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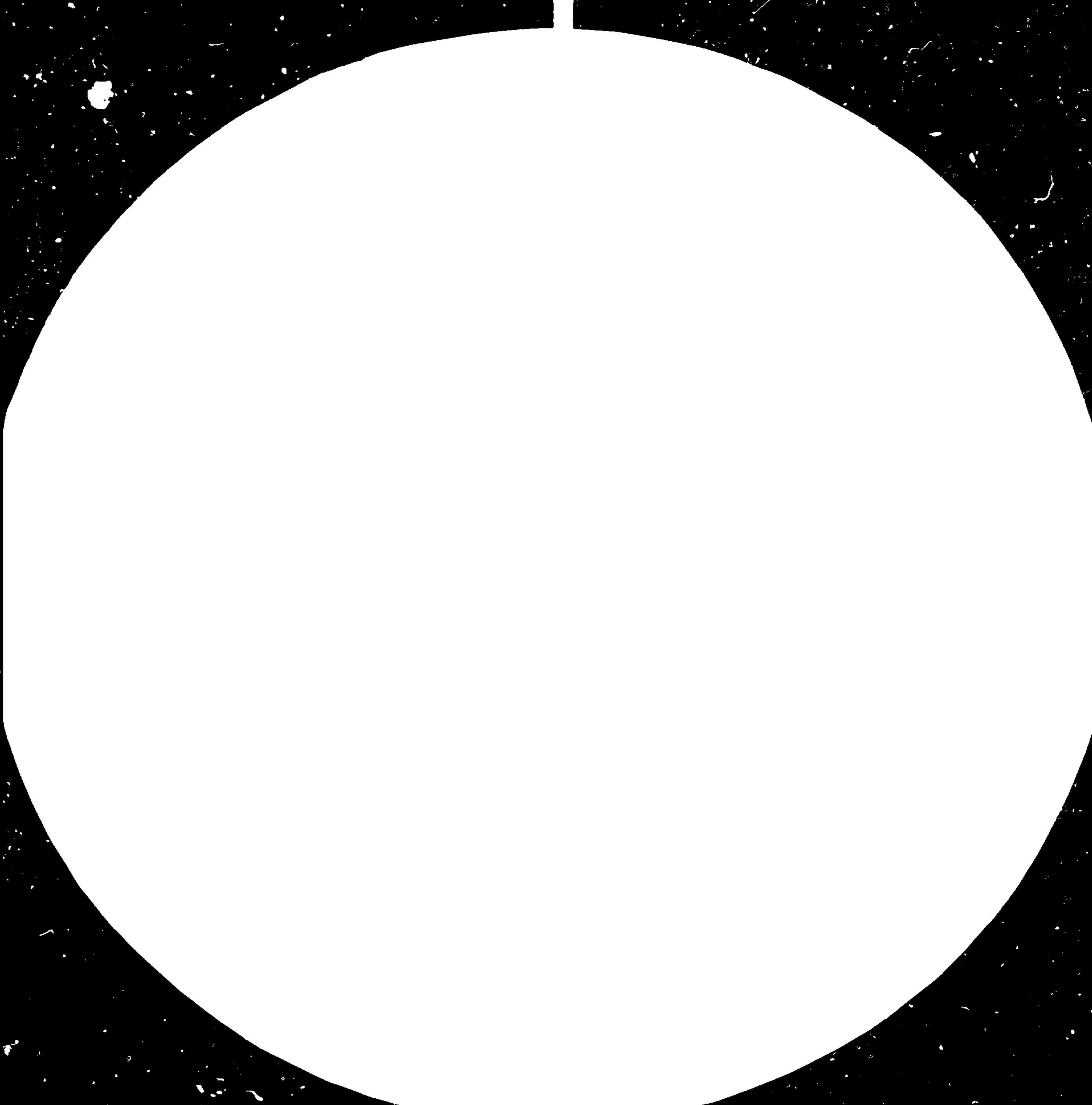
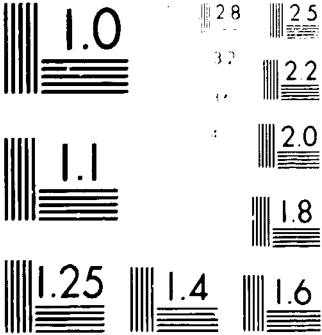
UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION
Vienna International Centre, P.O. Box 300, 1400 Vienna, Austria
Tel: (+43-1) 26026-0 · www.unido.org · unido@unido.org





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WORLD INDUSTRIAL DEVELOPMENT: DYNAMICS OF GROWTH THROUGH CO-OPERATION

1. The World Economy Today

The present state of the world economy has been characterized as the worst since the 1930s. It amounts to a definite and catastrophic break with that pattern of steady growth that had been observed since the early 1950s. The year 1973 spelt the first major break. Until that time the economies of both North and South had been growing at steady rates, of between four and six per cent for the developed countries, and even higher rates for the developing countries. After 1973 the pattern changed decisively, with a sharp fall in 1974 and 1975, a subsequent recovery, and then a sharp plunge in 1980 and 1981, to yield negative growth rates for both North and South in 1982. Although the developing countries survived the first recession in the North (in 1973) with remarkable resilience, they did not survive the second.

In recent months (as of March 1983) some signs of recovery have emerged, especially in the United States. But the strength of recovery appears uncertain, particularly because of policy makers' fear of rekindling inflation in the major industrial countries. The Northern countries have succeeded, in general, in bringing inflation down to single digits (now at 4-5% per annum). But for that achievement the North has paid an enormous price, in the form of a collapse in growth rates and 30 million unemployed. And although the present situation in the North is bad, it is even worse in the South. The decline in the growth rates of the North has been mirrored by an even steeper decline for the developing countries. Policy instruments adopted in the North to deal with the present situation affect the developing countries very severely. Policies of high interest rates discourage new investments in the South and make it more difficult for developing countries to service their trade deficits. Increased protectionism in the North makes it more difficult to expand exports of the developing countries, already severely depressed by the stagnant demand in developed countries. It is clear that there are few who gain, either in the North or the South, from the present position.

Manufacturing, in particular, has suffered. In the past the South has managed to achieve extremely high growth rates for this sector, but in 1980 it grew at only 3.1 per cent, in 1981 at -0.7 per cent and in 1982 at -2.3 per cent. Thus the developing countries' share of world manufacturing value added has now begun to decline.

2. Global Interdependence and Structural change

The world economy is a linked system, and to make use of interdependency in a positive way, the need for a global reflation policy is increasingly recognized. Any lasting improvement depends, however, not just on an expansionary monetary policy but a comprehensive restructuring policy, without which inflationary pressure will surely return. Restructuring policy requires the redeployment of high-cost (inefficient) industries from developed countries to developing countries where the output could be produced more cheaply: the developing countries should be allowed to combat inflation through greater efficiency. Only efficiency can lay the foundation for growth without inflation.

The present state of the world economy is due not to temporary shocks such as energy cost increases but to more fundamental processes: structural change and policies pursued to counter it rather than make use of it. If market rigidities and immobilities are removed, the world economy is once more oriented towards growth. Once such policies are implemented, it means that policy measures on the demand side can generate high growth without also bringing inflation. Only comprehensive and internationally co-ordinated action of this kind can effectively overcome the problems not just of the North but of the South also. For the realization of the aspirations of the developing countries for industrialization depends upon a harmonious and dynamic growth path for the world economy.

The Lima target summarizes the aim of a new world industrial structure by which the aspirations of developing countries can be fulfilled. It is expressed in terms of a share of the world's manufacturing value-added. But the target is not only, or even primarily a question of equity. The argument for it is also one of efficiency. It does not mean a redistribution of existing industrial capacity, but a distribution of new capacity. The industrialization of developing countries means, in general, new plant, new employment, and more goods and services. It is a process that benefits both North and South. A new pattern of world investment, directed towards achieving the Lima target, would mean that capital would be employed where it could produce the best results, i.e., in the developing countries, which at present suffer from an under-endowment of capital. The Lima target is based upon such a rational combination of policy measures, and not merely upon a continuous demand for resource transfers. Such policy action can replace the prevailing stagnation and protectionism and provide to the South its logical role in the global industrialization process. The growth path to the Lima target can invoke and sustain those forces of long run growth which have operated since the Industrial Revolution. The South offers a growth frontier to the global economy just as the American West did during the 18th and 19th centuries. It offers enormous scope for absorption of technology and employment of surplus labour. It contains a wealth of natural resource and investment opportunities, extensive potential consumer markets, and an abundance of initiative, incentive, and enterprise.

3. Scenarios of South-South Co-operation

3.1 The choices for the South

The Lima target was conceived in the spirit of the New International Economic Order. But the present climate of North-South relations is such as to make such goals appear difficult if not impossible of achievement. Even the International Development Strategy for the Third Development Decade (DDIII) adopted as recently as January 1981,[1/] with its targets of, for instance, 7 per cent annual average growth in GDP for developing countries, already appears unrealistic. The protectionism and retrenchment brought about by the present economic climate appears far indeed from the policies of North-South co-operation called for in the Strategy.

What then can the South do? Clearly it is not enough to wait patiently for a revival in the North. Many developing countries are on the brink of severe economic and social crises engendered by the present combination of

1/ A/RES/35/56, Annex.

high interest rates, protectionism and a fall in world demand. To many whose dependence is still on a few primary commodities, a revival in the North has little to offer but a return to old patterns of dependency.

For these reasons, South-South co-operation has become an increasingly important policy option for the developing countries. In the absence of co-operation from the North and of a real collective committment to the ideals of the New International Economic Order, the courses for the South must include consideration of how their collective strength can be utilized in their own interests and towards their own goals. The South, as has been said, can offer an enormous market and abundant resources both natural and human. Growing complementarities between the countries of the South mean that a new collective effort can provide the basis for an alternative development path. South-South co-operation, however, should not be regarded as a substitute for full North-South co-operation; they are not necessarily mutually exclusive propositions. Indeed, South-South co-operation could be regarded as a strategy to induce the North-South co-operation.

3.2 results ~~Scenarios~~ of South-South co-operation

Here we discuss briefly some numerical results of scenarios of South-South co-operation. Using a computer model[2] of the world economy, different policies of co-operation (North-South, South-South, and combinations of the South and individual regions of the North) were experimented with.

South-South co-operation has different interpretations. One might be a complete de-linking of the South from the North, as suggested by some radical political thinkers of the South. Simulation of this idea has some educational value; the assumption of zero trade and financial flows between the North and the South implies a catastrophe, with the result of both regions losing, a negative-sum-game. In the North, it is estimated that by 1990 GDP would be

2/ The UNITAD model was used. See, UNITAD Team "The UNITAD project: a world model to explore institutional changes over the long run", Industry and Development, No. 6, December 1981. United Nations, Sales No. E.81.II.B.4.

about 16 per cent below a "trend"[3/] value, but in the South the drop would be over 30 per cent. Complete de-linking thus must be ruled out as an untenable strategy for the South.

A more moderate version of South-South co-operation assumed a delinking limited to a maximum of 30 per cent in trade, and a trade creation among developing countries by an equal percentage. A multiplier effect of the net changes in trade is then calculated. The scenario results in sizeable additional gains for the South and small losses for the North. In the South, GDP in 1990 is 8.2 per cent greater than the trend value, whereas in the North the loss in GDP resulting from trade diversion is about 2 per cent for 1990. If such de-linking is extended to become 50 per cent by 2000, the South's GDP would be 19.5 per cent greater than the trend value for the same year. Once again, the loss to the North would amount to only about 2 per cent. In absolute terms these changes nearly cancel out, giving a zero-sum-game for the whole world.

Self-sufficiency is enhanced in the manufacturing sector of the South by the co-operation scheme. Especially for capital goods, dependence on manufactured imports from the North is seen to decrease sharply over time and compared to trend. Correspondingly, intra-South production and trade increases the most in capital goods, above intermediate goods processing, light industry goods, food processing, and oil/coal processing, in that order. Interregional differences in the ranking suggest a broad pattern and magnitude of South-South co-operation, and the specialization suggested by the scenario is a confirmation of resource endowments. In short, the physical and economic potential for gains does exist, and increased co-operation among developing countries would be worth the effort.

At a regional level, it could be expected that Latin America could show an increase of 8.6 per cent in GDP over the trend value for 1990, if the pattern of South-South co-operation described above were to be followed. If this behaviour is extrapolated to the year 2000, then Latin America would see a

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3/ For comparitive purposes, a "trend" scenario was also constructed, to see the effects by 1990 of a resumption of old patterns of growth, but without any changes in international policy.

gain of 15 per cent over its trend GDP value. The relative gains in manufacturing would be even greater, 12.7 per cent in 1990 and 17.4 in 2000. This growth would be associated in particular with light industry and primary processing, followed by capital goods and petrochemicals, with food processing growing slowest.

There seem therefore to be significant benefits to a strategy of South-South co-operation. Nevertheless, it must be remembered that South-South co-operation is not a substitute for, and is at most a second-best to, North-South co-operations along the proposals of DDIII. A scenario simulation of the latter yields a positive-sum-game result. The gain to the South would be 26.1 per cent higher than trend GDP in 1990, and the gain to the North would be 3.9 per cent. Unfortunately the prevailing political climate does not allow this positive-sum to be realized.

3.3 Regionalized North-South co-operation

The refusal of the North as a collective body to co-operate with the South does not necessarily imply that none of the component members will co-operate. Analysis of the politico-economic configurations of the North may lead to a conclusion that the fragmentation of the North and the heterogeneity in their relations with the South provides its own partial solution to the deadlocked North-South co-operation. North America, Western Europe, Eastern Europe, and Japan, may be unable to achieve collective action to restore the world economy. Nevertheless, it is possible to imagine that one developed region may individually explore co-operation with the South as a whole.

Accordingly, we now examine regionalized North-South co-operation scenarios. The assumption is that a Northern co-operator diverts up to 30 per cent of its existing trade away from other regions of the North towards the South. Thus the South and the developed region in the co-operation agreement form a new market. Given four developed regions, North America, Western Europe, Eastern Europe, and Japan, there are four alternative possibilities for regionalized co-operation. The developed region co-operating with the South will gain in every case, and the non-co-operating regions will lose. What is the extent of these potential gains and losses?

Simulation of the four possible scenarios shows that South-Western Europe co-operation yields the best gains for the co-operators followed by the South-North America, South-Japan, and South-Eastern Europe in that order. The first scenario has the following results. Western Europe shows its best performance with a 1990 GDP index of 102.8 (taking the value in the South-South scenario as 100). The excluded regions, North America, Eastern Europe, and Japan have their worst performances with index numbers of GDP at 96.8, 95.8 and 94.9 respectively. These results fully exemplify both the competitive relations between the four developed regions in their trade with the South, and also the magnitude and dispersion of Western Europe's trade relations, actual and potential, with the South. The gains accruing to the South are highest, with an index of 110.2, when co-operating with Western Europe, followed by South-North America at 104.2. Co-operation with Eastern Europe or Japan gives no significant gains for the South, under the special trade assumptions made for these scenarios, because for Eastern Europe the level of trade is small and approximately in balance and, for Japan, because although it is a significant importer of raw materials from the South, its export markets are concentrated in the North.

4. Some Dynamic Elements of South-South Co-operation

4.1 Capital goods

As in the South-South co-operation, it is always Capital Goods[4/] that is the fastest growing sector in the South as a whole under all four scenarios of regionalized South-North co-operation. This is true also for Latin America, except for the scheme of co-operation with Western Europe, where Basic Products is Latin America's fastest growing sector. Capital goods is a sector in which the Northern regions at present have an overwhelming dominance in international trade, and for its imports the South has been highly dependent upon the North. The new co-operation, which amounts to a switching away from traditional sources of supply, thus has the effect of stimulating production in a vital area, in which the South has at present an enormous deficit.

4/ Capital Goods are here defined as ISIC (International Standard Industrial Classification) major groups 382, 383, 384, 385 and 390, i.e., including most industrial machinery and transport equipment.

The conventional economic wisdom has it that developing countries do better in production of labour intensive goods in small scale firms with unskilled or semi-skilled labour at best. Capital goods production requires capital intensity, large scale firms and high level skills. Hence, it is said, capital goods production is not suitable for developing countries in general. The small share of world capital goods production held by developing countries seems to support such reasoning.

But more careful examination of the past record in capital goods production and trade suggest the viability of the South. Many capital goods require a below-average capital intensity. Such capital goods include agricultural machinery, office machinery, metal-working machinery, ships and boats of various sizes. Small firms are as efficient as large firms in producing woodworking machinery, conveyors, dies, tools and jigs, etc. Small firms are often cost efficient due to firm-specific managerial quality, plant layout, and local information availability. Skill-intensive goods (i.e., those using a high level of skilled labour) are being produced by India, Pakistan, Egypt, Singapore, Argentina, the Republic of Korea, and other newly industrializing countries. Developing countries producing different capital goods can complement each other, should they adopt a policy to that effect. Indeed, the evidence is that capital goods production and trade among developing countries has grown faster than other manufacturing sectors. For instance, engines tripled and agricultural machinery doubled in export values (current prices) between 1975 and 1978, in all capital goods producing developing countries (except India and Singapore). Other categories with a particularly impressive export performance were special industrial machinery, other special machinery, electric power machinery, telecommunication, other electric machinery, road motor vehicles, and ships and boats.

The importance of capital goods production in the South is not just because of such static criteria as factor intensity, factory size, cost, etc. The dynamic effects of capital goods production, though difficult to measure, seem persuasive. The first is the efficiency-augmenting effect of "learning-by-doing". The capital goods sector can be said to be richest in such learning-by-doing benefits compared with any other manufacturing subsector. The sector is characterized by dynamic linkages with other sectors of the economy. It also provides the entrepreneurs for small technologically intensive industries. Furthermore, it can also stimulate skill creation, as well as demand creation through higher wages to skilled labourers.

4.2 Natural resource-based industries

Many natural resources are plentiful in the South, including petroleum, potash, phosphate, iron and other metals, and these form the basis of the important industries of refining and petrochemicals, fertilizers and metallurgy, respectively. The availability of the raw materials poses few problems, at least up to the year 2000, and reserve findings have more than kept up with consumption.

At present, excess capacity characterizes the world market in most of the processing sectors. But a closer examination reveals that the South imports a substantial amount of processed products from the North, despite existing excess capacity in the South. This is perticularly true in petroleum refined products, petrochemicals of all sorts, and specific aluminium, copper and iron and steel products. This anomaly seems to be due to a market structure dominated by TNCs, and also to a lack of information among Southern actors (producers, consumers, and traders). Accordingly, to short-circuit the product flow, by direct transfers from Southern sources to Southern consumers, would seem an important area for South-South co-operation. The benefits of steady supplies in processed minerals and of trade and transport margins would then fall directly to the South.

More detailed possibilities for South-South co-operation can be found in the energy-intensive and capital-intensive mineral processing areas. The Middle East, for instance, could be a most significant economic force in such South-South co-operation, since this region has the energy resources, and capital funds needed in a field at present dominated by TNCs. Energy resources at present wasted in the form of gas flares and refinery residues could be used for smelting minerals from other regions, notably aluminum, copper, iron, etc. Such vertical integration, subregionally and interregionally, of key resources could provide added bargaining power to the South.

The constraints on South-South co-operation in mineral processing appear to be similar to those for capital goods. They include the availability of technical knowhow, the marketing infrastructure, financing, product qualities and the sharing of benefits among the participants. Therefore we next deal with some institutional changes that might facilitate South-South co-operation in general and these key sectors in particular.

4.3 The institutional framework of South-South co-operation

To make South-South co-operation a reality, the economic ideas have to be translated into specific action: information must be collected and exchanged, decisions made, agreements entered into. But the existing institutions seem inadequate. The capital goods sector shows this very clearly. Capital goods technology, information channels, marketing and trade arrangements, and even the financing such trade are all heavily concentrated in the hand of TNCs. The combination of powers in these crucial areas gives the present capital goods industry considerable bargaining strength with respect to the South. By contrast, the South is unorganized, fragmented, and without institutional support in furthering its own interests. It pays a high price in the form of opportunities foregone.

At present, in spite of excess capacity in virtually all the subsectors of capital goods and primary goods processing, and in spite of complementarities between different regions of the South in supply and demand patterns, no mutually beneficial exchange is taking place. How is this related to institutions? Two illustrations may answer the question. First, the buyers and sellers in the South are not directly linked. They operate through the Northern establishment of information channels and marketing arrangements. But direct and detailed information is crucial, particularly because capital goods are non-homogeneous. The South loses considerably in that a disproportionate sum, of trade and transport margins, goes to Northern actors when South-South trade is intermediated by the North. The control of information and marketing routes is, in general, not in the hands of Southern actors, and this is particularly so for capital goods and basic input goods.

A further important feature of the present institutional framework is finance. Financial institutions do not provide sufficient liquidity to facilitate trade among developing countries themselves. The existing financial institutions are constrained by United States dollar availability, which is, naturally, determined by United States monetary policy. Current recession and unemployment levels illustrate how expensive it is, particularly for the South, to conduct trade based on dollars. Distress sales (often below cost) in raw material markets are just one symptom. The problem of financing trade in capital goods and processed basic goods is only a part of the larger problem of liquidity shortage afflicting all sectors of the world economy.

These considerations compel us to discuss the institutional reforms in more general terms than the scope delimited by a narrowly-defined industry-oriented issue. The problem of world liquidity is of course primarily the concern of the International Monetary Fund, but it infringes on UNIDO's concerns so long as the shortage of liquidity constrains industrial growth. We consider, therefore, the possibilities of a general solution addressed not only to industry-specific problems in finance but also to associated problems in a broader frameowrk. The two are often operationally unseparable.

Altogether, we examine, in the remainder of this paper, a number of institutional innovations directed towards enhanced South-South co-operation, and these are as follows: (1) South-South negotiations of joint ventures; (2) system of general trading organizations; (3) national currencies as a medium of exchange; (4) South-South co-operation in industrial input management: (a) mineral stabilization plans (b) technology centres.

4.4 South-South joint ventures

As has been said, the concept of South-South co-operation in industrial production is based on the fact that individual developing countries are constrained by smallness of the market on the demand side and a lack of complementary input factors on the supply side. Co-operative schemes would bring together complementary input factors from other co-operating countries so that a production unit could be made complete. South-South joint ventures (SJVs) , owned and managed by the South, can provide the best means of realizing such objectives, and, in particular, the production constraints found in the capital goods and mineral processing sectors could best be overcome by SJVs. This form of co-operation seems far superior to customs union approaches and other forms of market integration schemes.

How can reciprocity be ensued in such joint ventures, and, again, how can their benefits reach as many developing countries as possible? One approach would be for countries to prepare a list of joint ventures that they are willing to host. The availability of specific resources such as raw materials, skills, and know-how would provide the basis on which the list could be drawn up. The host country would invite other developing countries to bid on this offer of complementary factors and expected returns. Negotiations would involve many items including an equity ownership, technical assistance, provision of capital funds, marketing underwriting, long-term purchases, barter arrangements, tariff preferences etc. The main objective is to maximize such exchanges and to achieve a fair distribution of benefits, which in the past has proved to be a problem in many co-operation schemes. In these negotiations UNIDO's System of Consultation might be used to provide preliminary services, and thus the scope of the present system would be expanded to inter-sectoral issues.

Another variant of production co-operation could apply the economic principle of willingness to pay. Thus, either a specific industry or a whole related complex of vertically integrated industries would become part of a scheme of industrial licences for Southern countries as a whole. Among the potentially interested countries, the highest bidder would be given the licence to establish those industries either in his own country or in a country of his choice by mutual agreement. The revenue collected from such a licensing arrangement would to to a common industrial fund for the South, which would become self-financing through the industrialization process. Such a licensing system would thus ensure an automatic contribution by the highest bidder country in exchange for the privilege of a wider market for its product, created by an elimination of tariff and non-tariff bariers in the South. Thus, national self-interest and collective interests could be reconciled.

4.5 General trading organizations

General trading organizations for developing countries offer considerable scope for South-South co-operation, especially in industrialization. UNCTAD has already given extensive consideration to the possibilities for such organizations. Institutional factors tending to inhibit South-South trade expansion include: uneven and biased information and marketing networks, inadequate communication, transportation, banking and insurance systems, medium of exchange constraints, and tariff and non-tariff barriers. Reduction or elimination of these obstacles is crucial to reduce search costs and transaction costs at present insurmountable for many traders in developing countries. As a means to overcome them, the establishment of General Trading Organizations is recommended. The basic idea finds a reflection in the Japanese General Trading Companies, which have succeded in linking domestic industrial firms to overseas buyers and sellers. The companies sell a package of information and commercial services to them tailored to their needs. If each developing country could establish such General Trading Organizations (private or state owned) and develop a regional and inter-regional network with a collective system of information gathering, such a system could meet the need for "catalytic actors" and "problem solvers", identified in many studies as missing links.

4.6 Local currencies as a medium of exchange

Developing countries have a chronic need for foreign exchange to facilitate trade transactions. The scarcity of U.S. dollars often blocks potentially beneficial South-South trade owing to balance of payments difficulties. As a means of overcoming such difficulties, the settlement of international transactions in local currencies is one important option. The advantages of this arrangement are many. It means the elimination of trar[illegible]ion costs in finance, i.e., the fees paid to foreign exchange deale[illegible]e interest foregone (or paid on loans) to keep adequate reserves [illegible]nsactions and creditworthiness. The risks and uncertainties of exchange rate fluctuations caused by "hot money flows" can also be avoided, and the burden of correcting trade imbalance would be equalized between surplus and deficit countries. Such arrangements would be flexible in as much as the proportion of local currency payments can be agreed upon, ranging from a moderate percentage to one hundred per cent. Such an approach would be a temporary measure, its object being to bring about a rapid increase in world aggregate demand from its present depressed level. The best long-term solution is still a global, multilateral, clearing-house arrangement, a world currency. However, the use of local currencies would reverse sacrifices of production, trade, and growth at present forced upon the South by the existing financial institutions. The

General Trading Organization suggested above may be in the best position to initiate the use of local currencies as a medium of exchange.

4.7 South-South co-operation in industrial input management: oil and minerals

Traditionally, crucial inputs to industrial sectors of the South have been supplied by the North including petroleum products, processed mineral products, technological know-how, or industrial services. Strategies to strengthen the collective self-reliance of the South could take many different forms. For oil, this could perhaps by charging the same international price, but allowing oil-importing Southern countries to pay a part of their oil bill in local currencies. This scheme would tend to encourage both South-South trade and financial co-operation.

Both in the case of oil and in the case of some other mineral resources (e.g. tin, bauxite) with large deposits in the South, the vast financial surplus of the low-absorber OPEC countries could be used to buy future claims on these minerals' output, keeping them under ground for the present. This would avoid or at least postpone all logistical problems of storage, transport and marketing. OPEC's surplus could thus be more imaginatively used to enhance its international market power, and non-OPEC developing countries would gain in terms of assured future markets and perhaps also in terms of prices higher than their present collapsed levels.

Such long-term "futures contracts" claims on oil and other significant exhaustible minerals in the non-OPEC South, that can be purchased with the OPEC liquid surplus, will produce a far more favourable climate for industrialization of the South. It will allow the South to have better control over international raw material prices and physical location of raw materials. At present, there is immediate pressure on most Southern countries to earn foreign exchange by selling such raw materials, no matter what the international price may be. Such long-term contracts would provide the essential time-horizon for industrial planning in the South, allow developing countries to process and increase "value-added" from their minerals. Collective as well as national selfreliance would be enhanced.

4.8 South-South co-operation in industrial input management: technology

Along with the management of minerals and their products, future oriented management of technology for the South appear crucial for self-reliance of the South, especially the new wave of technological development in, e.g., micro-electronics, biotechnology and information technology. International research and training centres based on co-operation among the countries of the South should be set up in these areas. Such centres would emphasize basic research and training, so that the indigenous technological capability of the South can increase over time. At the same time they would at least partly reverse the "brain-drain" from the South. Without such concerted efforts, the Third World will become helpless observers of new and emerging technologies, as reported in the International Forum on Technology Advances held in Tbilisi, 12-16 April 1983.

The way out of the South's technological dependence must include the development of a technological capability in all production stages in terms of design and actual production capacity. Industrial design centres should also be initiated through South-South co-operation on an imaginative basis. They should not be just "narrow" designing centres for developing blue prints for technology, but instead have a wider perspective of design as an integrated techno-economic process: each product-design would be looked upon as a vertically integrated industrial process involving at least all the major manufacturing production stages (of all developing countries, not just domestic stages). "Process" and not "product" substitution is the key to technological self-reliance for the South.