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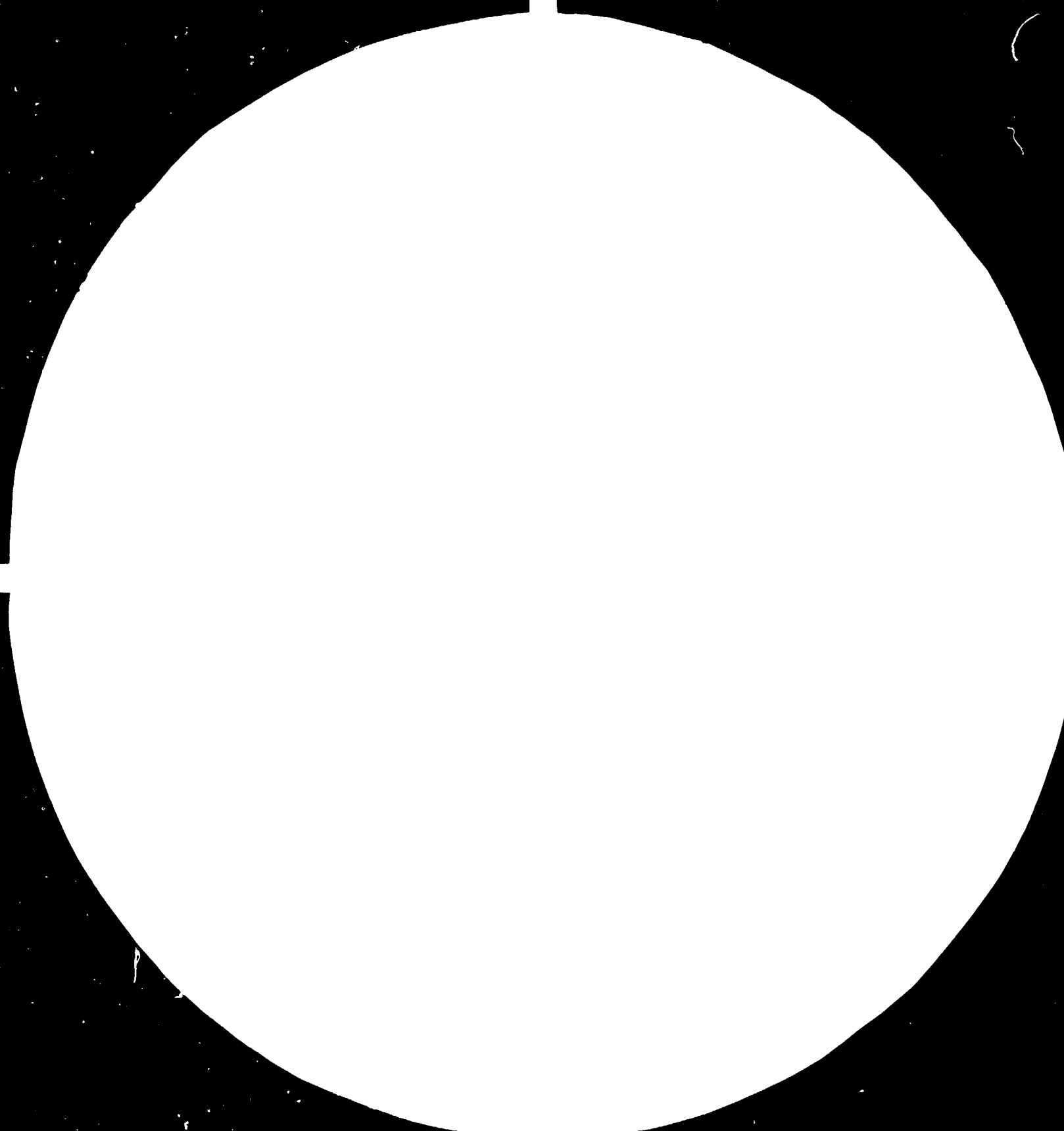
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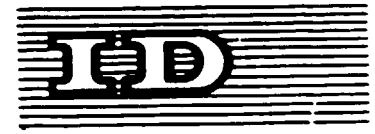




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NATIONAL BUREAU OF STANDARDS
STANDARD REFERENCE MATERIAL 1010A
(ANSI and ISO TEST CHART No. 2)



14639-E



Distr.
LIMITED

ID/NC.439/4
13 May 1985

ENGLISH

United Nations Industrial Development Organization

Meeting of High-Level Experts
on Africa's External Debt in Respect of
the Industrial Sector

Vienna, Austria, 14 - 17 May 1985

AFRICA'S EXTERNAL DEBT
IN RESPECT OF THE INDUSTRIAL SECTOR:
ISSUES AND PROPOSALS^{1/}

Prepared by
the UNIDO secretariat

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INTRODUCTION

Africa's external debt

1. As recently pointed out by the experts of the Steering Committee of Member States established by the OAU Heads of State and Government to prepare the economic agenda for the forthcoming Summit, the persistent external debt in the region and its heavy debt-service burden are of grave concern to all African countries. According to the latest data published by the World Bank, the total outstanding medium- and long-term external debt (including undisbursed debt) for 46 African countries increased from \$134.4 billion in 1982 to \$136.8 billion in 1983. These amounts do not include the external debt of Angola, Libyan Arab Jamahiriya, Mozambique and Sao Tomé and Príncipe nor do they take account of short-term debt and IMF credits. At the end of 1984 the total debt of African countries was estimated to stand at \$158 billion and it is expected to exceed \$170 billion by the end of 1985.

2. At the same time, total debt service payments (interest and amortization) increased from \$12.9 billion in 1982 to \$14.9 billion in 1983. These figures only reflect the impact of rescheduling exercises and do not correspond to the debt service burden to its full extent. For instance, World Bank projections indicate debt service payments of the order of \$18.9 billion in 1984 and \$20.4 billion in 1985. Unless immediate measures are taken by African countries in co-operation with the lenders to alleviate the debt service burden, payments such as those projected will constitute serious difficulties for African countries.

3. In 1982, Africa's total debt was equivalent to 51 per cent of gross national product (GNP) and 59 per cent in 1983. The overall debt service ratio was 19.8 per cent in 1982 and 27.4 per cent in 1983. Although it is generally accepted that the average debt service ratio should not exceed 20 per cent, it exceeded this figure in a number of countries. Apart from the alarming rate of increase in Africa's aggregate debt and debt service, it is most disturbing to observe the considerable change in the structure of Africa's debt over the 1970s. For example, the share of "soft" loans declined from 62.5 per cent of sub-Saharan Africa's total debt in 1972 to 47 per cent in 1983. In the face of diminished flows of soft loans, a handful of African

countries - particularly oil-exporting and mineral-rich countries - resorted to borrowing from private banks. The share of financial markets in sub-Saharan debt rose from 14.5 per cent to 36 per cent over the period 1972-1983 and these countries increased their borrowing from the European money market from \$3.3 billion in 1980 to \$8.2 billion in 1981. In 1981, oil-exporting Angola, Congo, Gabon and Nigeria accounted for 58 per cent of the Euromarket borrowings, while the new oil producers of Cameroon and the Ivory Coast claimed 18 per cent, with Kenya and Zimbabwe sharing another 8 per cent.^{1/}

4. Meanwhile, most other African countries were excluded and many turned to IMF stand-by agreements and extended fund facilities, despite the difficult conditions attached to IMF loans. The severity of the situation is underscored by the fact that in 1985 African countries will most likely repay more than they receive from the IMF. Repayments to the Fund under the so-called "repurchase obligations" are estimated at a total of \$700 million.^{2/} Moreover, it should be clear by now that debt rescheduling is unlikely to bring any remedy since the basic assumptions about the region's future capacity to repay such debt are generally unrealistic. Even a reduction of protectionist measures in developed domestic market-economy (OECD) countries is unlikely to do more than bring about a very gradual reduction in the debt and its burden since additional investment, based on imported factor inputs, will be required to finance new projects for export to those countries. It should be recalled that Africa is not a significant producer and exporter of manufactures and semi-manufactures. Any reduction of protectionist measures affecting industrial products will be mainly to the benefit of those third world producers who already dominate exports to the developed domestic-market economy countries. It may be thought that debt write-offs can solve the problem. Desirable as they may be, it is difficult to see why the debt accumulation process will not recommence shortly thereafter.^{3/}

^{1/} African Business, June 1982, p.71.

^{2/} African Economic Digest, 4 January 1985, p.2.

^{3/} Of course some relief can be obtained through reductions in imports of arms and ammunition and other war material as well as in more successful efforts to reduce illegal transfers outwards.

Africa's foreign exchange expenditures

5. The degree of the region's dependence on imported manufactures is truly alarming. Preliminary data collected by UNIDO from information published by the United Nations for most African countries indicate that the region's foreign expenditures on certain major industrial commodities amounted, for example, to \$74 billion in 1982: this represents about 55 per cent of Africa's external debt for that year. If all expenditures on services and for all countries were added to that figure, the situation would be much more dramatic. Exports of manufactures from African countries are very small; they represent less than one per cent of world manufactures export. In the majority of countries for which data was available, food manufacturing and textiles were the only branches in which the import to apparent consumption ratio was below 25 per cent. Two other chemical products (liquified petroleum gas and distillate fuels) have import to apparent consumption ratios below 50 per cent in most African countries. In 1979-1981, motor gasoline may also be regarded as a border-line case: 18 of the 41 countries for which data are available had ratios of about 50 per cent.

6. Of all items,^{4/} 54.7 per cent had import to apparent consumption ratios approaching 100 per cent in all or almost all African countries. These products included virtually the whole range of intermediate industrial inputs necessary for integrated industrial development. The key issue lies in the fact that Africa is rich in both agricultural and mineral resources. Africa has vast potential for the development of manganese, phosphates, iron ore, bauxite, tin, copper and diamond-based industries. Yet exploration and product development in these branches is virtually at a standstill and the region continues to import an increasing proportion of processed mineral intermediate products. Moreover, there would certainly have been ample opportunity for increased utilization of intra-industry linkages.

7. Another feature of the industrial sector in Africa is the surprisingly little change that has taken place in import ratios over the period 1972-1974 to 1979-1981. Out of the 43 commodities included in category 1 (i.e. with import ratios approaching 100 per cent in almost all countries), as many as

^{4/} Each commodity is counted twice: once for 1972-74, once for 1979-81.

38 remained within that category in both 1972-1974 and 1979-1981. Three products (wood pulp sulphate, non-cellulosic sulphate and lubricating oils) moved down one category and had import ratios approaching 100 per cent in the majority of African countries. Two products (glycerine and unwrought lead) moved up to category 1. By 1981, all African countries had an import ratio of 100 per cent in these commodities.

8. One particularly significant aspect of the debt problem is the contrast between developed countries which face acute problems of internal debt accumulation and third world countries which face similarly acute problems of external debt accumulation. The principal reason for this difference is the dependence of developed on their domestic markets not only for consumption of the bulk of their industrial production but also for the supply of the bulk of their factor inputs. It is rarely appreciated that OECD and CMEA countries are really developed domestic-market economy countries (however the market is organized): the economic theories and philosophies they espouse (and which we unsuccessfully seek to apply to Africa) are really nation-based.

INDUSTRIALIZATION AND EXTERNAL DEBT ACCUMULATION

External dependence on factor inputs

9. The above would seem to indicate that the main cause of debt is extreme dependence on imported factor inputs as well as investment in projects that are either unproductive or characterized by low capacity utilization. As is well known, the process of accelerated development and economic growth is dominated by the establishment of physical infrastructure and the creation of productive assets. This requires a long gestation period before substantial outputs are obtained. In general, this period is marked by the rapid growth of industries based on natural resources/industrial raw and intermediate materials: in particular, concerned with the generation and distribution of energy, the construction of buildings and other structures, the supply of water and production of basic chemicals (e.g. for agriculture, mining, civil engineering). The engineering requirements as well include the local production of implements, tools, spare parts and components as well as the launching of the machine tools industry. Since even the largest machine in the world is made up of parts, it is clear that the machine-building industry must begin with the production of (standardized) parts and components.

10. As the development process gains momentum, a tremendous demand arises for raw and intermediate materials, energy, equipment and replacements, often outstripping the supply capacity of the national economy. These needs have to be met by imports even in countries where strict control is exercised over both imports and end-uses of factor inputs.^{5/} This demand 'bulge' often persists for years, occasionally declining only to expand again as more sophisticated equipment and other imports are required. It must be borne in mind that this "take-off" process may extend over 30 years.

11. These import "bulges" do not of themselves create debt if: (i) there are compensatory export "bulges"; (ii) the terms of trade remain fair; and (iii) foreign private investment flows (where these are permitted by the socio-economic philosophies of governments and are broadly directed towards the national industrialization priorities) remain roughly in balance in real terms. In fact, none of these assumptions hold true for Africa in the last decade or today nor are they likely to apply in the near future.

External dependence on services

12. In considering imports of factor inputs, the role of services, which constitute a very high foreign exchange cost, must also be kept in view. Most governments, preoccupied with the commodity aspect of the balance of payments, ignore the impact of service imports (shipping, civil aviation, insurance, marketing, information, management, consultancy, etc.) whose volume and unit costs are often not even monitored. This leads to a tendency to treat services (e.g. especially consultancy) casually and to neglect measures to ensure the substantial and efficient transfer of know-how to nationals. The process of industrialization coupled with structural change induces a heavy demand for consultancy services, especially in project design, planning, construction and project management. This is particularly true of the African region which is virtually a greenfield site of continental dimensions, enormous expenditures are required in new physical infrastructures (roads and railways; airports and harbours; electricity generation and distribution; water supply and effluent disposal; construction of townships; site planning and development; plant construction, etc.).

^{5/} As in the case of centrally planned economies.

13. There is no lack of opportunities for building up national capabilities in the service sector. All that is required is better organization, including the extension of education courses and introduction of specialization. The public and the foreign private sectors also need to be encouraged and, indeed, urged to make genuine contributions to the development and utilization of local consultancy skills. Much will have to be done to improve the quality of work in small- and medium-scale enterprises. Despite the growing importance of service imports by the third world (and presumably by Africa), it would seem that policy-makers or planners have never given the matter serious attention.

14. Policy-makers and planners must make special and sustained efforts to:

- (i) devise educational schemes to include specialization in these areas, and
- (ii) ensure that all state contracts not only provide for nationals (individually or in groups) to acquire on-the-job experience, but also include measures to ensure that this satisfactorily done. Unless this is done, foreign exchange will have to be spent on importing such services. The easiest and most reasonable place for nationals to acquire experience of this kind is on projects within their own countries or on multinational projects.

Unproductive investments and external debt accumulation

15. Another major factor contributing to debt accumulation is the persistence (indeed the extension) of enclaves, semi-enclaves and dysfunctional relations within the economy. While it is true that many projects fail as productive enterprises because they were conceived and commissioned for reasons irrelevant to enhancing development and economic growth and diversification, a far larger number have failed for several other reasons, including a deficient conceptual base, poor design, construction or management, wrong choice of technology, absence of forward and backward linkages or trouble-shooting capabilities, inadequate local and external markets and wrong timing resulting in productive projects often being created in advance of their time.

16. An example of conceptual deficiencies is the establishment of polytechnics and universities where the subjects offered bear little relationship to current or prospective manpower needs.

17. As regards faulty technology, the Africa region is littered with expensive equipment either still in the original crates or were installed with disastrous effects.

18. In regard to linkages, the extreme dependence of industry in the region on imported raw and intermediate materials is widely known. Equally familiar is the problem of underutilization of fixed assets. One reason for this is that macro-projects are often conceived, designed and constructed without forward linkages which are assumed to occur naturally rather than as the outcome of deliberate planning. For example, farm-to-market roads sometimes fail because other components in the production structure or incentive system have been overlooked.

19. Examples of what may seem to be white elephants include artisanal industrial training facilities, equipped with valuable and essential equipment, which operate at very low levels or face closure for lack of demand as well as railway workshops set up to produce spare parts, implements and tools which otherwise operate at low levels or face closure for the same reasons. In many cases, adequate demand exists, but it is tied to foreign affiliates and suppliers of foreign firms. In most cases, these firms have not offered to help improve the product of the local suppliers. They have simply starved local suppliers of market outlets.

20. Attention has also been drawn to the unfamiliarity of government agencies with the structure of minimum basic engineering facilities. As many country studies show, serious gaps occur in this structure. Similarly, policy-makers and planners are unfamiliar with the structure of the basic intermediate materials required for engineering production, and they are equally unacquainted with the raw materials and technologies required.

21. All these defects can be overcome in many cases, they call for only imagination and dogged determination. More specifically, they require that governments recognize the consequences of depending on foreign investments in their pursuit of national aims.

22. It is essential that the reasons for this state of affairs be restated in a way that will help clarify rather than confuse basic issues. The following is a summary of the essentials:

- (a) The unrealism of African policy-makers and planners in believing that the rest of the world (120 developing countries, plus China, CMEA countries and Mediterranean Europe) can reasonably expect to obtain factor input supplies from 25 developed (OECD) countries (which, in general, plan domestic factor input production to meet their own current and anticipated needs), without astronomical increases in the unit import prices of such factor inputs;
- (b) The failure to realize that developed countries are bound to take measures to prevent what they consider excessive increases in the domestic prices of factor inputs resulting from excessive external demand, either by insulating the domestic pricing system from such pressures and creating special pricing systems for factor inputs exported to the rest of the world or by adopting measures^{6/} to reduce the availability of foreign exchange to the rest of the world;
- (c) The failure to recognize and overcome the consequences of competitive increases in exports by the rest of the world to the 25 developed countries in respect of such items as cocoa, coffee, tea, sugar, oils and oilseeds, fibres, timber, spices, petroleum, metallic minerals, manufactures and semi-manufactures;
- (d) The failure to appreciate the negative impact of the persistence (or even increase) in enclaves, semi-enclaves and dysfunctional relations in the domestic economy in the sense of wasting foreign exchange resources involved in their creation and in the sense of their failure either to generate additional foreign exchange or to reduce the demand for foreign factor inputs. Special attention is drawn to the effects of white elephants: projects with no productive potential or productive projects that are grossly underutilized or have been rendered inoperative for one reason or another;
- (e) The failure to recognize the growing importance of the service sector, especially consultancy services, in the economic and industrial development processes, as well as their increasing unit and aggregate import costs, and the failure to take determined and concerted measures to develop such services locally.

Africa's external trade and external debt

23. Given the structure of North/South trade relations, the commodity terms of trade make debt accumulation inevitable as soon as policy-makers and planners in the third world attempt to increase the rate of development and economic growth of their countries. A further contributory factor is the failure to recognize early enough that the key issue is not repeated demands

^{6/} For example, controls over capital investment outflows, restrictions on loans to third world countries, manipulation of commodity management agreements (such as the WFA), pressing for currency devaluation in third world countries.

or pleas, however phrased, for additional foreign exchange, but determined and economical efforts to produce domestic factor inputs relevant in function, large in quantity and of high quality. Both factors have contributed to the situation in Africa today.

24. The future of exports from Africa to the developed domestic-market economy (OECD) countries is even more precarious. It will be significantly affected not only by recent and continuing developments in biotechnology and materials technology in particular, and by the shift to new (frontier) technologies in general, but also by the shift of demand for raw materials by developed domestic-market economy (OECD) countries from the third world to domestic sources, Australia, Canada and the deep seabed. It should be clear that attempts to reduce individual country problems by diversifying the range of products for export to the 25 (OECD) countries merely increases their overall supply, depresses prices and makes commodity management schemes unworkable.

25. These factors will, doubtless, reinforce the foreign exchange difficulties of most African countries which tend to depend indefinitely on only one or two dominant export primary products. Their difficulties are compounded, however. First, transnational corporations dominate and control both the exports and imports of many developing countries. Second, this control is, in several cases, reinforced by the effects of intra-firm trading which greatly facilitates income transfers through administrative pricing.

Flow of external financial resources into Africa and its external debt

26. Trends in foreign private investment flows to Africa offer no encouraging prospects. It is clear from UNCTC and other studies that foreign capital is, in general, moving away from and not towards the Africa region. Even where aggregate foreign capital inflows and outflows remain in balance, only a few countries out of the 50 Member States of the OAU are likely to benefit. In the developed domestic-market economy countries, both government and private enterprise criteria determine which countries and sectors qualify for foreign private investment. These criteria include: stable political situation; favourable investment climate; liberal policies which permit profit-making and repatriation over shorter periods; and large and expanding domestic and

multinational markets. Under these conditions only a few African countries would qualify for significant and sustained inflows of foreign private capital.

27. In addition to the above, it is illusory to believe that vast resources (i.e. spare factor inputs) are available in developed domestic-market economy countries for export to and investment in the 120 developing countries (50 in Africa with a majority in the least developed category), China, the CMEA countries and Mediterranean Europe. Queuing applies not only to purchases financed by trade and loans but also to supplies made available through foreign private investment. Moreover, the terms and conditions are becoming increasingly tight.^{7/} Under the present circumstances it is difficult to envisage an appreciable flow of resources into the strategic core sectors and subsectors such as mining, petroleum, intermediate materials (iron and steel, copper, aluminium, lead/zinc, heavy chemicals and petrochemicals), even taking account of the heavy expenditures on infrastructure which many of them will need.

28. In the light of the above, the prospects for most African countries of receiving large foreign private investments are not encouraging. This also applies to technical assistance. It will therefore require significant determination by all parties concerned and persistent negotiations to increase overseas development assistance (ODA) to African countries, especially for the development of domestic factor inputs. African governments must recognize the real scope and dimensions of the looming crisis and enforce control over foreign exchange utilization.

29. The situation can be summed up as follows:

- (a) The demand for foreign exchange (generally, it should be noted, for surpluses of a few, international currencies from a small number of trading partners) for the purposes of development and economic growth, is a highly competitive demand stemming largely from the need to acquire foreign industrial factor inputs and services to economic development programmes. The only alternative to imports is the local production of such factor inputs;

^{7/} The USA, for example, now requires bilateral treaties to protect loans made to and private investments in the third world.

- (b) The demand for factor inputs (whether locally produced or imported) tends to bulge over a considerable period of time: the lower the initial level of development and economic growth from which acceleration begins, the longer the bulge persists;
- (c) The prospects of increased foreign exchange earnings within the North/South structure of trade in both goods and services (in terms of the same small number of international currencies and trading partners) seem remote for the Africa region with its large number of least developed countries;
- (d) Similarly, the prospects of substantial increases in foreign private (venture capital) investment and development assistance in more than perhaps a dozen African countries and for purposes of structural transformation (including the development of core and linkage systems) seem even more remote;
- (e) Any solution which fails to place the highest priority on the production of domestic factor inputs will not work. An important consideration here is the role of imported factor inputs in the development of domestic factor inputs.

MEASURES FOR ACTION

General considerations

30. As seen from the foregoing chapter it now appears obvious that a large part of Africa's external debt is used for expenditures on the import of industrial goods and services to sustain the economic development process described above. Experience indicates that success in economic development depends on the level of industrial development. No process of industrialization (worse still an accelerated one) can be initiated without a massive expansion of the industrial raw materials industries and without considerable intra-African trade in such materials.^{8/}

31. If this is not the case, those expenditures will have been irrelevant to the economic development process in general and the industrialization process in particular. In effect, the debt (i.e. foreign exchange to finance imported factor inputs) is still to come along with the bulge.

^{8/} Without such trade, the complementarity of raw materials essential to diversifying output cannot be achieved!

32. It is also not sufficient for expenditures to be incurred on the expansion of university, polytechnic and technical secondary school education and training, if (i) these fail to include areas of specialization required for the development of core industries and its linkage system (such as materials, engineering design, machine building, machine tools, plant design and construction, and large-scale civil engineering), and if (ii) the teaching/learning process still remains isolated from the actual environment and process of manufacturing.

33. Similarly, expenditures on transport and communications which fail to link raw materials with industrial production or industrial production with domestic, and later multinational, markets are not fully relevant to accelerated economic and industrial development. The mere fact of expenditures, even of their allocation by sectors, reveals little.

34. The numerous country studies and field missions undertaken by UNIDO and ECA have highlighted the main weaknesses. These include:

- (a) The absence of core industrial projects as well as of deliberately planned and realized linkages;
- (b) The existence of unproductive or underutilized installed industrial plants. The closure of some often leads to the closure of others. Closures follow persistent underutilization which is itself due to the choice of technology or the failure to plan and realize linkages;
- (c) Extreme dependence on imported factor inputs from developed domestic market economy countries. The most obvious of which are: raw and intermediate materials;^{9/} energy; entrepreneurship and management; experienced middle level supervisors and operators; spare parts, implements and tools; and services;
- (d) The declining trend in the flow of foreign investment capital and ODA resources;

^{9/} These include cast-iron shape castings; S.G. iron shape castings; pearlitic malleable iron castings; brass shape castings; mild steel section; electrode quality carbon steel sections; hardening and tempering quality carbon steel sections; carbon, carbon manganese and silico-manganese quality spring steel; carbon tool steels; case hardening quality carbon sulphur steel; mild steel plates and sheets; hot crossed rolled steel (for agricultural discs production). See also Section 1.3 and Table 3 of Industrial Development Trends and Policy Options (ID/WG.439/2).

- (e) The absence of important components of basic engineering facilities (foundry, forging, heat treatment, machining, tool room, galvanizing, phosphating and electroplating, etc., repair and maintenance).^{10/} The absence of such components stifles the local production of parts, components, implements and tools;
- (f) Marked deficiencies in institutional infrastructure including failures in interdepartmental co-operation; neglect of reform of public enterprise associated with great dependence on foreign private enterprise and TNCs; inadequate consultations with private sector;
- (g) Underdeveloped (or unsuitable) production centres such as railway workshops accompanied by underutilization of existing valuable equipment;
- (h) The concentration on easy import substitution involving capital intensive consumer durables for assembly or capital equipment for production of consumer goods;
- (i) Neglect of measures to expand the domestic market base (in economies in which no more than 20 per cent of the population make habitual use of money for day-to-day purposes);
- (j) Insufficient measures for promoting economic co-operation which is often considered secondary to rather than instrumental in the solution of national development problems.

35. The list of policy issues requiring reform, factor inputs requiring deliberately planned production and institutional deficiencies needing improvement is a long one. No amount of foreign exchange can, by itself, bring about reforms and repairs or lead to dynamic integrated socio-economic change.

Programme of action

Policy and institutional measures

36. In the light of the preceding analysis, the programme of action would have to address the problems on a series of levels. These would extend from the policy and institutional measures through the role of public enterprises and transnational corporations to the local production of factor inputs. These measures would have to be complemented by policy and structural adjustments as well as international measures.

^{10/} See project description for Engineering Industry Development Programme (Preliminary document for field mission) prepared by A.K. Mitra, ECA, Addis Ababa, 18 March 1980, p.25.

37. Measures under this heading would include the accelerated development of the industrial sector as a means of progressively producing local substitutes for imported factor inputs to economic development schemes. This would involve:

- (a) Identifying core (motor) industrial sectors and their linkage systems. A great deal of work has already been done, within the framework of the Industrial Development Decade for Africa;^{11/}
- (b) Building up national capability in planning and designing core industrial projects along with their linkages with other sectors, especially agriculture;
- (c) Forcing the development of a data and information base essential to restructuring the domestic economy. This will include, e.g. national income and expenditure surveys; inventories of scarce factor inputs; industrial output trends; the balance of payments on the services account; data on MVA, particularly relating to core industries. National survey data are essential to developing policies for domestic and external market development as well as planning linkages;
- (d) Improving the professionalism and sense of commitment of ministries and agencies involved in the industrialization process, such as those concerned with industry, planning, agriculture, education, transport and communications, labour, natural resources and finance, as well as development banks and corporations and support service institutions. Equally important will be efforts to compel such ministries and agencies to co-operate with each other in the interest of national survival;
- (e) Improving the professionalism, sense of commitment, freedom to innovate, etc., of local public and private enterprises and R & D institutions;
- (f) Undertaking reviews of economic co-operation concepts and institutional arrangements. Economic co-operation arrangements (even the most recent) have not given high priority to the production of and trade in raw materials, intermediates, nor to such capital goods as equipment for transport and communications, agriculture, water, mining and other natural resources; energy, building and construction, especially the joint production of standardized parts;
- (g) Reducing the involvement and impact of foreign private enterprises on the attainment of the purposes and targets of these arrangements, and promoting the establishment of African multinational enterprises for this purpose;

^{11/} See, for example, A Programme for the Industrial Development Decade: Initial Integrated Industrial Promotion Programme at the Subregion Level (ID/CONF.5/CRP.1 of 29 June 1984, Annexes 2-5 and, in particular, Annex 6.

- (h) Reviewing policies, priorities, criteria and control mechanisms for the allocation of resources to factor input imports. Establishing, for example, the priority to be given to the local production of grain vis-a-vis the local production of spare parts, fertilizers or agricultural machinery.

38. The eight areas of action above do not constitute an exhaustive list of policy and institutional measures that need to be taken. However, if policy-makers and planners back away from facing up to the challenges they represent, little may be expected either of the Lagos Plan of Action and the IDDA or of efforts to solve the present and future debt problems.

Public enterprises and Transnational Corporations (TNCs)

39. Policy-makers and planners will have to adopt measures to their public enterprises to make them more effective or face the problem of relying on foreign transnational corporations. They will also have to re-design public enterprises so that they fit contemporary realities in Africa and special performance criteria need to be devised. In most African countries, it is essential to have public enterprises which:

- (a) Help to generate skilled manpower;
- (b) Provide vital intrasectoral or intersectoral linkages;
- (c) Make meaningful contributions to R & D; and
- (d) Help to organize and assist medium- and small-scale indigenous enterprises within the respective sector or subsector.

40. As for the transnational corporation, policy-makers and planners must soon determine:

- (a) The role they really envisage foreign enterprises, especially TNCs, playing in national and multinational development and economic growth, together with the real terms and genuine effect;
- (b) The period during which they intend to entrust foreign TNCs with specific critical roles in the process of structural transformation, such as the development of indigenous factor input supplies to meet national needs;
- (c) The successors or alternatives they intend to rely on and the steps they will take to build up these alternatives or successors.

Local production of factor inputs

41. Since it has been argued that the main cause of Africa's external debt is its extreme dependence on imported factor inputs as well as its investments in unproductive and low capacity utilization projects, it would be worthwhile considering some measures to remedy the situation. It would seem reasonable to focus such measures on accelerated industrialization which will, in the long term, contribute greatly to solving the debt problems. The measures to be taken would need to accord priority to the development of entrepreneurs; managers; manpower for procurement, production and distribution; complementary raw and intermediate materials (of which energy is a very important component); equipment, spares, implements, tools, instruments; technology (not embodied in persons or in equipment); physical and institutional infrastructure; services; intra-African co-operation; and the expansion of domestic and multinational markets.

42. Since particular significance is attributed here to the rate of factor inputs supply in respect of debt creation, thought must be given to accelerating the production of indigenous factor inputs on a national, subregional or regional basis. In the following paragraphs, attention is focused on those categories and aspects of factor inputs that are considered critical to the industrialization process. These are conceived mainly in terms of the core projects and the linkage systems which policy-makers and planners have identified.

Human resources

43. Human resources constitute the first, largest and most crucial factor input. Attention is drawn to several sub-groups:

(a) Policy-makers and planners and other principal actors

Measures to enhance capabilities for policy and decision making would include the organization of intensive audio-visual courses and highly specific study visits to familiarize such persons with such aspects as the physiology of industrial production (including core industries and their linkages), factor input supplies, procurement, marketing and distribution and support services. Planners in particular need to be introduced to new techniques.

(b) Entrepreneurs

The development of local entrepreneurs is essential if the external dependence of African countries on this important category of industrial manpower is to be reduced. Even in a small country fairly well-endowed with natural resources, it can safely be assumed that industrial entrepreneurs must number many tens of thousands. They would range from state enterprises in the natural resources/industrial raw materials field, to subcontractors producing parts and components for vehicles or machines, to small-scale enterprises producing such items as implements, tools, nails, screws, bolts, belts and small generators. Whilst a few hundreds or even thousands of foreigners may be induced to take up the entrepreneurial burden, success will depend on local entrepreneurs in a broad variety of sectors and locations. Special policy measures and appropriate incentive schemes would have to be adopted.

(c) Management

Measures required to enhance the development of managerial capabilities would include improving programmes and facilities for the education and training of managers that take African realities into full consideration. This is important since it is not often fully understood how much management is related to history, culture and technology (material and social). In most African countries, current programmes are based on foreign models.

Services

44. At intervals throughout this paper, attention has been drawn to the growing service imports which restricts the supply of foreign exchange needed to pay for imports of other factor inputs. Thus, African governments urgently need to:

- (a) Review trends in the volume and composition of service imports;
- (b) Hold consultations with public enterprises, selected foreign private enterprises and selected domestic private enterprises on their requirements for, and experience of, consultancy services in regard, in particular, to the implementation of core linkage projects;
- (c) Hold consultations with indigenous consultancy organizations on methods for and their role in meeting those needs;
- (d) Mobilize the co-operation of other third world countries (especially newly industrializing countries) in the supply of consultancy services and in the development of local consultancy capabilities;
- (e) Consider measures for developing local and multinational substitutes for other imported services other than consultancy services.

Raw and intermediate materials

45. The measures which African policy-makers and planners need to take include the following:

- (a) Formulation of policies and programmes to deal with raw and intermediate materials production, trade and procurement;
- (b) Production of an industrial map of Africa or national and subregional atlases, however rough, which would provide basic information on the possibilities of increasing material complementarities through production and trade;
- (c) Establishment of bilateral or multilateral working groups to examine the feasibility of joint production, transportation and trade by barter or other arrangements which require minimum use of international currencies.

Intra-African co-operation

46. African governments urgently need to allocate financial and human resources to the intensification of Intra-African industrial co-operation, within the framework of the Industrial Development Decade for Africa, especially in the development of strategic core industries to serve the needs of the economies of a subregion or group of countries. This would call for the establishment of African multinational enterprises and clearing houses in priority strategic core industrial subsectors. In this regard, there appears to be a need for the preparation of guidelines, in the form of a "model framework", for the establishment of these multinational enterprises and trading companies.

47. In connection with the above, the African Industrial Development Fund should be strengthened and consideration given to upgrading it into an African Solidarity Fund for Industry, as called for in the Lagos Plan of Action and the programme for the Decade. This would be used not only to finance pre-investment studies but also to provide credits and guarantees, especially for multinational projects. It would also help to reinforce the efforts being taken at the national level through the establishment of industrial development banks and at the regional/subregional level through the African Development Bank and subregional development banks.

Policy and structural adjustments

48. Decision-makers would need to undertake economic policy and structural adjustments related, in particular, to:

- (a) More effective identification and planning of the nation's foreign exchange requirements for essential industrial commodities with a view to reducing wastage. This would include proposals for obtaining essential foreign exchange and investment and the reduction of external debt through international negotiations, domestic substitution of imported factor inputs and improved management of the economy;
- (b) Criteria for identifying African foreign exchange requirements in the short- and medium-term, including essential foreign investment and exchange requirements of industry;
- (c) National procurement procedures with a view to streamlining existing practices and strengthening existing arrangements at the regional or subregional level, including joint negotiations, importation and distribution of major industrial and other commodities;
- (d) Rehabilitation of potentially viable projects and improvement of their management, production, operational efficiency and profitability, including readjustment of original contractual (especially financial and management) arrangements, as well as opening up new markets for their products and finding new sources of raw material supplies, especially from local resources;
- (e) National resource allocations with a view to according priority to accelerated industrial growth in African countries closely tied with the other economic sectors, especially the agricultural and construction sectors.

Measures at the international level

49. Policy and operational measures need to be taken so as to readjust the pattern and structure of external investment and ODA flows into the national economy. Every care should be taken to ensure that these resources are directed towards those projects which would contribute to the local production of industrial inputs, thus helping to reduce the national external debt.

50. In that connection, existing arrangements should be reinforced and new ones established for a more effective utilization of the principal forms of industrial finance, i.e. multilateral grants and loans, bilateral grants and loans, commercial bank loan capital, direct foreign investment, and trade credit. This would contribute to the progressive reversal of the present situation in which a number of industrial projects represent a constant drain on meagre foreign exchange resources.

