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COMMITTEE ON SOVIET ECONOMIC POLICY

COMPARISON OF ECONOMIC GROWTH IN THE SOVIET BLOC
AND IN NATO COUNTRIES

Note by the Secretary

The attached report by the International Staff is to be discussed at the Committee's next meeting, which it is proposed to hold on Wednesday, 14th November, 1956, at 3 p.m.

The tables and annexes to the report, and a short summary paper, will be circulated separately.

Will delegations please indicate to the Secretary whether they agree with this time and date.

(Signed) K. H. BEYEN

Palais de Chaillot,
Paris, XVIe.

NATO SECRET

A COMPARISON OF ECONOMIC GROWTH IN THE SOVIET BLOC
AND NATO COUNTRIES

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A COMPARISON OF ECONOMIC GROWTH IN
THE SOVIET BLOC AND NATO COUNTRIES

I. INTRODUCTION

1. The purpose of this paper is to suggest the probable rate of expansion of the economies of the NATO and of the Soviet Bloc countries over the next twenty years, and to examine the comparative situation which might arise in 1960 and in 1975. A break has been made at 1960 because the 1956-60 plan published this year by Russia provides a useful basis for projecting longer-term trends. The East European satellites, except Bulgaria, have also announced five-year plans for 1956-60, but it now seems that these are likely to be substantially modified. Indeed, current events in Poland and Hungary throw doubt on the usefulness of trying to project developments in the satellites. Projections for these countries have been included in this paper, but the main emphasis on the Soviet bloc side has been placed on the USSR. The information available on China is too scanty to work into the projections, but mention has been made of China wherever possible.

(a) Soviet statistics

2. Any economic comparison between the USSR and NATO countries raises difficulties both of a statistical and of a conceptual nature. Some of these difficulties arise in all comparisons between different countries; these are discussed below. However, there is also the problem of the reliability of Soviet statistics; this is a vital question, since we must perforce use them in making comparisons with other countries.

3. There is by now fairly general agreement that the Soviet published data are not invented or deliberately falsified for propaganda purposes. The Soviet authorities do not keep two sets of accounts, one for their own use and one for publication. This was shown, for example, when the Allies discovered the confidential version of the Soviet economic plan for 1941 which had been captured by the Germans; the figures in this document tallied very closely with those previously made public by the Russian government. By and large, with the exception of certain agricultural statistics, it is thought that the commodity figures in quantity terms are reliable. If, as a result of the pressure to fulfil plans, managers are tempted to falsify the data sent to the central statistical authorities, there is no reason to suppose that this false reporting is more prevalent now than a few years ago, and so any errors due to this factor should not affect estimates of growth.

4. However, there are some peculiarities and inadequacies of Soviet statistics which must be taken into account. Soviet statistical methods differ in important respects from Western practice. As a rule, Russian statisticians justify their methods by theoretical arguments; but it is probably not by accident that these methods invariably lead to a more favourable picture of the Soviet economy than if Western definitions and methods had been used. The bias introduced by Soviet statistical procedures has sometimes been

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very large. For example, until 1953 the agricultural output figures were expressed in terms of national "biological" yield, which, if some indirect indications are correct, was some 35% in excess of the real harvest. This system has now been abandoned, but since 1953 no firm output figures have been published at all. (1) Furthermore, while the recent much more systematic publication of statistical data in the USSR is a great improvement on past years, there are still many gaps. Certain indices are published without any explanations of how they were calculated; the official national income indices cannot be accepted for this reason. For all these reasons, it is necessary to check the official indices as far as possible and sometimes to substitute estimates built up independently on the basis of the more reliable commodity figures. This has been done in the present paper.

(b) Difficulties of international comparison

5. There are many difficulties in making international economic comparisons, and no one method offers a complete solution. The simplest and most direct method is to compare the outputs of various key commodities. For instance, steel and energy have such wide uses in industry that their production is often taken as one measure of industrial strength. However, this method is not free from a certain arbitrariness. The Soviet economy emphasises heavy industries at the expense of industries producing consumer goods; hence a comparison of steel output will show the USSR in a more favourable light than a comparison of output of woollen cloth.

6. The most complete picture is obtained by comparing national products, by source and by use. This method requires conversion of the national products into a common currency. Official exchange rates are not appropriate since they do not accurately reflect the comparative purchasing power of various currencies. A better method is to value the quantities produced in each country in the prices of one of them, so that similar quantities of a particular item are given the same valuation everywhere. There are, however, objections to this method when there are significant differences in the price structures of the countries compared, and these differences are particularly marked between most of the NATO countries and the USSR.

7. In the present study the national products of both the NATO and the Soviet countries have been revalued in US prices (2). But there is no a priori reason why the comparison should not have been made in the prices of another country. If the comparison were made in the prices of either the European NATO or the Soviet Bloc countries, the national products of these countries would be given a lower weight relative to the USA. One reason for this is that in using US prices, the "services" sector in the USSR (and to a lesser extent in the other European countries) is relatively inflated by the national payment of US remuneration to soldiers, civil servants, doctors, etc. However, tentative calculations indicate that the rates

(1) It is believed that output figures may be published shortly, probably because of the good harvest this year.

(2) See discussion in Annex V.

of growth of the various economies, with which this paper is mainly concerned, would not be substantially changed by the use of other than US prices.

8. There are therefore objections to both simple comparisons of key commodities and more elaborate comparisons of national products. The first are not free from a certain bias, while the latter give different results according to the prices chosen for purposes of comparison. This means that it is necessary to be aware of the drawbacks of both methods and to avoid too literal an interpretation of the results which they yield.

II. THE PRESENT SITUATION - CURRENT RATES OF GROWTH IN THE SOVIET BLOC AND IN NATO COUNTRIES

9. The last few years have seen a rapid growth both in NATO countries and in the Soviet Bloc. In absolute terms, the growth of NATO member countries has been much greater than that of the Soviet Bloc. For instance, steel output has risen between 1950 and 1955 by 47 million tons in NATO member countries compared with an increase of 25 million tons in the USSR and its satellites. Electric power production rose by 350 billion kilowatts in the NATO countries, and by 80 billion kilowatts in the Soviet Bloc.

10. At the same time, however, the rate of growth of output in the Soviet Bloc has been markedly greater than in any NATO country except Germany. Industrial output in the Soviet Bloc has increased by about 70% over the five years, as against 24% in the US and 38% in NATO Europe (80% in Western Germany). NATO member countries have been able to increase the absolute margin between their industrial production and that of the Soviet Bloc only because their present total output is about three times greater than that of the Soviets, so that even moderate rates of growth in percentage terms correspond to very large absolute gains.

11. From a long-term point of view, however, the percentage rates of growth are clearly the most important, since it is a matter of simple arithmetic that, between two series having different starting points, that which grows faster in percentages is bound to exceed the other eventually. What matters therefore is whether the Soviet Bloc - especially the USSR - is likely to maintain its present advantage in terms of rate of growth. Some light can be thrown on this question by determining whether the factors which have influenced growth, both positively and negatively, are likely to continue to do so to the same extent as in the past.

(a) The Soviets

12. An important reason for the rapid growth of output in the USSR is the power of the government to limit consumption, to maximise investment, and, within investment, to concentrate on growth-inducing sectors. For example, heavy industry is greatly favoured at the expense of light industry, many elementary amenities (such as drains and paved streets) are neglected, and transport investment is concentrated on goods rather than passenger requirements.

This tendency will probably continue. However, there are certain counter-tendencies visible, which find expression in a series of concessions to popular needs and the promise of more such concessions. The working week is being shortened and there is a tendency towards some change in the direction of investment to meet urgent public demand for improved housing and amenities.

13. Again, the Communists pursue growth as a conscious aim, make higher production the measure of success and arrange incentives accordingly. This gives the Soviet economy some advantage over the West, where directors are always having to balance the advantages of increased output against other considerations, and one can expect this advantage to persist.

14. The Soviet economy has also benefited from the existence of great unused natural resources. While the possibilities of extending agricultural land now seem limited, there still exist in the east of the USSR valuable mineral deposits which will greatly facilitate industrial expansion in the next decades.

15. Another reason for the rapid expansion of the USSR has been the transfer of surplus labour from agriculture, where productivity has been relatively low owing to rural overpopulation. The rate of population increase has also been above that of Western countries. This has made possible a more rapid increase in industrial manpower; for example, in the USSR it rose between 1950 and 1955 by 24%, compared with 11% in NATO countries. The transfer of labour from agriculture will remain important in the more backward satellites (and also in China), but in the USSR the labour position will be difficult for the next few years. This is because of the coincidence of three factors: the sharp fall in the birth rate during the war will affect labour supply adversely in the next decade; the increase in the school leaving age will have the same immediate effect; and the efforts to improve farm output are necessitating the retention of labour in the villages and even the despatch there of some skilled workers from the towns. However, by the end of the sixties, circumstances should become more favourable; the labour market will begin to benefit from the high postwar birth-rate and the inefficiencies which retain so much labour in Russian villages ought to be partly overcome. Then, the much improved system of education, over the years, will continue to influence efficiency, especially as a large proportion of the existing labour force is of very low quality.

16. The development of the Soviet economy has been extremely uneven. The industries which have constantly enjoyed priority have achieved a high level of efficiency (for example, Western observers say that Russian steelworks are as efficient as the best Western plants), and these priority sectors have been most important for growth and military strength. However, precisely because of the concentration of the best human and material resources in these sectors, there are still very backward areas in the economy. There is therefore still ample scope for gains in efficiency, though these will become progressively less as the gap between technical levels in the USSR and in the West is reduced.

17. Another factor which has tended to increase the growth rate in the past has been urbanisation. In all countries, the transfer of peasants to the towns leads to an increase in the consumption of industrial goods and services compared with the subsistence economy of village life. Since the rate of growth of Soviet towns will decline, so will the influence of this factor.

18. On balance, so far as the USSR is concerned, some reduction from present growth rates, especially in industry, seems virtually inevitable, even if unchanged governmental policies are assumed.

(b) The NATO countries

19. The rates of expansion in most NATO countries over the past five years have been in excess of the long-term trend of the past. Total output, as measured by the national products of the member countries combined, increased between 1950 and 1955 by 27% or by about 5% per year. A significant part of this expansion is accounted for by the exceptional increase in German output which averaged over 9% per year, but even excluding Germany the rise in total output was as high as 21% in this period.

20. There are several reasons underlying this rapid expansion. The progress made in economic co-operation has been an important factor. The liberation of trade promoted by the multilateral payments system established through EPU has been of vital importance for European trade, and the high level of extraordinary United States military expenditures abroad has helped to meet the European dollar gap. Governments have given more attention to economic development and to overcoming structural problems which were hampering growth. The proportion of resources devoted to investment has been rising in most countries, and many are now enjoying a boom. In some countries, the existence of unused capacity and reserves of manpower has played a significant rôle in meeting the rise in demand.

21. The prospects for future development seem bright, but there are certain limiting factors. Manpower is now fully employed in most countries and the natural increase in the labour force in some of them will be rather small. There are also tendencies towards shorter working hours. In addition, the rapid development of the past five years has left little unused capacity in most countries, while measures are being taken to slow down the rate of increase of investment in order to eliminate inflationary pressures. Generally, a somewhat slower rate of expansion of production is to be expected in the coming years.

III. ASSUMPTIONS UNDERLYING THE PROJECTIONS

22. The basic assumptions for the projections have been laid down as follows: (1)

(1) AC/89-D/1(Final)

- "(a) that there will be no major war;
- (b) that there will be no severe and general economic depression;
- (c) that the present geographical boundaries and political-economic systems of the two blocs will remain unchanged and in particular that the rulers of the Soviet countries will continue to have the building of a Communist society as their ultimate objective."

23. An additional premise has been adopted - that defence expenditures will increase in all countries by 3% a year. This has been used purely as a working hypothesis and not as any indication of likely future policies. It can perhaps be justified by reference to the continually rising cost of modern weapons; on the other hand, it is clear that many other considerations will influence the future level of defence expenditures, and these cannot be taken account of in this paper.

24. It is also implied in these projections that technical progress in the next twenty years will not produce any revolutionary change in the rate of economic expansion. This is not contradictory to the expected general introduction of nuclear energy, which, in fact, will be essential if the projected rate of growth in Western Europe is not to be hampered by limited energy resources. It may be that the further development of automation devices will lead to a greatly accelerated rate of growth, but it is impossible to take this into account. It is not unreasonable to assume that any such development would affect the projections for both blocs equally.

25. Specifically for the NATO countries, it is assumed that overall world development will be sufficient to provide for their growing needs for imports and for export markets; that there will be no significant changes in terms of trade; and that they will continue to co-operate in economic matters, particularly in solving balance of payments problems.

26. In the USSR, it is possible that economic policies may change in future. New social forces are asserting themselves. The present collective leadership is trying to contain and to direct these new forces, but it is by no means clear that the present equilibrium is stable and that further changes will not occur in the future.

27. In view of this uncertainty, two assumptions are made about possible developments in the Soviet Union after 1960. Up to 1960 it is assumed that the policies stated at the 20th Congress of the Communist Party of the USSR and embodied in the current five-year plan will be carried out in their essentials. Thereafter it is assumed:

- either (a) that the policies laid down at the 20th Congress will be continued, in which case investment will continue to grow faster than output as a whole; (the high projection)

- or (b) that milder policies, offering greater concessions to consumers, will be adopted, as a consequence of which investment will grow only at the same rate as total output. (The low projection)

28. In some of the satellite countries, recent events have underlined the instability of the present Communist regimes. It is hard to predict the outcome of these events. (Indeed, they may call into question the basic assumption in paragraph 22(c) above). However, the only realistic assumption about future developments seems to be that milder policies will be adopted than in the past. Accordingly, only one projection is made for the satellites, reflecting this assumption.

IV. PROSPECTS FOR THE NEXT FIVE YEARS

(a) USSR

29. The sixth Five-Year Plan of the USSR has been the subject of a previous study. (1) It provides for some reduction of the rate of expansion of industry; industrial output is planned to rise by 60% over the next five years compared with 70% for the past five years. (2) The targets for agriculture are far in excess of previous achievements, and it is most unlikely that they could be fulfilled. Investment is planned to increase by 67%. Workers and peasants are promised increases in real incomes of 30% and 40% respectively.

30. In agriculture the main shortfalls are likely to affect the targets for food production, which are very high. The goals set for industrial crops and other agricultural raw materials are more moderate, and it seems that the requirements of industries consuming such materials could be met. Failure to achieve the targets for agriculture need not therefore affect the main objective of the plan - the continued rapid expansion of industry. The shortage of manpower is likely to be a more serious problem, especially bearing in mind the decision to reduce the working week from 48 to 41 hours. This shortage will be eased to the extent that the recent announcement to reduce the armed forces is implemented, but even so, any marked decrease in working hours will have to be offset by increased overtime if the main industrial targets are to be achieved.

31. In conclusion, it seems that the industrial plan can probably be achieved, though this may see some backsliding in the social premises, in particular the premise to reduce the working week. In agriculture, output will probably not rise by more than a quarter; even this would represent a notable improvement on past achievements. If it is assumed that the output of services will increase by a third, the national product would rise by 37% (7% per year) between the years 1955 and 1960.

(1) See AC/89-D/7 and C-R(8)50

(2) These are estimates prepared for the purposes of this paper. See paragraph 4. The percentages in the official USSR indices are higher.

32. A feature of the plan which has special significance from the point of view of the present study is the emphasis on measures which affect economic development over the long run. Both the increase in the school-leaving age and the policy to shift industry nearer the natural resources of the east will help to ensure that in 1960, when the seventh Five-Year Plan is drawn up, the Soviet planners will have at their command the resources necessary for a further increase in output.

(b) The satellites

33. The Five-Year Plans of the satellites reflect closely the economic policies embodied in the Soviet sixth plan and stated by Khrushchev and Bulganin at the 20th Congress of the Communist Party in Russia. None of the satellite plans represents an attempt to work out an "own way to socialism"; although each satellite has attempted to solve its particular problems, it has been hampered by the imposition from outside of basic policies often ill-suited to its special situation.

34. The plans do recognise the need to slow down the pace of industrial expansion. The targets are everywhere lower than in the Russian plan and substantially less than the increases in output claimed for the past five years. There is more emphasis on agriculture.

35. Several of the plans emphasise the importance of increasing trade with the underdeveloped countries. There are reasons to believe that to a large extent this reflects the vital need of the satellites for raw material and energy supplies. They have been experiencing difficulty in obtaining adequate supplies from the USSR. The plans also discuss the desirability of co-ordinating economic development in the East European countries. Up to now, achievements in this direction have been limited.

36. It now seems likely that at least some of the satellites will modify their plans substantially. It can be expected that the industrial targets will be lowered again, and that the pressure on the private peasants will be further eased. It has therefore been assumed that the increase in industrial production over the next five years for the satellites as a whole will be 40%, compared with 54% in the plans. Agricultural output is assumed to increase by 15%. If it is assumed that the output of services will rise by one-seventh, the increase in the national product would be about 30%.

37. These assumptions may, in fact, allow too little for the effects of recent political events. The consequences of the political concessions made in satellite countries may lead to an even greater revision of industrial plans.

(c) The NATO countries

38. A recent OEEC memorandum (1) offers the basis for

(1) Memorandum on potential output and use of resources for OEEC member countries in 1960. 17th April 1956.

the projections of the NATO countries in 1960. The assumptions underlying this memorandum tally with those described in paragraphs 22 to 25 of this paper. The projections for the future years are mainly based upon assumptions about the development of productivity and the likely growth in the labour force, employment and working hours. Because of the slowing down of the growth in the labour force, continued expansion in many countries depends primarily upon increasing productivity. It is assumed that new investment will be made with this end in view.

39. The increase in total output between 1955 and 1960 is estimated at about 19% for the NATO countries as a whole. The greatest increases are assumed for Turkey (36%), Greece (27%) and Italy (26%); in the North American member countries the increase is about 20%. These increases are in general less, and for some countries considerably less, than the achievements of the past five-year period; however, the economic growth forecast for the NATO countries up to 1960 still allows for substantial expansion of living standards.

(d) Comparison of projections to 1960

40. Some indicators to illustrate possible developments in 1960 are given in the following table:

Production in NATO countries and Soviet Bloc in 1955 and 1960

	1955		1960 (1955 = 100)	
	NATO	Soviet	NATO	Soviet
	million metric tons			
Key commodities				
1. crude steel	183	59	127	149
2. energy	1,932	697	120	151
3. sulphuric acid	22.8	5.5	125	176
4. cement	116	35	130	218
	Indices			
Industrial production	100	100	127	154
Gross national product	100	100	120	136

41. This shows a rate of growth over the next five years for the Soviet Bloc about twice that of the NATO countries. Investment would rise by 60%, as compared with 22% in NATO countries. In 1960 investment in the USSR alone may be greater than in the European NATO countries taken together. On the other hand, the rise in living standards in the Soviet countries would only slightly exceed that in NATO countries, and

the gap between consumption levels in East and West would be almost unchanged.

V. PROJECTIONS FOR NEXT TWENTY YEARS

(a) The high and low projections for the USSR (1)

42. The high and low projections of Soviet output should not be confused with the maximum and minimum estimates often used by forecasters to define a range of possible outcomes. The difference between the high and low projections is not meant to reflect the unavoidable inaccuracies of projecting trends in output, but is associated with different economic policies.

43. The high projection reflects what the Soviets could achieve if they implemented for twenty years the fairly severe policies laid down at the 20th Congress and embodied in the sixth Five-Year Plan. The share of investment in gross national expenditures, which is already around a quarter, would rise to about 40% (2). This would not be enough to prevent a fall in the rate of growth of industrial production, which would decline from just below 10% per year in 1955-60 to 7½% in the following fifteen years. Even so, the increase would be formidable - to nearly five times the present level. Of total industrial production in 1975, close to three-quarters would consist of investment goods and arms.

44. Though investment would take the lion's share of the increase in output, the rise in living standards would not be negligible. Total consumption would rise by 5.5% a year. Owing to the rise in population, the increase in consumption per head would be somewhat less (about 3% per year).

45. However, continuation of the present policies would not eliminate the strains under which the Soviet economy is at present operating. To achieve the projected level of industrial output, working hours would have to be maintained at the present level with heavy overtime required from workers in key industries, and numbers of workers would have to be transferred from agriculture. The increase in agricultural output per head, and consequently the improvement in the present unsatisfactory standards of nutrition, would be relatively slow. The continued rapid rise in the urban population would limit the scope for improvement of housing.

46. In the alternative lower projection of Soviet growth it is assumed that the Soviet leaders would follow milder policies after 1960 which would help to eliminate gradually the stresses within the Soviet economy. The key assumption in that projection is that after 1960 investment would rise only at the same rate as total output. It is also assumed that working hours would decrease by about one-eighth, and that, as a result of a greater emphasis on the improvement of nutritional standards, the flow of labour from agriculture to other sectors would be about half that in the higher projection.

(1) See paragraph 37

(2) It is most unlikely that investment would ever rise to as high as 40% of national expenditures at current prices. One result of the concentration of resources on the production of investment goods is that their price falls relatively to other things, which has the effect of reducing the share of investment in current prices from what it would be in constant prices.

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47. As a result of such policies, industrial output would rise after 1960 by approximately 6% a year, reaching in 1975 a level nearly four times that at present. The rise in investment would be less than the growth in industrial production, so that consumers' goods would account for an increasing share of the output of industry and construction. The rise in total output would be about one-sixth less than in the higher projection. However, this difference is mainly accounted for by the higher level of investment in the latter projection, so that in both projections the total value of goods available for consumers would be about the same. Thus, by accepting a continuance of harsh economic policies for a further fifteen years after 1960, the Russian consumer could achieve by 1975 the same level of consumption as he would then be enjoying had softer policies been implemented, while at the same time the production of investment goods would be substantially higher.

48. However, a mere summation of the value of goods supplied provides an imperfect picture of the consumer satisfactions. It is not enough to supply goods in stated quantities; it is important also to ensure that the goods supplied are those which the consumer needs most. And from that broader point of view it is clear that the Russian people would benefit more from the policies implied in the lower projections than if forced industrialisation were continued. The smaller flow of labour from country to city which is assumed in the lower projection would help to increase the now inadequate food output. It would also ease the strain on urban housing accommodation, and thus provide a partial solution to another critical shortage. Lastly, there is the reduction in working hours in industry which is assumed in the lower projection.

(b) The satellite projections

49. For reasons mentioned in paragraph 28, only one projection is made for the satellites. As in the USSR, it is assumed that the economies of the satellites will expand at a slower rate in the longer run. Manpower in many of these countries will be a limiting factor, and it does not seem likely that they will be able to offset this by rates of investment matching even that in the lesser projection for the USSR.

(c) The NATO projections

50. In projecting the long-term growth of the NATO countries, the same procedure has been adopted as that explained in paragraph 38. In general, it has been assumed that productivity will rise faster in the less advanced than in the more developed member countries and that the present divergencies between, in particular, the Southern European members and the rest of the NATO countries will become less marked. This assumption is strengthened by the fact that the former countries should benefit from the absorption of manpower at present unemployed or underemployed, whereas in other NATO countries the small increase in labour force and expected claims for shorter working hours will adversely affect the rate of economic growth.

51. A necessary condition for the assumed rates of growth is that sufficient resources will be devoted to investment. For the NATO countries combined, it is implied that the ratio of investment (gross fixed asset formation) to the total national product will increase from about 18% in 1955 to about 22% in 1975.

52. The resulting calculations indicate that the total national product of the NATO countries would increase by nearly 90% between 1955 and 1975, that is, by over 3% per annum. The increase in the North American member countries would be about 94%; for the European NATO countries it would be about 80%. The output originating from industry and construction is estimated to increase by about 125% for the NATO countries combined. The rate of increase of investment, being higher than the rate of growth of the national product, would leave a smaller proportion of total resources for consumption; however, total goods and services available per capita would nevertheless increase by about 57% in the European NATO countries and by 45% in the USA and Canada.

VI. CHINA

53. It is difficult to measure the economic progress of China and even harder to foresee the future development of this vast country. The second Five-Year Plan targets have been announced, covering the period 1957-62. They seem to imply an industrial production index of about 275 by 1962, 1955 = 100. The 1962 targets for certain key commodities are as follows:

	<u>1955 estimates</u>	<u>1962 estimates</u>
Steel (mill. tons)	3	10.5 - 12
Coal " "	94	190 - 210
Crude oil " "	1	5 - 6
Electricity (bill. Kwh)	12	40 - 43

54. There seems no reason to doubt China's capacity to reach at least the lower of the range of figures indicated above. But China is still in an early stage of economic and industrial revolution and so much is unknown that any predictions are hazardous. For example, it is not yet known whether the Chinese peasants will resist effectively the effort to collectivise agriculture, and by what means the government would seek to overcome peasant non-co-operation. This could affect decisively the rate of investment and so the tempo of industrial advance, though one can hardly doubt that the advance will be rapid or that the Chinese Communists will seek to maximise industrial growth; the enormous population - which already exceeds 600 millions and should reach about 830 millions by 1975 - provides a vast reservoir of labour. By 1975, China will become a major industrial power. However, it is hardly justifiable to attempt a precise forecast or to try to integrate any general statistics on China with those of other members of the Soviet Bloc.

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VII. COMPARATIVE ECONOMIC STRENGTH OF THE SOVIET BLOC AND OF NATO COUNTRIES IN 1975

55. The question of the relative economic strength of the two blocs in 1975 is one which can be answered only in the broadest terms. Whereas it is possible to estimate in a rough way the probable rates of growth in the two groups of countries and to state with confidence that Soviet growth is likely to exceed NATO growth, it is not possible to dogmatise about the situation at the end of a given period. Small errors in the percentage rates of growth will affect the calculation in a cumulative way; and if these errors for the NATO and the Soviet countries are opposite in sign, the final comparison will be sharply distorted. The following paragraphs are therefore confined to a description of main points.

56. Generally, the comparisons in this paper bear out the results of the preliminary study issued last December (1); the most striking feature of the projection is the improvement in the relative position of the Soviet Bloc, especially in industrial strength. Industrial production in the Soviet Bloc, which is now less than a third of the NATO total, would increase to between one-half and two-thirds in 1975. The resulting situation may be illustrated by the following examples:

Output of key commodities in NATO member countries and in the Soviet Bloc, 1955 and 1975

	1955		1975		1955		1975	
	NATO	Soviet	NATO	Soviet	Soviet as % of NATO	Soviet as % of NATO	Low est.	High est.
	(million tons)							
Crude steel	183	59	420	225	32	53	63	
Energy (a)	1,932	627	3,425	2,800	36	82	102	
Sulphuric acid	22.8	5.5	54	28	24	52	65	

(a) Production in terms of hard coal equivalent.

57. In terms of national products, the improvement in the Soviet position would be less marked. This is because the growth of the Soviet economies is so heavily concentrated in industry. For agriculture it is not reasonable to anticipate Soviet rates of growth far in excess of those expected in NATO countries, since past experience suggests that the expansion of agricultural output is severely limited by the poor quality of most agricultural land

(1) C-M(55)119

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and defects in the collective farm system. For services also, Soviet growth is unlikely to exceed NATO growth by a wide margin. The projections suggest that total output on the Soviet side, now something under one-third of NATO output, may rise to around a half in 1975. It should be noted that the gap in absolute terms between the total output of the NATO countries and the Soviet Bloc would widen over the period under consideration, but it is not this gap but the relative sizes of the two blocs which is important.

58. Russian output would be over three times as great as that of the satellites; the economic predominance of the Soviet Union in her bloc would be even more striking than now. By following the policies implied in the high projection the USSR would be able to raise her national product above the total for NATO Europe in 1975, though it would remain one-third smaller than that of the USA.

59. The goal announced by Khrushchev at the 20th Congress of overtaking the rate of production per head in the capitalist countries would not be reached. Output per head in Russia and even in the more developed satellites would remain below the NATO average. Even in the higher projection for the USSR, output per head in 1975 would be something below the present level in the USA, and well below the level which the USA might be expected to achieve in 1975.

60. The improvement in the relative position of the Soviet Bloc would alter substantially the defence capabilities of the Eastern and Western countries. In the projections it has been assumed purely as a working hypothesis that defence expenditure in all countries will rise by 3% a year. This is much less than the expected rate of increase of the national product of the USSR and, as a result, by 1975 the share of defence expenditures in the national product would be about halved. In order to match this increase in defence expenditures the NATO countries, however, would have to maintain the share of their output devoted to defence at about the present levels.

61. It is also interesting to consider the possible impact of the developments described in the projections on world trade - and in particular on trade with the underdeveloped countries. At present, nearly all such trade is with NATO countries; their imports from the underdeveloped countries in 1955 amounted to around \$20 billion, some twenty times those of the Soviet Bloc countries. On the basis of the past relationships between imports and the growth of national products, the projections imply that the imports of the NATO countries from the underdeveloped countries might increase some two and a half times by 1975. This is a very rough calculation, but it does serve to underline the importance to the NATO countries of the assumption that world development in future will be sufficient to provide for their growing needs for imports and for export markets.

62. It must be remembered that the NATO countries will not be the only areas competing for supplies and markets; most countries of the world are now concerned with stimulating their pace of economic development. Among these are the satellites, whose progress will be closely dependent on

developing trade. At the moment, they account for nine-tenths of total imports of the Soviet Bloc from underdeveloped countries.

63. Trade developments in the USSR are less predictable. It has been suggested that in 1975 industrial production in the USSR may amount to something between one-half and two-thirds that of the total for all NATO countries - i.e. well above the present output of industry and construction in the USA. It has also been suggested that the greater proportion of this vast industrial output of the USSR would consist of investment goods. The question arises of what the Soviet leaders would decide to do with these goods. They might continue to use them for producing more investment goods, i.e. to place the maximum emphasis on the growth of the economy; they might choose (or be forced by popular pressure) to switch an increasing proportion to producing consumer goods; or they might decide to export capital goods on a large scale to the developing areas of the world. This is, of course, pure speculation. What is, however, difficult to dispute is that over the next twenty years the USSR is likely to develop its ability to intervene in world trade on a rapidly increasing scale.

64. Lastly, mention should be made of the influence of the Soviet Bloc countries on the underdeveloped countries, from the point of view of the example they set of the effectiveness of communism in achieving rapid economic development. It may be hoped that present events in Poland and Hungary may serve as a warning to underdeveloped countries of the heavy price which has to be paid for the communist way of development. Also in the long run the attraction exerted by China on the underdeveloped countries will become greater, as she grows into a major industrial power. The possibility should not be excluded that in years to come the Chinese will compete to an increasing extent with the USSR to win the allegiance of the underdeveloped countries.

VIII. CONCLUSIONS

65. However tentative the above discussion of possible developments in 1975 may be, the fact remains that so long as the Soviet Bloc economies expand so much faster than those of the NATO countries, the situation described will arrive some day. This raises the question of what can be done to avoid this. There seem to be three possibilities.

66. First, the NATO countries cannot afford to neglect any measures, compatible with the maintenance of their free institutions, to foster their economic development. The free countries cannot expect to devote the same proportion of their resources to investment as do the communists, but the experience of the last few years shows that it is possible to achieve faster rates of development if this is a conscious aim of policy. The training of technicians and scientists and the development of research are important measures. In addition, the strengthening of economic co-operation can play an important part in assisting countries

to maintain high rates of expansion without constantly running into balance of payments difficulties.

67. Secondly, the NATO countries must strengthen their trade ties with the underdeveloped countries. The orderly economic development of these countries and the maintenance of friendly relations with the West is vital to the economic progress of the NATO countries.

68. Thirdly, there may be ways by which the NATO countries can reduce the developing power of the Soviet Bloc by reducing the size of the Bloc, i.e. by weakening the economic ties of the satellites with the USSR. The growing economic difficulties of these countries, their increasing need for imports, may offer the NATO countries scope for developing a programme of economic penetration. The recent disorders in Poland and Hungary and their moves to be more independent of the USSR may make such a programme possible.

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POPULATION

1950 - 1975

Areas (1)	1950 (2)	1955 (3)	PROJECTIONS	
			1960 (4)	1975 (5)
			millions	
1. Total NATO	416.0	442.5	465	532
USA & Canada	165.4	180.9	195	238
Other NATO countries	250.6	261.6	270	294
2. Soviet Bloc	273.4	293.9	318	388
USSR	183.3	199.4	218	270
Eastern European Satellites	90.1	94.5	100	118
3. Communist China	562.5	603.2	730	830
		<u>1955 = 100</u>		
4. Total NATO	94	100	105	120
USA & Canada	91	100	108	132
Other NATO countries	96	100	103	113
5. Soviet Bloc	93	100	108	132
USSR	92	100	109	136
Eastern European Satellites	95	100	106	124
6. Communist China	93	100	121	138
		<u>Total NATO = 100</u>		
7. Total NATO	100	100	100	100
USA & Canada	40	41	42	45
Other NATO countries	60	59	58	55
8. Soviet Bloc	66	66	68	73
USSR	44	45	47	51
Eastern European Satellites	22	21	21	22
9. Communist China	135	136	157	156

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GROSS NATIONAL PRODUCTA. PROJECTED GROWTH

Areas	Indexes 1955 = 100		
	1955	1960	1975
(1)	(2)	(3)	(4)
1. Total NATO	100	120	187
USA & Canada	100	121	194
Other NATO countries	100	118	179
2. Soviet Bloc	100	136	282 - 310
USSR	100	137	295 - 345
East. European satellites	100	131	240

Note: In order to show indices of growth for groups of countries combined, it was necessary to convert the national product of each country to a common currency unit. These conversions, or evaluations in a common currency, determine the weight of each country's national product but do not significantly alter the indices of growth shown above.

The following table however must be interpreted with great care. There are many objections to international comparisons of national product as such, and the figures shown below certainly outweigh both the NATO European and the Soviet bloc countries. The problem of absolute comparisons of the national products of these countries is discussed in Annex V.

B. PROJECTED NATIONAL PRODUCTS

Areas	1955	1960	1975
(1)	(2)	(3)	(4)
	billion 1955 dollars (US price weights)		
1. Total NATO	725	862	1,360
USA & Canada	423	505	820
Other NATO countries	302	357	540
2. Soviet Bloc	243	330	684 - 774
USSR	183	251	540 - 630
East. European satellites	60	79	144
	Total NATO = 100		
3. Total NATO	100	100	100
USA & Canada	58	59	60
Other NATO countries	42	41	40
4. Soviet bloc	33	38	50 - 56
USSR	25	29	40 - 46
East. European satellites	9	9	10

INDUSTRIAL PRODUCTION AND CONSTRUCTION
(Index 1955 = 100)

Areas	1955	1960	1975
(1)	(2)	(3)	(4)
		1955 = 100	
1. Total NATO	100	127	225
USA & Canada	100	128	235
Other NATO Countries	100	125	210
2. Soviet Bloc	100	154	362 - 435
USSR	100	160	380 - 485
Eastern European Satellites	100	140	320

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GROSS DOMESTIC FIXED CAPITAL FORMATION AS A
PERCENTAGE OF THE GROSS NATIONAL PRODUCT1950 to 1955

Country	1950	1951	1952	1953	1954	1955
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Belgium	16.4	14.8	14.1	14.6	15.9	16.5
Canada	21.3	21.2	21.5	22.4	22.1	22.6
Denmark	17.3	17.1	17.5	17.9	18.7	17.4
France	16.6	16.7	16.0	15.6	16.2	16.9
Germany	21.6	19.9	19.1	20.4	21.0	22.7
Greece	17.8	13.6	12.2	11.5	13.5	14.2
Iceland	n.a.	n.a.	n.a.	32.7	32.1	n.a.
Italy	17.5	18.0	19.4	19.1	19.8	20.3
Luxembourg	n.a.	17.7	19.1	24.3	23.3	21.0
Netherlands	20.7	19.2	19.7	19.7	21.7	22.8
Norway	30.1	29.1	29.3	30.6	30.8	31.3
Portugal	n.a.	11.9	13.0	13.8	13.7	13.6
Turkey	9.4	10.2	12.6	12.5	14.3	n.a.
United Kingdom	12.6	12.1	12.2	13.1	13.6	14.2
United States	17.7	16.4	16.1	15.5	16.4	16.6

CONSUMPTION PER HEAD
(Index 1955 = 100)

Areas	1955	1960	1975
(1)	(2)	(3)	(4)
USA and Canada	100	114	145
Other NATO countries	100	113	157
USSR	100	124	235 - 207
Eastern European satellites	100	121	183

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ENERGY AND CRUDE STEEL PRODUCTION

1955-1975

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Areas	Energy (a)			Crude Steel		
	1955	1960	1975	1955	1960	1975
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			<u>million metric tons</u>			
1. Total NATO	1,932	2,320	3,425	183	233	420
USA & Canada	1,372	1,700	2,700	110	140	220
Other NATO countries	560	620	725	73	93	200
2. Soviet Bloc	697	1,055	2,800-3,500	59	88	225-265
USSR	465	775	2,100-2,800	45	68	170-210
Eastern European Satellites	232	280	700	14	20	55
			<u>Index 1955 = 100</u>			
3. Total NATO	100	120	177	100	127	229
USA & Canada	100	124	197	100	127	200
Other NATO countries	100	111	129	100	127	274
4. Soviet Bloc	100	151	400-500	100	149	381-450
USSR	100	167	452-600	100	151	378-467
Eastern European Satellites	100	121	302	100	149	393
			<u>Total NATO = 100</u>			
5. Total NATO	100	100	100	100	100	100
USA & Canada	71	73	79	60	60	52
Other NATO countries	29	27	21	40	40	48
6. Soviet Bloc	36	45	82-102	32	38	54-63
USSR	24	34	61-82	25	29	41-50
Eastern European Satellites	12	11	20	8	9	19

(a) Production in terms of hard coal equivalent.