Restructuring the World Economy

Reprinted from *Foreign Affairs* 53 (January 1975)

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RESTRUCTURING THE WORLD ECONOMY

By Hollis B. Chenery*

Reprinted From

FOREIGN AFFAIRS
AN AMERICAN QUARTERLY REVIEW

JANUARY 1975
RESTRUCTURING THE WORLD ECONOMY

By Hollis B. Chenery*

The world economy is currently in a state of disequilibrium of a magnitude not seen since the aftermath of World War II. The symptoms of underlying stress have been manifested over the past two years in the form of raw-material shortages, a food and fertilizer crisis, a dramatic rise in petroleum prices, and finally, worldwide inflation and threats of impending financial disaster.

The immediate cause of most of these problems was the rapid growth of almost all parts of the world economy in the previous decade, culminating in a strong cyclical upswing in the industrial countries. In 1972–73 the economies of the advanced countries as a group were growing at an unsustainable rate of over six percent, pushing against existing productive capacity and outstripping the potential rate of expansion of world supplies of many raw materials. This spurt in demand provided the opportunity for primary producers in both developed and developing countries to raise their prices, with or without collusive action among producers.

Some of the symptoms of commodity shortages and high prices are purely cyclical and are already disappearing as a result of the current stagnation in world incomes. Others, however, reflect long-term shifts in demand and supply that were merely accelerated by the recent period of rapid growth. This is notably true of the supply of energy and foodstuffs, where the evidence of shifts in the balance of supply and demand was apparent before these markets were disrupted by booming demand, crop failures, and the behavior of the Organization of the Petroleum Exporting Countries (OPEC). Before the world economy can return to a condition of orderly development, substantial redirection of investment and production in these and related sectors is imperative.

While the present dimensions of the oil, food, raw materials

* I am indebted for advice and comment to Bela Balassa, John Foster, Robert McNamara, Joseph Pechman, Jo Saxe, Ernest Stern, Wouter Timmer, and Elinor Yudin. However, neither they nor the World Bank with which I am associated bear any responsibility for the opinions expressed.
and balance-of-payments problems are by now well-known, international attention has centered on their immediate impacts on different groups of countries and on the interim measures needed to offset them. There has been little analysis of the adjustment mechanisms that are available to restore the world economy to a condition of orderly development. Yet, since all of these problems are connected through the international system of trade and capital movements, to prescribe separate cures for each of them is hardly desirable. And for poor countries that are importers of both oil and food, the problems must be considered together because their combined impact threatens to be disastrous.

In trying to provide a longer term perspective on the present disequilibrium in the world economy and to outline adjustment processes through which equilibrium can be restored, my analysis is couched in terms of the economic and political relations among three groups of countries: the older industrialized countries, which are members of the Organization for Economic Cooperation and Development (OECD), the newly rich but still developing oil producers (OPEC), and the other developing countries (LDCs). Only passing attention is given to the fourth major group—the Socialist countries—which has a limited impact on the problems considered here.

II

To define the dimensions of the structural changes that are needed in the world economy, we must first separate out the cyclical effects of the recent boom that are likely to be corrected by market forces over the next several years. The coincidence of shortages and price rises for most commodities during 1972-73 has left the impression of a general "commodity problem" and led to a number of false analogies between petroleum and other commodities. Price reductions since the ending of the boom nearly a year ago confirm the diagnosis that most of these were cyclical phenomena: hence, we can now identify more clearly areas in which longer term adjustments are needed.

The interpretation of movements in international prices is also complicated by the persistence of inflation on a worldwide basis. While the sharp rise in commodity prices in 1972-73 was a sig-

significant factor in causing inflation to accelerate, this is no longer the case; the overall effect of trends in commodity prices—including oil—is now deflationary.

The fact is that the commodity boom itself varied greatly among different types of commodities. A good way to measure its scale is in terms of the ratio of prices of primary commodities to those of manufactured goods for a recent period of stable prices, e.g., 1968 to 1970. Compared with this benchmark level, at the peak of the boom in early 1974 basic foodstuffs were up by 100 percent, fertilizer by 170 percent, and petroleum by more than 350 percent; however, other primary commodities averaged only 25 percent higher. With several important exceptions, relative prices of most commodities have already started to fall, and supply and demand conditions are such that a return to the earlier levels of relative prices is likely to take place within the next year or two.

Now that the normal cyclical adjustment is under way, there are only a few commodities whose high prices (or short supplies) are likely to have an important continuing effect on the economic welfare of large numbers of people. These are primarily petroleum, some of the major foodstuffs (grains, oilseeds, beef, sugar), and fertilizer. While there is some dispute as to the ability of producers of other minerals to follow the OPEC example and keep prices higher by restricting production, the value of exports of the leading candidates (bauxite, tin, copper) is relatively small, and the range of possible prices is so limited that successful action would not disrupt world trade and development. In short, the world commodity problem focuses on petroleum and foodstuffs—primarily grains—and the fertilizer needed to produce the latter.

Although recent events have shown that relatively small changes in the supplies of petroleum and foodstuffs can have a very disruptive effect on world trade and development, in most other respects these two commodities are very different. Petroleum has a dominant impact on world trade because it supplies nearly half of world energy consumption, and resources are concentrated in a small number of countries. Consequently, two-thirds of all petroleum produced moves in international trade. The present and prospective value of petroleum exports (even if present prices were somewhat reduced) roughly equals the value

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2 See Varon and Takeuchi, _op. cit._
of all other mineral and agricultural exports combined. For this reason the position of the petroleum exporters is unique; it is hard to conceive of any combination of producer cartels that would have as much effect on world trade in the next few years as an increase of even one dollar in the price of oil.

As is now well-known, the actions of the OPEC countries in late 1973 raised the average price of oil in the Persian Gulf from about $2.40 per barrel in the early part of 1973 to about $9.60 per barrel in 1974. (This and all subsequent figures in this article are in 1974 dollars except as specifically noted.) The short-run effect has been to increase the value of OPEC exports in 1974 by over $80 billion, about 10 percent of the value of world exports in that year. Only a fraction of this increase has so far been absorbed by increased OPEC imports, and the resulting surplus of some $60 billion is a measure of the present disequilibrium in world trade.

At first glance the effects of rising food and fertilizer prices on the world economy appear to be of quite a different order of magnitude from the oil impact. Even though the total value of grain produced in the world is considerably greater than that of petroleum, most countries are relatively self-sufficient in grain, and only marginal quantities are traded. While the position of the United States and Canada as grain exporters is as dominant as that of the Persian Gulf countries in oil, the total value of world grain exports is only one-fourth that of petroleum.

Yet the disruptive effect of the rise in food and fertilizer prices on world development is much greater than this comparison would suggest. As in the case of petroleum, the developing countries had come to depend on cheap grain imports to supplement their own production, and implicitly on grain stocks in the exporting countries. With hindsight it is now clear that they overestimated the increased productivity stemming from the “green revolution,” relied too heavily on continued availability of cheap imports, and devoted insufficient resources to agricultural development. Although the shortfall in LDC production of foodstuffs in the past several years has been relatively small, the rise in import requirements combined with large price rises have had as damaging an effect on the growth prospects of many developing countries as have rising oil prices. The current shortage of fertilizer, while primarily a cyclical phenomenon of lagging capacity, seriously limits the speed with which devel-
oping countries can increase agricultural output unless they are given some priority in competing for available supplies.

Although the longer term solutions to the oil and food problems will be very different, in the short run they have a similar effect on the prospects for the developing countries. Increased petroleum prices have added $10 billion to the import bill of the LDCs while the increases in prices of food and fertilizer have added another $6 billion. For the poorest people in these countries the impact of high food prices and shortages is much more serious, since most of their income is spent on food. Even allowing for gains from other commodity exports, such increases in import costs have reduced the external purchasing power of the developing countries by approximately the amount of the total foreign assistance that they receive. The number of countries seriously affected is also likely to increase over the next several years, since the prices of other primary exports are likely to fall more than those of petroleum and foodstuffs. This impact affects disproportionately the poorest countries of South Asia and Africa, which contain about half the population of the Third World.

III

The nature of the present world economic crisis has been aptly characterized by Helmut Schmidt as "The Struggle for the World Product." When viewed in these terms, the rise in oil prices is only the most dramatic of a series of events—some deliberate and some resulting from market forces—that have been operating to change the distribution of world income through the system of international trade and capital flows.

Although the changes in relative prices described above will have a substantial effect on the distribution of the world's income and wealth, their direct impact can easily be exaggerated. To measure this, assume that the OECD countries and the non-OPEC members of the Third World had been able to pay for the increase in the cost of imported oil by shifting $80 billion worth of commodities per year from domestic use to increased exports to OPEC. The result of this one-time cost increase would have been to reduce total national income in the OECD countries by two percent and in the non-OPEC Third World by three percent, while nearly doubling the total income of the OPEC

3 See Foreign Affairs, April 1974.
countries. Although these are large amounts, the direct losses would amount to giving up six months’ worth of growth—with the lively hope of then resuming the pattern of four to six percent average growth thereafter.

In reality the threat to the world economy from the rise in oil prices comes not so much from the need to transfer two percent of world income to the oil-exporting countries as from the uncertainties that are inherent in the policies adopted to effect this transfer. If there were in fact a market for their exports, the oil importers—both developed and underdeveloped—could achieve the required 11 percent increase in export quantities over a period of three or four years without much strain on their economies, which are already developing excess capacity as a result of the current recession. However, it will take the several OPEC countries from 5 to 20 years to develop their economies sufficiently to absorb their increased foreign-exchange earnings in the form of imports. In the meantime, if they export oil at the levels and prices now predicted, they will have to accumulate large surpluses in the form of loans or direct investments in the importing countries. For their part, the principal customers, the OECD countries, will have to accept the corresponding deficits in their balance of payments and arrange to reallocate (or compensate for) the flow of OPEC funds through the process now known as “recycling.”

To put the point differently, the major consequences of the change in OPEC price policy stem more from its suddenness than from its magnitude. If the price of oil had reached its present level by a three percent annual increase in its relative price over the past 25 years, the adjustments needed to accommodate this increase would have had little effect on world growth and indeed some benefit in directing behavior patterns and technological efforts toward more efficient use of energy. Instead, the progressive cheapening of oil for 20 years led to its wasteful use—particularly in the United States—and postponed the development of other energy sources. We are now faced with accelerated changes in consumption patterns and large investments for the development of non-OPEC sources of supply, in addition to financing the cost of the imports that will still be required. And the danger is that in adjusting to these changes the OECD countries may adopt policies that will operate to freeze or reduce their growth so that it does not move back soon to the past pattern of
four to six percent growth.

While the food aspect of the world restructuring problem does not loom so large as the oil aspect in global terms, it raises issues that are just as acute for the LDC countries involved. On optimistic assumptions, it will take at least five years to make up for the lags in fertilizer capacity and in agricultural investment in the developing countries so as to balance supply and demand, restore stocks, and bring food prices down to more normal levels. In the meantime, some restraint will be needed in the high-income countries of the OECD to avoid bidding away the limited supplies of foodstuffs and fertilizer from the poorest countries, whose consumption cannot be compressed further.4

For the past year we have watched these adjustment processes begin to unfold with relatively little assistance from governments. Under the circumstances the international banking system has functioned with considerable efficiency to initiate the recycling process. However, existing financial arrangements will soon prove quite inadequate to the magnitude of the problem, particularly for the weaker economies. The laissez-faire approach has already had very harsh consequences for the distribution of food and fertilizer, where the lack of foreign exchange to pay prices that have been bid up by the richer countries has brought several of the weakest economies to the brink of disaster.

There are two great dangers in the present situation, the first involving the relations between the OECD and OPEC countries, and the second involving their common relationship to the LDCs. At present individual OECD nations are acting on their own to protect their balance of payments in ways that are inimical to their collective interest in increasing their trade and their GNP. Moreover, given their uncertainty as to future OPEC oil price policies, OECD governments are also taking steps both to limit oil imports and to invest in high-cost substitute energy sources to an excessive extent that affects their future growth. Thus, the continuation of uncoordinated responses to the oil problem will almost certainly result in a lower rate of OECD growth and make the transition much more costly in the end.

Such an outcome is clearly not in the interests of the OPEC

4 More complete statements of the nature of these transitional problems and the changes in agricultural production that are needed are given in the United Nations World Food Conference, Assessment of the World Food Situation, See also, Lyle P. Schertz, "World Food: Prices and the Poor," op. cit.; and Lester Brown, By Bread Alone, New York: Praeger, 1974.
countries, whose oil markets and investment returns would suffer in the process. However, it can only be avoided if both the OPEC and OECD countries achieve a better understanding and acceptance of less disruptive adjustment processes.

Secondly, the future of the LDCs—and particularly the poorest among them—depends on the ability of the OPEC and OECD countries to work out some agreed basis for financing the 100-percent increase in LDC balance-of-payments deficits that has resulted from the higher prices of oil and food. Although the problem of the most seriously affected is only five percent of a $60 billion global disequilibrium, existing mechanisms for balance-of-payments adjustment and capital transfers are clearly unable to cope with it.

Moreover, there is a direct connection between these two dangers. It seems most unlikely that the more fortunate countries of the OECD and OPEC groups will do a great deal about the poorest nations until they reach some understanding on the evolving patterns of trade and capital movements among themselves. So long as the present atmosphere of mutual recrimination continues among the more affluent, the poorest countries will remain their unwilling hostages.

IV

To analyze the possible adjustments to the oil problem more concretely, let us first examine the varying positions of the principal oil exporters. The members of OPEC are all developing countries for whom petroleum is the principal source of foreign exchange and the key to their further development. They differ greatly, however, in their current needs for imports and in the volume of their oil reserves in relation to present levels of production. Assuming that OPEC will continue to set prices cooperatively, countries in different resource positions will have different views as to the best price and output policy for the group.

To indicate the effects of differences in resource positions on the production and price policies that might be followed, the 11 principal oil exporters are grouped in Table I below into three categories having the following characteristics:

—Group I (Saudi Arabia, Kuwait, Libya, Abu Dhabi, Qatar) has 65 percent of proven reserves and 48 percent of current output, but only 12 million population and limited levels of absorption for economic development. The five countries in this group
must take a long-term view of petroleum policy; their reserves have a potential life of 50 years or more, and they have few other natural resources.

—*Group II* contains four countries (Venezuela, Iran, Algeria, Iraq) that have already achieved considerable economic development and are depleting their petroleum reserves at higher rates than Group I. They contain 70 million inhabitants and are in a position to make effective use of most of their increased oil revenues for internal development within the next decade, although they will accumulate substantial surpluses for the next several years. This group is more likely to try to secure maximum revenues in the short run because of the greater opportunities for productive investments within their own economies.

—*Group III* consists of two large countries (Indonesia and Nigeria) that have only a limited share of OPEC resources and
little problem of absorbing all their oil revenues in the near future. They will not accumulate significant financial surpluses.

While maintaining or even increasing the 1974 Persian Gulf price level of approximately $9.60 per barrel (in 1974 prices) might seem to be in the interest of countries in the second and third groups, this price is well above the long-term costs of major alternative energy sources. Accordingly, such a policy could be expected to induce a maximum effort by the OECD countries to cut back on consumption and to develop alternative energy sources (such as North Sea and Alaskan oil, coal, oil shale, tar sands, and of course nuclear energy). Studies by the OECD, the Federal Energy Administration and the World Bank suggest that such a maximum effort, although involving a considerable amount of investment that would be uneconomical at somewhat lower prices, could have the effect of leveling off the demand of the OECD countries for OPEC oil. By 1980 OECD imports from OPEC would be no greater than at present and would be likely to decline thereafter.

However, if the Persian Gulf price were reduced to $7 or $8 per barrel (in 1974 prices), with some assurance that supplies would be forthcoming at this level, the OECD countries would probably forgo the uneconomical forms of investment in higher cost energy sources and would be less likely to limit growth of consumption. Thus, OPEC exports of oil to the OECD countries would continue to rise in 1980 and beyond. The total revenues available to OPEC for the next decade would probably be as great as through maintaining higher prices, and total OPEC production in 1980 and 1985 would correspond roughly to the productive capacity now planned by the OPEC countries.

In this situation the OPEC countries are faced with the classical monopolist's dilemma of trying to estimate the speed with which alternative supplies will be developed and whether the gains of maximizing short-run profits will exceed the losses from lower volumes (and perhaps lower prices) in the future. Unless a high discount is applied to the future, the OPEC countries—and particularly the Group I countries with large reserves—would benefit in the long run from reducing the price of oil to the cost of major alternative sources in order to maintain their share of future market growth.

This conclusion is illustrated in more concrete terms in Table II below. Case I assumes that the price is maintained at $9.60 (in 1974 dollars) by upward adjustments to offset inflation. Case II assumes that the price declines gradually by some 30 percent to $7.00 (again in 1974 dollars). In both cases, it is assumed that total energy demand in OECD countries would continue to grow, but at a rate of only 3.8 percent in Case I as compared to 4.3 percent in Case II (both, of course, reduced from the recent 5 percent rate for OECD as a whole). As to investment in alternative sources, the underlying assumptions are conservative, not assuming development of domestic or other energy sources that will cost more than imports.

Even so, the table indicates that after 1985 total OPEC revenues would be considerably greater under Case II. Moreover, if the higher prices assumed in Case I should lead to even stronger OECD efforts to reduce imports—as seems quite likely—the lower price policy might well be more profitable to OPEC beginning as early as 1980.

**TABLE II**

**PROJECTIONS OF OPEC REVENUES AND CAPACITY***

<table>
<thead>
<tr>
<th></th>
<th>Group I</th>
<th>Group II</th>
<th>Group III</th>
<th>Total Revenue</th>
<th>Production Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Case I:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Price Remains at $9.60</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>1980</td>
<td>$49</td>
<td>$47</td>
<td>$13</td>
<td>$109</td>
<td>33</td>
</tr>
<tr>
<td>1985</td>
<td>51</td>
<td>54</td>
<td>16</td>
<td>121</td>
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<td>1990</td>
<td>88</td>
<td></td>
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<td>26</td>
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<tr>
<td><strong>Case II:</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Price Declines to $7.00 by 1980</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>$52</td>
<td>$41</td>
<td>$11</td>
<td>$103</td>
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</tr>
<tr>
<td>1985</td>
<td>58</td>
<td>52</td>
<td>12</td>
<td>122</td>
<td>49</td>
</tr>
<tr>
<td>1990</td>
<td>135</td>
<td></td>
<td></td>
<td></td>
<td>55</td>
</tr>
<tr>
<td><strong>Planned Productive Capacity</strong></td>
<td>1980</td>
<td>27.8</td>
<td>16.3</td>
<td>4.5</td>
<td>49</td>
</tr>
</tbody>
</table>

*Based on estimates of the O.E.C.D. and the World Bank*

Although the elements underlying this calculation are subject to considerable technological and political uncertainties, the main conclusion that in the longer term OPEC would benefit from somewhat lower prices remains valid under a considerable range of assumptions. From the standpoint of both the OECD and OPEC countries, the difference between Case I and Case II
is particularly great in terms of the decisions on investment in alternative energy sources. In round numbers, if the OECD countries felt compelled to reduce their demand for OPEC oil by 1985 by the 13 million barrels a day difference between Case I and Case II, they would need to make additional investments on the order of $100 billion in this period. The expansion of OPEC capacity, on the other hand, would involve much less cost. In short, since decisions on tens of billions of dollars of investment in both OECD and OPEC over the next several years will hinge on the assessment that is made of future OPEC price and production policy, this becomes one of the most critical determinants of the future pattern of world trade and capital flows.

In order to maintain any given price, the oil exporters need to have some form of agreement as to how any needed reduction below capacity production will be allocated. Then, in deciding on its preferred production level, each country must estimate two elements: its current need for foreign exchange for internal development, and the prospective return on its investment of any surplus revenues in comparison to the prospective appreciation in value of oil reserves. At current prices there is only a limited prospect for a further increase in value of oil relative to other commodities over the next ten years and a greater probability of decline. Even if the real return on their investment of surplus funds is negligible and only offsets the effects of inflation, exporting countries are better off producing than keeping their oil in the ground. Countries with growing needs for foreign exchange for internal development will have a stronger incentive to increase output than those producing in excess of current needs.

Weighing the several factors that affect these decisions, it seems to me likely that oil prices will come down by 1980 to a level approximating the long-term cost of non-OPEC sources of energy, which is currently estimated to be the equivalent of $7.00 to $8.00 per barrel (in 1974 prices) in the Persian Gulf. This reduction would make possible relatively full use of the presently planned expansion of OPEC capacity to 49 million barrels per day by 1980. On this assumption oil prices would still be three times as high as their relative level in 1970 and twice as high as the peak period of the early 1950s.

The main threat the oil crisis poses to the OECD countries, as
I have said above, lies in the possibility of a serious reduction in their growth rates rather than in the need to transfer two percent of their national incomes to the OPEC countries. The question of growth rates hinges on the policies followed by the OECD group, and particularly the degree of their willingness to accept the accumulation of major claims on assets (borrowing in the broad sense) from the OPEC countries.

The preceding discussion has already considered three of the actions the OECD countries are taking in the face of the oil crisis, namely, the reduction of nonessential energy needs, the development of their own energy sources and those of other non-OPEC countries, and trying to persuade the OPEC producers to lower the price of oil. Even with some success in each of these efforts, the OECD countries confront a substantial financial problem of, in effect, borrowing from OPEC to finance continuing balance-of-payments deficits with those same countries. Because of the limited absorptive capacity of the OPEC countries, the OECD countries—even under the Case II assumption of gradually lowered prices—would have to finance aggregate annual deficits of $30 to $40 billion (in 1974 prices) until the early 1980s. (Imports would be lower and the deficits slightly higher under Case I.) Unless the OECD countries further reduce their oil demand through rationing and economic stagnation, they will have to accept a growth in OPEC claims on their assets (debt plus direct investment) that will cumulate to a total of up to $300 billion by 1980 (in constant 1974 dollars).

There is an inclination in many quarters to regard the task of financing any such amount as both unmanageable and unsound in the light of traditional principles of financial management. But it is hard to sustain either of these conclusions on economic grounds. Both the postwar experience of the European Recovery Program and the current management of capital flows to developing countries demonstrate the adjustment mechanisms that are needed. The economic desirability of borrowing from the OPEC countries should be judged on the basis of the cost—in terms of lower incomes and higher unemployment—of not borrowing. The feasibility of borrowing in the amounts indicated depends on the burden of debt service and future repayment over the next several decades. Because of the large sums involved, there is a tendency to exaggerate these prospective burdens and to ignore the cost of lower rates of growth.
In many respects the economic adjustment now required of the OECD in relation to OPEC is similar to the typical problem of developing countries that have increased their capital inflow in order to accelerate their rates of growth. It is quite normal for them to finance 20 to 30 percent of import requirements through external borrowing for periods of 10 or 20 years while new exports are being developed. The service on this external debt often rises to as much as 20 or 25 percent of export earnings (or three to four percent of GNP) without jeopardizing the country's economic prospects or its future ability to repay. The desirability of incurring external debt depends on the additional growth that can be secured from greater imports and investment in relation to the real cost of borrowing.

The OECD oil deficit differs from the normal trade gap of less developed countries in one significant respect: its current magnitude is determined primarily by the ability of the lending countries to utilize imports from the borrower rather than by the latter's ability to supply them. This fact does not create any added problems for the OECD as a whole unless the OPEC countries decide not to continue to supply oil in the quantities indicated in Table II. On the contrary, having to borrow to pay for oil instead of suddenly increasing exports cushions the immediate impact of the rise in prices and supplies additional resources to offset the large investments needed for alternative energy sources.

Another way to judge whether this process of adjustment is feasible is, however, to compare it to the last major adjustment involving the European members of what is now OECD. In the wake of World War II, these countries engaged in a program of reconstruction that lasted through the period of the Marshall Plan and extended to about 1955. During this period there was, in effect, a massive transfer of resources from the United States to Europe, while Europe developed the productive capacity to meet what was then called the "dollar gap"—that is, to export sufficient goods and services to pay for their import requirements from the United States. In a very real sense, the position of the United States at that time corresponded to the position of the OPEC oil countries today.

The main interest in this comparison is in the relative magnitudes of the "structural" deficits in the balance of payments in the two periods, the time needed to eliminate this deficit, and the capital inflow required during the period of adjustment. The
main difference of course was that during the earlier period the United States itself financed a large share of the transfers through grant aid. This difference must be allowed for in making the evaluation. Similarly, while the United States and Canada should be omitted from the “debtor” group in both periods (since they can finance their future oil needs without great difficulty), Japan and the Oceania members of OECD must be included in the second, or OPEC, period.

To make the comparison real, let us assume that in both periods the “debtor” group of nations was required to repay the principal of the total “debt” over a period of six years, beginning in 1952 and 1974 respectively, and that the “interest” (actual interest on debts, plus dividends on investment) was at identical rates of five percent. On this basis, Table III below shows (in 1974 dollars for both cases) the growth of GNP, international trade levels, capital inflows, and debt service requirements for 1947 to 1955, and projections of the same magnitudes for 1974 to 1985.

When put in these terms, the adjustment to higher oil prices

### Table III

**Comparison of Adjustment Processes: 1947-55 and 1974-85**

(billions of dollars in 1974 prices)

<table>
<thead>
<tr>
<th></th>
<th>1947</th>
<th>1950</th>
<th>1955</th>
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<tbody>
<tr>
<td><strong>A. 1947 Adjustment (OECD Europe)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Gross National Product</td>
<td>350</td>
<td>435</td>
<td>578</td>
</tr>
<tr>
<td>2. Exports</td>
<td>51</td>
<td>94</td>
<td>134</td>
</tr>
<tr>
<td>3. Imports</td>
<td>75</td>
<td>90</td>
<td>116</td>
</tr>
<tr>
<td>4. Net Capital Inflow</td>
<td>31</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>5. Total Debt</td>
<td>31</td>
<td>74</td>
<td>92</td>
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<tr>
<td>6. Hypothetical Debt Service</td>
<td>1.4</td>
<td>3.6</td>
<td>17.9</td>
</tr>
<tr>
<td>7. Debt Service/GNP</td>
<td>0.4%</td>
<td>0.8%</td>
<td>3.1%</td>
</tr>
<tr>
<td>8. Debt Service/Exports</td>
<td>2.8%</td>
<td>4.0%</td>
<td>13.0%</td>
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<table>
<thead>
<tr>
<th></th>
<th>1974</th>
<th>1980</th>
<th>1985</th>
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<tbody>
<tr>
<td><strong>B. 1974 Adjustment (OECD Europe and Japan-Oceania)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Gross National Product</td>
<td>1,921</td>
<td>2,695</td>
<td>3,082</td>
</tr>
<tr>
<td>2. Exports</td>
<td>361</td>
<td>524</td>
<td>776</td>
</tr>
<tr>
<td>3. Imports</td>
<td>329</td>
<td>460</td>
<td>710</td>
</tr>
<tr>
<td>4. Net Capital Inflow</td>
<td>40</td>
<td>45</td>
<td>34</td>
</tr>
<tr>
<td>5. Total Debt</td>
<td>40</td>
<td>285</td>
<td>500</td>
</tr>
<tr>
<td>6. Hypothetical Debt Service</td>
<td>8</td>
<td>48</td>
<td>51</td>
</tr>
<tr>
<td>7. Debt Service/GNP</td>
<td>0.4%</td>
<td>1.8%</td>
<td>1.6%</td>
</tr>
<tr>
<td>8. Debt Service/Exports</td>
<td>2.2%</td>
<td>9.2%</td>
<td>6.6%</td>
</tr>
</tbody>
</table>

* Actual imports were reduced to take account of the need to service hypothetical debts.

b Hypothetical debt service calculated at 5% interest, repayment of each year's borrowing over six years beginning in 1952 or 1974.
that is now required is shown to be of somewhat lesser magnitude than the postwar adjustment process. The proportion of imports to be financed by external capital in the first five years is only half as great, and it will not be necessary to limit the growth of non-oil imports in order to close the trade gap with OPEC. Although there was little repayment of the actual postwar debt, the growth of exports and GNP after 1950 was rapid enough to have permitted such repayment with little effect on continued growth.

The important lesson of the postwar period is that such a large restructuring was accomplished with relative ease because economic growth was sustained at a high rate.

Even without much fall in OPEC oil prices between now and 1980 the OECD countries of Europe and Japan will reach a maximum indebtedness to OPEC in the early 1980s. At its peak, the service on this debt will be less than two percent of their GNP. Table III shows that borrowing to pay for part of the increased oil costs has the advantage of spreading out the diversion of exports needed to offset the worsening of the OECD terms of trade; even if interest on the debt reaches five percent in real terms (much more than is now being paid), the total burden of debt service will be less than 10 percent of projected exports.

By 1990 almost all of the OPEC countries are likely to have reduced their outstanding investments in the OECD very substantially as their internal absorptive capacity continues to grow. While capital may then flow in the opposite direction to support the continued growth of the oil producers as their oil revenues stagnate or decline, the magnitudes will not be so large as to interfere with the growth of the OECD countries. Therefore, it is difficult to argue on economic grounds that the world economy cannot sustain capital flows of the required magnitude, or that the OECD countries need to suffer heavily in the process.

The other major obstacle to acceptance of borrowing from OPEC countries as a desirable solution to the oil problem is the fear that they will acquire excessive ownership and control of OECD assets. The magnitudes involved—up to $300 billion (in 1974 prices) by 1980—must be judged in relation to the total assets of the OECD countries including the United States. The figure of $300 billion would be perhaps five percent of the value of all stocks and bonds in the major OECD countries in 1980 or two percent of their fixed assets. These are considerably smaller proportions of foreign ownership than those experienced by
many countries in the past. Moreover, it is clearly within the power of the recipient countries to limit the forms of assets that are held so as to avoid any undesirable forms of external control. Thus, instead of worrying about foreign control of existing assets, we should be more concerned with the loss of income and wealth that is likely to occur through misguided efforts to limit the oil deficits. A reduction of OECD growth from its normal five percent to 3.5 percent would wipe out some $300 billion in potential asset formation by 1980 and cause considerable unemployment, which is a much greater cause for concern than the risks of OPEC control.

In sum, there do appear to be reasonable ways by which the adjustment process between the OECD and OPEC countries can be eased and made bearable. If the analysis in Table II were accepted, some reduction in the oil price would be a part of the overall answer. But even if this were not done, a better coordinated international system should be capable of handling the required transfers through the transition period. In economic terms, the problems between the OECD and OPEC countries are soluble.

VI

Let us return now to the problem of the LDCs.

The events of the past several years have had very diverse effects on the two billion people who constitute the Third World. Although the commodity boom of 1972-74 improved the terms of trade of most primary exporters, this trend has now been reversed, with the exceptions noted above of petroleum and some minerals and foodstuffs. The impact of oil and food prices on the non-OPEC members of the Third World has been to double their balance-of-payments deficits—from $10 billion in 1973 to $20 billion in 1974—offsetting the effects of the present flows of concessionary loans and grants.

These developments have initiated a process of fragmentation of the Third World that is likely to continue. The beneficiaries of these changes comprise some 400 million people living in countries exporting oil and minerals, whose development prospects have greatly improved. A second group consists of some 600 million people in the upper income tier of the developing countries—Brazil, Turkey, Korea, Thailand, etc.—many of which have suffered losses similar to those of the OECD. Al-
though they will have to borrow large amounts to offset their oil deficits, most of them have sufficiently flexible and diversified economies to adjust to the increased exports and changed internal allocation of resources. This group will experience a temporary slowdown in growth, but their long-term prospects need not be seriously affected, providing they continue to have access to capital markets and other recycling facilities.

For the billion people in the lower tier of less developed countries the situation is quite different. For most of the poorest countries—mainly in South Asia and East and Central Africa—export prices have lagged behind the general inflation while import costs have risen sharply. As a result, their terms of trade have worsened by 20 percent in the past two years, twice as much as the fall for the OECD countries. For many of these countries—and notably India and Bangladesh, which comprise two-thirds of the population—development prospects have been set back ten years or more. In many cases, food shortages and high prices are as important as the rise in oil costs in preempting the available foreign exchange and stopping the import of other goods needed for development. It is in this "Fourth World" that the oil and food crises come together and require a joint solution.

In general, the ability to adjust to changes in external economic conditions diminishes at lower levels of development. The margins for reduction in consumption of oil or food become narrower, and there is a more limited range of potential exports that can be increased in the near future. For many of the poorest countries, the possibilities of internal adjustment are rapidly being exhausted. While some of them accumulated foreign-exchange reserves during the commodity boom, these reserves will not long offset the increased cost of imports. Since it will take several years to develop new exports, growth can only be sustained even at reduced levels by an increase in concessional lending of three to four billion dollars per year (in constant prices) over the next few years.6

Since India makes up more than half the population of the lower tier of developing countries and has somewhat greater opportunities to adjust, it deserves separate comment. Although India has had considerable success in developing an industrial base and a supply of human skills over the past two decades, it has

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6 Robert McNamara, Address to the Board of Governors of the World Bank Group, September 1974.
been one of the last countries to maintain the inward orientation of its development effort instead of following Korea, Brazil, Mexico and most other industrializing countries in shifting into manufactured exports. It was thus in a very poor position to meet the impact of higher oil, food and fertilizer prices, which added two billion dollars to its existing import bill of three billion dollars between 1972 and 1974. Unlike the other very poor countries, however, India has an industrial structure that could provide a basis for rapid export growth if it were to give the priority to this effort that has proved necessary for other successful exporters.

In summary, it is worth stressing the basic differences between the more limited adjustment mechanisms available to the less developed countries and those that can be employed by the advanced countries.

—OPEC surpluses will be automatically invested in the capital markets of the advanced countries; special efforts (such as guarantees or subsidies) will be needed to redirect some of these funds to the developing countries or to have the OECD countries re-lend them.

—Energy conservation provides a large element of the adjustment for the rich countries, but there is much less scope for it in the less developed ones.

—Since three-quarters of the OPEC surplus is with the OECD, the latter countries cannot reduce it by expanding exports to one another. However, the OECD countries should accept a continued expansion of exports from the developing countries, since this latter group can only depend on recycling to a limited extent.

VII

Despite widespread predictions of impending economic disasters, these events are no more inevitable now than were similar predictions in 1946 and 1947. The basic problem we face is to adjust to the claims for a relatively small redistribution of world income among countries without incurring any greater loss of welfare than is necessary. While one solution to the problem would be for the producers of petroleum and foodstuffs to moderate their claims, a return to previous price relations can be virtually ruled out, and some degree of structural readjustment must be pursued.
The policy conclusions to this analysis can be summed up in three propositions: (a) once the dimensions of the basic problem are accepted, it should be quite feasible to devise a set of policies to enable the several parts of the world economy to resume satisfactory rates of development; (b) the various elements of the solution are highly interdependent and require a quality and sincerity of international cooperation that has been lacking since the early 1950s; (c) the effects of a failure to make the adjustments in the international system would be considerably more costly to most of the participants than the gains that each country can hope to achieve by acting independently, and the burden of such a failure would fall disproportionately on the poorest countries.

Although it is not my purpose to analyze the various institutional changes that are needed to bring about these results, the principal elements in a cooperative approach to a solution can be sketched out:

1. **Reduction of Uncertainty in Oil Marketing**
   Uncertainty as to OPEC oil policies and the desirable responses to them is the main obstacle to the acceptance of the problem of higher prices by the importing countries. Reduction of this source of uncertainty would greatly aid the adoption of other measures to restore equilibrium in the world economy.

2. **Financing Oil Deficits**
   It is generally agreed that the existing recycling mechanisms—OPEC loans to preferred governments, limited use of the international institutions, direct OPEC investments, and the private banking system—will become increasingly inadequate to the magnitude of the OPEC surplus in the course of 1975. Although a more satisfactory system would expand use of all of these routes, it should also guarantee a volume of lending adequate to finance the oil deficits of the OECD countries and the upper tier of those developing countries which are able to assume additional debt. Such guarantees are needed to avoid "beggar thy neighbor" policies through which importing countries attempt to reduce their individual oil deficits at each other's expense. However, the poorest countries are not able to assume much additional debt other than on concessional terms.

3. **Support for OPEC Development**
   Since the main object of the OPEC governments is the rapid and secure development of their economies, their willingness to
cooperate in solving the problems of the rest of the world is likely to be increased by measures that would enable them to reach that goal. Such measures should include a secure return on external investment and assistance in their internal development. In return they might be willing to forgo high short-run profits in favor of a larger and more secure future market for their oil.

4. OECD Growth

Even with adequate recycling mechanisms, some short-term reduction in the growth of the industrial countries is virtually inevitable as part of the worldwide effort to control inflation. However, a restoration of the trend rate of five-percent growth of GNP for the OECD countries by 1976 is quite feasible and would make an important contribution to the solution of the problems of the developing countries.

5. Restoration of LDC Growth

In the present atmosphere of inflation, payments deficits and economic recession, it seems politically impossible for the industrial countries to give adequate attention and support to the developing countries. This condition is unlikely to be reversed until the OECD countries are on the way to solving their own problems. Until that is achieved, the erosion of aid by inflation is not likely to be offset, and the tendency to restrict LDC imports will be hard to resist.

In quantitative terms, the needs per year of the developing countries for additional support to restore reasonable rates of growth are modest: three to four billion dollars (in 1974 prices) for the rest of this decade. Depending on the rates of growth of the OECD countries, this would bring total concessional lending back to between 0.3 and 0.4 percent of the gross national products of the OECD and OPEC countries. These were the levels that were maintained by the OECD until recently, when they were reduced by the effects of the inflation. But to achieve them will require substantial increases in current appropriations, in order to offset higher prices.

Without some expansion of aid, restoration of growth in the rest of the world will do relatively little for the most seriously affected countries because they cannot readily shift their exports to take advantage of it. Nor can they make extensive use of recycling facilities on conventional terms. Thus there is no short-run adjustment mechanism available to them except to reduce their growth. Some special assistance—either in the form of re-
duced prices for oil and food or increases in concessional lend-
ing—is needed to avoid inflicting on them the main burden of
both the oil and the food adjustments.

VIII

Since the series of negotiations and institutional changes re-
quired to bring about this rather optimistic scenario will require
an appreciable period of time, we will have to improvise tem-
porary solutions. In the short run, there is no alternative to the
use of existing institutions for recycling, the reallocation of aid
budgets and food stocks to the most affected countries, and an ad
hoc sharing among the stronger OECD and OPEC countries of
the burdens of adjustment and risks of lending.

In the longer run, the world does have a choice. It lies between
mounting a cooperative effort on the model of the postwar period
or accepting the much higher costs of an uncoordinated readjust-
ment in which all parties are likely to suffer.
Nigeria: Options for Long-Term Development by Wouter Tims and others, published by The Johns Hopkins University Press, 1974

The Current Economic Position and Prospects of Peru by José Guerra and others, distributed by The Johns Hopkins University Press, 1973

Senegal: Tradition, Diversification, and Economic Development by Heinz Bachmann and others, distributed by The Johns Hopkins University Press, 1974

Turkey: Prospects and Problems of an Expanding Economy by Edmond Asfour and others, distributed by The Johns Hopkins University Press, 1975

Yugoslavia: Development with Decentralization by Vinod Dubey and others, published by The Johns Hopkins University Press, 1975

World Bank Staff Occasional Papers

Economic Evaluation of Vocational Training Programs by Manuel Zymelman, published by The Johns Hopkins University Press, 1976

A Development Model for the Agricultural Sector of Portugal by Alvin C. Egbert and Hyung M. Kim, published by The Johns Hopkins University Press, 1975

The Future for Hard Fibers and Competition from Synthetics by Enzo R. Grilli, distributed by The Johns Hopkins University Press, 1975

Public Expenditures on Education and Income Distribution in Colombia by Jean-Pierre Jallade, distributed by The Johns Hopkins University Press, 1975

Tropical Hardwood Trade in the Asia-Pacific Region by Kenji Takeuchi, distributed by The Johns Hopkins University Press, 1974

Methods of Project Analysis: A Review by Deepak Lal, distributed by The Johns Hopkins University Press, 1974

Road User Charges in Central America by Anthony Churchill, distributed by The Johns Hopkins University Press, 1972

Cost-Benefit Analysis in Education: A Case Study of Kenya by Hans H. Thias and Martin Carnoy, distributed by The Johns Hopkins Press, 1972

Other Publications

Size Distribution of Income: A Compilation of Data by Shail Jain, distributed by The Johns Hopkins University Press, 1975


Redistribution with Growth by Hollis Chenery, Montek S. Ahluwalia, C. L. G. Bell, John H. Duloy, and Richard Jolly, published by Oxford University Press, 1974


World Bank reprints
No. 16. Hollis B. Chenery, "Restructuring the World Economy," Foreign Affairs [also available in Spanish as published in El Trimestre Económico]
No. 18. V. V. Bhatt, "Pattern of Income Distribution in India" [with P. D. Ojha], Sankhyā and "A Decade of Performance of Industrial Development Bank of India," Commerce
No. 21. V. V. Bhatt, "Some Aspects of Financial Policies and Central Banking in Developing Countries," World Development
No. 22. Bela Balassa, "Reforming the System of Incentives in Developing Countries," World Development
No. 27. Efrain Friedmann, "Financing Energy in Developing Countries," Energy Policy
No. 29. V. V. Bhatt, "On Technology Policy and its Institutional Frame," World Development