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SOVIET-CUBAN ECONOMIC RELATIONS

Note by the Secretary General

The attached report has been prepared by the Economic Committee in the light of discussions held with the participation of experts from NATO capitals. It also takes into account contributions from a number of capitals and, in particular, papers from France, Germany and the United States.

2. The Council is invited to take note of this report.

(Signed) Joseph M.A.H. LUNS

NATO,  
1110 Brussels.

This document includes: 3 Annexes

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SOVIET-CUBAN ECONOMIC RELATIONS

Report by the Economic Committee

A. SUMMARY

1. During the 21 years since the Revolution which led Castro to power on 1st January, 1959, Soviet trade with, and aid to Cuba has grown to such an extent that the Soviet-Cuban relationship has a client-patron nature. Very little scope is left for independent economic decision-making by Cuban leaders: economic policies are established by the powerful "Intergovernmental Commission for Economic, Scientific, and Technical Cooperation", which ensures that nothing is undertaken without Soviet accord. If for any reason the ties between Cuba and the Soviet Union were suddenly cut, the Cuban economy would be completely disrupted: in this sense Cuba is totally dependent on the Soviet Union.

2. Initially ill defined and hardly logical in objective economic terms, the economic relationship went through three distinct phases. In the years of "economic revolution" (1959-1963) it developed in an ad hoc fashion and was interpreted by Cuban leaders as a countervailing force to the US influence. When economic relations with the latter were severed the Soviet Union promptly presented itself as an alternative partner, inspiring at the same time fundamental changes in the structure of ownership, and in the principles of management to central planning. In a second phase, 1964-1970, the Cubans went on with their socialist experiment, but proved to be resistant to Soviet advice in both the economic and political fields: precedence was given to moral rather than material incentives and planning was irrational. These factors, together with the huge "brain drain" caused by Castro's harassment of the middle classes, were responsible for the spectacular economic fiasco of 1970. The third phase (1971 to the present) marks the complete Sovietization of the Cuban economy. Soviet advisers were successful in partially rationalizing economic planning and management. Material incentives were also restored, as well as profitability and the relationship between the circulation of goods and money. All in all, the Cuban economy increasingly resembles the Soviet model and has been put under direct Soviet guidance.

3. The Soviet patron rôle is nowhere more evident than in the size of the Soviet economic assistance programme. Soviet economic support to Cuba over the 1960-1978 period has amounted to the equivalent of \$13.6 billion, including a record \$3 billion in

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1978. About 40% of the total, or \$5.3 billion, consists of repayable loans provided as balance of payments and development aid. The remaining 60% consists of subsidies in the form of artificially high Soviet prices for Cuban sugar and nickel exports to the USSR, and artificially low Soviet prices for Cuban petroleum imports from the USSR (in 1978, the latter charged Cuba and Eastern Europe 50 and 58.1 rubles per tonne of crude respectively, whilst the average price on the world market was \$94.4, or 64.4 rubles at official parity).

4. Although in overall terms, i.e. including political and military considerations, the picture would be more balanced, in strictly economic terms the Cuban-Soviet relationship is such that almost all benefits appear to be for Cuba and almost all costs for the Soviet Union. Cuba's general lack of economically exportable natural resources, its semi-developed status, and its intensely nationalistic Marxist development strategy seriously impinge on Cuba's ability to generate adequate domestic investment capital or attract Western foreign investment. In recent years the magnitude of Soviet support has been greater and more crucial than ever because of Cuba's deteriorating foreign payments situation and its ambitious foreign policy initiatives. The bleak long-term prospects for the island's economy, in conjunction with the prospects for expanded Soviet political dividends from its relationship with Cuba argues for continued large scale and probably increased Soviet subsidy of the Cuban economy. Indeed, Soviet economic aid in 1979 might have reached the equivalent of \$3.2 billion and Soviet hard currency costs \$1.5 billion.

5. Moscow does not seem to be able to afford other clients requiring similar levels of economic support. For example, if Vietnam were to ask for the same per capita aid as Cuba received in 1978 (\$309), the cost to the Soviet Union would amount to \$15.6 billion. In general, the difficulties and the limitations of their economy constitute a barrier to the expansion of the Soviet empire by economic means. Indeed Moscow is likely to face a difficult choice in the mid-1980s balancing massive subsidies required by the Cuban economy (especially oil) with increased demand for resources from its Eastern European allies. Other options may turn out to be more effective and less costly ways of domination.

6. For all the political, ideological, and prestige benefits both Cuba and the USSR might have derived from it, the "Cuban experiment" so far has been an economic failure. It has cost the Soviet Union \$13.6 billion since 1960 (versus \$7.6 billion handed out to all LDCs since 1955), whilst Cuba's per capita income might have increased by an average of only 0.5% per annum in the last 20 years. Both per se and as compared with other countries in its area, Cuba's performance is disappointing. The island's economy is more of a sugar mono-culture now that it was before the Revolution, and dependence on a foreign economic power has increased

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for the heavily subsidized share of the USSR in Cuban foreign trade is comparable to the slightly subsidized share of the USA in the late fifties. At a closer analysis, the economic "successes" achieved by Havana with Moscow's aid are largely illusions created by propaganda to bolster Soviet interests and Castro's ambitions in the Third World. As long as economic dependence and coincidence of ambitions last, Cuba will not be dissociated from the Soviet Union.

B. INTRODUCTION

7. "There were so many Cuban ships in the Luanda Bay, says the Colombian writer Gabriel Garcia Marquez, that President Agostinho Neto, whilst counting them from his window, shivered and said to a friend: "It is not fair. At this pace Cuba will soon be ruined!" (1). That would have indeed been the case if in the same year (1976) Cuba were not receiving an average \$4.1 million a day in Soviet economic aid, and an unknown amount of military grants. Since then Soviet aid to Cuba has doubled, reached an estimated \$2,970 million in 1978 and \$3,170 million in 1979. Over 85% of this amount is straight grants in the form of subsidized imports and exports from and to Cuba. The rest is development of balance of payments loans, handed out at very favourable terms for the recipient, with only nominal interest charges.

8. More than 21 years since the Revolution which led Castro to power on 1st January 1959, Soviet trade with, and aid to Cuba has grown to such a point that the Soviet-Cuban relationship has a client-patron nature. Very little scope is left for independent economic decision-making by Cuban leaders: economic policies are established by the powerful "Intergovernmental Commission for Economic, Scientific and Technical Co-operation", which ensures that nothing is undertaken without Soviet accord. If for any reason the ties between Cuba and the Soviet Union were suddenly severed, the Cuban economy would be completely disrupted; in this sense Cuba can be said to be totally dependent on the Soviet Union, whose annual aid and repayable credits are equivalent to, respectively, one-fifth and two-fifths of Cuban aggregate production(2) as shown in the following table(3).

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- (1) "Où va Cuba" - l'Express, 1st September 1979, pp. 36-52  
 (2) "Aggregate production" is a general term, used hereafter to refer to the nation's annual level of activity, no matter whether this is assessed in Western (GNP) or Communist (GMP or NMP) concepts. Cuban and CMEA statistics referring to Cuba use GMP (Gross Material Product), which belongs in the Marxist family of accounting concepts, for it is NMP (Net Material Product) plus depreciation. The inclusion of depreciation makes GMP closer to GNP (Western concept) than NMP, used by all other Communist countries  
 (3) Annex I contains a number of more detailed tables illustrating the quantitative developments in bilateral relations and the main trends of domestic production during the period 1955 to date.

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Cuba's Dependence on the Soviet Union  
(1978)

	Millions of dollars	Percent of GMP(*)
Exports to the USSR	3,200	23
Imports from the USSR	2,800	20
Total aid from the USSR	2,970	22
of which: Grants	2,435	18
Debt to the USSR	5,260	38

(\*) Cuban GMP is estimated at \$13.8 billion in current prices at the official exchange rate of 1 peso = \$1.32

Source: Tables 3 (Debt) and 4 (Other Entries) at Annex I

9. This paper presents the historical evolution and the nature of Soviet-Cuban economic relations, both in qualitative and in quantitative terms, in order to trace a cost-benefit analysis of them. In the concluding pages an attempt is made to evaluate the prospects of bilateral ties and to assess whether the Soviet Union could follow similar economic policies in other countries(1).

C.    EVOLUTION OF SOVIET-CUBAN ECONOMIC RELATIONS

10. Before the Revolution the Cuban economy was characterized by three main features: (a) mono-culture and mono-export (sugar); (b) the predominance of latifundia, which represented 71% of the cultivated land(2); and (c) dependence on the United States, which accounted for about two-thirds of both exports and imports (columns 4 and 8 of Table 3, Annex I). As the USSR clearly wanted to make Cuba the showcase of a socialist path to development spectacular results were to be expected. The more so as the early stages of socialism in other countries had been associated with high growth rates, even without external aid.

11. For Cuba it has not been quite so. Little structural changes have taken place in 20 years of socialism and Soviet aid, and the country's economy is still characterized by: (a) mono-culture and mono-export (sugar); (b) 75% of the land owned by the State; and (c) total dependence on the USSR. Whether 75% of the

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- (1) The sources used to draft this paper are fully listed in Annex III. Unfortunately, Cuban data other than those released to international organizations were available only up to 1974 (latest Cuban official Yearbook). Bank of Cuba or Planning Board publications updating the "Anuario Estadístico de Cuba 1974" were not available to the author. However, the "ad hoc" papers presented at the experts' meeting of 25-26 October 1979, supplied the information needed for the purposes of this study.
- (2) More precisely, 8% of the landowners owned 71% of the cultivated land (see No. 18 in the List of Sources, Annex III).

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land in the hands of the State is "better" than 71% in latifundia is a question not examined here, but the concentration of ownership has not decreased. Nor has Cuba's external dependence, for at present an overwhelming volume of trade not only is accounted for by an economic superpower but also has to be heavily subsidized, which had not been the case before Castro's takeover. If the subsidy element were removed Cuba's trade deficit in 1978 would have been \$2.8 billion instead of just \$174 million. A similar bias has characterized Cuban foreign trade since the early post-revolutionary years.

(a) The Years of Economic Revolution (1959-1963)

12. After Fidel Castro assumed the post of Cuban Prime Minister the historically US economic presence in the island began to fade rapidly. All US property was nationalized in July 1960 which caused - as a retaliatory measure - the reduction and eventual elimination (October 1962) of trade with the US. Cuba then sought emergency economic support elsewhere. The Soviet Union promptly presented itself as an alternative partner. Revolutionary ideology and Soviet influence inspired fundamental changes in the structure of ownership, the principles of management and the orientation of economic policies.

13. Following the Agrarian Reform of May 1959, private ownership was confined to a secondary role: the latifundia became State property and other sectors like industry, trade, transport, and energy were gradually nationalized. The free play of market forces was suppressed and replaced by central planning under the supervision and coordination of the "Junta Central de Planificación". Like any "respectable" developing socialist country Cuba engaged in an attempt to accelerate industrialization: at the end of the Four-Year Plan (1962-1965) it was to possess a full industrial structure and the Soviet Union was to assist in this development. Indeed, between 1960 and 1962 the USSR accorded the Cubans loans adding up to one-third of all investments foreseen in the Plan.

14. Naturally the Soviet Union also took over from the United States in Cuban foreign trade and convinced her partners in East Europe that they should help in this task. By 1962 the CMEA share in Cuban foreign trade was approximately the same as the US share in 1958-1959 (columns 2 and 6 of Table 3, Annex I). In February 1960 Cuba and the Soviet Union signed a Trade Agreement and in 1961 Soviet sugar imports already exceeded 50% of Cuban exports (column 7 of Table 5, Annex I). Therefore from the very outset of Castro's régime the USSR started purchasing the bulk of Cuban sugar, and also supplied the island with major capital goods, oil, and finished products. In spite of this, the Cuban Authorities were unsuccessful in their efforts to industrialize the country and set up an efficient planning system. This failure was not only due to the disruption caused by economic transformations but also to the enormous "brain drain", by which an estimated 800,000 Cubans (including 40% of the population with university degrees) fled the country.

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(b) Trials and Errors (1964-1970)

15. During the period 1964-1970 the Cubans went on with their socialist experiment. Following the example of the Communist countries, ministries for individual sectors were set up. Sugar remained the most important sector of the economy, but it was now seen as the means of promoting industrialization. Project co-operation with the Soviet Union was emphasized and Soviet aid predominantly took the form of balance of payments assistance. The long-term sugar import commitments at guaranteed prices entered into by the Communist countries were initially of considerable help. The Soviet Union signed such an agreement in January 1964, fixing a stable price for the period 1964-1970 "retroactively applied to the deliveries of 1963". This price of 120 rubles per tonne, or \$133.33, was slightly above the world market price in that year, but it translated into a much more substantial aid as sugar prices plummeted in the following years and by 1970 they were still less than two-thirds the prices paid by the Soviet Union to Cuba (columns 14 and 15 of Table 5, Annex I). It was not until 1972 that the world market price exceeded the fixed price of the bilateral trade agreement(1).

16. On the whole this period was not more successful than the early, revolutionary years. It seems that real GNP practically stagnated, which meant a certain decline in per capita terms. The Cubans themselves acknowledged poor results as their per capita GMP figures remained practically unchanged between 1963 and 1970 even in current prices (column 5 of Table 2, Annex I). Meanwhile, the Cuban economy suffered from disorganization and lack of incentives. Although the major features of the Soviet economic system were gradually grafted on to Cuba in agriculture, industry and trade, material incentives were not used in anything like the same way as in the Soviet Union. Precedence was given to moral rather than to material incentives and in fact the Cuban leaders were - at an ideological level - talking about the creation of a "new man", and therefore a "new workman". The effects of this policy in terms of labour productivity were decidedly adverse, and this phase in economic development could not but culminate in the fiasco of 1970: the over-ambitious 10 million tonne target for sugar production was grossly underfulfilled and, as tremendous resources had been concentrated in that sector, the rest of the economy suffered greatly.

17. Cuba's economic misfortunes might not have displeased the Soviet Union, for the period 1964-1970 witnessed political friction between the two countries. Castro's **strident nationalism**, his direct support of revolutionary factions in Latin America, his disdain for the Moscow-oriented Cuban Communist Party (PSP), his cultivation of ties with China, and his initial refusal to endorse

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(1) The Cubans switched some of their exports from the Soviet Union to the free market whenever the price prevailing in the latter exceeded the fixed price of the bilateral agreement. In such periods (see years 1963 and 1972-1974 in Table 5, Annex I, columns 7, 13 and 15) the share of Cuban exports to the Soviet Union stagnated or substantially decreased, to reach a minimum of 26.5% in 1972, in coincidence with the appearance of the widest gap between the world market and the fixed price.

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the Soviet invasion of Czechoslovakia are the most striking examples of dissent: the last difference in particular antagonised Moscow, which did not hesitate to exert its economic leverage. By restricting oil deliveries the Soviets effectively demonstrated the extent of Cuba's economic dependence, with the result that Castro reluctantly lent public support to the crackdown on "Prague spring". Although Soviet assistance was resumed at normal pace, it had become clear by late 1970 that the Cuban economy could not recover from the revolutionary disarray and erratic economic management unless firmer rationalization measures were taken, including better mechanisms of resource allocation.

(c) Cuba's Soviet Economy (1971 to present)

18. As a result of these setbacks, Soviet-Cuban economic relations entered a new phase marked by the creation of the Intergovernmental Soviet-Cuban Commission (December 1970). In order to stabilize development the Cuban economy was gradually and fully "Sovietized". By the Cooperation Agreement of 23rd December, 1972 the Soviet Union - in recognition of Cuba's extremely tight financial situation - put back the reimbursements on account of credits granted between 1960 and the end of 1972; these reimbursements, together with interest for the year 1972, will be repaid commencing from 1st January 1986 for a period of 25 years. Meanwhile, no interest will be charged. The same agreement also contemplated new credit lines for the years 1973 to 1975. This liberality was aimed not only at rehabilitating the Cuban economy but also at making it possible for Cuba to become a member of the CMEA Banks. Indeed a precondition of such membership, according to the banks' rules, was that the balance of payments with socialist partners be fairly balanced and the trade balance be "sound". Cuba, which had become a full CMEA member in July 1972, was also finally accepted as a member of CMEA's International Bank for Economic Cooperation and the International Investment Bank in 1974. It should be noted that since the following year (1975) the island's bilateral trade balance with the Soviet Union has been in surplus (column 3 of Table 4, Annex I).

19. Within Cuba, Soviet advisers were successful in rationalizing economic planning and management, and were also responsible for the reintroduction of material incentives, largely to replace purely moral incentives which had not proven successful. The relationship between the circulation of goods and money was restored in line with the Soviet model. Profitability was reintroduced as a success indicator for enterprises and administrations. The rôle of trade unions was redefined. All these measures had a feed-back effect on Cuba's qualification for CMEA membership, which in turn had brought proliferation of cooperative agreements, commodity protocols, and specific agreements on projects and groups of projects with all CMEA members.

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20. The more rational economic outlook has become apparent in the first Cuban Five-Year Plan (1976-1980). Elimination of bottlenecks has been given priority in fields such as port infrastructure, construction materials, fertilizers, agricultural machinery and metal production. The Plan aims at greater economic integration with CMEA countries, including joint projects to develop nickel production. At its 29th meeting in January 1975, the CMEA Council concluded a "General Cooperation Agreement for the creation of additional manufacturing capacity for products containing nickel and cobalt", which seems to be tantamount to a programme of assistance to Cuba. On the other hand, the importance of sugar production has not been reduced and annual output is planned to reach 8.5-8.7 million tonnes in 1980: indeed, sugar production has been increasing regularly since 1976 and indications are that in this sector things are operating in a more orderly way. As a result Cuba's rôle as a sugar supplier has not changed, and the mono-cultural character of the economy will persist.

21. All in all, the Cuban economy is increasingly following the Soviet model and has been put under direct Soviet guidance. In 1976 long-term bilateral agreements were concluded between the Soviet Union and 19 Cuban Ministries and State Committees. It is also noted that the guidelines of the April 1976 General Cooperation Agreement between Cuba and the USSR were perfectly synchronised with the directives of the first Cuban Five-Year Plan, which in turn indicates that the two might have been a joint product. The total economic subordination of Havana to Moscow, reflected even in official documents of recent years, is at sharp variance with the "indiscipline" of the Castro régime in the 1960s. Although some political independence might still survive in foreign policy, specifically in some relations with Third World countries, Cuba's economic dependence is so high and the Soviet presence so deep, that the question arises as to whether any economic decision today rests in the hands of the Cuban Government.

D.   NATURE OF SOVIET-CUBAN ECONOMIC RELATIONS

22. The Soviet-Cuban special economic relationship developed in an ad hoc fashion in the early years of the Castro Government as a countervailing force to the United States influence. Initially ill defined and hardly logical in objective economic terms, the economic relationship has been formalised and expanded over the years with the signing of over 100 bilateral economic agreements and trade protocols, and full Cuban membership in the Soviet-led Council for Mutual Economic Assistance (CMEA). Bilateral trade is conducted mainly in soft currency and consists primarily of the exchange of Cuban sugar for Soviet manufactures, petroleum, and foodstuffs under terms highly unfavourable to Moscow. Theoretically based on Cuba's comparative advantage in tropical agriculture and labour, the economic relationship in reality remains heavily one sided and largely unjustified solely on economic grounds.

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23. The Soviet patron role is nowhere more evident than in the size of the Soviet economic assistance programme (columns 4 to 12 of Table 4, Annex I). Soviet economic support to Cuba over the 1960-1978 period has amounted to the equivalent of \$13.6 billion, including a record \$3 billion in 1978. About 40% of the total or \$5.3 billion consists of loans provided as balance of payments and development aid. The remaining 60% consists of subsidies in the form of artificially high Soviet prices for Cuban exports to the USSR, and artificially low Soviet prices for Cuban imports from the USSR.

24. Soviet aid is hereafter analysed under three different headings: (i) aid through subsidized trade, (ii) aid through economic cooperation (specific projects), and (iii) aid in education and technical training (formation of human capital).

(a) Subsidized Trade

25. This type of aid is given in the form of higher prices paid by the Soviet Union for Cuban sugar and nickel(1) and lower prices paid by Cuba for Soviet oil. More specifically, Moscow in 1979: (i) paid the equivalent of about 44 cents a pound - five times the world price - for about 3 million tonnes of Cuban sugar; (ii) paid the equivalent of \$6,750 per tonne - slightly above the current world price - for about 18,000 tonnes of Cuban nickel; (iii) supplied virtually all of Cuba's 200,000 barrels per day (b/d) petroleum needs either directly **or indirectly through** Venezuela, at about two-thirds of the Organization of Petroleum Exporting Countries (OPEC) \$18.00 per barrel benchmark price and about three-fifths the present average OPEC price of \$20.17 per barrel.

26. In addition, Moscow significantly augmented Cuban foreign exchange earnings in recent years with the reinstatement in 1975 of hard currency purchases of Cuban sugar after a 13-year hiatus. These extra-protocol purchases, which are made at world prices, have approximated \$970 million in 1975-1978. Moreover the Soviet hard currency purchases of 800,000 tonnes in 1975 and 650,000 tonnes in 1976 were counted as Cuban sugar sales to the world free market and thereby contributed to Cuba's success in securing the largest export quota under the 1977-1979 International Sugar Agreement.

(b) Economic Cooperation

27. The Soviet Union has participated during the current Five-Year Plan in an estimated 300 ventures, some of which have already been completed. A list of the most important projects whose realisation is foreseen within the frame of economic co-operation is reported at Annex II(2).

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- (1) 1956-1979 sugar prices paid by the Soviet Union, and the corresponding CMEA and world market prices, are recorded in columns 11 to 15 of Table 5, Annex I.  
 (2) This list is reproduced from the French contribution to the experts' meeting (No. 5 in the List of Sources at Annex III).

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28. For the historical record it might be added that Soviet sources give the following picture of the branch distribution of joint projects (data covering up to the end of 1972):

Industry	76.1%
of which:  sugar	21.6%
textiles	10.7%
Agriculture	5.2%
Geological prospecting	8.3%
Transport & Communications	8.2%
Health and education	1.9%
Other	0.3%(1)

More on this topic will be said in the section dealing with cost-benefit analysis.

(c) Education and Training

29. The cooperation in the field of education and professional training has been developing vigorously since the first bilateral agreement of February 1960. This kind of cooperation takes on different forms, such as: (i) the formation and on-the-spot re-training of Cuban workers, engineers and technicians during the realisation of joint projects; (ii) secondary school and university education of young Cubans in the USSR; (iii) practical training of personnel in Soviet enterprises; (iv) appointment of Soviet teachers in Cuban schools; and (v) technical assistance for the construction and the equipment of schools and training centres in Cuba(2).

30. Between February 1960 and 1977, 12,200 Cubans attended school and college in the Soviet Union. The Cuban contingent was 1,200 in the school year 1976-1977, rising to 2,600 in the following year. Again in 1976-1977, 1,800 skilled workers were formed in Soviet vocational schools. An estimated 12,000 Cubans were trained on-the-spot between 1960-1972 by Soviet advisers in the course of joint cooperation programmes.

31. Exact figures about practical training in Soviet enterprises of Cuban staff are not available, but some examples may be quoted. In 1963, 200 Cubans were trained in Kaliningrad in fishing port management, within the framework of the 1962 co-operation agreement related to developing the port facilities of Havana. In 1962-1963, 100 Cubans were trained in four Soviet automobile repair works; they eventually went back to Havana to work in a smaller jointly built plant.

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(1) French contribution, op. cit., p. 15  
 (2) A list of the main cooperation projects in this field is to be found at Annex II under the heading "Instruction and Training"

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32. The Soviet Union also helps to install educational facilities on the island. In 1978, 43 training centres were being built and in 1979 it was planned to build another 80 for the training of skilled workers in different economic sectors. Each centre has a planned capacity of 600. Soviet teachers are active in Cuba and schools staffed with Soviet personnel are considered as elite establishments, where only the best pupils are admitted.

33. Soviet-Cuban cooperation in the field of education and technical training has helped Cuba to overcome the difficulties of the early post-Revolution years. Because of Soviet aid, Cuba is now an "exporter" of technical staff to the Third World countries: in 1978, 12,500 economic experts were present for one month or more in a developing country (91% in Africa).

E. COST-BENEFIT ANALYSIS OF SOVIET-CUBAN ECONOMIC RELATIONS

34. Although in global terms, i.e. including political and military considerations, the picture would be more balanced, in strictly economic terms the Cuban-Soviet relationship is such that all benefits appear to be for Cuba and all costs for the Soviet Union.

(a) Economic Benefits for Cuba

35. The Cuban client rôle is reflected in its dependence on massive Soviet assistance to meet its basic consumption and investment needs. Cuba's general lack of economically exploitable natural resources, its semi-developed status, and its intensely nationalistic Marxist development strategy seriously impinge on Cuba's ability to generate adequate investment capital or attract Western foreign investment. In recent years the magnitude of Soviet support has been greater and perhaps more crucial than ever because of Cuba's deteriorating foreign payments situation and its ambitious foreign policy initiatives. For example, in 1978:

- (i) the \$3 billion in Soviet economic assistance equalled about one-quarter of estimated Cuban GNP(1);
- (ii) the USSR purchased approximately 72% of Cuba's estimated \$4.5 billion of exports, including about 54% of Cuba's sugar exports by volume (column 7 of Table 5, Annex I), and at least 50% of Cuba's nickel exports by volume;

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(1) This US estimate is contained in No. 3 in the List of Sources, Annex III. The Economics Directorate estimate is that Soviet aid corresponds to about 22% of Cuban GMP (Gross Material Product), for the latter is estimated at \$13.8 million in 1978. See columns 4 and 13 of Table 4, Annex I.

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- (iii) the USSR accounted for three-fifths of Cuba's estimated \$4.7 billion of imports, including virtually all of Cuba's petroleum imports, the bulk of its imported foodstuffs, and a major portion of its capital goods;
- (iv) the \$125 million Soviet hard currency purchase of Cuban sugar accounted for about one-sixth of total Cuban hard currency earnings.

36. Moscow has also indirectly enhanced Cuba's foreign exchange position by interceding on Cuba's behalf with East European CMEA members and in international financial circles. For example, the USSR has evidently exerted pressure on Cuba's East European trading partners to purchase some 600,000 tonnes of sugar annually - much of which they do not need - at premium, albeit less than Soviet, prices, and to extend long term commercial credits on favourable terms. Since 1960 these sugar subsidies and the trade credits have mounted to the equivalent of \$1 billion and \$695 million respectively and recently have led to complaints by East European trade representatives in Havana that their economic relations with Cuba amount to little more than a foreign aid programme.

37. Less quantifiable but nonetheless important has been Moscow's support for Cuban efforts to secure both hard and soft currency credits from the International Investment Bank (IIB) and the International Bank of Economic Cooperation (IBEC), both of which are under the aegis of CMEA. In addition, the continued Soviet underwriting of the Cuban economy has enabled Havana to obtain sorely needed Eurocurrency credits at more favourable terms because many Western bankers view the USSR as the ultimate guarantor of Cuban loans.

38. On the Cuban domestic scene, over 160 industrial and other projects have been completed with Soviet economic and technical aid. These projects account for some 10% of total Cuban industrial production, including at least 30% of electric power output, 95% of steel production, 100% of sheet metal output, 12% of sugar milling capacity, and the bulk of Cuba's sugar harvest mechanization. Under the current 1976-1980 Five-Year Plan, the USSR is assisting in the development of projects in the electric power, nickel, sugar, petroleum, ferrous and non-ferrous metallurgical, building materials, and transport sectors. These programmes are being carried out with some \$1.7 billion in Soviet development aid extended at the beginning of the Five-Year Plan and overseen by an estimated 2,000 to 6,000 Soviet technicians in Cuba in compliance with the Intergovernmental Economic and Technical Cooperation Agreement signed in April 1976.

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39. Without Soviet economic aid, Cuba would experience a significant reduction in domestic economic activity and forgo any hope for economic growth over the next several years - a scenario the already sluggish Cuban economy can ill afford. Given the absence of an alternative benefactor and Havana's limited ability to incur additional debt in the West, the termination of Soviet economic aid - which equalled nearly one-third of Cuban trade turnover in 1978 - would force the Castro Government to reduce imports by at least one-half and undoubtedly default on its debt obligations to the West (see following Table). Under these circumstances, Cuba would be forced to reduce its already austere standard of living even further as petroleum imports would consume about two-thirds of export revenues and leave little room for imports of raw materials and intermediate goods. Meaningful investment would be out of the question given the constraints on import capacity and the inability to shift significant domestic expenditures from consumption to investment.

Foreign Trade Adjusted to  
Exclude Soviet Price Subsidies  
(US \$ million)

	1971	1972	1973	1974	1975	1976	1977	1978
Exports f.o.b.	861	839	1395	2662	3660	3230	3553	4524
Less Soviet sugar and nickel sub- sidies	56	0	150	38	611	995	1444	2475
Adjusted exports	805	839	1245	2624	3049	2235	2109	2049
Imports c.i.f.	1387	1296	1770	2649	3860	3816	4188	4698
Plus Soviet oil subsidy	0	0	0	369	290	362	328	165
Adjusted imports	1387	1296	1770	3018	4150	4178	4516	4863
Trade balance	-526	-457	-375	13	-200	-586	-635	-174
Adjusted trade balance	-582	-457	-525	-394	-1101	-1943	-2407	-2814

(b) Economic Cost to the Soviet Union

40. From a financial point of view it might be useful to make a distinction between the two kinds of burdens the USSR has to face: overall opportunity costs in both soft and hard currency, and hard currency opportunity costs, i.e. hard currency disbursement for the benefit of Cuba and hard currency gains foregone because of supplies to Cuba.

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41. Hard currency costs to the Soviets have risen significantly since the mid-1970s (see following Table). During 1960-1973 these costs amounted to a modest \$1.5 billion, or only about \$100 million annually, largely because of low world oil prices and Soviet re-export for hard currency of Cuban sugar after refinement in the USSR. Since 1974, however, soaring world oil and grain prices and the resumption of Soviet hard currency purchases of Cuban sugar and simultaneous discontinuance of Soviet re-exports have driven the hard currency costs to an estimated \$5.4 billion, or \$1.1 billion annually - the equivalent of about 11% of Soviet hard currency exports and about 8.5% of Soviet hard currency earnings.

Soviet Hard Currency Costs(1)  
(US \$ million)

	1960-73	1974	1975	1976	1977	1978	1979(2)
Total	1,455	660	1,253	1,107	1,240	1,157	1,489
Petroleum	1,009	548	635	745	838	887	1,149
Wheat/flour	575	98	155	150	179	118	155
Other grain	96	14	13	12	28	27	35
Sugar	-225	negl	450	200	195	125	150

(1) Estimated direct cost of hard currency items purchased by the USSR from Cuba or from the West for delivery to Cuba and the earnings foregone by deliveries to Cuba of goods which could have been sold elsewhere for hard currency

(2) Provisional

42. As far as the overall costs are concerned, it was shown that they reached the \$3 billion mark in 1978, and the bleak long term prospects for the Cuban economy in conjunction with the prospects for expanded Soviet political dividends from its relationship with Cuba argues for continued large-scale and probably increased Soviet subsidization of the Cuban economy. Indeed, Soviet economic aid in 1979 is expected to reach the equivalent of \$3.2 billion in credits and subsidies (and Soviet hard currency costs will jump about 30% to \$1.5 billion).

43. It might be argued that an overall burden of \$3 billion is slight, for it represents just about 0.4% of Soviet NMP (column 4 divided by column 14 of Table 4, Annex I). Moreover, it is also possible that, although aid to Cuba slightly reduced the availability of selected Soviet goods in the domestic and foreign market

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places, it also provided a market for other goods that probably could not have been sold elsewhere<sup>(1)</sup>. Even in the petroleum sector Soviet direct and indirect deliveries to Cuba accounted for only 1.7% of total Soviet oil production.

44. If the burden might have seemed slight in the past it cannot be viewed the same way for the future. For instance, Soviet oil production in 1979 increased by a mere 2.4%, and deliveries to Cuba represent almost three-quarters of such increase. If Western forecasts of oil production in the early eighties are anywhere near the target, oil deliveries to Cuba will represent a significant burden for the Soviet economy.

45. In more general terms, the Soviet economy as a whole is experiencing increasing difficulties which are reflected in sharply declining growth rates. With an NMP growth rate of 2% in 1979 it will be practically impossible for the Soviet economy to fulfil the Five-Year Plan targets and forecasts for the 1980s range from 2% to 3.5% as an annual average. In such a context a \$3 billion aid for Cuba alone should not be underestimated. The more so since Soviet leaders and the Soviet population are not enthusiastic about handing out development aid.

46. The cost of Cuba might represent a lesson and militate against embarking on a similar undertaking somewhere else. Undoubtedly Soviet aid will continue to flow to Cuba, and Havana is already negotiating with Moscow on the coordination and integration of their 1981-1985 Five-Year Plans. Soviet trade representatives in Havana have indicated that additional trade credits and price subsidies are likely to be forthcoming for political reasons despite economic arguments to the contrary. Specific Soviet-financed projects planned for the 1980s include a new nickel facility at Punta Gorda, a nuclear power plant and a petroleum refinery at Cienfuegos, and several other industrial projects on a smaller scale. Despite Moscow's own petroleum problems, the USSR will continue to provide for Cuba's basic oil needs, although probably at lower levels than Cuba might desire.

47. Soviet largesse is not open ended, however, and will be conditioned by:

- (i) Cuba's economic needs and its ability to exploit its perceived reverse political leverage over the USSR;

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(1) Furthermore, it is likely that some of the goods the Soviet Union exports to Cuba are overpriced. Past evidence suggests that Cuba paid for Soviet cars 30% more than Poland and Hungary. In general, goods delivered within the framework of tied aid are charged by the USSR around 13-15% more than the same goods sold to the West. Therefore, at least a part of the trade subsidies to Cuba is recovered by the Soviet Union via higher prices on commodities other than oil (Cuba paid 50 rubles per tonne in 1978, whilst the average for East Europe was 58.1).

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- (ii) the USSR's perception of Cuba's economic needs in relation to the political benefits accruing to Moscow and the relative costs to the Soviet economy, which is experiencing growing problems of its own.

F. CONCLUSIONS AND PROSPECTS

48. Cuba has derived unquestionable economic and political advantages from her "special" relationship with the Soviet Union, and the latter has willingly incurred a resource drain from its long term support of Cuba, aiming at - among other things - making the island a showcase of the efficiency of Soviet economic aid and of the opportunities presented by the adoption of Soviet-type planned economic mechanisms. The concluding remarks which follow are therefore devoted to examining three key questions: (i) is Cuba prepared to continue this kind of relationship which presents definite benefits but which is also connected with a high degree of dependence on a foreign patron entailing - on the economic level - the perpetuation of mono-culture within CMEA "division of labour"?; (ii) given the costs of involvement in Cuba, which are bound to increase in the future (assuming that the Soviets will not willingly pull out of the island), can the Soviet Union afford to acquire similar political influence with other prospective clients by subsidising them at similar levels?; (iii) what is the balance sheet of this "showcase" experiment and its possible power of attraction for Third World countries? Answering these questions means giving respectively, a "View from Havana", a "View from Moscow", and an outsider's assessment (which we took the liberty to name "View from Brussels") of Soviet-Cuban economic relations.

(a) View from Havana

49. The Castro Government possesses an ambivalent attitude toward its overwhelming economic dependence on Moscow. Castro recognizes that the massive economic support extended by the Soviet Union has enabled him to carry out Cuba's basically pro-Marxist, anti-US revolutionary policies at home and abroad, but is aware that it has also circumscribed Havana's independence in implementing these policies. Under these circumstances, Castro has tried to make the best of his client status in the economic arena by maximizing Cuba's importance in the political arena - a manoeuvre which has had increasing success over the past several years.

50. Castro realises that the resource-deficient Cuban economy probably would not have survived without Soviet aid, and is aware that termination of that aid would not only have serious economic consequences but major social and political implications as well. A new generation of Cubans, who have grown up under Castro, is expecting to reap the harvest of 20 years of sacrifice and austerity by their parents; failure to realise these expectations could result in serious social, economic, and political strains on the Cuban Revolution, its structure, and its institutions. Internationally, Havana's worldwide diplomatic offensive of the 1970s,

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its drive for Third World leadership, and its military support for revolutionary governments could not have been carried out without massive Soviet assistance. Without this support, Cuba's efforts would have been seriously impaired, if not negated, by financial constraints and the need to focus Cuba's energies and resources on domestic matters.

51. Castro, being a nationalist first and an ideologue second, would undoubtedly prefer to be independent of all foreign economic support and its accompanying influence. Since the economically disruptive 1969-1970 sugar harvest largely discredited Castro's unorthodox economic policies, Havana, at Moscow's behest, has with some reluctance implemented a series of wide-ranging economic rationalization measures, many of which had an impact on the basic tenets of the Cuban revolution itself and somewhat diminished Castro's influence in the economy. In concert with these domestic reforms, Cuba under Soviet pressure became a full member of CMEA - ostensibly a move to facilitate Cuban cooperation with other CMEA countries but also designed to enhance and further institutionalize Soviet economic influence on Havana. Moreover, although Soviet aid has encouraged limited Cuban economic diversification and has not led to Soviet ownership of Cuban resources in a conventional sense, the large-scale subsidization of the Cuban sugar industry only perpetuates Cuban mono-culture - ironically the very policy for which Havana has criticized the United States and other developed Western countries in their dealings with less developed countries.

52. At the same time that they were urging economic reform, the Soviets also pressed for specific political changes in Cuba. They called for: the promulgation of a new constitution; the establishment of a legislature - the National Assembly; and the wholesale reorganization of the government and administrative apparatus along more efficient lines. The changes were aimed primarily at institutionalizing the Cuban revolution and ensuring a peaceful, secure transfer of power from Fidel to his successor. To a certain extent, however, they were also aimed at curtailing Castro's freewheeling style. Castro's control was not seriously diminished, but the reforms that were adopted underscored the influence that accompanies massive economic dependence on a foreign power.

53. As a result of having felt the brunt of Soviet economic leverage more than once, Castro in recent years has attempted to maximize Cuba's political importance to Moscow. Since 1974 Havana has effectively used its rapidly expanding relations and influence with the Third World to promote Soviet, as well as Cuban, interests whenever possible. Moreover, since 1975 Castro has actively supported mutual Cuban-Soviet objectives in the Third World by enthusiastically sending thousands of Cuban military personnel and civilians abroad(1). There are currently an estimated 45,000 to 50,000 Cuban personnel serving in the Third World, the vast majority of whom are located in Africa.

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(1) A sharp increase in Cuba's manpower resources in the face of modest domestic economic growth is making it difficult for Havana to provide productive employment at home for the large influx of new workers, and is giving Cuba the capacity and the incentive to seek foreign outlets for its worker surplus. See CIA RP 78-10276, July 1978, Cuba: Rising Manpower Resources

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(b) View from Moscow

54. Moscow, interested in exploiting the Havana-Washington split in the early 1960s and simultaneously gaining a foothold in the Western Hemisphere, committed itself to the economic rescue of the Cuban Revolution. Despite periodic strains in their relationship, the Soviet commitment to Cuba grew throughout the 1960s and early 1970s. Although Moscow expected only limited compensating economic benefit from the relationship, the Soviets evidently calculated that geopolitical benefits accruing to the USSR offset, at least to a large extent, the economic costs. Included among these benefits are a base for improved intelligence collection against the United States and a potentially viable Marxist model for other Third World countries to emulate.

55. Since 1975 Moscow has acquired significant dividends of a political nature from its economic investment in Cuba and now views Havana as considerably less of a liability than in the past and probably as a net asset overall. Moscow has discovered in Cuba a willing and increasingly capable ally to espouse and assist in the implementation of Soviet policies in the Third World, where a large scale Soviet presence and activity would be viewed with alarm by much of the world.

56. However, these geopolitical advantages are paid for by the USSR at such a high economic price that we would tend to believe that one Cuba is enough. Whilst the Soviet Union will not overlook new opportunities to expand its political influence, and could thereby incur added economic burdens, it will probably not accept to take on a cost of over \$8 million a day (and rapidly increasing) for any other country. Therefore it is unlikely that the USSR can afford economic support equivalent to that provided to Havana, to potential client states such as Vietnam and Ethiopia, which are much larger and poorer than Cuba, as shown in the following table.

Population and Per Capita Income of  
Selected Developing Countries. World  
Bank(1) Preliminary Estimates for 1977

	Population (000)	Per capita GNP (US \$)	Per capita GNP as % of Cuba
Cuba	9,604	900	100
Afghanistan	14,304	190	21
Ethiopia	29,397	110	12
South Yemen	1,797	320	35
Vietnam	50,413	170	19

Source: World Bank Atlas, 1978

(1) World Bank estimates significantly differ from other sources utilized in this paper (Table 2, Annex I). They are based on purchasing power parities. The Bank's estimates were chosen for the sake of homogeneity, as no other source recording values for all the above countries is available to us.

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57. If Vietnam were to ask for the same per capita aid as Cuba received in 1978 (\$309), the cost to the Soviet Union would amount to \$15.6 billion. Even this might not be enough for Vietnam could claim much more than Cuba, being five times poorer. The same per capita aid received by Cuba would translate, in the case of Ethiopia, into an outlay of \$9.1 billion a year for the USSR. But, again, Ethiopia is about eight times poorer than Cuba and there is no limit to the amount it might request on the basis of pure need.

58. It is concluded, therefore, that the USSR could afford to penetrate populous and poor countries only if their requests were kept within reduced limits, i.e. if they accepted to be "underpaid" clients. Smaller and less populous countries are much better perspective clients because the cost to the USSR would be less. For example, it would cost the Soviets a mere \$550 million to give South Yemen the same per capita aid as Cuba received in 1978. In general, the difficulties and the limitation of their economy constitute a barrier to the expansion of the Soviet empire by economic means. Other options may turn out to be more effective and less costly ways of domination.

(c) View from Brussels

59. Drawing a balance of the Soviet experience in aiding Cuba implies, as a prerequisite, trying to assess Cuban growth since the inception of Soviet assistance in 1960. In Tables 1 and 2 at Annex I figures made available by official Cuban sources are presented. Some manipulation was necessary only to estimate very recent developments, for the Cubans have not published any estimate of their GMP since 1975. Table 2 also reproduces two series of authoritative Western estimates in terms of GNP. Although the data are not completely coherent, they both present the picture of a rather stagnant economy.

60. During the 20 years since the Revolution as a whole, per capita GNP might have recorded an annual average growth rate of between -0.1% and +0.5%. Cuban official figures show also a decrease in per capita production (Communist concept) before 1970 and since 1970 they report an increase at sustained pace. However, the latter claim is totally unrealistic as can be deduced from a comparison of official GSP(1) in current and constant prices: the two series are so close that practically no allowance was made for inflation. When inflation is taken into account it may be concluded that a 0.5% annual average increase in per capita production since the Revolution would be of the right order. Both per se and as compared with other countries in its area Cuba's performance is disappointing(2).

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(1) GSP (Gross Social Product) is a duplicated concept of aggregate production, typical of Communist accounting methods. It covers the value of both final and intermediate outputs.

(2) The more so as development plans continue to be unfulfilled. Adverse trends explain the 3% growth target for 1980, down from an estimated actual growth of 4.5-5% in 1979 and the original 1979 target of 6% (Le Monde, 30-31 December, 1979).

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61. Undoubtedly massive redistribution of income and wealth took place, an impressive educational system was set up and a good and free health service was established in the country. However, whilst schools and hospitals are highly desirable there must also be a productive structure able to support that kind of social consumption: Cuba has not built such a structure in the past 20 years and, indirectly, all the social services are, therefore, paid for by Havana's patron.

62. For all the political, ideological, and prestige benefits both Cuba and the USSR might have derived from it, the "Cuban experiment" has been, so far, an economic failure. It has cost the Soviet Union \$13.6 billion since 1960 (as compared to \$7.6 billion handed out to all LDCs since 1955), but Cuba's per capita income might have increased just by about 10% in 20 years. Furthermore, 19-22% of such per capita income (depending on estimates and concepts used), is accounted for by Soviet aid, whereas before the Revolution a relatively comparable per capita income was produced nationally and, moreover, Cuba was able to pay out an estimated \$100 million a year (in 1958 prices) to foreign investors.

63. The island's economy is more of a mono-culture now than it was before the Revolution, with sugar averaging 87% of total exports in the mid-1970s as against 80% in the late 1950s (column 14 of Table 2, Annex I). In terms of aggregate production, sugar exports account for one-quarter, probably more now than in the late 1950s.

64. Dependence on a foreign economic power has increased. The USSR share in Cuban foreign trade is comparable to that of the United States before the Revolution. However, whilst before 1959 trade was concentrated but only slightly subsidized, now it is both concentrated and heavily subsidized, which implies deeper subordination than ever in Cuba's economic history, a state from which it cannot withdraw without facing economic chaos at least in the short term. As a result Soviet aid did nothing but keep afloat the island's extravagant Revolution. Soviet aid to Cuba from the economic aspect has not been a nil benefit venture but indeed a loss sustaining one: the Soviets have been giving the money but the Cubans have not succeeded in setting in motion a process of industrialization, product diversification and swift economic growth.

65. It can be said that the economic successes achieved by Havana with Moscow's aid are largely illusions created by propaganda to bolster Soviet interests in the Third World. At the same time, this sophistry also serves the ambitions of the Cuban leadership. So long as economic dependence and coincidence of ambitions last, Cuba will not be disassociated from the Soviet Union.

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TABLE 1

**CUBA - MAIN ECONOMIC INDICATORS**

Official data - Million Pesos

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	POPULATION		SOCIAL PRODUCT*			MATERIAL PRODUCT			SUGAR & NICKEL		FOREIGN TRADE			
	TOTAL (millions)	Active (millions)	GROSS SOCIAL PRODUCT (GSP)	% share of Agriculture	% share of Industry and Construction	GROSS MATERIAL PRODUCT (GMP)	Depreciation	NET MATERIAL PRODUCT (NMP)	GMP in 1965 prices	Sugar (b) Production (000 tonnes)	Nickel Production (000 tonnes)	EXPORTS (FOB)	IMPORTS (CIF)	Sugar Exports (c)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1956	6.28	...	...	...	...	2,360 GNP <sup>(a)</sup>	...	...	...	4,660	14.6	666.2	714 <sup>(d)</sup>	...
1957	6.41	...	...	...	...	2,800 GNP <sup>(a)</sup>	...	...	...	5,504	20.2	807.7	895	654
1958	6.55	...	...	...	...	2,670 GNP <sup>(a)</sup>	...	...	...	5,610	17.9	733.5	858	587
1959	6.69	...	...	...	...	...	...	...	...	5,964	18.0	637.4	740	...
1960	6.83	...	...	...	...	...	...	...	...	5,862	12.8	618.2	637.9	493 <sup>(E)</sup>
1961	6.94	...	...	...	...	...	...	...	...	6,767	14.8	624.7	702.6	540
1962	7.07	1.823	...	...	...	3,020.5	185.7	2,834.8	3,698.2	4,815	16.6	520.7	759.3	450 <sup>(E)</sup>
1963	7.31	...	...	...	...	3,449.6	193.6	3,256.0	3,736.7	3,821	19.8	543.8	867.3	473
1964	7.51	1.885	...	...	...	4,202.3	181.7	3,983.6	4,074.6	4,589	22.9	713.8	1,018.8	627
1965	7.72	...	...	...	...	4,137.5	150.7	3,885.8	4,136.5	6,082	28.2	690.6	866.2	591
1966	7.89	1.993	...	...	...	4,039.3	158.1	3,781.2	3,985.5	4,866	28.0	597.8	925.5	504 <sup>(E)</sup>
1967	8.05	...	...	...	...	4,082.8	...	...	...	6,236	32.6	705.0	999.1	599
1968	8.20	...	...	...	...	4,376.5	...	...	...	5,164	37.3	651.4	1,102.3	496
1969	8.42	...	...	...	...	4,180.6 <sup>(a)</sup>	...	...	...	4,459	35.4	666.7	1,221.6	503
1970	8.551	2.264	9,125.9	13.0%	48.6%	4,203.9 <sup>(a)</sup>	...	...	...	8,538	36.8	1,049.5	1,311.0	806
1971	8.692	2.402	8,936.4	12.2%	53.1%	4,818.2	...	...	...	5,929	36.5	861.2	1,387.5	657
1972	8.862	2.426	10,349.2	11.1%	50.9%	6,026.9	...	...	...	4,325	36.8	770.9	1,189.8	567
1973	9.036	2.526	11,910.3	10.1%	50.9%	6,710.4	...	...	...	5,253	35.2	1,153.0	1,467.0	908
1974	9.194	2.573	13,423.5	9.4%	49.0%	7,414.1	...	...	...	5,925	35.9	2,222.2	2,225.9	1,964
1975	9.332	2.626	15,799.3	8.4%	47.3%	8,886.3	...	...	...	6,314	37.3	2,947.0	3,113.0	2,565
1976	9.471	2.669	15,348.8 <sup>(f)</sup>	11.1% <sup>(g)</sup>	44.8% <sup>(h)</sup>	8,918.2 <sup>(E)</sup>	...	...	...	6,250	36.9	2,694.0	3,065.0	2,350
1977	9.604 <sup>(P)</sup>	2.790	15,972.0	11.5%	44.4%	9,283.9 <sup>(E)</sup>	...	...	...	6,575	36.7	2,913.0 <sup>(P)</sup>	3,434.0 <sup>(P)</sup>	2,500 <sup>(E)</sup>
1978	9.730 <sup>(E)</sup>	...	...	...	...	10,487.7 <sup>(E)</sup>	...	...	...	7,300	36.0 <sup>(P)</sup>	3,438.0 <sup>(P)</sup>	3,570.0 <sup>(P)</sup>	3,000 <sup>(E)</sup>

**Sources:** Column (1) 1970-76: CMEA Yearbooks, 1956-69: UN, Demographic Yearbooks, 1977: World Bank Atlas, 1978.  
 Column (2) French contribution to experts' meeting of 25-26 October 1979, table IX at Annex.  
 Column (3) French contribution to experts' meeting of 25-26 October 1979, table VIII at Annex.  
 Columns (4), (5) French contribution to experts' meeting of 25-26 October 1979, table VIII bis at Annex.  
 Columns (6), (7), (8), (9) UN, Yearbook of National Accounts, GMP in 1975; Lazard Frères, Banco Nacional de Cuba, p.12.  
 Column (10) 1956-71: Cuban Foreign Trade: A Current Assessment (US Dept. of Commerce), April 1978, table 7. 1972: The Cuban Economy: A Statistical Review 1968-76, (no indication of source but most probably US Dept. of Commerce), table 3. 1973-1978: CIA, Handbook of Economic Statistics, 1979, p.214.  
 Column (11) 1960, 1965, 1970, 1973-1977: CIA, Handbook of Economic Statistics 1979, p.159. 1978: Communication from the Canadian Delegation, November 1979. Other years: UN, Statistical Yearbooks.  
 Column (12) UN, Yearbook of International Statistics 1971, Volume I, p.310 - 1977-78(P): CIA, Cuba-USSR: The Deepening Economic Relationship, August 1979, table 2.  
 Column (13) 1960-76, see Column (12) above. 1958-59: Cuban statistics as reported in Dept. of Commerce, United States Commercial Relations with Cuba, A Survey, August 1975, Table 3. 1957: The Cuban Economy, A Statistical Review, 1956-76, table 11 (no indication of source, but most probably US Dept. of Commerce). 1977-78(P): same as Column 12.  
 Column (14) US Dept. of Commerce, Cuban Foreign Trade: A Current Assessment April 1978, table 15. US Dept. of Commerce, United States Commercial Relations with Cuba, A Survey, August 1975, Table 6; and The Cuban Economy, A Statistical Review 1968-76, table 16. Data for 1972-76 were converted into pesos at rates given in UN, Yearbook of International Trade Statistics 1977, p.310 for 1972-75, and CIA, Handbook 1979, p.59 for 1976. Data for 1970-74 re also found in Anuario estadístico de Cuba, 1974, p.190 (small statistical discrepancy).

**Notes:** (a) Change in GMP methodology; (b) Crop year (end 30 June); (c) Including molasses; (d) Estimated from 49 millions FOB + 10% for insurance & freight; (e) US Dept. of Commerce, Cuban Foreign Trade: A Current Assessment, April 1978, Table 1; (f) Change in methodology; 15,860.5 million pesos according to previous years' methodology; (g) Change in methodology; 8.7% according to previous year's methodology; (h) Change in methodology; 48.8% according to previous year's methodology; (E) Economic Directorate estimate, cfr. Table 2; (P) Preliminary  
 ... Not available or not published.  
 \*Values refer to 1974 prices - some of the corresponding current-price values, published in Anuario estadístico de Cuba, 1974, p.35, are: 1970: 8,355.6; 1971: 8,966.5; 1972: 7,717.9; 1973: 11,921.8; 1974: 13,423.5.

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TABLE 2  
CUBA - ECONOMIC GROWTH:  
A comparison of estimates  
(Base year for indexes: 1970)

ANNEX 1 to  
COMPTON

	OFFICIAL DATA						US ESTIMATES			WORLD BANK ESTIMATES			THE SUGAR ECONOMY		
	GNP in million current pesos (1)	% Exchange rate (\$1 = pesos) (2)	GNP in million current US \$ (3)	Population (millions) (4)	Per capita GNP \$ US (5)	Per capita GNP Index (a) (6)	GNP in million current US \$ (7)	GNP real index (8)	Per capita GNP real index (9)	GNP in million current US \$ (10)	GNP real index (11)	Per capita GNP real index (12)	Sugar production index (13)	Sugar as % of exports (14)	Sugar exports as % of GNP (15)
1956	...	1.00	...	6.28	...	...	2,360	...	...	...	...	54.6	...	...	
1957	...	1.00	...	6.41	...	...	2,600	71.9	93.7	...	...	54.3	81.0	23.4 GNP	
1958	...	1.00	...	6.55	...	...	2,670	...	...	...	...	65.7	80.0	22.0 GNP	
1959	...	1.00	...	6.69	...	...	...	...	...	...	...	69.9	...	...	
1960	...	1.00	...	6.83	...	...	...	...	...	94.8	115.8	68.7	79.7	...	
1961	...	1.00	...	6.98	...	...	...	...	...	...	...	79.3	86.4	...	
1962	3,020.5	1.00	3,020.5	7.07	427	...	...	...	...	...	...	56.4	86.4	14.9(E)	
1963	3,449.6	1.00	3,449.6	7.31	472	...	...	...	...	...	...	44.8	87.0	13.7	
1964	4,202.3	1.00	4,202.3	7.51	560	...	...	...	...	...	...	53.7	87.8	14.9	
1965	4,137.5	1.00	4,137.5	7.72	536	...	...	...	...	99.1	107.7	71.2	85.6	14.3	
1966	4,039.3	1.00	4,039.3	7.89	512	...	...	...	...	...	...	...	84.3	12.5(E)	
1967	4,082.8	1.00	4,082.8	8.05	507	...	...	...	...	...	...	...	85.0	14.7	
1968	4,376.5	1.00	4,376.5	8.20	534	...	92.6	96.0	...	...	...	...	76.1	11.3	
1969	4,180.6	1.00	4,180.6	8.42	497	...	94.2	96.4	...	...	...	...	52.2	75.4	
1970	4,203.9	1.00	4,203.9	8.551	492	100	100.0	100.0	4,400	100.0	100.0	100.0	76.9	19.2	
1971	4,818.2	1.00	4,818.2	8.692	554	96.3	97.0	96.0	4,390	...	...	...	64.4	76.4	
1972	6,026.9	0.92	6,551.0	8.862	739	109.4	97.5	94.2	...	...	...	...	50.7	9.4	
1973	6,710.4	0.83	8,084.8	9,036	895	123.5	103.5	98.9	5,600	...	...	...	74.4	13.5	
1974	7,414.1	0.84	8,826.3	9,194	960	136.8	106.6	99.7	6,400	110.2	102.1	69.4	85.4	26.5	
1975	8,086.3	0.81	10,970.7	9,332	1,175	158.6	109.9	101.7	7,730	113.7	105.8	74.0	87.0	28.9	
1976	8,918.2(I)	0.85	10,744.8	9,471	1,135	156.9	113.1	102.1	7,970	107.4	97.0	73.2	87.2	26.0(E)	
1977	9,283.9(I)	0.82	11,321.8	9,604(E)	1,179	161.0	...	...	8,700	...	...	77.0	87.0(E)	27.0(E)	
1978	10,487.7(E)	0.76	13,799.5	9,730(E)	1,418	179.6(E)	12,000	...	...	...	...	85.5	87.0(E)	29.0(E)	
Annual Average	...	0.1	...	2.1	...	...	2.4	0.5	...	...	...	...	82.3	...	
1957-1976	...	1.2	...	2.1	...	...	...	...	...	0.8	-1.1	...	82.6	16.4(c)	
1960-1976	...	...	...	2.2	...	...	2.6	0.3	...	...	...	...	82.4	...	
1965-1970	...	...	...	2.3	...	...	...	...	...	0.5	-1.3	...	83.1	14.2(c)	
1968-1976	...	...	...	2.5	...	...	...	...	...	0.9	-1.4	...	85.6	14.2(c)	
1965-1970	0.3	...	0.3	2.1	-1.7	7.8	...	...	...	0.2	-1.5	12.2(b)	79.3	13.9(c)	
1970-1976	13.4	3.2	16.9	1.7	14.9	7.8	2.1	0.5	10.4	1.2	-0.5	-3.2(b)	81.9	19.7(c)	

Sources: Column (1): Table 1, Column (7).  
 Column (2): CIA, Handbook of Economic Statistics, 1979, p. 59.  
 Column (3): Column (1) divided by Column (2).  
 Column (4): Table 1, Column (1).  
 Column (5): Column (3) divided by Column (4).  
 Column (6): Index constructed from Table 1, Column (5) divided by Column (1).  
 Column (7): 1956-58 and 1974: US Dept. of Commerce, Cuban Foreign Trade: A Current Assessment, April 1978, Table 1; 1978: US Dept. of Commerce, A New Look at Cuban Hard Currency Debt, Addendum dated October 1979.  
 Column (8) & (9): 1957 and 1968-75: US Dept. of Commerce, The Cuban Economy: A Statistical Review 1968-1976, Table 1 (changing the original 1968-base into 1970-base); 1976: derived from US Dept. of Commerce, Cuban Foreign Trade: A Current Assessment, April 1978, Table 1 when GNP in constant dollars is reported for the period 1974-76.  
 Column (10): Transcribed or derived from the World Bank Atlas, 1976 and 1978 issues.  
 Column (11): Constructed from Table 1, Column (10).  
 Column (12): Table 1, Column (11) divided by Column (12).  
 Column (13): Table 1, Column (14) divided by Column (6).

Notes: (a) GNP was preferred to GMP because between 1970 and 1971 the methodology referring to the latter was revised, so reducing the significance of intertemporal comparisons; (b) Rate of growth of the annual average of each period over the annual average of the preceding period; (c) Arithmetic mean of values in each period; (d) Value obtained by linear regression of GNP over GSP. Correlation coefficient:  $r = 0.9945$ ; (e) Economics Directorate estimate - GNP was obtained by linear regression of 1971-1977 values over time (correlation coefficient:  $r = 0.9765$ ); - Sugar exports figures were assumed to be 87% of total exports, as in preceding years; this hypothesis appears to be compatible with the Sugar Yearbook data reported at Annex of the French contribution to the experts' meeting of October 25-26, 1979, Tables III, IV, and VI.  
 ... Not published or not available.  
 (f) Preliminary.

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TABLE 3  
CUBA - FOREIGN TRADE AND INDEBTEDNESS

ANNEX I to  
C-M(80)34

	EXPORTS				IMPORTS				INDEBTEDNESS (millions of \$)				
	Millions of US \$ (1)	% to USSR and East Europe(a) (2)	% to USSR (3)	% to USA (4)	Millions of US \$ (5)	% from USSR and East Europe (a) (6)	% from USSR (7)	% from USA (8)	SOVIET Repayable AID (9)	OTHER SOFT CURRENCY (b) (10)	TOTAL SOFT CURRENCY (11)=(9)+(10)	HARD CURRENCY (12)	TOTAL (13)=(11)+(12)
1956	666.2	...	-	...	714	...	...	...	-	-	-	...	...
1957	807.7	5.1	5.1	...	895	0.2	negl.	...	-	-	-	...	...
1958	733.5	2.4	1.8	67.1	858	0.2	-	67.7	-	-	-	...	...
1959	637.4	2.0	2.0	69.7	740	-	-	67.6	-	-	-	...	...
1960	618.2	18.6	16.7	53.2	637.9	16.8	13.8	48.5	-	-	-	...	...
1961	624.7	57.7	48.1	4.8	702.6	55.1	41.1	3.7	...	-	...	...	...
1962	520.7	63.5	42.3	0.8	759.3	70.3	54.1	negl.	...	-	...	...	...
1963	543.8	52.9	30.1	-	867.3	69.8	53.1	-	...	-	...	...	...
1964	713.8	46.2	38.5	-	1,018.8	55.6	40.2	-	...	-	...	...	...
1965	690.6	61.6	47.0	-	866.2	60.5	49.5	-	...	-	...	...	...
1966	597.8	64.4	45.8	-	925.5	69.1	56.3	-	...	-	...	...	...
1967	705.0	68.0	51.9	-	999.1	70.0	58.5	-	1,393	-	1,393	...	1,393
1968	651.4	63.0	44.5	-	1,102.3	71.3	60.9	-	1,825	-	1,825	...	1,825
1969	666.7	54.0	34.7	-	1,221.6	69.2	53.9	-	2,319	-	2,319	...	2,319
1970	1,049.5	64.8	50.6	-	1,311.0	62.2	52.7	-	2,550	-	2,550	...	2,550
1971	861.2	53.8	35.3	-	1,387.5	63.0	52.7	-	3,059	-	3,059	...	3,059
1972	837.9	45.4	29.1	-	1,293.3	69.8	60.0	-	3,691	-	3,691	549	4,240
1973	1,409.8	56.2	41.3	-	1,792.8	63.7	55.3	-	4,128	...	4,128	580	4,708
1974	2,643.0	50.7	36.5	-	2,648.4	53.8	46.0	-	4,417	...	4,417	657	5,074
1975	3,683.7	64.3	56.3	-	3,883.3	48.3	40.2	-	4,567	...	4,567	961	5,528
1976	3,245	70.7	60.8	-	3,693	57.6	46.8	-	4,717	...	4,717	1,420	6,137
1977	3,553(P)	79.6	70.9	-	4,188(P)	64.4	54.1	-	4,927	...	4,927	2,155	7,082
1978	4,524(P)	...	...	...	4,698(P)	...	...	...	5,257	...	5,257	2,600	7,857
1979	...	...	...	...	...	...	...	...	5,697(P)	900(c)	6,600(c)	3,200(c)	9,800(c)

**Sources:** Columns (1),(5) Table 1, Columns (13), (14). (For the period 1972-75, UN conversion rates were used; for 1976, CIA, Handbook 1979 conversion rates were used; for 1977-78 original data were in \$).  
 Columns (2),(3), (4),(6),(7),(8) 1966-75: UN, Yearbook of International Trade Statistics 1977, Volume I, p.311; 1959-65: Calculated from the 1964 issue of the same Yearbook, p.204; 1957: US Dept. of Commerce, Cuban Foreign Trade: A Current Account, April, 1979, table 8; 1958: US Dept. of Commerce, United States Commercial Relations with Cuba, August 1975, table 3. 1976-77: French contribution to experts' meeting of 25-26 October 1979, Annex 1, Table II.  
 Column (9) 1967-69: US Dept. of Commerce, US Commercial Relations with Cuba: A Survey, August 1975, Table 12; 1970-79: CIA, CUBA+USSR: The Deepening Economic Relationship, August 1979, Table 1.  
 Column (12) 1972-75: US Dept. of Commerce, Cuban Foreign Trade: A Current Assessment, April 1978, Table 25; 1977-78: US Dept. of Commerce, A New Look at Cuban Hard Currency Debt, October 1978, p.7, and updating circulated at experts' meeting.

**Notes:** (a) USSR, Albania, Bulgaria, Czechoslovakia, CDR, Hungary, Poland, and Romania (excluding Yugoslavia).  
 (b) Eastern Europe and CMEA banks.  
 (c) Preliminary data, furnished by the Canadian Delegation (Cuba: Growing Burden of Foreign Trade, Nov.5, 1979)  
 - Zero  
 ... Not published or not available.  
 negl Negligible.  
 (P) Preliminary.

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ANNEX I to  
C.I.(80)27

TABLE 4  
CUBA - BILATERAL TRADE AND AID FROM THE USSR  
Millions of US \$

	TRADE (a)			TOTAL AID (4)-(5)+(9)	LOANS			Other Invisibles (8)	GRANTS			Pro-memoria			
	Cuban Exports (1)	Cuban Imports (2)	Balance (3)		Development Aid (6)	Interest Charges (7)	SUBTOTAL (9)-(10)+(11)+(12)		Sugar Subsidy (10)	Petroleum Subsidy (11)	Nickel Subsidy (12)	Cuba's GMP (13)	Soviet RMP (14)	Soviet Aid to LDCs (15)	
1956	14.7	-	14.7	...	...	...	...	...	...	...	...	...	...	...	...
1957	47.1	-	47.1	...	...	...	...	...	...	...	...	...	...	...	...
1958	15.4	-	15.4	...	...	...	...	...	...	...	...	...	...	...	...
1959	7.4	-	7.4	...	...	...	...	...	...	...	...	...	...	...	...
1960	103.7	74.6	29.1	...	...	...	...	...	...	...	...	2,400.0(f)	...	...	...
1961	311.9	287.0	24.9	...	...	...	...	...	...	...	...	...	...	...	...
1962	234.0	366.7	-132.7	...	...	...	...	...	...	...	...	...	...	...	...
1963	164.4	399.7	-235.3	...	...	...	...	...	...	...	...	3,020.5	...	...	...
1964	288.0	366.0	-78.0	...	...	...	...	...	...	...	...	3,469.6	209,000	...	...
1965	342.2	375.4	-33.2	...	...	...	...	...	...	...	...	4,202.3	231,000	...	...
1966	285.9	479.9	-194.0	...	...	...	...	...	...	...	...	4,137.5	248,000	...	...
1967	372.7	562.7	-190.0	(2,025)(e)	(1,193)(e)	(1,180)(e)	(59)(e)	(154)(e)	(632)(e)	(632)(e)	...	4,039.3	...	...	...
1968	277.7	624.2	-346.5	582	432	382	28	22	150	150	...	4,082.8	292,900	(2,555)(g)	...
1969	231.6	624.0	-392.4	580	494	436	34	24	86	86	...	4,376.5	326,400	310	...
1970	516.6	644.4	-127.8	381	231	162	45	24	150	150	...	4,180.6	357,200	355	...
1971	321.0	668.9	-347.9	565	509	427	57	25	56	56	...	4,203.9	381,000	390	...
1972	247.9	743.3	-495.4	632	632	535	69	28	-	-	...	4,818.2	410,000	415	...
1973	584.7	922.5	-337.8	587	437	404	(c)	33	150	-(d)	...	6,551.0	425,000	430	...
1974	946.4	1,223.8	-277.4	696	289	255	-	34	407	97	...	8,084.8	481,000	500	...
1975	2,006.8	1,582.0	424.8	1,051	150	115	-	35	901	580	...	8,826.3	534,000	700	...
1976	2,017.2	1,792.4	224.8	1,507	150	115	-	35	1,357	977	...	10,744.8(I)	622,000	460	...
1977	2,467.6	2,220.0	247.6	1,982	210	175	-	35	1,772	1,428	...	11,321.8(I)	677,000	540	...
1978(b)	3,200.1	2,803.2	396.9	2,970	330	295	-	35	2,640	2,435	...	13,799.5(I)	706,000	430	...
1979	4,930.0(E)	3,160.0(E)	1,770.0(E)	3,173	440	405	-	35	2,733	2,364	...	...	...	...	...

Sources: Columns (1), (2) and (3): French contribution to experts' meeting of 25-26 October 1979, Annex, Table 1. Early data (1956-59) from Soviet Trade Yearbook 1918-1966, pp.68-69, converted into \$US at the official rate of \$1 = 1.1111 rubles.  
 Columns (4) to (12): US Dept. of Commerce, United States Commercial Relations with Cuba, A Survey, August 1978, Table 12. 1971-79: CIA, Cuba-USSR: The Deepening Economic Relationship, August 1979, Table 1.  
 Column (13): Table 2, Column (3).  
 Column (14): NATO, ED/EC/45, Table 6, Column 1 (1977 revision and 1978 updating following official data in The Soviet Union in Figures, Moscow, 1979, p.191).  
 Column (15): CIA, Handbook of Economic Statistics 1972, p.116, and previous issues of the same Handbook.

Notes: (a) Soviet official data, published in the Foreign Trade Yearbook, expressed in FOB values. Slight statistical discrepancies exist vis-à-vis Cuban data (presented in Table 1), largely due to conversion into dollars. Note that Cuban imports from the USSR are recorded at CIF values, while Soviet exports to Cuba are expressed in FOB values; (b) Provisional; (c) A Cuban-Soviet agreement of December 1972 exempted Cuban debt from further interest charges; (d) French calculations show that the sugar price paid in this year by the USSR was less than the world market price; (e) Cumulative 1961-67; (f) Ministerio de Educacion, Informe de Cuba a la Conferencia sobre Educacion y Desarrollo Economico y Social, Habana, 1962, p.4; (g) Cumulative 1954-67.  
 (E) Estimated by the Economics Directorate by simply doubling data for the first semester.  
 (I) Estimated by the Economics Directorate, cfr. Table 2, Column (1).  
 ... Not available or not published.  
 - Zero

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TABLE 5  
CUBA - SUGAR TRADE

ANNEX I to  
C-1(60)34

Crop Year	PRODUCTION (000 tonnes)		CUBAN EXPORTS (Cuban official data)				SOVIET IMPORTS (Soviet official data)			PRICES in RUBLES per tonne			PRICES in DOLLARS per tonne		
	(1)	(2)	TOTAL (000 tonnes) (3)	CMEA (000 tonnes) (4)	USSR (000 tonnes) (5)	% to CMEA (6)	% to USSR (7)	Millions of rubles (8)	Millions of dollars (9)	Thousands of tonnes (a) (10)	Bilateral Trade Agreements (11)	Theoretical CMEA Price (b) (12)	Actual average paid by USSR (13)	Actual average paid by USSR (14)	World Market (15)
1956	4,660	...	5,281.6	...	204	...	...	13,156	14.6	214.3	...	...	61.39	68.2	55(c)
1957	5,504	5,742.0	5,407.0	...	145	...	2.7	42,381	47.1	350.9	...	...	120.8	134.2	114
1958	5,610	...	5,565.7	...	201	...	...	15,957	15.5	197.9	...	...	70.52	78.4	77
1959	5,964	...	4,951.8	...	274	...	5.6	6,675	7.4	132.5	...	...	50.38	56.0	65
1960	5,862	...	5,634.5	...	1,467	...	26.6	93,400	103.8	1,467.8	60(I)	...	63.63	70.7	69
1961	6,767	...	6,413.5	...	3,345	...	51.5	270,369	300.4	3,345.0	60	...	80.82	89.8	61
1962	4,815	...	5,130.9	...	2,333	...	45.7	182,589	204.0	2,233.2	60	...	82.21	91.3	63
1963	3,821	...	3,530.8	...	966	...	28.6	121,187	136.9	966.4	120	...	123.6	137.4	184
1964	4,589	...	4,114.5	...	1,859	...	45.9	222,662	247.4	1,859.3	120(II)	...	119.76	133.1	127
1965	6,082	...	5,230.9	...	2,330	...	45.1	273,368	303.7	2,230.7	120	...	122.55	136.2	46
1966	4,866	...	4,361.0	...	1,841	...	42.6	225,774	250.9	1,840.9	120	86.6	122.64	136.3	40
1967	6,236	...	5,682.9	...	2,479	...	43.6	302,316	332.9	2,479.7	120	86.6	121.92	135.5	42
1968	5,164	5,315.0	4,612.9	...	1,832	...	59.7	212,706	236.3	1,749.1	120	86.6	121.61	135.1	42
1969	4,459	5,534.0	4,798.8	...	1,332	...	27.8	161,947	179.9	1,331.9	120	86.6	121.59	135.1	71
1970	8,538	7,559.0	6,906.3	4,055.2	3,105.0	58.7	45.0	364,339	404.8	3,003.3	120	86.6	121.31	134.8	81
1971	5,925	5,950.0	5,510.8	2,518.4	1,581.0	45.7	28.7	185,642	206.3	1,535.7	120	49.7	120.88	134.3	99
1972	4,325	4,687.0	4,139.6	1,789.5	1,097.4	43.2	26.5	131,465	158.6	1,101.4	120	49.7	119.36	144.0	160
1973	5,253	5,382.5	4,797.4	2,484.2	1,660.7	51.8	34.6	323,058	438.2	1,603.3	200(III)	49.7	201.50	273.3	209
1974	5,925	5,925.9	5,491.2	2,761.3	1,975.0	50.3	36.0	610,782	807.2	1,855.8	327.4(IV)	49.7	329.16	435.0	655
1975	6,314	6,427.4	5,744.0	3,697.0	3,187.0	64.3	55.5	1,344,312	1,864.0	2,963.7	484(IV)	324.7	453.59	628.9	450
1976	6,250	6,150.0	5,763.0	3,700.0	3,036.0	64.2	52.7	1,397,830	1,853.8	3,068	512(IV)	324.7	455.6	604.2	255
1977	6,575	6,485.0(P)	6,238.2	4,416.0	3,790.4	70.8	60.7	1,675,346	2,272.1	3,652	...	291.6	458.7	622.2	179
1978	7,300	...	7,231.2	4,534.5	3,936.1	62.7	54.4	2,117,209	3,110.0	3,797	...	259.6	557.6	818.8	172
1979	...	...	...	...	...	...	...	...	...	...	970	...	...	...	190(P)

**Sources:** Column (1): Table 1, Column (10).  
 Column (2): 1957 and 1968-70: *The Cuban Economy: A Statistical Review, 1969-76*, Cuba, p.13; 1977: FAO, *Production Yearbook 1977*, p.167.  
 Column (3): 1957-66: FAO, *Trade Yearbook 1971*, p.226, and preceding issues; 1967 Vol.1, p.313, and preceding issues; 1975-78: French contribution to experts' meeting of October 25-26, 1979, Annex, Table IV.  
 Column (4): French contribution to experts' meeting of October 25-26, 1979, Annex, Table IV.  
 Column (5): 1956-69: US Dept. of Commerce, *Cuban Foreign Trade: A Current Assessment*, experts' meeting of October 25-26, 1979, Annex, Table IV.  
 Columns (6) and (7): Column (3) divided into Columns (4) and (5) respectively.  
 Columns (8) and (10): *Vnashnyaya Torgovlya SSSR (Soviet Foreign Trade Yearbook)*, 1922-66 as found either in the country section ("Cuba: Imports") or in the "com issue, and item 72306 since the 1971 issue).  
 Column (9): Column (8) multiplied by the ruble exchange rate as from UN Yearbook of International Trade Statistics 1977, the years up to 1977) and CIA, *Handbook of Economic Statistics, 1979*.  
 Columns (11) and (12): 1960-75: French contribution to experts' meeting of October 2-25, 1979, Annex, Table VI; 1976-79: Commerce, *Cuban Foreign Trade: A Current Assessment*, Table 7, 1979, p.1.  
 Column (13): Column (8) divided by Column (10) times 1,000.  
 Column (14): Column (9) divided by Column (10) times 1,000.  
 Column (15): 1956-59: derived from US Dept. of Commerce, *Cuban Foreign Trade: A Current Assessment*, April, 1978, table 7 (prices are quoted in cents per pound; the conversion coefficient to be used to obtain dollars per tonne is 22.0462); 1960-78: French contribution to experts' meeting of October 25-26, 1979, Annex, Table VI; 1979: calculated from CIA, *Cuba-USSR: The Deepening Economic Relationship*, August, 1979.

**Notes:** (a) Unlike Column (15), Table 1, these figures exclude molasses and honey, and correspond to the "Raw Beet and Cane Sugar" of UN Yearbooks, or the "Raw Sugar Equivalent" of sum of raw sugar plus refined sugar multiplied by a conversion coefficient of 1:08 (raw sugar being on average 8.7% heavier than refined sugar).  
 (b) Sugar price calculated according to the CMEA rules of price fixing, i.e. "Bucharest rule", until 1974 and "Moscow rule" (sliding prices) since 1975.  
 (c) Original datum (76.72) possibly is a misprint.  
 (I) Agreement of February 13, 1960.  
 (II) Agreement of January 21, 1964, fixing a stable price for the period 1964-70, retroactively applied also to 1963 supplies.  
 (III) Agreement of December 23, 1972, fixing a stable price for the period 1973-80.  
 (IV) Annual trade protocol.  
 ... Not available or not applicable.  
 (P) Preliminary.



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PART 1

MAJOR MUTUAL ECONOMIC AID COUNCIL (MEAC) JOINT CONSTRUCTION PROJECTS IN CUBA

Participating countries or organizations	Project designation	Credits granted
USSR, Bulgaria, Hungary, Poland, GDR, Romania, Czechoslovakia	June 1975 agreement. Construction of a "SEV-I" nickel plant in Las Camariocas. Rated output - 30,000 tons of nickel (by nickel content) annually. The total cost of the project has been put at 300 million pesos. Credits are to be reimbursed by deliveries of nickel.	n.i.
Hungary, GDR, Poland, Czechoslovakia, Yugoslavia	Construction during the 1980-1990 period of two complexes for production of paper and cardboard products from sugar cane stalks and construction of a bleached cellulose plant with an annual capacity of 500,000 tons. Credits are to be reimbursed by deliveries of paper, cardboard and cellulose.	n.i.
MEAC International Investment Bank	April 1975 agreement. Construction on the Isle des Pins of a citrus complex for packaging fresh fruit, production of juice and production of tropical fruit preserves. Annual capacity - 190,000 tons.	9.8 million roubles

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PART 2

PARTIAL LISTINGS OF PROJECTS PLANNED FOR CONSTRUCTION  
WITHIN THE FRAMEWORK OF SOVIET-CUBAN CO-OPERATION  
(BY ECONOMIC SECTOR)

Date of agreement	Project designation	Credits granted
	<u>ENERGY</u>	
16.11.1960	Construction of "Maximo Gomez" thermo-electric plant at MARIEL. Installed capacity - 200 MW. Entry into service 1969.	n.i.
ibid	Construction of "Antonio Maceo" thermo-electric plant at RENTE (SANTIAGO-DE-CUBA Province). Installed capacity - 100 MW.	n.i.
15.09.1967	Supply of a uranium and sub-critical water reactor for scientific purposes, including a thermal emission element complex and supply of equipment, apparatus and materials for installing a physical and radio chemical (isotope) laboratory. Dispatch of Soviet experts to Cuba.	Gift of the USSR
15.01.1968	Construction of a high voltage (220 kilovolt) electric power line, 240 kilometres in length. Its purpose is to provide a link between the Eastern and Western electrical networks, by tying into the RENTE thermo-electric plant at NUEVITAS. Entry into service - 1st half of 1973.	n.i.
ibid	Re-organization and development of the existing electrical network.	n.i.

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Date of agreement	Project designation	Credits granted
23.12.1972	Construction of a thermo-electric plant on the ISLE DES PINS. Installed capacity - 25.6 MW.	)
ibid	Construction of a high voltage (220 kilovolt) electric power line, 150 km in length.	)
ibid	Delivery of equipment for construction of a 110 kilovolt electric power line, 290 km in length.	)
ibid	Construction of a network comprising 10 transformer sub-stations and 900 km of 33 kilovolt line.	) 50 million roubles
ibid	Establishment of a centre for planning the construction and maintenance of electric power stations and transformers.	)
ibid	Setting up of a centralized directorate for the Cuban energy system.	)
ibid	Construction of an underground 110 kilovolt electric power line (1,700 m in length).	)
14.04.1976	Expansion of the MARIEL thermo-electric plant with capacity increased to 500 MW.	n.i.
ibid	Expansion of the RENTE thermo-electric plant with capacity increased to 500 MW.	n.i.
ibid	Construction of three 220 kilovolt electric power lines, with a total length of 1,200 km, along with several transformer sub-stations.	n.i.
14.04.1976	Construction of the 1st slice (100 MW) of the "Habana" thermo-electric plant.	n.i.

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Date of agreement	Project designation	Credits granted
ibid	Modernization of thermo-electric plants constructed before 1959.	n.i.
ibid	Construction of the 1st Cuban nuclear power plant (CIENFUEGOS Province) to include four 440 MW reactors. Construction will begin in the 1980-1985 five-year period; the first reactor should come on stream in 1985 and the second in 1986.	n.i.
16.11.1960	<u>METALLURGY</u> Refitting and expansion of 3 steel works ("Antillana de Asero", "Aseros Unidos" and "Cabillas Cubanas") located in the vicinity of HAVANA. Their total capacity should increase to 200,000 tons of steel annually.	n.i.
ibid	Construction of the 1st slice of a steel mill with a capacity of 200,000-250,000 tons of steel annually.	n.i.
1.06.1961	Refitting and expansion of MOA and NICARO nickel and cobalt plants.	90 million roubles
28.10.1964	Construction of a joint cast iron foundry workshop for the 3 HAVANA steel mills.	n.i.
23.12.1972	Refitting of the MOA and NICARO nickel and cobalt plants and expansion of mining operation capabilities. Nickel production should increase from 36,000 to 47,000 tons per year.	52 million roubles

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Date of agreement	Project designation	Credits granted
23.12.1972	Construction of the 1st slice of the PUNTA GORDA mining and metallurgical complex (HOLGIUN Province) which will process nickel and cobalt. Capacity - 30,000 tons of nickel (by metal content) annually. The first slice should be placed in service at the beginning of 1980.	15 million roubles
14.04.1976	Construction of an integrated steel works (HOLGIUN Province). Capacity - 1.3 million tons of steel annually. Construction will commence during the 1981-1985 five-year period.	n.i.
ibid	Refitting and expansion of the "José Marti" metallurgical complex at HAVANA established in the early 70s by bringing together the three HAVANA area steel works). The capacity will increase to 600,000 tons of steel annually (compared to 250,000 tons of steel in 1974).	n.i.
ibid	Refitting of the MOA and NICARO nickel and cobalt plants.	n.i.
ibid	Continuation of construction of the PUNTA GORDA mining and metallurgical complex. The 2nd and 3rd slices should come on stream in 1981.	n.i.

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Date of agreement	Project designation	Credits granted
	<u>MECHANICAL ENGINEERING PROJECTS</u>	
19.12.1960	Construction of the "Fabricio Aguillar Noriega" mechanical engineering works at SANTA CLARA. Range of initial production - spare parts for general mechanical engineering projects, mining industry, sugar industry, civil engineering equipment, etc. Capacity - 4,000 tons of spare parts annually (with 2 shifts). At the time of its entry into service, it was the largest installation of its type in Latin America. Subsequently, the range of production was expanded and spare parts now constitute only 20% of total production, with agricultural machines - cultivators, ploughs, graders, scrapers, hemp harvesters, trailers, sugar cane presses, etc. - comprising 67% of total production.	n.i.
19.12.1960	Construction of a factory for making knife files (to sharpen blades used to cut sugar cane) in GUANTANAMO. Capacity - 750,000 files annually (single shift). Entry into service - December 1962.	n.i.
23.12.1972	Organization of spare parts production for the repair of measuring instruments.	n.i.
ibid	Construction of a television and transistor radio factory. Capacity - 100,000 television sets and 300,000 radios annually. Construction was to have taken place during 1973-1975.	n.i.
ibid	Construction of the "60th Anniversary of the October Revolution" factory at HOLGUIN to make combines for the harvest of sugar cane. Capacity - 600 combines annually.	10 million roubles

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Date of agreement	Project designation	Credits granted
ibid	Construction of a factory to make trailers for the transport of sugar cane. Capacity - 3,000 trailers annually.	)
ibid	Refitting of the automobile repair "Cuban-Soviet friendship" facility in HAVANA. Capacity - 3,000 complete automobile rebuild jobs and 3,000 major component repairs annually. Entry into service - 1964.	)
23.12.1972	Construction of a utility vehicle repair facility. Capacity - 2,500 complete vehicle rebuild jobs and 2,500 major component repairs annually.	)10 million roubles
ibid	Construction of a utility vehicle repair facility. Capacity - 1,500 complete vehicle rebuild jobs, and 1,500 major component repairs annually.	)
ibid	Studies for the development and the installation of automobile repair centres in Cuba.	)
14.04.1976	Continuation of construction of the factory to produce combines for sugar cane harvest at HOLGUIN. Entry into service in 1977.	n.i.
ibid	Construction of 2 utility vehicle repair facilities.	n.i.
ibid	Re-equipment of the HAVANA automobile repair facility to double its capacity.	n.i.

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Date of agreement	Project designation	Credits granted
	<u>PETROLEUM REFINING AND CHEMICAL INDUSTRY</u>	
16.11.1960	Construction of a refinery with a capacity of 1 million tons of petroleum annually.	n.i.
8.05.1962	Construction of a nitrate fertilizer plant. Capacity - 110,000-120,000 tons annually.	)
ibid	Construction of a production line for simple superphosphates at the "Sulfometales" plant. Capacity - 150,000-200,000 tons of superphosphates annually. Construction to have taken place during 1962-1965.	)90 million )roubles
n.i. (about 1967)	Construction of the "October Revolution" fertilizer plant at NUEVITAS. Capacity - 200,000 tons of ammonium nitrate and 35,000 tons of urea annually. Entry into service - 1974 or 1975.	)
n.i. (about 1971)	Construction of a compound fertilizer plant at FELTON (ORIENTE Province). Capacity - 360,000 tons of fertilizer annually. Entry into service - 2nd half of 1972.	n.i.
	Construction of the "Nico Lopez" refinery at HAVANA. Capacity - 7 million tons of crude petroleum annually.	n.i.
23.12.1972	Construction of an atmospheric distillation installation with a capacity of 900,000 tons annually.	)
ibid	Delivery of asphalt transport facilities.	)15 million )roubles
ibid	Construction of gas and petroleum products reservoirs at the "Nico Lopez" refinery at HAVANA and the "Ermanos Dias" refinery at SANTIAGO-DE-CUBA.	)

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Date of agreement	Project designation	Credits granted
14.04.1976 ibid ibid ibid	Construction of the 1st slice (capacity - 3 million tons of crude oil annually) of a petroleum refinery at CIENFUEGOS. Construction of a lubricants plant at SANTIAGO-DE-CUBA. Modernization of the "Nico Lopez" refinery at HAVANA and of the "Ermanos Dias" refinery at SANTIAGO-DE-CUBA. Delivery of 136 petroleum reservoirs.	n.i. n.i. n.i. n.i.
6.09.1965 7.05.1967 14.04.1976	<u>SUGAR INDUSTRY</u> Re-equipment of 60 sugar plants. The work was to have been carried out during the 1965-1970 period. Re-equipment of 54 sugar plants. Re-equipment and modernization of 21 sugar plants.	70 million roubles 30 million roubles n.i.
25.09.1962 25.09.1962	<u>FISHING</u> Management of deep-sea fishing (joint studies on equipment, processing of catch, sea resources, etc.) Construction of a fish-meal factory in the port of HAVANA. Capacity - 6 tons of fish-meal daily. 1st factory of this type in Cuba.	n.i. n.i.
n.i.	<u>TEXTILE INDUSTRY</u> Construction of a spinning mill. Capacity - 10,000-15,000 tons of cotton and of mixed fibres annually.	n.i.

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Date of agreement	Project designation	Credits granted
23.12.1972  14.04.1976 ibid	Construction of 2 textile mills. Re-equipment of 7 textile mills. Re-equipment of 7 textile mills. Construction of a textile complex at SANTIAGO-DE-CUBA. Capacity - 80 million m <sup>2</sup> of fabric and 2,000 tons of thread annually. The construction is due to be completed early in the 1981-1985 five-year period.	} 81 million } roubles  n.i.
29.11.1963	<u>CONSTRUCTION</u> Construction at SANTIAGO-DE-CUBA of a factory to produce prefabricated construction modules. Capacity - 70,000 m <sup>2</sup> of inhabitable surface annually (1,700 apartments).	Gift of the USSR
25.09.1962  n.i. (about 1969-1970) 23.12.1972	<u>TRANSPORT</u> Construction of a fishing port at HAVANA, able to cater for 115-130 trawlers and capable of receiving 180,000 tons of fish annually. Delivery of 3 floating dry docks (2,500 tons, 4,500 tons and 8,000 tons). The port came into service in September 1965.  Construction of the PINAR-DEL-RIO - ORIENTE motorway (809 km).  Study on the general development of lines of communication in Cuba.	45 million roubles  n.i.  n.i.

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Date of agreement	Project designation	Credits granted
ibid	Rebuilding of the HAVANA - SANTIAGO-DE-CUBA railway (850 km).	) 35 million ) roubles
ibid	Construction of a concrete railway ties factory.	
ibid	Re-equipment of Cuban ports, in particular re-equipment of 2 docks in the port of HAVANA and of one dock at CIENFUEGOS.	
ibid	Studies for the construction in the port of HAVANA of a tanker terminal and a container ship terminal.	) 12 million ) roubles
ibid	Delivery of port facilities and equipment for their maintenance.	
14.04.1976	Modernization of the HAVANA - SANTIAGO-DE-CUBA railway.	n.i.
14.04.1976	Construction of a concrete railway ties factory.	n.i.
ibid	Construction of a container ship terminal in the port of HAVANA.	n.i.
<u>COMMUNICATIONS</u>		
24.04.1962	Establishment of direct radio, telephone and telegraph links with the USSR.	n.i.
1963	Construction of a plant for the maintenance of communications equipment, and the manufacture of spare parts and equipment. Entry into service - May 1965.	Gift of the USSR
7.01.1969	Modernization of the television broadcast centre (1st slice).	n.i.
8.01.1970	Construction of communications transmitter-receiver ground station.	n.i.

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Date of agreement	Project designation	Credits granted
ibid	Installation of a television programme exchange system between HAVANA and MOSCOW by satellite.	n.i.
23.12.1972	Construction of a HAVANA - SANTIAGO-DE-CUBA communications line.	n.i.
ibid	Modernization of the television broadcast centre (2nd slice).	n.i.
<u>SOIL IMPROVEMENT</u>		
11.01.1963	Soil drainage and irrigation projects.	14 million roubles
16.03.1964	Soil drainage and irrigation projects to be carried out during 1964-1965.	14 million roubles
17.03.1966	Soil drainage and irrigation projects to be carried out in 1966-1967.	2 million roubles
7.01.1969	Soil drainage and irrigation projects to be carried out in 1969-1970 - projects for the construction of water installations with a total capacity of 1,674 million m <sup>3</sup> and drainage of 343,100 hectares (847,457 acres).	2 million roubles
13.03.1970	Drainage and irrigation projects to be carried out in 1971-1972 - projects for the construction of water reservoirs and water works with a total capacity of 2,336 million m <sup>3</sup> , for the installation of irrigation and drainage systems for 664,000 hectares (1,640,000 acres) and for the implementation of irrigation plans for 960,000 hectares (2,371,200 acres).	n.i.
23.12.1972	Soil drainage and irrigation projects to be carried out in 1973-1975.	10 million roubles

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Date of agreement	Project designation	Credits granted
ibid	Studies on the utilization of Cuban water resources.	n.i.
<u>GEOLOGICAL EXPLORATION</u>		
16.11.1960	Exploration for formations of rock salt, phosphates, sulphur and other minerals to be carried out in 1962-1964.	n.i.
15.01.1964	Establishment of the Cuban Institute of Mineral Resources to explore metallic and non-metallic mineral resources as well as petroleum and gas resources, etc.	n.i.
20.09.1965	Exploration projects to be carried out 1966-1970.	12 million roubles
13.03.1970	Exploration projects to be carried out in 1971-1972.	10 million roubles
23.12.1972	Exploration projects to be carried out in 1972-1975.	15 million roubles
14.04.1976	Exploration projects, in particular exploration of petroleum resources on the West coast of Cuba (1979-1980).	8 million roubles
<u>INSTRUCTION AND TRAINING</u>		
16.11.1960	Training of Cuban specialists in the USSR. Beginning with the school year 1961-1962 Soviet organizations will enrol 300 Cubans in institutions of higher learning for training in various engineering specialities, 100 students for training as researchers, and 400 skilled workers and technicians for training in Soviet enterprises.	n.i.

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Date of agreement	Project designation	Credits granted
11.10.1961	Establishment of a training centre for mining industry workers at SANTIAGO-DE-CUBA. Enrolment capacity - 525 students. Opened in 1973.	n.i.
ibid	Establishment of a training centre for skilled industrial workers in HAVANA. Enrolment capacity - 500 students in 10 specialities. Opened in 1974.	n.i.
ibid	Establishment of a school of navigation.	n.i.
4.06.1963	Establishment at HOLGUIN of a training centre for agricultural machinery operators. Opened in 1966.	n.i.
17.12.1964	Co-operation and exchange in the field of teaching between the University of Moscow and the University of Havana.	n.i.
23.12.1972	Establishment of 15 training centres for agricultural machinery operators.	n.i.
ibid	Establishment of training centres for various industrial specialities.	n.i.
14.04.1976	Delivery of equipment for 88 technical school centres to train skilled workers in various industrial and agricultural fields.	n.i.

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Sources: Sbornik dejstvujuscikh dogovorov, soglasenij i konvencij zakljucennykh SSR s inostrannymi gosudarstvami (vyp. 21 à vyp. 32).

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4. US Delegation, A New Look at Cuban Hard Currency Debt, October 1978, and updating of October 1979 (Unclassified).
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