29. Total losses arising from deficiencies in all types of transport facilities have been estimated by Soviet sources to cost the USSR some four billion rubles (\$6.2 billion) in agricultural output annually, or around 3% of all agricultural turnover, and 6.5 billion rubles (\$10.1 billion) in lost industrial output. It is difficult to foresee that these problems can be quickly remedied in the 1980s, in view of the large capital investment sums required, and the need to correct widespread administrative and management shortcomings, which have their roots in the nature of the economic system itself.

30. In Eastern Europe, transport is also often hindered by outmoded equipment and inadequate roads. Agricultural spoilage due to transport shortcomings is particularly a problem in Bulgaria, Romania, and Hungary to a certain extent. Although all of the East European countries as a whole invest heavily in transport development (17-38% of the amount invested in industry in 1977), they, like the USSR, are hindered from making rapid improvements by conflicting investment priorities and by inefficient management and labour practices. The outlook for the 1980s promises no rapid progress in overcoming these problems.

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Some 25,000 km of hard-surfaced road have been added to the road system annually since 1960, of which an average of 15,000 km have been paved.

<sup>(2)</sup> It has been estimated, for example, that it costs 600 thousand to one million rubles to build a single kilometer of road in some parts of Siberia.

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#### Consumer Goods Supplies

31. The supply and quality of consumer goods is of crucial importance to Soviet and East European economic growth in that it has a direct bearing on worker attitudes and also largely determines the effectiveness of monetary incentives to stimulate worker productivity: bonuses for above-plan and quality work mean little if they cannot be spent on desired consumer goods.

32. Soviet statistics show continuing growth in the volume of consumer goods produced: from a value of 50 billion rubles in 1960, consumer goods output grew to 100 billion rubles in 1970 and 160 billion rubles in 1980 - more than a two-fold increase for a population which grew by only 50% during the past twenty years. In the same time period, the value of so-called "industrial" goods which also includes consumer goods(1), expanded more than three times to nearly 460 billion rubles. Nonetheless, the production of consumer goods still receives secondary emphasis in the Soviet economy, and the principal problem of Soviet consumer goods production seems to be not so much one of the quantity of goods produced as their quality.

33. In the Soviet Union, the Government's policy is to produce ever-larger quantities of basic consumer goods at often subsidised prices, in order to demonstrate to the population at large the constant growth of the Soviet economy and its fundamental price stability. The quality and reliability of the merchandise is given only secondary consideration, partly because producing enterprises are rewarded primarily for manufacturing in quantity, and partly because increasing the quality of output even marginally tends to push costs up rapidly(2). As a result, Soviet consumer goods production

- (2) To increase the precision of a Soviet watch by five seconds, for example, it has been claimed by a knowledgeable Soviet official that the production cost rises by 30 ro 40%.
- (3) Out of over two million television sets manufactured in 1980, for instance, almost every third set had to be brought in for repairs during the warranty period, often with long waits for replacement parts.

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continues to give rise to many dissatisfied customers(3).

Heavy industry is claimed to produce over one-half of all nonfood consumer goods in the USSR.
 To increase the precision of a Soviet watch by five seconds,

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34. Recognising this problem, Soviet planners have proposed that growth in investment in the production of nondurable consumer goods slightly exceed that for capital goods in the 1981-85 period; in addition, the Soviet government has instituted, beginning in January 1981, a more stringent system of control over so-called "quality" consumer goods(1). It is doubtful, however, whether these measures will perceptibly improve the consumer goods situation in the USSR: consumer goods industries still receive only one-seventh of the amount of investment in capital goods industries, and past experience has demonstrated the skill of consumer goods producers in evading government attempts at rigorous quality control.

In the end, the Soviet consumer will probably have 35. to undergo the continuing unpleasantness of considerable defective merchandise, and will continue to pay two to three times the state-established price on kolkhoz markets in order to obtain quality food produce. Whether consumer discontent arising from such conditions will lead to events similar to those which occurred in Poland in 1980, however, is difficult to predict. Although disturbances as a result of meat shortages were reported by Western visitors to some large Soviet plants in 1980, labour is not nearly so well-organised for mass action in the USSR as it is in Poland. In short, although the production of consumer goods will probably be a continuing headache to Soviet planners throughout the 1980s, it will most likely be a manageable one without too severe a drain on productive resources. Because the output of consumer goods industries still amount a perceptibly smaller share of total output than that from heavy industry, even marginal expansion of consumer goods production can produce more visible results than similar investment in heavy industry.

(1) Soviet surveys have found that 10-25% of even those goods given the state seal of quality are defective.

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36. In Eastern Europe, consumer goods have many of the same faults as those produced in the Soviet Union, although in most of the East European countries they are in more abundant supply. Consumer demand appears to have found most effective expression in Poland, Romania, and Hungary; in the former two countries, it has most forcefully been expressed through strikes, while in Hungary, it has been given more latitude for operation through the freer functioning of prices, which in turn tends to encourage or discourage certain types of consumer goods production.

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#### Balance of Payments Considerations

37. Although the volume of all Soviet exports amounts to only somewhat over 55 of estimated GNP, and that of exports to the West only 1-2%, foreign trade is important to the USSR as a means of making up domestic supply shortfalls and quickly obtaining the benefits of modern technology. For Eastern Europe, foreign trade is a much more sizeable component of exports account, on the average, for around national output: 15% of estimated GNP. Foreign trade for Eastern Europe, besides serving as a means for gaining advanced technology and making up for production gaps and shortfalls, is also vital for assuring supplies of industrial energy and raw materials, in which all of the countries are lacking to various degrees. Hence, the continuing economic growth and well-being of the Warsaw Pact countries will depend to a cansiderable extent on how successfully they can generate enough exports of goods and services to pay for necessary and desired imports; this will in turn depend to a large extent on how well they can bring their foreign payments into balance, particularly their hard-currency payments.

While maintaining its traditional position of overall 38. export surplus in every year except 1972 and 1975-76, Soviet foreign trade in the 1970s developed convertible currency imbalances of around \$6 billion in the mid-1970s largely due to substantial imports of capital equipment from the Industrialised West(1). These imports, along with repayments of principal and interest to cover the cost of the machinery purchased, also caused sizeable convertible currency payments imbalances. Toward the end of the decade, however, with a decline in purchases of Western equipment and steep increases in the prices of exported Soviet oil and gold, the convertible currency trade deficit rapidly diminished, falling to around \$2 billion in 1979 from a level of nearly \$4 billion in the previous years, and the country's convertible currency payments situation also showed signs of being brought into balance.

In the period 1981-76, the USSR and Eastern Europe imported some \$40 billion in capital equipment from the West.

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39. In the 1980s, it is anticipated that the USSR's convertible currency trade position will continue to improve. Hard-currency imports will probably grow only modestly and could even stagnate, while exports can be expected to expand appreciably thanks to anticipated higher prices for mineral fuels and other raw materials, which will probably more than offset possibly declining volumes of deliveries of these materials. Then too. Soviet trade with less developed countries. which has a hard-currency component, and gave rise to a Soviet trade surplus with the area of around \$5 billion in 1979. can be expected to continue its development in the Soviet Union's Finally. Soviet arms sales throughout the world, favour. which amounted to \$4 billion in 1979, or one-fifth of hardcurrency exports, should remain strong.

40. Eastern Europe developed convertible currency trade deficits of over \$6 billion, or about half the value of all hard-currency exports in the mid- and late-1970s as it followed the Soviet example of importing large quantities of capital equipment from the West to aid industrial modernisation and development. Trade with the USSR also developed annual \$1-2 billion imbalances, largely because of increases in the price of oil imported from the USSR. As a result of trade with the West, the accumulated net convertible currency debt of Eastern Europe in 1979 stood at around \$50 billion, or nearly three times the level of the area's annual hard-currency exports, and five times the USSR's net convertible currency debt.

41. Because of the substantial volume of manufactured exports to convertible currency areas needed to generate funds to repay this debt, together with rising consumer expectations and industrial raw materials needs, which do not allow imports to be sharply curtailed, the trade and payments outlook for the countries of Eastern Europe in the 1980s is not sanguine. Moreover, the USSR, which supplies the bulk of Eastern Europe's energy needs, may insist increasingly on payment in hard currency or potentially hard-currency generating merchandise

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for deliveries of oil and gas. In short, unless the countries of Eastern Europe can offset probable trade balance deficits through invisibles such as foreign investment, tourism and maritime transport in the 1980s, they will face severe strains in their important foreign trade sectors. Poland, which has a hard-currency debt of around \$20 billion, or nearly five times its annual hard-currency export earnings, faces the greaters problems, and will undoubtedly see its growth in industrial output thwarted as a result of consequent imports restraints.

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#### Underlying Demographic Trends

42. The Soviet Union and most of its East European allies face during the 1980s the prospect of a growing labour shortage, arising from slowing population growth and increasing numbers of pensioners. Although the shortage may be more apparent than real because of widespread workforce redundancies in most industrial enterprises, nonetheless it could contribute to declining growth in industrial production, unless productivity can be otherwise increased through investment in new labour-saving equipment, or the introduction of more efficient work methods through management and incentive reforms.

43. The Soviet Union's population, currently numbering around 265 million, is increasing more slowly than formerly and is growing older. Having expanded at a rate of nearly 2% annually throughout the 1950s and 1960s, its growth has fallen to around 1% annually in recent years, and is projected to decline even further in the 1980s, so that by 1990 the Soviet population may total only some 290 million. Of these, nearly one-fifth will be of pensioning age(1), as compared to around one-tenth in 1950.

44. Along with the general decline in the growth of the population, the Soviet workforce will also tend to cease expanding. Prospective additions to the able-bodied population throughout the 1980s will average only some 600 thousand a year, as compared to 2.4 million annually in the 1970s. In a country with virtually no unemployment except for that generated by considerable labour turnover, and an exceptionally high rate of female participation in the workforce, these projections mean that the nation will have few places to look for additional labour supplies.

45. Soviet industry, which employs 40% of the total workforce, will feel the effects of the trend most sharply. Still growing at a rate above that of the population in general, industrial employment (1) Age 55 and older for women, and 60 and older for men

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in the 1980s will be held back from further substantial expansion by the combined effects of the slowdown in growth of the total workforce and by a marked reduction in the movement of agricultural workers to industry, the USSR's traditional source of industrial labour supply. Thus, in the 1980s the USSR faces the prospect that, for the country as a whole, increases in the labour force will be a less readily available means of promoting industrial growth than in any previous decade since the Second World War.

The agricultural sector in the 1980s will continue, as in 46. the past, to give up a number of workers to the rest of the Soviet economy - perhaps some 5 million. or around 5% of the estimated current non-agricultural civilian labour force(1). If this projection is correct, it compares roughly with the number of persons released from the agricultural sector in earlier decades(2) and should offset to some extent the expected decline in the growth of the industrial labour force. The draw-off will contribute less to labour force growth than formerly, however, because it must be apportioned among other areas of the economy needing additional workers, and represents a smaller percentage addition than formerly to the total non-agricultural labour force(3). Moreover, because so much of Soviet agriculture remains under-mechanized, it remains questionable how many additional workers the USSR can afford to release to non-agricultural activities without suffering marked declines in agricultural output. Even now, much of the movement of agrarian workers to the cities is accounted for by more highly trained farm workers, such as tractor drivers and mechanics, who are already in short supply on the farms.

47. The rate of expansion of industrial employment may also slow because of a continued flow of personnel to the service sector. Between 1960 and 1979 the proportion of the workforce in this sector

(3) The non-agricultural civilian labour force is estimated now to number around 112 million; in 1970 it totalled 85 million, in 1960, 61 million, and in 1950, 50 million.

See "Soviet Population and Manpower Trends and Policies" by Murray Feshbach and Stemhen Rapawy in <u>Soviet Economy in a</u> <u>New Perspective</u> (Joint Economic Committee of the US Congress, 1976).

<sup>(2)</sup> According to the above source, the total Soviet agricultural labour force declined by approximately 5 million in the 1950s and 1970s, and by some 8 million in the 1960s.

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increased from 17 to 25%, as demands for goods distribution and services grew, and as younger workers increasingly sought white-collar jobs. Although the Soviet government has indicated that it intends to try to hold down the numbers employed in services during the next few years, it will probably not be completely successful, in view of past trends and its own stated policy of trying to provide more services to the consuming population.

48. The most feasible option the Soviet Union has of trying to offset the anticipated decline in the growth in its industrial labour force in the 1980s is to employ more pensioners. Short of raising the retirement age, which is approximately five years lower than that usually applied in the West, the USSR can encourage voluntary old-age participation in the work force through various incentives(1). Otherwise, it must turn to other means, such as increasing labour productivity through additional capital investment where labour is still under-mechanized, and through the application of modern technology and more efficient work methods.

49. The potential labour shortage, however, is one affecting only certain regions of the USSR, namely the Western portion, where most of the industry is established, and Siberia, which needs a growing supply of labour to develop energy and raw materials In predominantly Moslim Central Asia, the population production. continues to grow rapidly enough to assure an abundant supply of labour. Because of linguistic, ethnic, and cultural differences between Muslims and Slavs, however, there appears to be little prospect for substantial out-migration from this labour-surplus region to labour deficit areas. It is thus likely that the Soviet authorities will seek to promote greater labour productivity in Central Asia mainly by orienting investment to labour-intensive industries, such as food processing, textiles, and light consumer goods.

(1) A decree of October 1979, for example, extends the list of occupations in which pensioners can work and still retain more than half their pensions, enabling them to earn up to nearly double the average state wage; it is estimated that 2-3 million pensioners may be attracted into the workforce as a result of this measure

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50. To attract and hold labour in Siberia, the USSR will have to make judicious use of administrative measures and economic incentives, the latter of which will depend on adequate supplies of consumer goods, housing, and social facilities. These in turn will depend on expanded consumer goods production and improvements in the traditionally deficient construction industry.

51. In the Western USSR, a potential decline in labour force growth will have to be remedied primarily by increases in labour productivity. This can be achieved in essentially three through reduction in workforce at individual plants without ways: a corresponding fall in production(1); through more output from existing labour forces through better organization and work practices; and through increased investment in labour-saving machinery. To achieve the first, the USSR will have to overcome inherent biases in its system of rewarding enterprises according to the number of workers employed. To achieve the second, it will have to rely mainly on effective economic incentives, which in turn will depend on increased production of consumer goods. The third approach is constrained by investment limitations. All these options are discussed in more detail below.

52. In Eastern Europe, the long-term population trend is also one of generally declining growth, with consequent shortages in workforce. Thus, in the 1980s the countries of Eastern Europe will have to achieve gains in labour productivity following the options open to the Western part of the Soviet Union, and will face similar constraints in doing so, the most severe of which might be in the area of investment.

#### Investment Limitations

53. Since 1950 the USSR has relied on heavy capital investment, in conjunction with rapid expansion of its industrial labour force, to promote economic growth. Each year it has invested some 30% of the value of all goods produced, as compared with a yearly investment rate of around 10% of GNP in the United States and

This might appear to be the most feasible option, since a 1979 survey in the USSR by economists and sociologists at institutes in Moscow, Leningrad, Novosibirsk and other cities suggested that the country might possess worker reserves amounting to 10% of the total workforce because of over-manning at many Soviet enterprises.

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and approximately 20% in Japan. It is doubtful whether the USSR's rate of investment can be expanded beyond this level in the 1980s, especially in light of probable constraints on the growth of the economy as a whole which will limit possibilities for expansion of capital goods production; moreover, because of rising raw materials and production costs even the current substantial amount of annual investment must be used more efficiently to achieve the same results as in the past.

54. Soviet investment in the 1980s thus faces both quantitative and qualitative limitations. Quantitatively, since the growth of national output is expected to decline, growth in total investment will probably also diminish, if the Soviet Government continues its policy of keeping investment a more or less constant share of national income; and in view of prevailing consumer attitudes in the Communist countries, it is difficult to foresee that the USSR would allow the share of consumption in national income to erode in favour of investment. Indeed, over the 1981-85 period, state investment is scheduled to grow only some 2.5% annually, as compared to approximately 3.4% a year in 1976-80 and 7% annually in 1971-75. Total investments in the 1981-85 period will thus come to somewhat over 700 billion rubles (\$1 trillion), as compared to around 634 billion rubles (\$900 billion) in 1976-80.

55. Qualitatively, Soviet investment in the 1980s will be directed increasingly to the modernization of existing facilities and the completion of projects already begun, rather than the construction of whole new plants. Although capital investment in new plants has been shown to produce greater ultimate gains in labour productivity(1), the Soviet leadership has opted for savings in investment expenditures and the more immediate gains in output realized through the re-tooling of existing plants.

56. In efforts to conserve investment funds, certain sectors of the Soviet economy will probably be slighted in the 1980s in favour of those receiving priority - in particular machine-building, energy

 A recent Soviet study estimates that labour productivity at new enterprises, once they are on stream, averages 20-25% higher than that at rebuilt ones.

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development and improvement of transport facilities; in addition, agriculture will continue to receive at least one-fifth of all investment allotments. As a result, investment in consumer goods production, other than foodstuff will doubtless not grow substantially: It is unlikely to amount to more than one-seventh that invested in heavy industry through 1985, at least.

57. Whatever the measures taken to conserve investment resources, regional considerations will increasingly limit the effectiveness of Soviet investment. In Siberia, where much new investment will be made, costs will be higher in proportion to investment returns because of large transport distances and the harsh climate. In Central Asia, investment effectiveness will be limited by the level of manpower education and training.

58. Eastern Europe also faces restraints on investment possibilities throughout the coming decade. Poland and Romania will have to adjust to over-investment in the 1970s, the former from imported capital goods, and the latter from domestic capital Although in each case the past investment should accumulation. eventually stimulate economic growth, the leaderships of the respective countries will have to meet popular demands for more immediate gains in consumer goods output. East Germany, Czechoslovakia, and Bulgaria, like the Western part of the Soviet Union, will be faced with constraints on capital investment arising from labour shortages, rising ray materials costs, and limited capabilities for developing or importing technologically Hungary may be in the best position to make advanced equipment. additional capital investment, probably mainly in the form of imported capital equipment, if its economy can continue to adapt to changing world market conditions.

#### Labour Attitudes and Management

As in the past, the growth of the Warsaw Pact economies throughout the 1980s will continue to be hindered by low labour morale and management difficulties. There are signs that the countries will take more vigorous measures to try to correct these problems, since they contribute to the wasteful use of energy and raw materials, which are becoming steadily less plentiful and

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more costly. Because of the inherent nature of the centrally directed and controlled economic systems, however, it is unlikely that any of the measures will spur labour or management to significant gains in productivity, except perhaps in Hungary, where indicative planning and a relatively free market mechanism may encourage more private initiative.

The nature of the Warsaw Pact economic systems 60. does little to encourage increased effort by labour, which, as in the West, can be promoted primarily through threat of unemployment or by various incentives. Since the Warsaw Fact nations are, at least in theory, labour short, and are ideologically commited to policies of full employment, the threat of unemployment does not serve to promote labour discipline(1). On the contrary, in the USSR in particular, the full-employment policy tends to result in a high rate of labour turnover, as workers dissatisfied with conditions at one place of employment find little difficulty in transferring to another. As a result, it is estimated that at least 10% of worktime is lost annually in such transfers. Moral incentives and bonuses also do not produce intended results, the former because workers do not believe in them, and the latter, because too often they are not backed by desired consumer goods.

Aware of these problems, the Warsaw Pact governments have 61. recently ennacted measures to reward worker longevity at a single job and have purported to give increased attention to the production Nonetheless, consumer goods production will of consumer goods. still receive less emphasis throughout the 1980s than other priority industrial sectors. Additional measures have been advanced to facilitate the withholding of bonuses if industrial production goals are not met or exceeded(2); but they will be difficult to implement and may only tend to result in more labour turnover, as workers search for position where the bonuses continue to be granted.

- Even in Hungary, unemployed workers are assured of eventually (1)obtaining jobs through state agencies. In the USSR, around 40% of worker earnings are derived from
- (2) bonuses.

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62. A free trade union movement, arising out of growing worker discontent at working conditions and consumer supplies. has manifested itself most explicitly in Poland, where its origins date at least from 1976, and where it has been able to profit from a unique convergence of national religious and intellectual forces, the latter stemming from a well-organized intelligensia. Two attempts have been made at establishing similar organizations in the USSR since 1977, without much success, and a free labour movement was instituted in Romania in 1979. Should the movements survive inevitable party and police harassment in each of these countries, they might come to represent effective bargaining units to press for additional workers' rights and benefits. and so might instill new vigor into worker attitudes end productivity. Given the USSR's reaction to the free union movements. however. it appears unlikely that they will come to be viewed as acceptable means of boosting labour morale and potential productivity.

63. Labour's productivity might be stimulated by its more efficient organization and use by management. But unless reforms similar to the Hungarian approach are instituted in the other Warsaw Pact economies, management will continue to find advantage in excess employment of labour. In the USSR in particular, enterprise wage funds are centrally determined, and a principal criteria of the size of the fund remains the number employed: Thus enterprises having larger numbers of employees are awarded more, and so disinclined to release workers. Secondly, heavy emphasis on research and design, partly to follow technological developments in the West, causes large staffs to be employed in these activities - perhaps 3-4 times larger than similar staffs in the Finally, the uncertainties generated by central planning lead West. factory managers to build-up labour reserves for various contingencies: "storming" to meet end-of-month targets and to make up for delays in raw and semi-processed materials deliveries; improvising necessary construction operations and repairs; responding to seasonal calls to assist with harvesting - especially necessary in the Northern countries where the season is very short; and providing for maintenance of children's summer institutions.

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64. In short, efforts to stimulate management and raise labour morale will probably not prove to be an effective solution to CMEA economies' problem of growing labour constraints in the 1980s. In the long run, to promote growth in industrial output planners will have to turn increasingly to investment in new, labour-saving machinery.

# Industrial restructuring and technological change

65. Throughout the past two decades in the Warsaw Pact countries, there has been a tendency to group related enterprises into production units reporting directly to national or regional industrial ministries, in an effort to simplify and clarify the lines of authority from the ministries to the individual enterprises. In general, it can be said that these restructurings have achieved their intended aim of improving administrative effeciency, and it is unlikely that there will be attempts to modify them them radically in the future. Certainly, however, there will be attempts to strengthen administrative controls by the increasing use of computers.

66. To the extent that profitability might be increasingly used as a measure of a firm's plan performance in the 1980s, the Varsaw Pact economies may see some industrial restructuring in favour of industrial areas which are favoured by government pricing policy or are competitive on world markets. Export-oriented industries will probably receive even greater priority than in the past in Eastern Europe, because of the area's persistent trade imbalances with hard-currency areas in particular. To offset these imbalances, industries capable of providing products for the developing world will probably be given special emphasis, in order to obtain additional convertible currencies in less demanding markets and to pay for future raw materials and energy deliveries. To meet rising costs of energy from the USSR, however, the East European countries may also have to gear their industries increasingly to production for the USSR.

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67. In addition to industrial restructuring, the Warsaw-Pact has attempted to improve its economic output by raising the technical level of key industrial sectors. In the 1970s in particular, the Warsaw Pact nations imported massive amounts of Western technology and capital equipment embodying that technology to achieve rapid gains in industrial output(1). It is unlikely that this policy will be continued into the 1980s on its former scale, although in certain vital industrial areas the Warsaw Pact will continue to be keenly interested in Western technology and equipment(2). In many of the Warsaw Pact countries, the imported equipment has not achieved hoped-for gains in output, partly because of delays in installation and co-ordination with other industrial processes; as a result, planners have begun to examine requests for such imports more carefully as to their intended results. Again, the deterioration of the East-West political climate from the beginning of the 1980s has made the USSR in particular less willing to rely on Western capital equipment to stimulate its economic growth, and on the other hand has caused Western nations in general to be less willing to allow such equipment to be supplied.

In some cases, the Warsaw Pact countries have shown an 6E . ability to develop their own technology for improving their industrial processes, especially in those cases involving copying of relatively unsophisticated Western technology(3). It remains generally agreed, however, that the countries remain at least five

- In the period 1971-76, for example, the USSR and Eastern Europe (1)imported some \$40 billion in capital equipment from the West.
- In particular, perhaps, in the engineering sector, because of its potential for investment goods porduction and the military's (2)The military takes one-third of all the strong involvement:
- output of the metallurgical and machine tool industries. A recent Western study ("USSR: Role of Foreign Technology in the Development of the Motor Vehicle Industry", National Foreign Assessment Center, Cctober 1979) concluded that the Soviet auto-(3)motive industry, having been behind world standards in the 1950s a 1960s, has subsequently made powerful strides towards selfsufficiency and has the experience, knowledge, and resources to stay abreast of latest advances in world automotive production; moreover, it has done this largely through its own efforts, rather than with the aid of imported technology. In another area vital to industrial progress, that of computers, Soviet industry now produces about the same annual value of output as that of the United States - about \$6 billion a year - but probably at a technological level at least a few years behind that of the United States: <u>N A T O</u>

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to ten years technologically behind the West in most industrial areas, and could close this gap in selected industries only with concentrated investment and use of increasingly scarce human resources. In general, then, it is likely that they will continue opting either for the copying or importing of Western technology where possible as the less costly course for economic development, As a result, technological progress should not see any more rapid advance in the 1980s than it has in the past, and may be offset increasingly by organizational and manpower restraints.

#### Efforts to redress economic imbalances

69. To overcome its regional labour shortages and limitations on investment, the USSR is currently taking a number of measures. Wage incentives are applied to entice labour to Siberia, but they have not proved attractive enough to hold labour in the region, partly because of a lack of adequate housing and other amenities. As a result, the Government is forced to fly in work groups for two week periods for many construction and extractive projects, with consequent loss in worktime and work efficiency. In the Western part of the country, the Government is counting on increases in worker productivity to make up for the slowdown in the growth of the workforce.

70. To promote productivity, in 1979 the USSR instituted more controls on the granting of bonuses, according to the quality and real value (in constant prices) of output(1). In addition, in 1980 it issued a decree(2) designed to reduce the country's excessively high rate of labour turnover and worker absenteeism by providing additional benefits to workers on the basis of length of service at one job and reducing privileges of often-absent workers. The potential effectiveness of these measures is questionable, however, for reasons discussed above. Moreover, surveys have shown that worker absenteeism is probably due in large part to the poor supply system, which leads to enforced idleness. (1) Decree "On Improving Flanning, Increasing Impact of Management

(1) Decree "On improving Planning, increasing impact of Management on Production Efficiency and Quality", 12th July, 1979. Forty percent of the average Soviet wage now derives from business.

(2) Decree "On Further Strengthening Labour Discipline and Reducing the Turnover of Personnel in the Economy", January 1980.

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71. In response to widespread strikes in 1980, Foland has instituted reforms beginning in 1981 which give greater latitude for decision-making concerning industrial output to individual enterprises. To be broadened in 1983, the reforms follow similar approaches taken throughout Eastern Europe in the late 1960s and resumed in the late 1970s, which attempt to improve industrial efficiency by allowing operational decisions to be taken closer to the level of the actual production processes. Not all Polish enterprises are yet included in the new measures, and factories continue to be constrained by centralized investment decisions and binding plan fulfillment requirements, although binding targets have been reduced in number and may eventually be replaced by indicative planning. Only in Hungary does indicative planning give enterprise directors the latitude to change production quickly in response to changed conditions on world and domestic markets.

72. Hungary has also apparently had a certain degree of success in reducing plant workforces according to the criterium of profitability. By rewarding management and workers alike for reductions in staff, Hungarian enterprises have been able to maintain and even exceed previous production levels, even though a portion of the working population remains unemployed, awaiting reassignment to positions where their efforts can be more productive.

73. In sum, it can be said that policies being currently applied to stimulate growth in the Warsaw Pact economies do not fundamentally alter the countries' ideological commitments to strong state control of production and investment policy and of the potential for private economic gain. Reforms being currently applied seek to rectify growing constraints on land, labour, and capital productivity largely through more stringent guidelines on the use of investments and economic incentives. There appears to be a growing tendency, however, to allow operational decisions regarding the use of allotted investment funds and the range of items produced to be made more often at the level of production and increasingly on the basis of profit.

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Prospects for Future Reforms

The most severe constraints on growth in the Warsaw 74. Pact economies in the 1980s will be in the areas of manpower, and for Eastern Europe in particular, in energy and raw materials availability. Because of the relative success of the Hungarian reforms; based primarily on price reallignments in accord with world market levels and consequent reductions in workforce and closures of unprofitable enterprises, they may eventually be copied throughout most of the countries of Eastern Europe, which are theaselves highly dependent on foreign trade. Although there are signs that the Hungarian reforms are also favoured by some Soviet planners, there are a number of barriers to widespread adoption of the Hungarian approach in the Soviet Union, however, because the USSR's economy is much larger and much less dependent on foreign trade. Adoption of the Hungarian measures in the USSR might prove extremely costly in the short-term in lost production during labour changeovers, and would require extensive and conrealignments, which can probably not be effected tinuing price so readily as they are in Hungary, already well-attuned to world market price fluctuations. Moreover, Hungary's reliance principally on profit-oriented incentives to implement its system will probably be resisted by the conservative Soviet leadership, because of its ideological aversion to giving the profit motive too much latitude, and because of relatively scarcer supplies of consumer goods, which are needed to make incentives work.

75. In the meantime, both the USSR and the countries of Eastern Europe will doubtless continue to try to improve their economic performance mainly along the lines they have pursued in the past - improving planning procedures through the use of computers and extended time periods, perfecting administrative and organizational arrangements, and instituting wholesale and consumer price reforms to varying degrees. They will be forced to give continuing attention to consumer goods production and imports, in order to render effective announced wage increases and bonuses to promote labour productivity. Because of the orientation of their economies to heavy industry, however, they will probably find their capacities for the production of consumer goods continually outstripped by consumer demand. As a result, they may turn to more imports of consumer goods to help fill the gap.