

CONSEIL DE L'ATLANTIQUE NORD
NORTH ATLANTIC COUNCIL

EXEMPLAIRE N°
COPY

357

ORIGINAL: ENGLISH
9th November, 1954

NATO UNCLASSIFIED
and
PUBLIC DISCLOSED

~~NATO CONFIDENTIAL~~
DOCUMENT
C-M(54)99

ECONOMIC COMPARISON BETWEEN THE
NATO COUNTRIES AND THE SOVIET BLOC

Note by the Deputy Secretary General

I believe the Council would like to see the attached paper which has been prepared by the International Staff. It is a first attempt to make an economic comparison between the NATO countries and the Soviet bloc as they are now and as they might be in 20 years' time.

2. The study does not of course pretend to forecast the future but to suggest what the future would be like given certain hypotheses. Nevertheless, it does imply that economic forces are at work which in time may alter the economic balance between the NATO and Soviet blocs.

3. My feeling is that the study should be continued by the International Staff and a much more thorough investigation made of the subject and its implications for NATO policy. I hope that the Council will be prepared to discuss this question at an early meeting.

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ECONOMIC COMPARISON BETWEEN THE
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INTRODUCTION

1. This paper is a summary of some preliminary work which has been undertaken by the International Staff on an economic comparison between the NATO countries plus Western Germany and the Soviet bloc excluding China(1). An attempt has been made to compare the present relative size of the national product of the two groups and their output of some particular commodities, and to give some indication of the possible position in 20 years' time. A brief description of the methods used is given in the Annex.

2. The very tentative nature of the work summarised in this paper must be stressed. There are many objections to making international comparisons of national products and the attempt to meet these objections has involved making a number of arbitrary assumptions. The difficulties are particularly great for the Soviet countries where the official statistics are meagre and suspect and much reliance has had to be placed on the published work of private students.

3. It is not the purpose of this paper to deal with the economic capacity of the two groups to wage war. This capacity depends on many other factors than the size of the national product; among other things, it depends on its composition, particularly the amount devoted to defence and to defence supporting industries. Moreover, the groups of countries being compared exclude areas of the world whose resources would be available to one side or another in the event of war.

4. This limitation of the comparison to the two groups as defined above introduces a note of artificiality. The exclusion of China certainly underestimates the potential economic strength of the Soviet bloc. While the great mass of China has only just begun to take the first steps in industrialisation, it should be remembered that Manchuria is already well ahead and may provide in time the base for quickening the tempo of the development of the whole country.

5. For the NATO countries there is the point that they are far more dependent than the Soviet bloc on foreign trade and their economic expansion depends upon similar development in the rest of the free world - the British Commonwealth, and the other countries of Asia, Africa and Latin America. How far the growth in output projected for the Soviet bloc would make it dependent on non-Soviet sources of supply is not known, though most authorities think that it will remain self-sufficient for all but a few commodities for a long time.

6. Despite the qualifications described above, the Staff feels that the results of the preliminary work so far undertaken are interesting enough to bring to the notice of delegations and to justify a more thorough investigation of the subject and its implications.

(1) To simplify the discussion, all references to the NATO countries should be taken as including Western Germany. The Soviet bloc should be understood to include the USSR and the European countries east of the iron curtain but to exclude China.

RESULTS OF THE COMPARISON

The present position

7. In 1952, the value of total output(1) of the NATO countries is estimated to have been four times as great as that of the Soviet countries. Total output of the USA alone was two and a third times as high as in the Soviet bloc, while that of the European NATO countries was about one and a half times. Excluding the UK, European NATO countries were about equal to the Soviet bloc. The Satellites accounted for about 30% of the total output of the Soviet bloc.

8. The average per capita income of the NATO countries was about two and a half times that of the Soviet bloc. Three NATO countries (Greece, Portugal, Turkey) had per capita income lower than the Soviets, but the remainder were all well above the Soviet level, except Italy.

9. These relationships seem to be borne out by such comparisons as are available of physical productions in the two blocs. Consumption of energy (coal, petroleum, electricity, etc.) which can be regarded as a general indicator of industrial production, was about four times as great in NATO as in the Soviet bloc. Steel production in the NATO countries in 1952 was about three times that of the Soviet bloc. In the European NATO countries, it was one and a half times and in Continental NATO countries about equal to that in the Soviet countries. Wheat production in NATO countries was nearly three times that of the Soviet bloc.

The Projections

10. The main assumptions underlying the projections are that no major war will break out and that there will be no severe and general economic depression. The projections for NATO are based on estimates of population growth and past records of labour productivity. Those for the Soviet bloc are based on historical trends in total output. The resulting estimates of output imply a rate of growth in the Soviet bloc considerably higher than in most NATO countries and about one and three-quarter times the rate in the NATO group as a whole.

11. Such differences in the rates of growth would in time considerably modify the relative economic positions of the two groups. By 1972, which is taken merely to illustrate the changes which would develop over twenty years, the absolute margin of superiority of NATO would increase but the Soviet bloc would improve its relative position. Total output in the NATO countries would be around two and three-quarter times output in the Soviet bloc. In the USA, it would be about one and two-third times as great; in the European NATO countries it would be rather less than in the Soviet. On these projections, the European NATO countries would lose their superiority over the Soviets in the late 1960s.

12. By 1972, per capita income in the Soviet bloc would be about half the average per capita income of the NATO countries as a whole and about 80% of the average for NATO Europe.

(1) Net national product expressed in US dollars 1952 prices.

13. An interesting point which emerges from these comparisons is that while the USA and the USSR carry the preponderant weight in each bloc, the other countries are of considerable importance in determining the overall balance of economic power. For example, without the Satellites, the Soviets would still be considerably smaller than European NATO in 1972. On the other hand, extended to include Continental Europe, the Soviet bloc would be as large as the USA. Continental Europe without Western Germany would be only half the size of the Soviet bloc.

14. In considering the implications of these results, regard must be paid to the roughness of the figures. But it should be noted that refinements of the figures would not materially change the general picture of future developments unless they changed substantially the relative order of magnitude of the estimates of total output in the two blocs in 1952 and of their relative rates of growth.

SUMMARY AND IMPLICATIONS

15. While there seems to be no basis for the opinions sometimes voiced that the Soviet bloc economy is rapidly overtaking NATO as a whole, there is reason to expect that during the next 20 years NATO will move from a position of overwhelming economic superiority to one of less marked, if still considerable supremacy. The Soviet bloc may well emerge as an economic power beginning to challenge even the USA in stature. It would be larger than the European NATO countries combined. Without Western Germany NATO Europe would be overshadowed.

16. In considering these developments, their effects on the outside world should be kept in mind. The under-developed countries already voice considerable impatience with the slow rate of their development under present institutions. Spectacular economic progress by the Soviets would give support to dissident elements in these countries. Moreover, as its basic industries grow, the Soviet bloc would be increasingly able to supply capital equipment and technical aid to these countries, a process which has already begun.

17. The immediate reaction to such a picture is that NATO must try to avert the change in the balance of economic power. It should be remembered, however, that given the much higher increase in working population expected in the Soviet countries and the difficulty of free societies achieving the Soviets' rates of investment, NATO would have a tremendous task to keep pace with them.

18. The implications are that despite its present economic superiority, NATO cannot afford to neglect any opportunity to strengthen its economic resources. This means taking energetic steps to achieve the most efficient developments of the NATO countries themselves. It means also investing abroad with the dual aim of capturing the firm goodwill of the rest of the free world and of developing its resources in the NATO interest.

19. Above all else it means that for economic as well as for military reasons the NATO countries must stand together in order to provide an effective counterweight to the growing power of the Soviet bloc. No smaller combination of countries could hope to achieve this.

ECONOMIC COMPARISON BETWEEN NATO COUNTRIES
AND THE SOVIET BLOC

BRIEF DESCRIPTION OF METHODS USED

ESTIMATES FOR 1952

NATO

1. Estimates in national currencies for the NATO countries and Germany for 1952 were taken from the UN Monthly Bulletin of Statistics. These figures all represent net national product at factor cost and are adjusted to some extent for international comparability as far as definitions are concerned.

2. In order to combine these estimates in a common currency (US 1952 \$) with appropriate weights special conversion factors were used. For France, Italy, UK and Germany, these conversion factors were derived from Table 5 of the study "An International Comparison of National Products and the Purchasing Power of Currencies" by Milton Gilbert and Irving B. Kravis (1). For the other European countries in general the average of the four countries previously mentioned was used. The results for some countries were then revised in order to bring the per capita incomes in line with the findings for countries with similar economic structure. Since the price relations between US and Canada are very close, the Canadian and US dollar were regarded as equal.

3. For the European countries, national product in 1952 was also estimated in another way. The 1952 values in local currencies were deflated to 1938 prices by a domestic price index and then converted into dollars at 1938 exchange rates. The 1938 \$ values were then inflated by the GNP price index in USA for the year 1952 (1938=100). This method gave a result for Western Europe about 10% lower than the first method described in paragraph 2. The first method is regarded as the better and its results were used in this study.

The Soviet Bloc

4. As the official USSR statistics cannot be reliably interpreted except after considerable research a number of other published sources were consulted (2). On the bases of these the following ratios between USSR and USA national product were calculated. The population estimate used for the USSR for 1952 was 207 million.

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- (1) A discussion of the reasons why official exchange rates are not appropriate conversion factors is given on pages 14 - 17 of this book.
 - (2) Colin Clark - "A Critique of Russian Statistics - 1939"
Colin Clark - "Conditions of Economic Progress"
United Nations - "National and Per Capita Incomes Seventy Countries - 1949"
N. Jasny - "The Soviet Economy during the Plan Era"
A. Bergson - "Soviet Economic Growth"
A. Bergson - "Soviet National Income and Product"
(which contains national income figures produced by Julius Wyler)

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USSR National Product in 1952 (USA=100)

<u>According to</u>	<u>Total National Product</u>	<u>Per Capita Product</u>
United Nations	27	21
N. Jasny	33	25
Julius Wyler	36	28

5. These estimates vary considerably and unfortunately neither Jasny nor Wyler gave details of his calculations which would enable these differences to be reconciled. The estimate of the UN contained adjustments for the differences between USSR and Western concepts of national product and was converted into dollars at a prewar exchange rate (1926/7) on the lines of the method described in paragraph 3 above. As the estimate of the European NATO countries based on this method was regarded as too low, a higher figure for the USSR than that given by the UN seemed to be indicated. For the purposes of this study it was decided to disregard the highest estimate (Wyler's) and to assume that the USSR national product in 1952 was mid-way between the estimates of the UN and of Jasny, i.e. 30% of that of the USA.

6. For the Satellites, an estimate was made of the relationship between their per capita products and that of the USSR. For Czechoslovakia, Poland and Hungary, estimates in the UN publication already mentioned were used. For Eastern Germany, the estimate was derived mainly from data in a study in a West German publication (1). For Bulgaria, the estimate was based on the prewar estimate of national income with adjustments for price changes. Rumania was assumed to have the same per capita product as Bulgaria. While the resulting figures differed widely between countries, the average per capita product for the Satellites as a whole was about the same as in the USSR. Using population estimates from UN sources and the relationship between the USSR and the USA arrived at in paragraph 5, the total product of the Satellites in 1952 dollars was estimated.

ESTIMATES FOR 1972

NATO

7. The projections of national product for the NATO countries were based on assumptions about future trends in working population and employment and in labour productivity. The assumptions about working population were derived mainly from country replies to the OEEC questionnaire on future population trends (2). For the countries which did not submit this information, estimates were based on recent trends in population growth. It was assumed that employment would increase at the same rate as the male population of working age, implying that the proportion of working population unemployment in 1952 would, on the average, be maintained during the period 1952 - 1972.

(1) Bonner Berichte Aus Mittel-und Ostdeutschland "Einkommersruktur und Lebenshaltung in der Sowjetischen Besatzungszone".

(2) OEEC Questionnaire MO(53)32.

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8. The assumptions about future trends in productivity for the NATO countries were mainly based on historical trends, which for many countries could be derived from figures on real national product and employment given in Colin Clark's "Conditions of Economic Progress". For recent years, official data was used. For most countries the average annual increase of productivity varied considerably in different historical periods. As the past trends were, however, to some extent correlated with the general level of economic activity, they gave a basis for the projections to 1972, given assumptions about cyclical movements. The assumption underlying the forecast of 1972 was that NATO countries would be able to avoid serious economic depressions, which also implied that extraordinary economic upswings would not take place.

The Soviet Bloc

9. For the USSR past rates of growth of product have been, variously estimated as follows(1):

<u>Period 1928 to 1937</u>	
Grossman	6.5 - 7%
Wyler	5.6%
Clark	4.5%

Several authorities estimate the rate of growth in recent years at close to 7% a year but there are many reasons for believing that such a rate could not be maintained in the long run. It was, therefore, decided to put the rate of growth for the period 1952-1972 at an average of 4½% a year, the lowest rate of growth estimated for the period 1928/1937. The annual growth of total population was assumed to be 1½% in accordance with Bergson's estimate. Assuming that employment increased at the same rate as total population, the projection of national product implies a growth in labour productivity of 3% a year.

10. For the Satellites, the projections for 1972 were based on the assumption that the average per capita product for these countries as a whole would be the same as that for the USSR. The population projections for the Satellites assume a slightly lower annual rate of increase than that used for the USSR.

11. The following table summarises the results obtained from the above estimates of national product and projections of growth:

	<u>1952 = 100</u>		<u>Total NATO = 100</u> ⁽²⁾	
	1952	1972	1952	1972
Continental European NATO Countries (inc. W. Germany)	100	158	26	25
UK	100	143	12	10
Canada	100	190	4	4
USA	100	170	58	61
Total NATO + W. Germany	<u>100</u>	<u>165</u>	<u>100</u>	<u>100</u>
USSR	100	241	17	26
Satellites	<u>100</u>	<u>237</u>	<u>8</u>	<u>11</u>
Soviet Bloc	<u>100</u>	<u>240</u>	<u>25</u>	<u>37</u>

(1) A. Bergson - "Soviet National Income and Product"

(2) Rounding of the figures results in disguising some of the smaller relative movements.