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Interdependence and Economic Development in North and South

by Helge E. Grundmann, Basle*

In the past four or five years politicians in the industrialized countries and research workers as well have been making increasing use of the term "interdependence" as quintessential to the economic and political relations between the North and the South. What does this term mean? Can the extent and the effects of this interdependence be quantified?

Interdependence, in the sense of mutual dependence and exposure to external influences, is merely another name for a concept which has been in people's minds ever since the industrial age began: up to the middle of this century it was customary to speak of the "international division of labour" – to have more of it was thought to be to everybody's advantage. The term "integration" surfaced after the World War II – at first only for the industrialized countries, but after the phase of decolonization also and increasingly as a concept embracing the developing countries as well. The events in and after 1973 gave the industrialized countries further cause to remember that the progressive integration of the developing countries with the world economy has increased their own dependence on the developing countries through its multiplying ramifications, with the result that actions by developing countries produce more and more marked effects in the industrialized countries. The "recognition" of this fact has given rise to the term "interdependence".

The use of the term in the political and to some extent also in the scientific discussion differs however somewhat insofar as from the viewpoint of the industrialized countries the *vertical* aspect of interdependence is generally emphasized whereas the developing countries lay stress upon the *horizontal* aspect because it needs attention if the – from their point – more unfavourable effects of the vertical aspect are to be alleviated.

The *vertical* interdependence pertains to the mutual dependence between North and South and denotes the fact that by virtue of the existing interconnections changes in one part of the world economy necessarily

induce changes in other parts which in turn have feedback effects. The intensity of the direct effects and the following sequences is a function of the degree of existing interconnections.

The *horizontal* interdependence on the other hand has to do with the mutual dependence of the individual sectors of an economic system or the policies pertaining to the individual sectors – no matter whether this interdependence happens to be between individual sectors of the economy or between different production factors or between real and financial variables. This interlinkage of trade and capital movements in particular is of crucial importance in the context of international relations.

Extent of the North-South Linkages

The real net overall integration of a country with the outside world can be elicited from the balance of the current account as the latter comprises all transnational transactions. The current account balance places all payments for foreign goods and services, transfers of returns on capital, remittances by foreign workers and other private transfers to the outside world against the receipts for goods and services disposed of abroad and the remittances and other private transfers from other countries.

The ratio of this balance to the gross national product (GNP) provides an indicator of the *net overall integration* with the outside world: a deficit for instance indicates in per cent of GNP the net extent of the transfers from the outside world for use in the country. The current account balance thus also indicates the total *net resource transfer* and its direction. As any net resource inflow has to be financed in one way or another, the deficit on current account is matched by a

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Table 1
North-South Interlinkages in 1970 and 1978
(Trade and Capital Flows in % of the GNP of the Groups of Countries)

	Industrialized Countries (IC) ¹		Developing Countries (DC) ²	
	1970	1978	1970	1978
Exports IC to DC	+1.9	+3.5	-11.0	-16.3
Exports DC to IC	-2.0	-3.7	+11.6	+17.5
Interest, profits DC to IC	+0.4	+0.5	- 2.3	- 2.4
Net balance	+0.3	+0.3	- 1.7	- 1.2
Capital transfers IC to DC	-1.1	-1.7	+ 6.2	+ 7.6
Amortization payments DC to IC	+0.3	+0.5	- 1.6	- 2.2
Net balance	-0.8	-1.2	+ 4.6	+ 5.4
Overall net balance	-0.5	-0.9	+ 2.9	+ 4.2

¹ OECD countries, Yugoslavia, South Africa. ² Excl. Southern Europe.

Sources: GATT, Networks of World Trade, Geneva 1978; GATT, International Trade 1978/79, Geneva 1979; OECD, Development Corporation 1979 review, Paris 1979; author's own estimates.

surplus on the capital account of the balance of payments, i. e., by the *net capital transfer* to the country from the outside world, which shows the amount of foreign savings that has moved into the country. Any difference between the two balances reflects in the main changes in the country's foreign currency holdings.

A Global View

An attempt has been made to quantify the overall interlinkage for all industrialized as well as all developing countries in 1970 and 1978 in accordance with this concept. Lack of statistical data made it admittedly impossible to present even rough estimates of the exchange of services and other transfers but estimates of the invisible balance of the developing countries with the rest of the world suggest that the overall picture would not be significantly different if such figures could be included. It is clear from the presentation of the interlinkage of the North and South in Table 1 that:

□ The – import and export – trade integration between industrialized and developing countries is

much more strongly developed than their capital integration.

□ The capital integration is much more one-sided than the trade integration while the ratio of payments in redemption of existing debts to new indebtedness is worsening as a result of progressively “harder” financing terms.

□ The payments for interest on current loans and the profits from direct investments are significantly larger than the surplus earned by the developing countries through goods exchanges with the industrialized countries while the consequent adverse balance to the developing countries is on the whole nevertheless declining in relative importance.

□ The integration intensity is much greater from the developing countries' point of view but showing a more pronounced upward trend from the industrialized countries' viewpoint because their GNP is growing in comparison more slowly.

Differences Among the Developing Countries

If an overall view is taken of the North-South integration, any conclusions necessarily apply to the average of the two groups of countries. Such depiction of averages is however highly fictitious, especially for the developing countries because the differences between individual members of this group are much more marked than those between industrialized countries. It is technically possible and also reasonable to sub-divide the group of developing countries so as to distinguish between oil-exporting and non-oil exporting countries.

A sub-division of this kind, as presented in Table 2 for 1978, shows that the net overall integration of the industrialized countries with the OPEC countries is stronger than that with the many times larger group of non-oil exporting developing countries. It also shows that the surplus of the industrialized countries in trade with non-oil exporting developing countries in 1978

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INTERDEPENDENCE

Table 2
Trade and Capital Flows
in % of the GNP of the Groups of Countries, 1978

	Industrialized Countries ¹	Oil Exporting Countries ²	Industrialized Countries	Non-oil Exporting Developing Countries
Exports North to South	+ 1.4	- 22.4	+ 2.1	- 13.9
Exports South to North	- 1.8	+ 30.2	- 1.9	+ 12.4
Interest, profits				
South to North	+ 0.2	- 3.6	+ 0.3	- 1.9
Net balance	- 0.2	+ 4.2	+ 0.5	- 3.4
Net capital transfers				
North to South	- 0.2	+ 3.4	- 0.9	+ 6.1
Overall net balance	- 0.5	+ 7.6	- 0.4	+ 2.7

¹ OECD countries, Yugoslavia, South Africa. ² OPEC countries.

Sources: As Table 1.

was large enough to finance the net resource transfer from the OPEC countries to the industrialized countries, the counterpart of a current account deficit of the industrialized countries in their dealings with the OPEC countries. Conversely, the net capital transfer from the industrialized countries (new payments minus payments in amortization of previous payments) enabled the non-oil exporting developing countries to finance their trade deficit vis-à-vis OPEC and East bloc countries in the same year which corresponded to about 2.2 % of their GNP and was as to 90 % accounted for by their exchanges with OPEC countries.

Effects of Integration on Growth

The essentials of interdependence can be brought out even more clearly by looking at a conjectural variant of this chain of integration effects. This variant sets out from the assumption that the net capital transfer from the industrialized countries to the non-oil exporting developing countries was significantly lower while the export opportunities of these countries were fully utilized. In these circumstances the non-oil exporting developing countries would have had to reduce their imports, with negative repercussions on their production and thereby on their growth. The import cuts would have been borne mainly by industrialized countries which would have earned less from exports. In some circumstances their surplus from trade with the non-oil exporting developing countries would in consequence have no longer been sufficient to finance their current account deficit vis-à-vis the OPEC countries. It is thus seen that the capital transfer from the industrialized countries to the non-oil exporting developing countries was in the ultimate analysis of benefit also to the industrialized countries

because the exports to these countries made possible in this way had more positive effects on the production and the growth of the industrialized countries than would have followed from direct financing of the deficit vis-à-vis the OPEC countries by means of credits.

With the help of global analysis and simulation models such as, e. g., the LINK model used by UNCTAD or the SIMLINK model evolved by the World Bank it has become possible not only to simulate conjectural variants like the one described just now and to quantify their effects but to examine the effects of the interlinkage in global and general terms on the economic development in the North and in the South and their mutual dependence. The most important findings to emerge from these studies are:

- The crucial limiting factor of growth in the South is the import capacity which is determined by the availability of foreign currencies. The total of available foreign currencies depends on the development of exports and/or the net flows of capital, and faster growth of exports has more direct and more potent effects on the growth of the developing countries than has an increase in the net flows of capital.
- The economic development in the South depends in great measure on that in the North, and acceleration in the North has in absolute terms greater effects on the growth rates of the South than has a deceleration of growth in the North.
- Notable general economic feed-back effects on the North from the South are to be expected only when the growth rate advances markedly in the South. The intensity and direction of the effects depend in the event of growth thrusts generated by capital transfer on the way in which the resources required for this capital transfer have been raised.

An impressive empirical example of integration effects is provided by the 1973/75 period¹. The abrupt rise of crude oil prices and the consequent price increases of the other imports and weakening of the demand for developing country exports from the industrialized countries led to a dramatic worsening of the balances of trade of the non-oil exporting developing countries. To finance their import surpluses the non-oil exporting developing countries incurred additional debts of \$ 19.1 bn in 1974/75. In this way they avoided a decline of their own GNP in the two years by 12 %. The effects on the industrialized countries as the principal suppliers of the imports financed by borrowings were less marked but nevertheless noticeable: additional demand created in this way added 1 % to the GNP of the industrialized countries and preserved about three million jobs.

Effects of Trade Integration

The immediate positive effects on production of North-South interlinkage by way of trade stem from the additional demand generated by exports. The total effect of the exports to developing countries on production in the North goes however beyond the direct demand, which in 1979 amounted to about \$ 230 bn, because the latter induced an additional demand by its ramifications with upstream industries and the effectiveness of various multipliers. This induced demand effect may have been about as great as the direct addition to demand. The total effect on production may therefore have been of the order of \$ 460 bn.

The exports to the industrialized countries carry relatively much more weight for the developing countries than the exports to the developing countries do for the industrialized countries, for their export trade is much more highly linked with the industrialized countries. The exports from the developing countries have also indirect effects on their production through ramifications with upstream industries and the income multiplier. The indirect demand effect in the developing countries is however likely to be smaller because both the share of raw materials in total exports and the import component of semi-finished and finished products is higher than in the industrialized countries.

Such advantages accruing from exports to industrialized countries are admittedly distributed most unevenly among the developing countries, corresponding to their uneven participation in world

trade and different composition of their exports. To give an example, in 1978 "newly industrializing countries" in the Far East and in Latin America accounted for about 75 % of the semi-finished and finished goods exports of developing countries to the industrialized countries. Taking a dynamic view: the different export positions of subgroups of developing countries are a cause and consequence of the widening development differentials among the developing countries.

The effects of increasing trade integration are not viewed in the same way for imports and exports. A positive view is generally taken of the effects of rising exports because they facilitate fuller use of existing capacities and provide an incentive for the establishing of additional capacities and because international competition necessitates the introduction of new technologies. A rather contrary view is taken of the effects of increasing imports because these replace production which is no longer able to compete in its own area; under national aspects such optimization of the global resource allocation may have quite negative short-term effects.

Effects on Employment

The effects of trade integration on employment are attracting special interest, especially in the industrialized countries:

- The large surplus of the industrialized countries from their trade with developing countries in semi-finished and finished goods suggests that more jobs are created in the industrialized countries by exports to developing countries than are lost through imports from developing countries. Unlike the work-creating effects of the exports, the adverse effect of these imports on employment is concentrated on a few industries, but even in these it is slight in comparison with the effects of other causes of labour redundancy (especially increased productivity).
- The effects of exports on employment in the developing countries are especially positive if semi-finished and finished goods are exported and the share of the raw material exports declines relatively. The production of such export goods in developing countries is in general more labour-intensive than that of goods made as substitutes for imports from industrialized countries.
- A comparison of the employment effects on both sides shows that the replacement of domestic products of industrialized countries by imports from developing

¹ Cf. J. A. Hølsen, J. L. Waelbroek: The Less Developed Countries and the International Monetary Mechanism, in: American Economic Review, May 1976, Vol. 66 (2).

countries invariably creates more jobs in the developing countries than are lost in the industrialized countries; the employment situation in the world is thus improved.

Effects of Capital Integration

The long-run importance for the developing countries of the interlinking capital flows arises from their contribution to the capital formation in these countries which is after all a basic prerequisite for increases of production. Official and private capital transfers produce in this respect different effects. Concessionary capital flows (official development aid) and multilateral loans have on the whole relatively great dynamic effects on production because such transfers relate largely to finance made available for certain projects in the selection of which the recipient country plays a major part. Particular importance attaches in this context to the extension or improvement of the technical and social infrastructure as the tenuous nature of this infrastructure is today regarded as one of the main obstacles to full utilization of the developing countries' absorptive capacity for investment capital.

In the case of export credits, portfolio investments and international bank lendings it cannot be established precisely whether they are used for consumption or investment but it may be assumed that a certain portion of these capital flows serves as a substitute for domestic savings and for this reason cannot be counted fully as additional investment funds.

Similarly, foreign direct investments do not increase the investment activity in the developing country by the full amount of the direct investment because a portion of the finance counted as direct investment is obtained in most cases in the host country; besides, they tend in the short term even to reduce the domestic savings and investments in the developing country. In the longer term however they give rise to positive effects on production which are admittedly attenuated by two factors: on the one hand, direct investments are in the more highly industrialized developing countries being used increasingly for the acquisition of existing production facilities and not for the creation of new ones; on the other, the establishment of modern production facilities by foreign capital may in developing countries with a relatively well developed traditional artisan production result in displacement of this traditional production and thereby in a lower growth of net production².

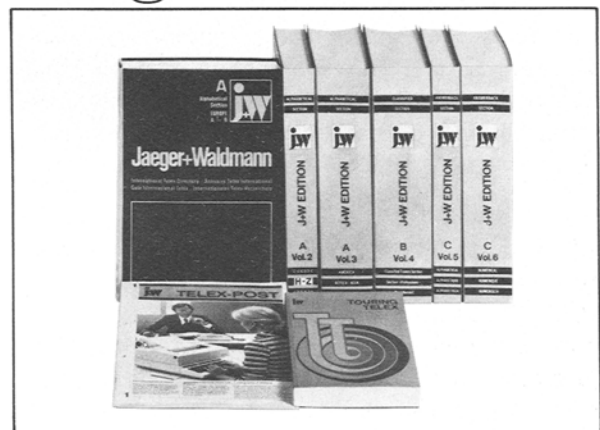
² On the discussion about the effects of private foreign direct investment cf. the article by D. K e b s c h u l l in this issue.

Aid and Trade

The effects of capital linkages on the economies of the developing countries will be the more positive the greater are the direct and/or indirect effects on production. The positive effects can be enhanced further if the newly established productions can help to earn foreign currencies. Such additional foreign currency earnings make it easier to service liabilities incurred by the capital transfer and to increase the country's import capacity which in turn creates positive production effects in the industrialized as well as developing countries.

The reciprocative process operating through vertical and horizontal interdependence can attain its full positive potential only with a minimum of restrictions, especially in trade. The important result emerging from the reflections on interdependence connoting an interlinkage between the North and the South with its consequences is that it confirms the thesis that trade liberalization and increased capital transfers – "trade and aid" – are the only possible avenues to a world-wide income policy.

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