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THE ROLE OF SUPPLIERS' CREDITS IN THE INDUSTRIALIZATION OF GHANA, NIGERIA, AND SIERRA LEONE

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THE ROLE OF SUPPLIERS' CREDITS IN THE INDUSTRIALIZATION OF GHANA, NIGERIA, AND SIERRA LEONE

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The hypothesis to be examined is that there were considerable net costs in the choice of suppliers' credits as a method of financing Ghanaian industrialization in the early 1960's. The hypothesis will be tested in terms of industrial projects only. Omitted thus are the suppliers' credit financing of prestige projects and/or "white elephants"; likewise omitted are the suppliers' credit financing of infrastructure projects because their long gestation periods and low returns on investment make them

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suitable only for loans of long maturity at concessional terms. Industrial projects are the only ones from which the returns can be measured with any degree of certainty. Most of the time, the returns from infrastructure projects are tied in with "secondary benefits" and to calculate returns on these is problematical. Returns from prestige projects are, of course, intangible. By concentrating on the financing of industrial projects through suppliers' credits, the intention is to put the hypothesis to a vigorous test.

In evaluating the suitability of suppliers' credits on Ghanaian industrialization, the proposition is advanced that in Ghana it takes about five to six years to bring a publicly-owned plant into profitable operation (in terms of both domestic currency and foreign exchange)--assuming that the plant is feasible to begin with. The effect of this longer-than-average "learning period" on the length of financing, provided by suppliers' credits, is profound.

The attractiveness--at least in theory--of the suppliers' credits arrangement will be examined both from Ghana's and the equipment exporting country's points of view. The hypothesis to be tested here is that the arrangements surrounding the suppliers' credits, more likely than not, will lead to abuses. Therefore, in conclusion, the "solutions" that will be offered will be outside the framework of the existing suppliers' credit arrangements.

The Foreign Exchange Setting

In evaluating the suitability of suppliers' credits, or for that matter any kind of foreign borrowing, the projected worth of foreign exchange will have to be examined.[1] Fortunately, information for the early 1960's when most of the suppliers' credits were contracted is available for Ghana's then existing and projected balance of payments outlook.[2] We will also determine whether or not under the then existing foreign exchange situation borrowing on suppliers' credit was a suitable course. Subsequently, we shall compare the plan projections on both balance of payments and on the foreign exchange earnings on foreign indebtedness with the actual and preliminary data for 1969 and 1970.

The standard, if not very imaginative, method of evaluating how much can safely be borrowed from abroad is the "two-gap" or "residual" model. Projections of foreign exchange uses are subtracted from foreign exchange earnings, and the resultant gap or residual is what can or should be borrowed. Projections of debt servicing which, in turn, are the functions of past foreign borrowings are included in projections of foreign exchange uses. A measure of borrowing capacity is the debt service ratio which gives the relationship of debt payments over foreign exchange earnings.

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[1]Theoretical frameworks of such analyses can be found in IBRD Economics Department, Economic Growth and External Debt, Vol. 1, Washington, 1965 and Millard Long, "External Debt Management," Harvard Development Advisory Service, Dubrovnik Conference, June, 1970, mimeo.

[2](Ghana) Seven-Year Development Plan, 1963/64-1969/70, Accra; March, 1964. (Data for the Plan was prepared during 1962 and early 1963.) For analyses of the Plan, see, inter alia, Douglas A. Scott, "External Debt--Management Policy in a Developing Country" in Financing African Development, ed. by Tom J. Farer, Cambridge; MIT Press, 1965, pp. 41-71, and Isaac Bissue, 'Ghana's Seven-Year Development Plan in Retrospect,' Economic Bulletin of Ghana, 1967, No. 1, pp. 21-44.

According to the Seven-Year Plan, new foreign loans and grants (all for the public sector, our main concern) were expected to be at about $950 million or slightly over one-third of total investment.[3] The debt servicing charge was projected at $280 million,[4] based on the level of indebtedness existing in early 1963. There was either no allowance for new loans, or it was assumed that none of the new loans contracted during the Plan period would bear debt servicing charges prior to 1970, the terminal date of the Plan. (It is, of course, now a matter of record that virtually all of the public sector foreign borrowing was on suppliers' credits and almost all were scheduled to be repaid prior to the end of 1970.)

The amount of borrowing should depend, to some extent, on the amount already owed. Other criteria include the types of investments financed by foreign borrowing and the ability of these investments to earn foreign exchange. (Also crucial, of course, are the terms of the financing and the bulk of this paper is devoted to this problem.) If one looks at the types of investments for which the foreign exchange had been borrowed, (keeping in mind that most of the foreign indebtedness--other than the Volta River Project--was in the form of suppliers' credits) one sees that only 16% went into industry and 3% into agriculture, sectors which have the ability to earn foreign exchange relatively rapidly, and the rest went into intrastructure, transportation, and communications.[5]

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[3]Table 12.9, p. 277. Originals given in £G, which were converted into $'s.

[4]*Ibid*. This sum consists of "debt service on existing loans" and "financing gap" in about equal parts. "Financing gap" is over and above new foreign loans and grants.

[5]Scott, *op. cit*., Appendix I, p. 61.

Still, heavy borrowing, even on commercial terms and for projects with long pay-out periods, might be in a country's economic interest if its export earnings are expanding rapidly, with a resulting increase, or at least stability, in the external reserves. Yet Ghana was borrowing heavily abroad at a time when the value of her exports decreased moderately, the level of foreign exchange reserves fell rapidly, and annual balance of payments deficits were large and persistent:

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
Total Overseas Assets, $million, End of Year[6]	278	156	160	122	123	132	126	100	113	87
Exports, $million[7]	232	229	230	218	229	227	191	247	342*	363*
Balance of Payments Deficit, $million[8]	96	151	81	131	97	230	129	87	51	60*

*reflects price increases for cocoa. 1969 data preliminary.

Government foreign borrowing increased tenfold during 1963/1964. Between 1960 and 1965, about 80% of Ghana's foreign indebtedness was in the form of suppliers' credits. All of the public sector manufacturing enterprises were financed this way. Since the suppliers' credits represented short-term debts ranging from five to seven years, and clustering

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[6] International Financial Statistics, IMF, Washington, selected issues.

[7] Economic Survey, 1968, Central Bureau of Statistics, Accra; August, 1969, Table 14, p. 41. In this, and some subsequent tables, N₵ is taken as equaling dollars. Actually, N₵ equals $.98.

[8] Developments in the Ghanaian Economy between 1960 and 1968, Accra; June, 1969, Ghana Publishing Corp., Table 4, p. 11.

around six years, Ghana's balance of payments were put under considerable strain, and its debt management problem became unmanageable.

	1961	1962	1963	1964	1965	1966	1967	1968
Government foreign liabilities, $million, year end[9]	16	26	38	347	378	395	484	494
Suppliers' credits % of Government Foreign Liabilities.[10]	77.7	82.7	76.0	82.5	79.5	71.7	70.5	65.7

According to the Seven-Year Development Plan, exports were to increase 58% between 1960/1962 and 1969/1970. Unfortunately, the level of foreign indebtedness, as shown above, multiplied about 20 to 25 times during the same period though this overstates the rate at which Ghana acquired overseas debts because she had, in the 1960/1962 period, an unusually low level of indebtedness. At the same time, it is also apparent that the rate at which foreign loans were signed could not, in any way, be justified by the projected level of export earnings (which proved to be overoptimistic). The actual and projected export earnings are summarized below:

$ millions

Actual 1961	Projected Exports 1966/67	Projected Exports 1969/70	Actual Exports 1966	Actual Exports 1969
229[11]	302[12]	390[12]	191[11]	363[11]

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[9] Economic Survey, op. cit., Table 13, p. 28.

[10] Computed from above. Accurate data for years prior to 1964 are not available; those presented here for 1961-63 are from Bank of Ghana, Annual Report for 1967, Accra; 1968. Reductions in 1966-1968 represent rescheduling of debts.

[11] Economic Survey, op. cit., Table 14, p. 41.

[12] Seven-Year Development Plan, op. cit., p. 234. For 1966/67 actuals, see also Ghana's Economy and Aid Requirements in 1967, State Publishing Corp., Accra; May, 1967, p. 12 and pp. 42-43.

In reviewing the above table, it should be borne in mind that the high 1969 actual is due almost entirely to the dramatic increase in cocoa prices between 1967 and 1968; these prices have now (1970) begun to decline. In judging export projection, the quantity of cocoa exports is more indicative. The Plan projected[13] average annual cocoa exports during the seven-year period at about 490 thousand tons. In no year was this figure reached, and the amount of cocoa exports actually declined between 1965 and 1968. The 1969/1970 cocoa exports are estimated at 390 thousand tons.[14]

One measure of debt burden is the debt-service ratio, (DSR) representing total debt payments to total foreign exchange earnings on current account. While DSR suffers from certain conceptual difficulties,[15] it does measure, for the short run, the resources that are likely to be available to meet the projected debt burden. Scott projected the DSR for the years of the Plan.[16]

	1963/64	1964/65	1965/66	1966/67	1967/68	1968/69	1969/70
DSR	15.3	16.0	17.7	24.8	25.9	27.8	27.8

The Government of the National Liberation Council (NLC) which ousted Nkrumah's government in February 1966 rescheduled Ghana's external debts

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13 *Ibid.*, p. 233.

14 *Economic Survey*, *op. cit.*, Table 14, p. 41. 1969/70 estimates by *Barclays Overseas Survey*, London: 1970, p. 118.

15 Limits to resource flows are discussed in Clive S. Gray, *Resource Flows to LDC's: Financial Terms and Their Constraints*, New York: F. A. Praeger, 1969.

16 *op. cit.*, Table 4, p. 53. Scott made two calculations based on different assumptions. Here, his more realistic calculation is given.

in December 1966 and again, in October 1968. (A third rescheduling took place in June 1970.) Thus, the high projected ratios of 1966-1969 did not materialize; the payments were postponed, with a corresponding increase in total external debts. However, even after the 1966 and 1968 reschedulings, the 1970 rescheduling was on the pattern of the earlier ones and did not materially change the DSR except for the immediately following two years--the DSR was estimated as follows:

	1969	1970	1971	1972	1973	1974	1975
DSR[17]	19.0	20.8	19.8	18.5	17.0	17.0	17.7

As a rule of thumb, DSR in the 10-15% range is readily manageable; over 15% it represents a burden which is difficult to handle. The above analysis indicates that the Seven-Year Development Plan started out with a DSR of over 15%, never went below it, and inspite of repeated reschedulings, will be, for several years, around 20%. Yet, to repeat, much of the increase in external debts--virtually all of it in suppliers' credits--took place after the Plan was drafted and in the face of dwindling foreign exchange reserves, stagnating exports and persistent balance of payments deficits.

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[17] Norman L. Hicks, "Debt Rescheduling and Economic Growth in Ghana," USAID Mission to Ghana, Accra; May, 1969, mimeo, p. 7.

The extent to which Ghana--and some other countries in West Africa--made use of suppliers' credits is phenomenal. In Table I, suppliers' credits are presented by major regions. The share of Africa-South of the Sahara in total such credits guaranteed was consistently high, averageing about 21 percent of the total for the years 1960 to 1967. Also, the ratio of suppliers' credits to other forms of financial resources--development assistance and private direct investment--was consistently higher for Africa-South of the Sahara than for any other region.

In Table II, the Africa-South of the Sahara region is divided by the major users of suppliers' credits. It is apparent that, by far, Ghana and Nigeria were the major debtors; it is noted in the footnote that the Table seriously understates Ghana's indebtedness. Given their respective sizes, Liberia was a heavy user of suppliers' credits from 1961 to 1963 and Sierra Leone off and on during the eight year period. All of these countries represent English-speaking West Africa. In the years 1966 and 1967, two English-speaking East African countries, Kenya and Zambia, have become fairly large users of suppliers' credits.

The proportion of suppliers' credits for 1968 in the total financial flows to less developed countries is presented in Table III.

Excessive use of suppliers' credits--and an 80 percent share of such credits in Ghana's total foreign indebtedness can be called excessive--posed very serious balance of payments problems. A country's social time preference rate might well be different from a specific project's internal rate of return--in terms of both domestic currency and foreign exchange. Consequently, neither specific investments nor borrowings need necessarily be judged solely by the project's internal rate of return, if it can be justified by the country's social time preference rate. It may be good development management to accept short-term credits (for decent cost and interest rate projects, of course) for longer gestation investments. The criterion is whether the country can meet its overall (not project) foreign exchange payments per period. Certainly, it would be nice to receive adequate long-term, low interest rate assistance but, if aid is limited and the country needs more present imports and can meet the future concomitant foreign exchange payments, it is the total balance of payments flow and the requirements of development rather than the external financing of one project that should be determining. If the internal interest rate is appropriate, a longer term project may still pay off, even if the Government has to make early foreign payments. Within certain limits, the government might find it in its interest to manage its debts--internal and external--in a manner which will optimize its social time preference rate. The difficulty of the excessive use of suppliers' credits is precisely that it reduces, or completely eliminates, the government's ability to manage its debts. In this connection, it should be noted that because of the short maturities of the suppliers' credits, service payments on them represent a much higher share of total debt payments than the share of the suppliers' credits in the total debt. In Ghana, payments on suppliers' credits were virtually 100 percent of total debt payments by 1964 - 1965. (The only long-term loan was for the Volta River Dam Project.)

It is a matter of record that all countries--with the exception of Nigeria--that had a large accumulation of suppliers' credits needed to have their debts rescheduled. Argentina rescheduled in 1957, 1961, 1962, and 1965; Brazil in 1961 and 1964; Chile several times since 1962; Turkey in 1959, 1962, and 1965; Liberia in 1963; Indonesia at various times since 1967; and Ghana in 1966, 1968, and 1970. Nigeria escaped rescheduling because oil revenues--which started to become a significant percentage of the value of exports in 1964--managed to "finance" Nigeria's short-term indebtedness.[18]

In 1968, 14 percent of the net flows of financial resources to less developed countries was in the form of suppliers' credits, and in 1965 service payments for a sample of 36 countries showed 35.1 percent of all debt payments on suppliers' credits.[19]

By 1969, the share of service payments on suppliers' credits in total debt service payments is probably in the 40 to 50 percent range because (a) the 35.1 percent for 1965 did not include the largest users of suppliers' credits such as Indonesia, Ghana, Liberia, and Sierra Leone and (b) net flows of suppliers's credits increased twice as fast between 1965 and 1968 than did other sources of

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[18]Oil accounted for 8 percent of foreign exchange availability in 1963 and 21 percent in 1967. Oil revenue was 3 percent of total revenue in 1963 and 17 percent in 1967. See Scott R. Pearson, Impact of Foreign Private Investment on a Developing Economy: Petroleum and Nigeria. (forthcoming)

[19]Suppliers' Credits from Industrialized to Developing Countries, IBRD, April 1967, Annex V, Table 2.

finance.[20] In spite of these facts, little has been written about this method of financing mostly because of the sensitiveness of the issue and the corresponding lack of available records. Nothing has been written on the Ghanaian experience with suppliers' credits.[21]

The Interest of Industrialized Countries in Suppliers' Credits

In providing suppliers' credits to the less developed countries, the interests of business and government in the developed countries coincided to a significant extent. Businesses in most industrialized countries, by the middle 1950's, increasingly had excess capacity in production of machinery and equipment. Exports provided a fuller and, therefore, more profitable utilization of this capacity. The United Soviet Socialist Republic sold Ghana three expensive jet aircrafts at the time when most of Ghana Airway's international flights had absurdly low load factors. The British firms, Parkinson-Howard, sold Ghana a huge dry dock when the British ship-building industry was in a recession. The dry dock was finally "commissioned" in 1969 and has been standing idle since; the Government appointed a commission to find out what to do with it. Businesses also developed

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[20] Ibid., and Partners in Development, Ibid., p. 378.

[21] A. A. Ayida, "Contractor Finance and Supplier Credit in Economic Growth," Nigerian Journal of Economic and Social Studies, July 1965, pp. 175-188; Scott R. Pearson, "The Political Economics of Nigerian Short-Term Borrowing." Public Policy, ed. by J. D. Montgomery and A. Smithies, Cambridge, Harvard Univeristy Press, 1966, pp. 337-360; Peter Kilby, Industrialization in an Open Economy: Nigeria 1945-1966, Cambridge; Cambridge University Press, 1969, pp. 75-79; (all on Nigeria). Douglas A. Scott, op. cit.,; G. K. Agama, "The Growth of Money and Public Debt in Ghana," 1957-1966, Economic Bulletin of Ghana, 1968, Vol. XII, No. 1, pp. 8-33 (neither of them specifically on suppliers' credits); for general background Sune Carlson and O. Olakanpo, International Finance and Development Planning in West Africa, Institute of Business Studies, University of Uppsala, Sweden 1964; Partners in Development (The Pearson Commission Report), Praeger Publishers, New York, 1969, pp. 118-122.

their own sources of financing, either from retained earnings or from the banking system. At the same time, governments of the industrialized countries, in order to improve their balances of payments, assisted their potential exporters by establishing insurance schemes which, ultimately, led to the rapid increase in the suppliers' credits extended. The largest export credit insurance organization is the United Kingdom's Export Credits Guarantee Department. Other large organizations are the Banque Francaise du Commerce Exterieur and the Credit National for France, Ausfuhrkredit and Kreditanstalt fur Wiederaufbau for Germany, Instituto Nazionale della Assicurazioni for Italy and the respective Export-Import Banks for Japan and the United States.

The emergence of guaranteed suppliers' credits brought forth a new type of entrepreneurial promoter. Mr. Ernest Shinwell used $1.4 million forged securities as collateral for loans issued by the Nigerian Government.[22] He was convicted. By 1968, however, a group organized by Mr. Shinwell was back in West Africa, this time promoting a large-scale intensive farming scheme on the Accra Plains. A tentative agreement was signed but the deal finally fell through.[23] The commercial flirtations, and occasional seductions,

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[22] West Africa, February 6 and 13 and August 15, 1965.

[23] "Safeguarding Ghana," West Africa, February 17, 1968, pp. 177-178. Actually, there were two schemes involved; one was offered in May 1967 ($28 million) and the other in February 1968 ($84 million). Other than the different amounts, however, the proposals seemed to be one and the same; Mr. Shinwell was associated with both schemes.

of this type of entrepreneurial promoter would, no doubt, produce illuminating reading. However, they represented a relatively small proportion of the suppliers' creditors; and we shall move on to the next, and by far the largest group of promoters.

The equipment peddler--the jet-set version of the travelling salesman--accounted for the bulk of the suppliers' credits extended to West Africa, and virtually all of it to Ghana. Frequently, the equipment peddler did not represent one machinery company but any combination he could organize. He capitalized on the existing excess capacity in the industrialized countries and on the economic interests of these countries, and firms therein, to bolster their exports.

The Interests of the Less Developed Countries in Suppliers' Credits

Suppliers' credits have a number of features that recommend them to the less developed countries. Nationalist policies in many less developed countries virtually eliminated the desirability of foreign private direct investment where the countries emphasized control of their economies. Foreign private direct investment was the traditional vehicle for less developed countries to import capital, technology, and management. With such investment "out," suppliers' credits, so it seemed, offered an attractive alternative. In addition, a number of less developed countries embarked on a "socialist" course for their economies, whereas most bilateral assistance programs are not, either by statute or by practice, available for financing public undertakings in those areas where the potential for private alternatives exists. Suppliers' credits not only did not recognize ideologies but--for reasons which will become obvious--favored public enterprises. In fact, virtually all such credits to English-speaking West Africa were extended to public or quasi-public entities; and all such credits in Ghana went to the public sector.

The second important recommending feature was the speed with which a suppliers' credit deal was consummated. As the President of Ghana said, "we need to do in ten years what has taken others a hundred years to accomplish."[24] In this atmosphere of haste, the less developed countries learned that one of the facts of life is that both the multinational financial institutions and bilateral donor agencies take excessively long to finance a project--if indeed the decision to finance is in the affirmative in the first place. (In addition to the delays involved, the procedures in obtaining multilateral and/or bilateral official financing are cumbersome in the overwhelming number of cases.) Moreover, the "costs" of obtaining financing from these institutions is virtually the same for all projects, regardless of size. Thus, a number of LDCs deem these costs burdensome for some small projects. The procedures involved in obtaining suppliers' credits are, alas, anything but cumbersome or time consuming. LDC governments have to compare, though they seldom do, the cost diference between suppliers' credits now, and concessional loans two to four years hence.

Also, multinational and bilateral official assistance is

[24] Kwame Nkrumah, April 8, 1961, Accra, Government Printer.

available generally for financing infrastructure, agriculture, and education; it has generally not been available for financing industrial projects. Countries that were, and are, anxious to industrialize rapidly--however proper or misguided these policies might be, depending on each case--who could not obtain "soft" loans and did not want foreign private direct investment, embraced suppliers' creditors as the answers to their prayers.

In 1967 the IBRD did grant a loan for the building of a potash plant in the Congo (Brazaville). The plant is jointly owned by the Congolese and French Governments. "This was the Bank's first loan to a government-owned manufacturing agency. The Bank is willing to consider financing ventures of this kind provided it is satisfied that they have experienced, efficient management."[25] So far the Bank has still not made any loans to a manufacturing facility fully owned by an LDC Government. Indirectly and theoretically, some of the donor countries did get involved in financing industrial enterprises in Ghana. The provisions of most of the loan agreements, negotiated after the coup of 1966, allowed the Ghana Government to relend to both public and private institutions some variable proportion of the aid granted for balance of payments support. The stipulation in the bilateral aid agreements was that apart from those cases where the terms of the relending were explicitly specified--that the relending has to be on terms less favorable than those granted to the Government. A Government directive, issued in 1969,

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[25]World Bank, <u>Annual Report</u>, 1966-67, p. 13.

stated that public sector, mixed (public and private), and private enterprises in manufacturing and commerce can obtain loan funds at interest rates ranging between 5 to 7 percent with the period of repayment negotiated separately for each project. Actually, the loanable funds thus relent went to state corporations providing public utility and the like, i.e. Electricity, Water, the Volta River Authority and the Public Works Department and none went to public sectors manufacturing enterprises.

In the euphoria of development, suppliers' credits also represented supplemental budgetary allocations. Ministries that were "held down" in their budgetary expenditures by respective Finance Ministries discovered that they could obtain supplementary funds by contracting suppliers' credits. In Ghana, for instance, for a time neither the Ministry of Finance nor the Bank of Ghana knew the volume of suppliers' credits that had been contracted for. In 1964, the Government appointed a Committee to examine the country's foreign indebtedness. The Committee concluded in its findings that "the official estimates of the debts were grossly understated" and that there was "lack of effective coordination in the administration of contracts under suppliers' credits and the absence of adequate records of these contracts."[26] This finding is in contrast with a previous undertaking which stated that "The Government has no intention of borrowing from overseas sources in excess of her capacity

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[26] Report and Financial Statements by the Accountant General and Report therein by the Auditor General for the Year ended 31 December 1964, Ministry of Information, Accra, 1967, pp. 5-6.

to service all loans in accordance with the terms of any loan agreements concluded, and we would be pleased to exchange views with the Bank from time to time regarding the level of Ghana's external debt in relation to her prospective capacity to service such debt."[27]

Finally, the potential for graft under suppliers' credits was impressive and, compared to other forms of financing, truly phenomenal. This was, of course, recognized and officially noted.

"In order that our resources are not wasted by corrupt practices and in order to prevent any attempts at personal greed and aggrandisement at the expense of the people and the State, steps will be taken to ensure that no contractor shall offer or give to any person in the service of the Government of Ghana any gift or consideration of any kind as an inducement or reward for doing any act in relation to the obtaining or execution of any contract for the Government of Ghana.

"We shall also see to it that no contractor shall enter into any contract with the Government of Ghana in connection with which a commission has been paid or agreed to be paid by him or on his behalf.

"Any breach of these conditions shall entitle the Government to determine any contract, and recover from the contractor the amount of any loss which may have resulted from such determination and the amount or value of any such gifts, consideration or commission."[28]

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[27]Volta River Project Agreements, IBRD, Washington, February 8, 1962.

[28]Speech by Nkrumah on Launching the <u>Seven-Year Development Plan</u>, <u>op</u>. <u>cit</u>., p. xix, Abbreviated.

The "Arrangement"

The equipment peddler sells the equipment and the buying country--all of Ghana's suppliers' credits went to public entities--contracts to repay the price of the equipment over a period of time. The peddler, then, obtains a credit from private banks and has it guaranteed by his own country's governmental export credit insurance organization. Once this is accomplished, any future financial dealings that the less developed countries governments have are not with the equipment peddler but with the exporting country's credit insurance organization.

The financial terms of these arrangements vary from case to case. A "prototype" case would have an interest rate of 5.5 percent; ostensibly a soft loan. More likely than not, however, the interest is charged on a flat rate; i.e., the 5.5 percent interest is payable not on the reducing balance but on the original loan. This raises the actual interest charges of the 5.5 percent nominal rates to almost 9.0 percent. While this is no longer a "soft" loan, it is probably still lower than the domestic opportunity cost of capital in Ghana. There are also other finance charges, including the cost of obtaining the export guarantee for the suppliers' credits; at this point the total interest-finance charges are quite high compared to other foreign financing available but probably still below, now only slightly, the opportunity cost of capital.

In a "prototype" case, Ghana paid 10 percent as a down payment upon signing the contract and another 15 percent when the project actually began. The length of the suppliers' credits generally ranged from four to six years. The suppliers' creditors have taken no equity position whatever in any of the projects so financed.

The "sleeper" in the deal was the price and quality of the equipment. "Cases were reported to the Commission involving price adjustments exceeding 100 percent of the world market prices. These are presumably rare, but smaller adjustments are understood to be common."[29] The quote speaks for itself; for Ghana the only general observation that might seem to be in order is that 100 percent "adjustments" did not seem all that rare. A Ghana Government investigation reports that the British firm, Parkinson-Howard, which built the Accra-Tema Motorway, Tema Harbor Extension, the Dry Docks, the Steelworks among other projects, paid between 1958 and 1963 a total of $680,000 in three installments to certain Ministers. The report observes that "we cannot feel satisfied that the fact that they (Parkinson-Howard) had to make a contribution to the Convention People's Party did not influence the price which they quoted for the various projects they carried out in this country."[30]

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[29]The Pearson Commission Report, op. cit., p. 119.

[30]White Paper (Apaloo Report), Republic of Ghana, Government Printing Office, Accra, January 14, 1967. Commenting on the Apaloo Report, Parkinson-Howard stated that "these payments were only made after the contracts were awarded to the firm, and there was no collusion or pressure involved." "British Firms and Nkrumah," West Africa, January 28, 1967, p. 118.

The implication of these price adjustments and the quality of the equipment sold will be discussed subsequently.

Probably the most characteristic feature of the "arrangement" is that it is a completely closed deal. The equipment peddler prepared the feasibility study--in those cases, that is, where feasibility studies were prepared at all. He chose the technology, determined the size of the plant, and, of course, the source and nature of the equipment. Obviously it was also he who arranged the financing. If a financial advisor was needed, he found one. If technical advice was needed, he found that too. After the project was completed, he provided the managing agent to operate the plant. Management agreements in Ghana were based either on a flat fee or tied to sales; not to profits. Finally and importantly, the management contracts had clauses requiring the agent to purchase raw materials and spare parts at the lowest competitive prices. A sample of the purchasing practices of the managing agents indicate that it seems unlikely that all raw materials and spare parts were obtained at the lowest competitive price. Thus the enterprises--financed by suppliers' credits--were not only saddled with high capital charges and management fees but with high operating costs as well.[31]

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[31]The "closed" nature of the deal was further improved upon in the Mid-west Region of Nigeria. There the regional government signed suppliers' credits contracts for 3 factories for about $28 million. The agreements were all drawn up in German; until English translations were obtained some time later, the government had to rely on verbal translations made by the representatives of the firms. "Contractor Finance-German Firms," West Africa, May 13, 1967, p. 619.

The potential graft in the above arrangement need not be spelled out. There was, however, an additional source of overcharge and graft, namely in the civil engineering works associated with the various projects. This aspect is not necessarily tied to the sale of equipment but it fits in well with the general frame of mind in which the suppliers' credits deals have been concluded. Office blocks, executive bungalows, access roads, warehouses, and landscaping were, by and large, built well in excess of commercial requirements. It is a rule of thumb in the industrialized countries that the value of assets of productive equipment plus the factory building and the value of the non-productive assets (office blocks, etc.) are in a ratio of 2:1. A sample of Ghanaian public manufacturing enterprises revealed a reverse ratio (1:2). This is costly not only in terms of local currency but--as construction has a high foreign exchange component--also costly in terms of foreign exchange.

The cost was also inflated by the lack of proper timing in many industrial projects. "...when the respective contracts for the delivery of machines were signed, the execution of the civil engineering aspects was not vigorously pursued. The result of this has been that in some cases machinery has arrived and is being stored in Ghana and in other cases shipments of the machinery have been suspended at the request of the Ministry (of Industries), and this has given rise to claims from the suppliers of machinery in respect of storage and also for reconditioning some of the items."[32]

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[32]Economic Survey, 1964, p. 85.

All these charges have been added to the capitalization of the enterprises.

Concerning the quality of the equipment, it differed from arrangement to arrangement. Sometimes it was new, other times it was not. Sometimes it incorporated the latest technology, usually it did not--yet the price did imply such technology. Sometimes the plant was well laid out; frequently, it had various bottlenecks as the capacities of integrated stages of production varied.

Projects financed by the USSR and the Eastern European countries were on a "turnkey" basis. The "turnkey" job has many similarities with the standard suppliers' credits arrangements but also some differences. "Turnkey" jobs did not involve management agreements. Payments frequently were on a barter trade basis; i.e., cocoa for equipment. Aside from the barter-trade terms, "turnkey" projects were financed with a maturity of ten to twelve years and interest charges of 2 to 3 percent. The down payments were very high, however; in some cases as high as 30 percent. About 20 percent of Ghana's short- and medium-term credits were provided by the USSR and Eastern European countries. The rest originated in Western Europe.

SOVIET BLOC SUPPLIERS' CREDITS TO GHANA
(millions of dollars)

USSR		56.0
China		7.0
Czechoslovakia		22.4
Poland		12.6
Hungary		3.5
East Germany		2.4
Romania		2.4
Yugoslavia		21.0
	TOTAL	127.3

SOURCE: West Africa, April 1, 1967, p. 431.

The "Real" Cost of Suppliers' Credit

Probably the major cost involved in suppliers' credit is that, by and large, the decision as to which project should be built and financed did not rest with the less developed countries' government, or in the case of Ghana with that Government, but with the equipment peddler. Ghana Government in the early 1960's, when it embarked on its industrialization program, did not have clear priorities based on an analysis of comparative advantage and abundance of certain of its resources. It did have, however, rather vague ideas of industries that were suitable for Ghana, based on some studies made by the Industrial Development Corporation established in 1948. However, when it came down to project selection, the initiative--under the suppliers' credit arrangement--rested with the equipment peddler. His primary motivation was not to examine whether or not the particular industry was suitable for Ghana but rather whether or not the firms the equipment peddler represented had excess producing capacity and, therefore, interest in exporting that equipment. While it is difficult to say to just what extent the Ghana Government or the equipment peddler was responsible for the selection of, frequently unsuitable, projects, circumstances point to the likelihood of a prominent role by the equipment peddler.

The "real" costs of the suppliers' credits were both in local currency and in foreign exchange; it was the latter, however, which repeatedly produced the balance of payments crises and reschedulings. The rationale for borrowing is that the loans will earn more than the interest on them. This truism pre-supposes that the loans will be put to viable use. The description of the "arrangement" indicates that such a supposition, generally, did not prove to be correct. (Another factor, not taken into account in the calculations was the "learning curve" on industrialization; i.e., that it has taken in Ghana, on the average five to six years to bring a publicly-owned plant into a "break-even" position after it was commissioned.)

However, even if the particular plant proved to be profitable in local currency, it did not have the ability to earn foreign exchange in sufficient quantities to repay the suppliers' credits. Actually, some projects had negligible or negative foreign exchange earning capacity. The particular industrial project can earn foreign exchange by either reducing imports--at competitive prices, or if the currency is overvalued within the shadow price of foreign exchange--or by increasing exports. Repayment capacity will also depend on the linkages, if any, that the project creates. If the longer-than-in-the-industrialized-countries "learning curve" is coupled with the linkage effect it will be obvious that the longer the loan maturity the better it is for the less developed countries.

The secondary effects of the difficulties that arose from the suppliers' credits were not only that the local currency losses represented a call on the Treasury thus resulting in the postponement of other, worthwhile investments, but that, in terms of foreign exchange, excessive use of suppliers' credits reduced Ghana's access to long term funds; funds that would have been made available on concessionary terms. (Not for industrial projects though.)

Moreover, the mechanics of the suppliers' credits in Ghana added both to the domestic inflationary pressure and to the balance of payments difficulties. It will be recalled that prior to 1965, suppliers' credits were used by the various Ministries to supplement their budgetary allocations; they were not included in the budgetary estimates. Local currency funds had to be allocated--to complement the suppliers' credits--funds that helped to create large and persistent deficits in the budgets. As in Ghana all projects financed by suppliers' credits were either not directly productive or, where they were meant to be productive, had long gestation periods--these deficits had considerable inflationary effect. Since part of the purchasing power thus generated was spent on imports, the secondary effect of the local currency budget deficits was a further deterioration in the balances of payments.

Some Ghanaian Reactions to the Development of Suppliers' Credits in Ghana

The President of Ghana stated that "it amazes me that up to the present many civil servants do not realize that we are living in a revolutionary era. ...Civil servants, therefore, must develop a new orientation, a sense of mission and urgency."[33] What some civil servants actually realized was a sense of alarm at the size and nature of Ghana's foreign indebtedness. Foreign liabilities are "placing a large foreign debt service on the resources of the nation and the government especially as most of the projects for which the suppliers' credits were taken have not yet come into production. It

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[33] Kwame , Nkrumah, *op. cit.*, April 8, 1961.

appears that what the government needs now are not suppliers' credits but really long-term soft loans to enable it to carry through its projects under the Seven-Year Plan."[34] And a year later,"...there is a strong case for being selective on which projects to utilize suppliers' credits. Projects of physical and social infrastructure which take a long time to bear directly on the economy require very soft loans with repayment over a minimum of ten years. Unfortunately, this is the type of loan of which very little use has been made in Ghana."[35] The last full year of the Nkrumah period was described as follows: "...It is apparent that not much preparatory work went into these projects on which suppliers' credits were utilized with the result that even on the industrial and agricultural projects, it has not been able yet to obtain satisfactory returns that will enable the Government to honour its contractual obligations with the minimum of disturbance to the Government's finances."[36] Politicians and members of Nkrumah's Government were more ambivalent on suppliers' credits. In 1963, the Minister of Finance noted in the Parliament that "over the past three years, it has become obvious that there has been little coordination on our development front--with the result that much time is wasted, projects are not sufficiently processed on our part before contracts are signed and sometimes projects have cost substantially more than they need have done."[37]

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[34] Economic Survey, 1963, p. 38.

[35] Economic Survey, 1964, p. 31.

[36] Economic Survey, 1965, pp. 28-29.

[37] Mr. F. K. D. Goka, 1963-64 Budget Statement, Republic of Ghana, Accra, 22nd October, 1963, p. 8.

Two days before Nkrumah was ousted, the Minister of Finance reported that "one of the greatest sources of the present pressure on foreign exchange resources has been the extremely short-term nature of most of our external debt."[38] On the other hand, there was extreme reluctance to cope with specific measures on the suppliers' credits. Because of the pressing foreign exchange situation, Ghana Government in 1965 invited an IBRD-IMF team for discussions on possible assistance. One of the measures the IBRD-IMF team recommended was the suspension of the construction work on a system of cocoa and grain silos. To this the Minister of Finance reacted: "...the World Bank is just in the process of approving a soft loan for the construction of silos in Pakistan. Yet the World Bank experts denounce our silos construction programme in Ghana. We find it extremely difficult to reconcile these two attitudes."[39] (The whole complex of contracts with Messrs. Drevici & Company, including the silos, were canceled in early 1970 because, it was alleged, the signing of the original contracts were accompanied by tainted practices.[40])

In the meantime civil servants in Nigeria also had considerable apprehension concerning the suppliers' credits financing of industrial development which they specified as follows: "Where the project fails, the foreign investor can fall back on the Nigerian Government

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[38]Mr. K. Amoako-Atta, <u>1966 Budget Statement</u>, Republic of Ghana, Accra, 22nd February, 1966, p. 21.

[39]*Ibid.*, p. 22.

[40]"Towards Economic Independence," *Legon Observer*, 13-26 February 1970, pp. 1-2.

guarantee and take the next available plane back to his country before looking for his next victim, another developing country anxious to industrialize very quickly."[41]

Reviewing the Ghanaian and Nigerian experience with suppliers' credits and referring to the introductory part of the paper where it was shown that this method of financing was concentrated in a relatively few countries, the question arises as to why have some

excessive use of suppliers' credits all had--at the beginning of this financing exercise--"reserve" resources or ability to pay. Ghana, Nigeria, Liberia, Sierra Leone, and Indonesia had, at the time of their gaining independence--Liberia, of course, was always independent--foreign exchange reserves which could be used to finance development. These Governments wanted to put their reserves to productive use, and the equipment peddlers in the industrialized countries recognized these countries as markets of considerable potential. Also, at least some of the countries, notably Ghana and Indonesia, had a negative view of foreign private direct investment.

The move from the judicious use of suppliers' credits to their excessive use can be "explained" by economies of scale. From the less developed countries governments' points of view, the section on the interest of these countries in this form of financing will have to be recalled. Two features are particularly relevant; their

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[41] National Development Plan Progress Report 1964, Federal Ministry of Economic Development, Lagos, 1965, p. 20.

use as supplemental budget allocations and the potential for graft. If Minister A used suppliers' credits to supplement his budget, and, possibly, benefited personally from signing a contract, Minister B did not want to stay much behind. 'Economies of scale' were even more evident from the industrialized countries' and the point of view of the suppliers' creditors.

A good illustration of these "economies of scale" can be found in Sierra Leone.[42] A Commission of Inquiry was concentrating on five suppliers' credits projects; four of the five were financed by Dizengoff (West Africa), an Israeli firm. (The fifth was a Swedish-financed shoe factory.) The four Dizengoff-financed companies represent a heterogeneous group:

Project (Year signed in parentheses)	Original	Cost as of April, 1969
	(millions of dollars)	
Freetown oil refinery (1962)	4.2*	10.5
Lumbey Beach Hotel (1964)**	1.4	2.1
Cement Works (1963)***	.5	2.1
Metal Assembly (1964)	.3	1.0****

*A Shell proposal, which was rejected

**Hotel was never opened

***The factory was closed down in early 1970

****Includes accumulated losses

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42 "The Contractor Finance Burden," West Africa, April 12, 1969, pp. 422-423.

By far, the largest two Western European creditor countries to Ghana were the United Kingdom and Germany; the British accounted for about 40 percent of all suppliers' credits. The largest United Kingdom equipment peddler was Parkinson-Howard, which built many infrastructure projects and the Steelworks.[43] The largest German equipment peddler was STAHLUNION; it alone built five of the 13 public manufacturing enterprises (Paper Conversion, Vegetable Oil Mills, Cocoa Products, Glass Manufacturing and Meat Processing.) The Dutch built two (Paints and Electronics); and the Eastern European countries, three enterprises consisting of six plants (Footwear, Sugar Products; two plants and Canneries; three plants.) Finally, Messrs. Drevici and Company signed suppliers' credits contracts in Ghana totaling $196 million. Once an equipment peddler learned his way around a less developed country's government, it was easier for him to obtain additional contracts. Likewise, it was easier for him to obtain the loan guarantee from his governmental export credit organization.

Some Safeguards and Solutions Re: Suppliers' Credits

Given the nature of the "arrangement" and the motivations of the equipment peddlers, the industrialized countries' export promotion organizations and the less developed countries' governments, the designing of adequate safeguards is very difficult and, possibly, impossible. The "solution" suggested below minimizes admonition and the "requirement" to disregard the profit motive. It also suggests, that in

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[43]"British Firms and Nkrumah," loc. cit. See also "Contractor Finance--German Firms," (In Nigeria), loc. cit.

the final analysis, it is only the learning experience of the less developed countries with suppliers' credits that will lead to their more judicious use. It assumes that the main problem is the weakness of investment planning and sanctioning process in their public sector.

Theoretically, the excessive use of suppliers' credits can be checked at (a) the level of the equipment peddlers and/or the governmental export insurance organizations, (b) at the level of multinational organizations concerned with development assistance, i.e., IBRD, IMF and/or OECD and (c) at the level of the less developed countries' governments. Solutions at the level of (a) can be given short shift. It is too much to expect from the equipment peddler that he should not be guided by "the invisible hand of his own enlightened self-interest." As far as the governmental export insurance organizations are concerned, it has only to be pointed out that "a number of departments and agencies have competing interests and responsibilities in the (development) area...."[44] In the case of Ghana, the United Kingdom's Export Credits Guarantee Department was the largest insurer of suppliers' credits. Yet at the same time the Commonwealth Development Corporation, cites as the reason for the disappointing economic performance in West Africa "the methods of some overseas promoters of projects which were not such as to lead to the establishment

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[44] U. S. Foreign Assistance in the 1970's: A New Approach, Report to the President of the Task Force on International Development, March 4, 1970, Washington, D. C., p. 34.

of sound undertakings"...and..."often enjoyed enough success to damage the chances of adoption of more honestly conceived schemes."[45] Such lack of coordination between aid and trade is characteristic of most industrialized countries and not only of the United Kingdom and the United States.

The lender has to consider the possibility that the original repayment aspect of the loan will not be honored and that the debt payments will be rescheduled--as indeed happened in Ghana. This, however, represents a cost to the governmental export credit insurance organizations and not to the suppliers' creditors. The latter do get paid on schedule, regardless of the reschedulings. It is a matter of conjecture whether or not the added cost of reschedulings to the export credit insurance organizations will bring about a more judicious application of the granting of guarantees than has been the practice hitherto. One of the reasons, if not the main reason, for guaranteeing suppliers' credits is that it promotes exports. However, by driving a number of countries to the verge of bankruptcy, the future export possibilities to these countries have been curtailed. The policy of the export credit organizations can, therefore, be deemed shortsighted. However, it is shortsighted for all industrialized countries together, and not necessarily for each country. For instance, had the British exercised some restraint in the case of Ghana and Nigeria--as they have not--what would have been the attitude of, say, the Germans? _Ex post_, the British must have decided, assuming

[45]_Annual Report_ for 1966, London, 1966.

that such an analysis ever took place, that if they were to exercise restraint other creditors would step forward. Whether or not they would have is a matter of speculation; what is not is the fact that through these policies, export opportunities to the aggregation of industrialized countries have been lost.

The role of the multinational agencies in checking the excessive use of suppliers' credits is emphasized by the Pearson's Commission. "We recommend a strong 'early warning system' based on the external debt reporting which is being evolved by the OECD and the World Bank."[46] Taking the Ghana experience as a guide, such an early warning system is not likely to prove operative. There is a minimum of two years' lag in the OECD reports on suppliers' credits. The World Bank study, previously mentioned, did not have data for some of the major suppliers' creditors countries. Even more relevant is the fact that, as shown earlier, Ghana Government itself did not know its total foreign indebtedness and, in 1964, had to appoint a Committee to find out what these obligations were. All of these virtually are inherent in the nature of the "arrangement" and the speed with which the deals can be closed. Thus, it is easily conceivable that sizable suppliers' credits can be accumulated within a relatively short period of time and well before the World Bank's and/or the OECD's "early warning system" would pick up the danger signals of impending foreign exchange crises.

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[46]Partners in Development, op. cit., p. 121.

One area where multinational agencies may play some role is in the "harmonizing (of) terms of suppliers' credits, because of inequities, i.e. hard terms of some donors pre-empt the debt servicing capacity of recipients at the expense of other donors that have provided assistance on soft terms."[47] Even in this area, however, because of the already mentioned competing interests of the lending countries and the competing responsibilities of various agencies within each country, such harmonization has proven difficult and these difficulties are likely to persist.

A partial solution, suggested below, might lie in a new type of cooperation between, say, the World Bank and the LDC governments. To understand this suggestion, some of the main attractions of the suppliers' credits to the LDC governments will have to be recalled, i.e., (a) they were available--to supplement or supplant foreign direct private investment and because they World Bank did not, and does not, finance industrial projects--and (b) the speed with which the "arrangement" could be finalized. Ideally, of

would be the answer. Considering the fact, however, that the IBRD does not engage in such financing and even in those fields where it is a traditional financer--infrastructure, agriculture, and education--it takes an inordinate amount of time to finalize a loan, the practicality of the "ideal" solution could be ruled out.

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[47]Robert M. Stern, "International Financial Issues in Foreign Economic Assistance to the LDC," in Economic Development and Structural Change, (ed. Ian G. Stewart), Edinburgh University Press, 1969, p. 56.

The suggested solution, which places the main burden on the LDC Governments, is as follows. The World Bank should consider issuing industrialization loans, at concessionary terms and of long maturity. These should not be loans for specific industrial projects but rather loans for overall industrialization. In this respect, they would more likely resemble program loans of some bilateral donors instead of the standard project loans of the World Bank. The LDC Governments should be urged to put up local currency equivalent, or some other portion, to cover the domestic resource requirements of the industrialization program. The industrialization loan should stipulate only that (a) whoever prepares the feasibility report should not build the plant or provide the financing,(b) whoever builds the plant should not be allowed to provide the financing, and (c) the LDC governments should be required to obtain at least three offers of feasibility studies, three offers on the equipment, and three offers on the financing. (On (c) apparently India and Yugoslavia have had some successes.) There should be no stipulation that the World Bank must be one of the consultants at any one of these stages; each country would, of course, be free to call on the IBRD if it so wishes. Moreover, the primary burden on the design and execution of the industrialization program, the determination of industrial priorities and the methods of implementation should rest with the LDC governments and not with the IBRD. The solution offered above is, alas, not a banker's dream. Nor is, however, the excessive use of suppliers' credits. Given these alternatives--and the fact that reforms in the "arrangements" are difficult to foresee and the use of this method of financing is hard to limit--the granting of soft loans by the IBRD to the LDC's for industrialization seems preferable.

In the final analysis, however, the only solution lies in the LDC governments' gaining experience with the selection, building, financing, and operating of industrial projects. Policies that strengthen the governmental budgetary processes should be pursued by the LDC's and encouraged through the multinational and bilateral donors. (The nature of the program of industrialization loans would assist this process.) It is still possible for experienced agencies and managers to accept reasonable proposals and for the sum of the total repayments to exceed the country's foreign exchange availability, as happened in India. If each public and private credit has to be recorded in time-phased order, and be approved, so that forward foreign exchange and domestic outlays conformed with the budget, such overruns can be minimized. In a tight foreign exchange situation, plant or agency managers and foreign exchange management need experience; and there are, unfotunately, few shortcuts to gaining such experience. It is encouraging to note that, so far, all the countries that experienced balance of payments crises due to excessive use of suppliers' credits have either made no further use of such credits or did so on a selective basis. This is partly due to the fact that those countries were in no position to assume additional debts though some clearly were. It is due, one likes to think, mostly to the fact that the lessons of the experience left their impact on the economic policy makers. In Ghana, for instance, even if economic conditions were to improve rapidly, it is inconceivable that the repetition of the 1960-1965 experiment could occur in the foreseeable future. In the final analysis, it is that intangible called "good" Government, agency or project management, i.e. the policy environment rather than the strict economic calculus, which determines the economic returns to be realized from foreign borrowings.

Table I

Net Change in Guaranteed Private Export Credits by Region
(Millions of U.S. Dollars & Percentages)

	1960	1961	1962	1963	1964	1965	1966	1967
Africa-North of Sahara	6.09	12.44	91.67	22.42	112.50	74.60	50.81	20.47
	(1.6)	(2.4)	(16.6)	(5.2)	(17.3)	(14.0)	(5.8)	(2.1)
South of Sahara	57.85	24.42	89.40	99.96	192.23	177.41	177.09	246.34
	(15.3)	(4.7)	(16.2)	(23.4)	(29.4)	(33.2)	(20.4)	(25.1)
South America	180.90	333.44	290.94	106.72	-37.73	-42.34	147.44	46.76
	(47.8)	(63.8)	(52.8)	(25.0)	(-5.8)	(-7.9)	(16.9)	(4.8)
Central America	85.83	64.91	8.80	76.76	124.17	33.12	97.87	160.39
	(22.7)	(12.4)	(1.6)	(18.0)	(19.0)	(6.2)	(11.2)	(16.3)
Asia-Middle East	48.23	11.22	9.53	28.95	-32.66	-1.28	90.09	252.54
	(12.8)	(2.1)	(1.7)	(6.8)	(-5.0)	(-0.2)	(10.3)	(25.7)
South	-70.68	-69.13	3.10	-19.41	115.19	73.04	143.39	128.94
	(-18.7)	(-13.2)	(0.6)	(-4.5)	(17.7)	(13.7)	(16.4)	(13.1)
Far East	69.92	144.94	57.62	111.89	178.37	219.54	164.93	126.26
	(18.5)	(27.8)	(10.5)	(26.1)	(27.4)	(41.0)	(19.0)	(12.9)
TOTAL	378.14	522.24	551.06	427.29	652.07	534.09	871.62	981.70

SOURCES: Geographical Distribution of Financial Flows to LDCs, 1966 - 1967, OECD, Paris, 1969, pp. 88-91; for 1965, op. cit., OECD, Paris, 1967, pp. 64-67; and for 1960 - 1964, op. cit., OECD, Paris, 1966, pp. 172-175. Includes credits guaranteed only by OECD Member Countries and thus excludes credits from the USSR and other members of the Soviet Bloc.

Table II

Net Change in Guaranteed Private Export Credits by Countries of South of Sahara Africa
(Millions of U.S. Dollars)

	1960	1961	1962	1963	1964	1965	1966	1967
French Franc Area	7.63	7.07	6.71	6.93	39.69	48.02	35.40	19.51
Portugese Overseas Prov.	7.51	-4.74	1.95	2.16	0.83	4.90	4.06	3.76
Congo	1.69	1.60	-0.15	0.19	13.41	11.08	7.65	-3.96
Ethiopia	1.45	-0.56	6.76	5.35	11.99	0.08	5.81	14.28
Kenya	9.25	0.52	4.41	-2.48	-4.87	7.30	42.74	36.11
Zambia	-	-	-	0.02	7.48	-	27.03	20.73
Liberia	-1.49	2.93	6.32	7.82	-3.21	3.56	-0.67	182.01*
Nigeria	1.55	5.00	10.11	28.22	51.13	53.61	17.37	-18.63
Sierra Leone	0.02	3.42	0.35	2.32	0.45	8.66	2.23	6.24
Ghana**	5.55	14.45	40.59	45.29	69.24	21.50	-8.56	-9.35

* - In 1967 Japanese export credits to Africa-South of the Sahara were $180.89. Most of this went to Liberia for tankers of flag-of-convenience lines of Liberian registry.

** - The Ghanaian total grossly understates the suppliers' credits. Excluded are from the above total all credits from the USSR and other members of the Soviet Bloc. Also excluded are the contracts signed with Messrs. Drevici & Co. which were not guaranteed. The total value of these contracts was about $196 million.

SOURCES: Same as previous table.

Table III

Net Flows of Financial Resources by Category to LDCs
and Multilateral Agencies
1960 and 1968
(Percentages)

		1960		1968
Official disbursements	61.0		54.2	
Official Development Assistance		58.0		50.4
Other Official		3.0		3.8
Private Investment & Lending	39.0		45.8	
Direct Investment*		24.5		21.8
Bilateral Portfolio		5.4		5.7
Multilateral Portfolio		2.5		4.7
Export Credits**		6.6		13.6
TOTAL FLOW		100.0		100.0

* In 1966 - thw last year for which the breakdown is available - 74% of the total direct investment was in petroleum.
**- The coverage of nonguaranteed export credits is not complete.

SOURCE: Computed from Partners in Development, (The Pearson Commission Report), Prager Publishers, New York, 1969, Table 15, p. 378, and Table 12, p. 375

APPENDIX

Loan Maturity Length and the Learning Curve

We will attempt to illustrate via hypothetical examples some of the important aspects of typical suppliers' credit arrangements as they occurred in Ghana during 1961-1965. In these examples we assume that the criterion for investment in publicly-owned manufacturing enterprises is that, given a time-horizon chosen by the investor, the decision to invest should be made only when the present value of the inflows from the project are at least as great as the present value of the investment when these streams are discounted at a rate approximating the cost of capital or the "required" rate of return.

The prototype case of suppliers' credit had a nominal interest rate of 5.5 percent. (However, interest was most often charged on a "flat rate" bringing the actual rate up to between 8.5 percent and 9.0 percent.) In promoting the short-term suppliers' credits, the "saving on interest" argument was occasionally used.

Amount of $1 million at 5.5% per annum

Maturity (years)	Total Disbursement* (capital and interest)
5	1,170,000
10	1,328,000
15	1,490,000
20	1,673,000
25	1,865,000
30	2,060,000

*equals annual installments with interest charged on the declining annual balance

Looking at total disbursements, it is evident that the shorter the maturity of the loan, the smaller the disbursements are. In terms of the investment criterion described above, however, the present value of a stream of payments in 5- and 30-year periods, both discounted at 9.0 percent is as follows:

Present value of annual payments over** $	
5 years	30 years
237,000	97,000

**declining balance repayment schedule

Assuming that the government agency that borrowed on suppliers' credits has had opportunities to invest at rates of return at least equal to the rates of interest being charged, the interest rate is (more than) offset by the time value of money. The longer term repayment is no worse, in present value terms, than the shorter term. When the difficulties of publicly-owned enterprises in LDC's in reaching profitable levels of operation are considered, it becomes highly likely that loans of longer maturity are preferable.

As described in the paper, (p. 22) the "prototype" investment in Ghanaian public sector manufacturing enterprises seems to have been divided in reverse proportion to the ratio used in industrialized countries, i.e., two-thirds of the investment went into non-productive assets and only one-third into productive machinery and equipment. The effect of this reverse distribution on the apparent viability of these enterprises has been profound and the implications will be analyzed at the end of the Appendix.

The interaction between the short maturities of the suppliers' credits and the fact that in Ghana, Nigeria, and Sierra Leone, it took at least three and, on the average, about five to six years to bring publicly-owned manufacturing plants into profitable operations is examined below. Reaching a level of profitability in three to six years is, actually, a generous assumption because in the early years of a project the cash income was, on the whole, negative. In the following calculations, these losses through the end of the third and/or sixth year are ignored.

In the table below, we show the relation between a five-year loan of $1.0 million and the average net cash inflows necessary to bring the present value of the inflows into equality with the present value of the $1.0 million investment within three different time horizons.

Present Value of Inflows[1]

Net Cash (Net Profit and Depreciation)

Year	10-year maturity	7-year maturity	5-year maturity
1	0	0	0
2	0	0	0
3	0	0	0
4	)	)	)
5	)	)	) 1.358
6	)	) 2.502	
7	)	)	
8	) 3.886		
9	)		
10	)		

10-year maturity $\frac{1,000,000}{3.886}$ = $257,000 p. a. net cash inflow required years 4-10

7-year maturity $\frac{1,000,000}{2.502}$ = $400,000 p. a. net cash inflow required years 4-7

5-year maturity $\frac{1,000,000}{1.358}$ = $735,000 p. a. net cash inflow required years 4-5

[1]The average flows are determined by taking the interest factor for the present value of an annuity for years 4 to the end of the time horizon and dividing it into the total investment to give the flow needed to bring net present value to 0. We used a discount rate of 9.0 percent in the illustration; higher rates would increase the required cash flow.

The net cash inflows required for the ten-year time horizon represents an approximate net profit after tax of some 13 to 14 percent of total assets.[2] When it is considered that in Ghana, the ratio of productive to non-productive assets is reversed, thereby halving the capacity to generate the net cash inflows required, the virtual inevitability of failure by the public sector manufacturing corporations is readily explainable.

The net cash inflow required to retire the loan is equally sensitive to the number of years it takes for the enterprise to reach the net cash inflow earning stage. Assuming that everything in the previous illustration stays constant--except that the firm will generate positive net cash inflows in the fifth, rather than the fourth, year--the situation is as follows:

Net Cash Inflows Required Per Annum

10-year maturity Positive inflow in Fourth year	 Fifth year	7-year maturity Positive inflow in Fourth year	 Fifth year
$257,000	$313,000	$400,000	$555,000

In order to make our illustrations independent of the abuses, which marked suppliers' credits arrangements in Ghana, Nigeria, and Sierra Leone in the early 1960's, we intentionally did not consider the financial consequences of the overcharge on equipment, though these were characteristic features of the deals and are described on pp. 20 and 21. The burden of our argument here is that--even without the overcharges and other abuses--the superimposing of high cash outflows requirements associated

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[2]Assuming depreciation to be $120,000 per annum from the fourth year on. "Productive" assets depreciated at 15 percent, "non-productive" assets at 5 percent.

with short-term loans on the enterprises during the period in which the "learning curve" was still flat and the earning capacity" negative, nil, or low presented these enterprises with insurmountable problems.

Net cash inflows in the above illustrations are expressed in domestic currency while repayment of loans is in foreign currency. A firm's ability to earn profit may, or may not, be commensurate with its ability to earn foreign exchange. The latter depends on the net foreign exchange saving, if any, of its operation. The five to six years' "learning curve" assumes that for the first four years the enterprise will operate at low, or less than optimal, capacity. This assumption is supported by capacity utilization data available for Ghana, Nigeria, and Sierra Leone. Also, many of these enterprises are capital intensive and, therefore, low capacity utilization means foreign exchange loss. While it would be possible to present some further hypothetical examples--with the use of a series of additional assumptions--at this point it should suffice to state that the ability of the public sector manufacturing corporations to save foreign exchange was no greater than their ability to earn profits in their domestic currencies.