

# 62

June 16, 1975

#63

THE ALLOCATION OF "OIL DEFICITS"

by

Robert Solomon

NOTE: International Finance Discussion Papers are preliminary materials circulated to stimulate discussion and critical comment. References in publications to International Finance Discussion Papers (other than an acknowledgement by a writer that he has had access to unpublished material) should be cleared with the author or authors.

## The Allocation of "Oil Deficits"

by Robert Solomon\*

The fourfold rise in oil prices combined with the inability of OPEC countries to increase their imports of goods and services in the short run rapidly enough to match their enlarged export receipts results in a sizable surplus on goods and services<sup>1/</sup> of OPEC with the rest of the world. This surplus, estimated at about \$60 billion in 1974, can be reduced only by one or more of the following means:

- 1) a reduction in oil prices;
- 2) reduced demand for OPEC oil by importing countries;
- 3) increased imports of goods and services by OPEC countries.

At present, all three of these influences appear to be at work. Because of reduced demand in importing countries--resulting not only from the price hike but from the recession and from deliberate conservation efforts--oil supplies are piling up, tankers are idle or are traveling slowly, and there are reports of oil sales

---

\*/ This paper represents the views of the author and should not be interpreted as reflecting the views of the Board of Governors of the Federal Reserve System or its staff. This paper was presented before the Brookings Panel on Economic Activity in Washington, D.C., April 24-25, 1975.

<sup>1/</sup> For convenience the balance on goods, services and private remittances (surplus or deficit) will be referred to as the current balance, current surplus, or current deficit in this paper. The term current account deficit or surplus includes government grants paid or received and, for our purposes, this latter item is a means of financing the OPEC surplus rather than a flow to be financed.

The fourfold rise in oil prices combined with the inability of OPEC countries to increase their imports of goods and services in the short run rapidly enough to match their enlarged export receipts results in a sizable surplus on goods and services<sup>1/</sup> of OPEC with the rest of the world. This surplus, estimated at about \$60 billion in 1974, can be reduced only by one or more of the following means:

- 1) a reduction in oil prices;
- 2) reduced demand for OPEC oil by importing countries;
- 3) increased imports of goods and services by OPEC countries.

At present, all three of these influences appear to be at work. Because of reduced demand in importing countries--resulting not only from the price hike but from the recession and from deliberate conservation efforts--oil supplies are piling up, tankers are idle or are traveling slowly, and there are reports of oil sales

<sup>1/</sup> For convenience the balance on goods, services and private remittances (surplus or deficit) will be referred to as the current balance, current surplus, or current deficit in this paper. The term current account deficit or surplus includes government grants paid or received and, for our purposes, this latter item is a means of financing the OPEC surplus rather than a flow to be financed.

on a delayed payment basis. OPEC imports increased spectacularly, from a low base, in 1974; the estimated increase in total OPEC imports, including military goods, is about 75 percent, from \$22 billion to about \$38 billion.

For these reasons, some observers have estimated that the OPEC current surplus could disappear or become quite small by the end of the 1970's or, at least, that the OPEC current deficit could disappear as its remaining deficit with OPEC was offset by a surplus with the rest of the world.<sup>2/</sup> I have no independent estimates to offer but would stress that the capacity of OPEC countries to absorb imports is easily exaggerated, at least insofar as non-military products are concerned. The rate of import growth will depend on the rate at which investment projects can be implemented. This takes time and requires appropriately skilled manpower. Given these technological and physical constraints, this paper assumes that the price elasticity of OPEC's demand for imports is very low.

---

<sup>2/</sup> OECD, Economic Outlook, July 1974, pp. 94-96; Morgan Guaranty Trust Company of New York, World Financial Markets, January 21, 1975, p. 8; Edward R. Fried, "Financial Implications," Chapter 14 of Energy and U.S. Foreign Policy (ed. Joseph A. Yager and Eleanor B. Steinberg), Ballinger Publishing Co., Cambridge, Massachusetts, 1974.

In any event, for present purposes, we need not decide when the OPEC surplus will disappear. We take as given that for a number of years there will be an OPEC current surplus, probably a declining one. Inevitably, the rest of the world will have a corresponding current deficit. The question to be explored in this paper is how that inevitable current deficit should be divided among non-OPEC countries.

Since current deficits must be financed, the question may also be put in terms of how the oil-importing countries should share the increase in debt and net equity claims against themselves.<sup>3/</sup> The OPEC Countries have little choice but to give away, lend, or invest the proceeds of their current surpluses in oil importing countries, and the latter can redirect such flows among themselves either by inducing private capital movements or by official lending and borrowing. How should this net flow be apportioned?

By way of further introduction, a word may be in order about the real effects of the oil price rise and of changes in current balances. Although the terms of trade of PICs (petroleum importing countries) have deteriorated, PECs (petroleum exporting countries)

---

<sup>3/</sup> In the remainder of the paper, the terms debt or incremental debt will be taken to include equity claims of others against the "debtor."

can spend only a limited amount of their enlarged export receipts and must lend the remainder back to PICs.<sup>4/</sup> As long as this goes on, the net worth of PICs will decline (or rise less rapidly) and the net worth of PECs will increase. Under some definitions, this may be regarded as a reduction in real income of PICs and an increase of real income of PECs. But the absorption of resources by PICs for use in domestic consumption, investment, and government outlays needs to fall, or rise less rapidly, only as and to the extent that exports to PECs increase. PICs in the aggregate need suffer no reduction in real absorption or its rate of growth apart from the expansion of exports to PECs. PICs may experience an unnecessary reduction of real income--i.e., a recession--if their domestic policies fail to compensate for the fact that consumers are paying more for oil products and therefore have less left over to spend on other goods and services, as would have happened if a large excise tax on oil had been imposed in PICs. This type of real income contraction in PICs is a loss of income to the world, not a transfer to PECs. The latter type of transfer can occur only as PECs increase their imports and reduce their current surpluses.

---

<sup>4/</sup> Fritz Machlup has suggested the terms PIC and PEC.

### Relevance of the Question

What is the rationale for this investigation, with its implied consequences for national policies aimed at apportioning a given aggregate current deficit and accompanying increase in debt?

We start with a sizable disturbance to international economic relations in the form of a quadrupling of the oil price. The adjustment to this disturbance cannot be immediate, given the physical limitations on the growth of imports by PICs. The time pattern of the aggregate balance of payments adjustment, which depends on the three factors identified on page 1, is uncertain. Furthermore, it is not possible to predict the various changes that will occur in the structure of industry in the various PICs along the road to full adjustment. Given these uncertainties and the overriding fact that it is impossible for PICs in the aggregate to eliminate their current deficit at their own discretion, it is vital that PICs avoid policies that would simply aggravate each others' balance of payments problems without alleviating their aggregate problem.

The quadrupling of the oil price has thrown most industrialized countries into a current balance position to which they are unaccustomed. For years, since the early 1950s, most OECD countries have regarded it as normal to have a current surplus. (See Table 1.) This made economic sense, given the generally accepted objective of transferring real resources to developing countries, financed by

official and private capital flows. But even apart from this economic objective, a trade or current-balance surplus was frequently regarded as a virtue and a deficit was regarded as a sign that the country was in trouble and that action would have to be taken to correct it. The very large and inevitable shift toward deficit in current balances of OECD countries can give rise to similar reactions. Acting individually, OECD countries might regard it as rational to take immediate measures to restore their traditional current surpluses rather than incurring debt. It is because such actions cannot possibly succeed for OECD countries as a group that one needs to emphasize the inevitability of the aggregate PIC deficit, for the time being. Once this is accepted, there is bound to be interest in how the deficit is shared.

Some understandings about a reasonable allocation of the inevitable current deficit seem necessary if mutually frustrating and destructive policies by oil-importing countries are to be avoided. As long as an aggregate OPEC current surplus exists, efforts by any one PIC to reduce its current deficit--by devaluation, deflation, restrictions on imports, or export subsidies--would simply shift the deficit to another PIC, unless those efforts were pinpointed on the country's current balance with PECs. The scope for such pinpointed efforts is rather narrow; they include limitations on oil imports and little else. If a PIC increased its exports to PECs by the use of subsidies, for example, the result would

TABLE 1

OECD CURRENT BALANCES<sup>1/</sup>

(billions of U.S. dollars; years or annual averages)

	<u>1960-64</u>	<u>1965-72</u>		<u>1973</u>	<u>1974</u>
		High	Low		Increase in cost of oil imports, 1974 <sup>2/</sup>
Canada	- .70	.97	-.90	-.50	- 1.50
France	.68	1.01	-1.46	-.10	6.70
Germany	1.10	3.90	.65	6.82	11.80
Italy	.24	3.01	1.28	- 1.18	- 7.00
Japan	-.34	6.95	-.04	.07	- 4.20
United Kingdom	-.09	3.04	-.26	- 2.25	- 8.60
United States	5.54	6.37	-5.61	3.36	16.75
Other OECD	<u>-.38</u>	4.31	-1.66	<u>5.07</u>	<u>10.75</u>
TOTAL	6.05	13.66	6.98	11.29	65.65

<sup>1/</sup> Balance on goods, services and private remittances. Details may not add to totals due to rounding.

<sup>2/</sup> Assumes 1973 volume of oil imports at 1974 prices.

Sources: OECD, IMF, national sources, Federal Reserve estimates.

probably be to reduce other PICs' exports to OPEC (unless the subsidy led to an increase in total OPEC imports), which would merely shift the aggregate deficit rather than reduce it. And of course, devaluation or deflation aimed at reducing the deficit would, apart from any reduction in oil imports that resulted from such policies, also shift the deficit to other PICs as, for example, the devaluing PIC increased its exports to PECs and to other PICs. Insofar as devaluation by PICs led to substitution in PECs of imports for domestically produced goods, as could happen in those PECs with diversified economies, the PECs would probably either match the devaluation or impose import restrictions, given their aim to continue to diversify their economies.

Thus the relevance of the question is that its answer will 1) help accustom people to accept inevitable current deficits, which they tend otherwise to regard as abnormal, 2) by the same token, accustom people to accept borrowing in one form or another as a normal accompaniment of current deficits, 3) provide a basis on which oil-importing countries can formulate policies that are consistent with those of other oil-importing countries and 4) provide a basis on which the rest of the world can appraise the policies of individual countries, as is done regularly in the IMF, OECD, and BIS.

Although the problems addressed by this paper are confronted by all oil-importing countries, the analysis that follows will focus on the OECD countries. One reason is to make the analysis manageable.

Another is that there is less danger of mutually frustrating and destructive policies among LDCs, which are accustomed to current deficits. Still another is that one would expect that a substantial share of OPEC's surplus will have its counterpart in OECD's deficit. Finally, the OECD countries had, long before the autumn of 1973, established in Working Party 3 the practice of examining each others' current-balance positions and targets with a view to judging their compatibility.

While the analysis that follows focuses on OECD countries, it should be stressed that many developing countries face serious balance of payments problems as a result of higher oil prices, aggravated this year by recession in the industrialized countries. Even when the recession is over, LDCs will have larger payments deficits than before 1973. Since the bulk of the OPEC import expansion in the years ahead is likely to involve industrial products, LDCs could be left with substantial current deficits even when the OPEC surplus has dwindled and the OECD deficit has disappeared and moved back to surplus. How to finance this enlarged LDC deficit is a serious problem, and focus on OECD countries in this paper is not meant to minimize its compelling nature. It is worth noting that the increase in oil payments by non-OPEC developing countries from 1973 to 1974 is estimated at \$9 billion, while "official development assistance" to developing countries from OECD countries

came to \$9.4 billion in 1973.<sup>5/</sup>

We should also note that the OECD countries do not start from anything like an equilibrium position. While some imbalances always exist, it can be seen in Table 1 that current balances were much more unevenly distributed in 1974 than in earlier years. In 1974 Germany had a current surplus of almost \$12 billion, while the OECD as a whole had a current deficit of about \$25 billion. The United States had a small surplus and Japan a relatively small deficit despite the magnitude of their increased payments for imported oil in 1974. The counterpart of these relatively strong current balance positions showed up in large deficits in the United Kingdom and some of the smaller OECD countries, which experienced a reduction in their current balances greater than what is attributable to the higher price of oil, as well as in enlarged deficits of non-OECD countries. To some extent these imbalances are cyclical, reflecting the recession that began in 1974 in the major industrial countries. "High employment" current balance positions are probably less unbalanced than actual positions in 1974. In any event, apart from any shifts that may be necessary to achieve a rational, or at least mutually acceptable, allocation of the OECD deficit, some readjustments in current balances among OECD countries are called for and probably will occur.

<sup>5/</sup> World Bank, Annual Report 1974, p. 82.

### Identification of Bases for Allocation

As noted earlier, we may define our problem in terms of either the allocation of current deficits among OECD countries or the allocation of incremental debt among OECD countries. For any individual OECD country and for the OECD as a whole, the current deficit will equal the increase in debt over any time period. We assume, on the basis of past and recent behavior, that OECD countries will try to avoid heavy use of their international reserves in financing current deficits. It should also be noted that the current deficit of OECD is not equal to the OPEC current surplus. The OECD is likely to have a current surplus with the non-OECD non-OPEC world (developing countries plus Eastern Europe, Russia and China), and a larger current deficit with OPEC. Similarly, while OECD will be a net capital importer over the next few years, this will be the result of net capital outflows to non-OPEC countries, which will be more than offset by net capital inflows from OPEC.

In looking at ways to apportion the current deficit among OECD countries, we can focus on the allocation of the incremental debt, examining criteria for an optimal allocation, or we can focus on the current deficit, examining criteria for its optimal allocation. The criteria may well overlap. But focus on current deficits involves questions about absorption of resources and its pattern over time, including the allocation of resources during and at the end of the adjustment period. Focus on incremental debt tends to

involve questions of creditworthiness, ability to borrow, and the availability of official financing to supplement private capital flows (including official arrangements to "reshuffle" capital among OECD countries).

Agreement on a pattern of current deficits and incremental debts among OECD countries implies that countries should adopt policy measures to achieve these targets. The policy instruments available to OECD countries for adjusting their current balances include government borrowing from abroad (in money and capital markets, from other governments, or from international institutions), which has become a major policy instrument and which clearly affects exchange rates; differential demand management policies among countries; changes in the fiscal-monetary policy mix which will affect private capital flows and hence exchange rates; and direct intervention in exchange markets by central banks to influence exchange rates. It is generally accepted as desirable that countries should avoid trade restrictions and export subsidies. This was reflected in a "trade pledge" adopted last year by OECD countries and subject to renewal this year.

#### Do Nothing--Just Stand There

Before considering criteria for an agreed division of the OECD deficit, it is useful to examine the laissez-faire prescription. Assume no official intervention in exchange markets and no governmental

borrowing or other direct attempts (including controls) to influence capital or trade flows in any OECD country. We know that for the OECD area as a whole, the current deficit with OPEC will roughly equal the capital inflow from OPEC. OECD's current balance with the rest of the world will presumably be a current surplus financed by official bilateral and multilateral development assistance and by private capital flows to non-OPEC LDCs.

It should be stressed that the "do-nothing" case examined here differs from the general case for freely floating exchange rates for the two following reasons: 1) neither the OECD current deficit with OPEC nor 2) the net capital flow from OPEC to OECD will be significantly affected by the exchange rate between OECD as a whole and OPEC. It has already been emphasized that the rate at which OPEC's current surplus can be compressed is limited by the ability of OPEC countries to absorb imports. Given the economic characteristics of OPEC countries, the price elasticity of their demand for aggregate imports must be very low and therefore devaluation of OECD currencies relative to OPEC currencies would do little if anything to speed the adjustment to a smaller OPEC surplus. And, since the major capital and money markets are in OECD countries, OPEC countries have little choice but to invest their surpluses somewhere in OECD, regardless of exchange rates.

The broad case for the laissez-faire approach is based on the usual arguments for free market solutions. Furthermore, if governments

eschew specific current account aims, they cannot possibly be pursuing incompatible targets or begger-thy-neighbor policies.

Under the laissez-faire assumptions, any given OECD country will have, in the initial period, a given current balance, a given inflow of OPEC funds, and a given flow of capital to or from the rest of the world. If the sum of these three flows were to balance at the existing exchange rate, that country's situation would be stable. For the "representative" OECD country, the current balance will be in deficit. The magnitude of capital inflow directly from OPEC will depend on the opportunities for direct investment as perceived by OPEC investors, on the availability of and yield on money and capital market instruments, and on the expectations of OPEC financial managers regarding future movements in the exchange rate of the country, and possibly on political considerations. Capital flows to or from other countries and the Euro-currency markets--funds that might originally have come from OPEC--will also depend on relative interest rates and expectations about the exchange rate; such capital flows could be at the initiative of foreigners or of residents of the country, but we have ruled out deliberate borrowing by the government for the purpose of financing the current deficit.

We have to recognize that there are significant differences among OECD countries in the breadth and depth of their money and capital markets. Those countries in which the markets are not well

developed--in the sense that annual net new issues of securities, short and long term, are of small magnitude and market turnover is small--are unlikely to attract OPEC funds directly even if current market yields are relatively favorable; nor are they likely to attract funds from other OECD countries except to the extent that their own citizens take the initiative to go out and borrow when interest rates are lower in other financial markets or the Euro-markets. A country (call it Country A) in this position is likely to experience a capital inflow smaller than its initial current deficit, and its exchange rate will therefore tend to depreciate. Under our assumptions, the exchange rate will fall until the current deficit is reduced to the amount of net capital inflow.

We know there are lags in the response of trade and invisible transactions to exchange rate changes.<sup>6/</sup> While there may be disagreement among economists as to the length of these lags, we need only assume, for present purposes, that lags exist. Yet the exchange market in Country A has to clear daily without intervention, under our assumed laissez-faire conditions. The exchange rate might have to overshoot the equilibrium level in the meantime--to a point

<sup>6/</sup> See, for example Helen B. Junz and Rudolph Rhomberg, "Competitiveness in Export Trade Among Industrial Countries," American Economic Review, Vol. LXIII, No. 2 (May 1973).

where investors (or speculators), inside or outside Country A, decide that the rate has overshoot and will move capital in to gain from the expected reversal in the movement of the exchange rate.

The exchange rate decline, while it has a lagged effect on the volume of trade, will have an early effect on import prices and on the general price level, with a possible lagged effect on wages. There will also be income effects from the change in the current balance, but it is assumed that these are offset by fiscal and monetary policies. At some exchange rate and with some cost-push inflation owing to the initial rise in import prices, Country A can be expected, after a lag, to reach a position where capital inflows equal the current deficit without further exchange rate changes or other policy actions. In this process of accommodation the exchange rate will at some stage have tended to rise, if there had been earlier overshooting, thereby reducing the price of imports. Whether any of the earlier upward movement of prices and wages will be reversed is questionable in today's world.

Meanwhile Country B will have been tending to receive capital inflows in excess of its current deficit, given our assumption that total capital flow from OPEC to OECD roughly equals OPEC's current surplus with OECD. Country B's exchange rate will tend to appreciate. This will happen, in any event, as a reflection of the depreciation of A's currency. The extent of the more general appreciation of B's exchange rate will depend on the size of its

capital inflows relative to its ex ante current deficit. Again there may be an overshooting, which will tend to lower B's import prices. In time B's current deficit will increase and its capital inflow may decrease as a result of market expectations that the rise in its exchange rate is likely to be reversed. Insofar as B's lower import prices percolate through to its wage-price level, the deterioration of its current balance will be less than would be expected from the exchange rate movement alone.

In the laissez-faire case we end up with a pattern of current deficits and capital flows that may or may not be stable. If the (lagged) reduction in A's current deficit resulting from the depreciation of its currency is fully reflected in B's increased deficit, all will be well. But it could happen that A's deficit declines at the expense of Country C, which is not attracting an excess of capital from abroad. In that case C's exchange rate will depreciate and it will share A's experience. The result could be a round of devaluations of OECD currencies which would be fruitless, since they would not reduce the aggregate deficit of oil importing countries.

Furthermore, the price increase set off in A by the initially excessive devaluation may, depending on the organization of its labor market, among other things, acquire a momentum of its own, which would lead to further downward movements of its exchange rate. In the end, Country A ends up with a relatively small share of the

OECD deficit (a "non-oil" surplus). If it should later turn out that, as OPEC imports rise over the next 5 years, Country A's comparative advantage makes it a prime supplier to OPEC countries, Country A's current surplus will then be too large and its currency will have to appreciate. The resource allocation effects of first devaluing because of inadequate capital inflow, in the absence of deliberate governmental borrowing, and later revaluing may be costly.

Another possible instability would arise if the capital flow that Country A attracts when the market decides the exchange rate has touched bottom comes from Country D, which, up to that point, had a stable exchange rate, with a current deficit just balanced by capital inflows. D's exchange rate now depreciates and it begins to repeat A's experience.

It may be premature to present judgments on the laissez-faire case before examining the other options. The major shortcomings are the possible price-wage effects and the resource allocation effects during and after the balance-of-payments adjustment period. In any event, it is a reasonable prediction that governments will regard the laissez-faire approach as unacceptable. And it is an observed fact that governments are borrowing in order to finance current deficits. If governments are going to take a hand in managing their balance of payments positions, there is a good case for trying to assure that they pursue compatible goals.

The alternatives to the laissez-faire case involve target setting (perhaps zones rather than points) of current deficits by the OECD countries and deliberate actions by governments to supplement private capital flows so as to provide total capital inflows equal to the target current deficits, plus use of the other policy instruments referred to earlier, including intervention in the foreign exchange markets for the purpose of preventing the temporary sort of overshooting that occurred in the examples presented above.

Adoption of target-setting and policies to achieve such targets assumes that governments have the foresight and ability to manage their payments positions in a more effective and acceptable way than the free play of markets. It is recognized that this is a controversial assumption.

We turn now to various criteria according to which current balance or incremental debt targets might be established. The procedure will be to present each possible criterion and to examine its merits and demerits. The standards for judging a proposed basis for allocating the OECD deficit or incremental debt include the differential impact among countries on present as against future "absorption" of resources for domestic use; given that the OPEC surplus is temporary, the extent to which reallocations of resources can be minimized during and after the adjustment period; the willingness and ability of countries to incur incremental debt and the corresponding willingness of OECD countries in overall

surplus to lend to other OECD countries; and the effect on the longer-run rate of growth of real income in the OECD countries.

### The Do-Something Case

We now abandon the assumptions of the "do-nothing" case to the extent of assuming a desire of OECD governments to consult about an allocation of their combined deficit, to take policy measures as noted above to try to bring about the agreed pattern of deficits. While this is going on, the OECD combined deficit may be shrinking as OPEC imports increase. What are the criteria according to which OECD countries might try to allocate the overall current deficit?

#### 1. In Accordance With Ability to Reduce Absorption of Resources

Since a larger deficit means a greater capacity to use resources for domestic purposes, it might be argued on welfare grounds that the aggregate OECD deficit should be so apportioned that the poorer countries have a larger share and the richer countries a smaller share. In other words, the burden of transferring real resources abroad to pay for higher-priced oil would be delayed for the poorer countries, and intervening growth of their economies would make the ultimate transfer less burdensome. One way of applying this criterion would be to allocate the OECD current deficit in inverse proportion to GNP per capita. This would call, for example, for the assignment of relatively small current deficits to the United States and Germany and relatively large current deficits to Spain

and Italy. In order to avoid assigning unreasonably large deficits to very small countries, it is necessary to scale the results by a measure of size; in Table 2, total population is used.

It is useful to consider this criterion first because it brings out clearly the trade-off countries confront between parting with real resources and taking on debt. The preference functions of "countries" in this respect are not clearly revealed, but the dangers referred to earlier--concerning the possibility in a fruitless effort to reduce their current deficits--imply that at least some countries are more willing to give up resources than to incur debt.<sup>7/</sup>

Whatever the pattern of preferences, it might be difficult to allocate incremental debts on the basis of this criterion. Ex ante capital flows would be unlikely to conform to the pattern of current deficits that was generated by this criterion; that is, OPEC capital is more likely to go to the countries with higher per capita incomes, which happen to be the countries with better

<sup>7/</sup> In an interview with Business Week (October 12, 1974) Guido Carli, Governor of the Bank of Italy, proposed a scheme that suggested a readiness of his country to pay the higher price of oil with real resources without delay.

developed capital markets. As can be seen in column (1) of Table 2, almost one-third of the deficit would be assigned to the smaller OECD countries, which account for only 14 percent of the GDP of all OECD countries. Thus a heavy volume of compensatory official capital flows would be necessary; specifically, the richer countries would have to be prepared to lend, directly or indirectly, to the poorer countries, since the richer countries would probably be net recipients of capital in excess of their relatively small assigned current deficits. It is a reasonable prediction that there are limits to the willingness of OECD countries to provide official financing to each other.

Another objection to this approach is that there may be a positive correlation between per capita GNP and comparative advantage in supplying exports to OPEC as OPEC's imports increase over time. And the exchange-rate movements necessary to bring about the pattern of current deficits called for by this criterion--depreciation of the currencies of richer OECD countries relative to those of poorer OECD countries--would strengthen the comparative advantage of the richer countries. Thus when the OECD deficit had disappeared in the 1980's the richer countries might be in excessive current surplus and the balance-of-payments adjustments needed at that time could well involve costly reallocations of resources.

## 2. In Proportion to Economic Size

Some variant of GNP--that is, a criterion reflecting economic size--has the merit of assigning current deficits in apparent conformity with ability to incur debt and with the likely pattern of capital flows. On the basis of this criterion, the United States and Germany, for example, would take on a relatively larger share of the total debt and Italy and Denmark would take less, while also having smaller target current deficits.

Under this approach countries would share the initial deficit in proportion to their economic size and, as real transfers were made to OPEC--that is, as OPEC imports rose and the OPEC current surplus shrank--countries could also share equitably the real impact of the transfer (the loss of "absorption" for OECD as a whole).

But, since per capita real income is not equal among OECD countries, a strict proportionality of current deficits to GNP would have the result that in some cases poorer countries would initially make a somewhat greater relative real transfer than richer countries. If it were desired to avoid this result, it would be possible to use total population or total labor force as the measure of economic size.<sup>8/</sup>

---

<sup>8/</sup> It is worth noting that the Development Advisory Committee (DAC) of the OECD has not been bothered by this problem in assigning targets for development assistance. Such targets have been set as a proportion of GNP.

A possible objection to allocating current deficits in proportion to GNP or economic size stems from the fact that the share of GNP represented by foreign trade differs widely among OECD countries. The United States with its big GNP and small foreign sector would be assigned a current deficit that appeared very large in relation to its normal exports while the Netherlands would be in the opposite position. The GNP of the United States is 41 percent of the OECD total, while that of the Netherlands is 1.8 percent. Thus of a current OECD deficit of about \$30 billion, the U.S. share would be \$12 billion and the Netherlands' share \$540 million. Yet U.S. exports were only 2-1/2 times Dutch exports in 1973 (\$71 billion versus \$21 billion). Thus the U.S. assigned current deficit would equal about one-sixth of its annual exports while the Netherlands assigned deficit would come to less than 3 percent of its exports. Germany's assigned share of the OECD deficit would equal \$3.2 billion, against exports (in 1973) of \$66 billion, or about 5 percent. Thus assignment on the basis of GNP could create balance of payments adjustment problems in the future. On the other hand it is possible that growth of OPEC demand for imports (and the induced effects of this growth on other countries' imports) will also be distributed among OECD countries roughly in proportion to their GNP, as discussed at a

TABLE 2

## ALLOCATION OF OECD CURRENT DEFICIT ACCORDING TO SELECTED CRITERIA

(billions of dollars)

	Deficit per capita Inversely Proportional to GDP per capita <sup>1/</sup>	Proportional to GDP <sup>1/</sup>	Proportional to Population <sup>1/</sup>	Normal Surplus plus "oil deficit" in 1974 <sup>2/</sup>
	(1)	(2)	(3)	(4)
Canada	.7	1.1	0.9	-0.5
France	1.7	2.4	2.1	5.1
Germany	1.7	3.2	2.4	3.7
Italy	3.5	1.3	2.3	3.5
Japan	4.7	3.8	4.5	8.2
United Kingdom	3.0	1.6	2.3	4.7
United States	5.1	12.2	8.6	6.7
Other OECD	<u>9.6</u>	<u>4.3</u>	<u>6.8</u>	<u>9.1</u>
<b>TOTAL</b>	<b>30.0</b>	<b>30.0</b>	<b>30.0</b>	<b>40.5</b>

<sup>1/</sup> Assumes total OECD current deficit of \$30 billion; based on GDP and population in 1973. In column (1) the deficit is distributed inversely to GNP and then scaled to size of population.

<sup>2/</sup> "Oil deficit" is defined as increase from 1973 in payments for imported oil minus increase from 1973 in exports to OPEC. Minus sign denotes surplus.

Sources: Computed from OECD, Main Economic Indicators and Economic Outlook; based partly on Federal Reserve staff estimates.

later point in this paper. If this happens, this criterion would have considerable merit. Furthermore, distribution on the basis of population, rather than GNP, would lessen this problem, as may be seen in Table 2.

3. In Accordance With Rate of Return on Capital

Since the deficits we are concerned with represent, for any OECD country, additional real resources for home use relative to what would be available with a smaller current deficit, consideration might be given to allocating the aggregate OECD deficit in accordance with the social rate of return on additional resources. This criterion has particular appeal if it is believed that a country with a relatively large current deficit will undertake more investment than a country with a smaller current deficit. This criterion has been proposed as the most rational way to use the increase in world saving that OPEC is lending back to the rest of the world.<sup>9/</sup> On these various grounds this criterion would tend to maximize real GNP growth in the OECD area as a whole. Furthermore it would allocate incremental debt to countries in proportion to their growth potentials.

<sup>9/</sup> See W.M. Corden and Peter Oppenheimer, "Basic Implications of the Rise in Oil Prices," Moorgate and Wall Street, Autumn 1974.

An objection to this approach is that the pre-1974 pattern of current surpluses was not judged on the basis of rate of return on capital; why, it may be asked, should one suddenly begin to apply this criterion at the margin? In the past, appropriate current surpluses were judged in relation to the capacity and assumed obligation of countries to export capital, particularly to developing nations.

A more elementary and possibly fatal objection to this criterion is that it would be difficult to estimate national rates of return on investment in a way that is generally accepted.

The present writer pretends to no expertise in capital theory. If this general criterion--the marginal rate of social return on investment--has appeal, he would propose that OECD form a working party whose job it would be to develop acceptable measures or proxies for rate of return on investment.<sup>10/</sup>

4. In Proportion to Potential for Producing Substitutes for OPEC Oil

If the OECD carries through with an effort to reduce its dependence on OPEC oil by developing substitute sources of energy supply, this will require a considerable volume of investment

---

<sup>10/</sup> Two of the members of the working party should be Bob Solow and Ed Denison.

outlays in some countries. OECD nations differ in the potential to produce such substitutes. The United States has an enormous capacity to produce coal whereas Japan's possibilities of producing oil-substitutes are limited.<sup>11/</sup> The higher oil price is increasing potential world saving, and this at the moment is contributing to recession since neither consumption nor investment nor government spending has yet been increased commensurately with the increase in saving that OPEC is lending back to the OECD area. Insofar as investment designed to produce OPEC oil substitutes will be substantial, adding to total investment as a share of GNP, a case can be made for allocating the OECD current deficit more heavily to those countries where such additional investment will be greater.

This approach would allocate a very large share of the OECD deficit to the United States, with the result that other OECD countries would give up real resources earlier. But the United States is a country whose consumption of oil is generally regarded as being wasteful and more easily compressible than is oil consumption in other countries. Thus the United States could, without

<sup>11/</sup> The United States has over sixty percent of the OECD's coal reserves, about half of its crude oil and natural gas reserves; the United States and Canada together have virtually all of the OECD's oil shale and tar sands.

undue strain, reduce its oil consumption in order to provide scope for increased energy-producing investment without, in effect, absorbing resources from other OECD countries.

What may be a decisive objection to this approach is the following: a country with little potential for producing oil substitutes but with a high rate of return on other forms of investment would be penalized even though, if it were assigned a larger current deficit and carried out normal investments, its income growth would be rapid and would reduce the relative future burden of higher oil costs.

5. On Basis of "Normal" Current Surpluses Adjusted for "Oil Deficits"

Before oil prices were raised, there was a broad consensus in the OECD regarding the appropriate pattern of cyclically-adjusted current surpluses (which we refer to here as "normal" surpluses). It may be recalled that considerable work and debate occurred on this subject in the period between August 15, 1971 and the Smithsonian Agreement on December 18.

One could take the pattern of normal surpluses broadly agreed to in 1971 and adjust each country's surplus for its "oil deficit," if one could agree on what the oil deficit is and how to measure its changes over time. The most common definition of a country's oil deficit is the increase, from a base date, in its payments for imported oil minus the increase in its exports to OPEC countries.

In 1970, the OECD current surplus with the rest of the world was estimated at \$10.4 billion on a cyclically adjusted basis, having increased, on average, by about \$400 million per year over the previous decade. One might assume that, in the absence of the oil price rise, the normal OECD surplus in 1974 would be about \$12 billion. The minimum norm for the United States was thought to be a current surplus of about \$6 billion in 1972, leaving \$5 billion for the rest of the OECD area,<sup>12/</sup>

Adjusting such normal surpluses for "oil deficits" involves conceptual problems, which become more difficult as time marches on from 1974.<sup>13/</sup> For example, should the "oil deficit" include oil trade among OECD countries (Canada and Norway being oil exporters)? Should interest and dividends paid by OECD to OPEC countries be included in the computation of the "oil deficit"? Other elements of OECD trade will be affected by the change in relative prices and by the flow of financial transfers from OPEC to non-oil developing countries. These and other influences will make OECD current

<sup>12/</sup> OECD, Economic Outlook, #10, (December 1971), pp. 10, 11.

<sup>13/</sup> These problems are set forth in OECD, Economic Outlook, #16, (December 1974), p. 62.

balances different from what they would have been in the absence of the quadrupling of the oil price. How many of these adjustments should one make in computing an "oil deficit"?

Nevertheless as a rough measure of the impact one could adjust each country's normal current surplus for the value of the increase in its actual oil imports from 1973 minus the increase in its exports to OPEC countries from 1973. For the United States, these magnitudes amounted in 1974 to about \$17 billion and \$3 billion respectively, netting to about \$14 billion. The U.S. current deficit target for 1974 would have been a little less than \$7 billion on this basis, compared with an actual current surplus of \$1.4 billion. For Japan the increase in oil expenditures from 1973 to 1974 was about \$12-3/4 billion, while its exports to OPEC increased \$2-1/2 billion. Thus Japan's normal current balance would have had to be adjusted by \$10-1/4 billion in 1974. Assuming its normal surplus was \$2 billion, its target deficit would be just over \$8 billion, whereas its actual current deficit was \$4.2 billion. For Germany the target deficit would have been nearly \$4 billion, compared with an actual current surplus of \$11.8 billion.

This approach would raise the objection that countries' normal deficits would vary with their efforts at conservation. A country that reduced its oil imports would find itself assigned a smaller normal deficit and a country that used oil profligately would have a higher normal deficit. Thus the more "virtuous"

conservative country would be expected to make an earlier real transfer to OPEC than the "wastrel" country. On the other hand, the latter would take on a larger share of the total OECD debt. Therefore this objection is not necessarily decisive. Furthermore one could get around this problem by basing the "oil deficit" on each country's volume of imports in a base year, say 1973, rather than on actual import volumes.

Another objection to this approach might seem to be that in the short run it regards the increased OPEC surplus as an aberration which countries should accept as its impact falls upon them. But it has the advantage of adjusting targets over time for increases in exports to OPEC, as the OECD deficit shrinks. In this way it looks forward to the ultimate adjustments in "normal" current balances that might be necessary and which will almost inevitably be disparate among OECD countries. Individual countries that captured a larger share of the growing OPEC market would over time be assigned targets involving smaller current deficits. Whether the final pattern of current balance positions would appear acceptable is not clear.

6. In Proportion to Potential Exports to OPEC

This approach would apportion the current OECD deficit on the basis of the expected distribution among OECD countries of increases in exports to OPEC. It concentrates on OPEC because the predominant adjustment in world trade over the next decade

will reflect the growth of OPEC imports. This approach is circular, of course, since it requires assumptions about relative exchange rates among OECD countries. But leaving that objection aside, the virtue of this criterion is that it minimizes the degree of resource reallocation needed in individual OECD countries after the period of transition from the present large OECD deficit to the time of restoration of a normal OECD surplus in the 1980's. Like the previous criterion, it provides for a gradual move to equilibrium as OPEC imports grow, instead of requiring in some countries first a concentration of resources on exports and then a reversal of this process once the OECD area as a whole has completed the adjustment.

The problem here is that it would be difficult to predict potential exports to OPEC by individual OECD countries even if one assumed fixed exchange rates. In practice this approach might well resolve itself into a negotiation about sharing the growing OPEC markets; the results of which, if there were agreement, would provide guidance for future exchange rate policies. It can be argued that such a result would be rigid and that the agreed distribution of current deficits might be economically unjustified. To be set against this disadvantage is the apparent minimization of resource reallocations during the transitional period.

### Concluding Observations

This paper is a preliminary exploration and does not lead to clear-cut and unequivocal conclusions.

Before summing up, one might ask if there is not an intermediate case between complete laissez-faire and systematic assignment of current balance targets. The objective is to prevent the adoption of mutually self-defeating domestic or external policies that could create wasteful losses of income, internal instability of prices and wages, excessive reallocations of resources, and restrictions on trade and payments. In the intermediate case envisaged here, the OECD countries would renew the "trade pledge" they adopted a year ago against trade restrictions. They would, if floating, abide by the IMF guidelines, which among other things rule out the equivalent of competitive devaluations (by proscribing "aggressive intervention" and other policies that would further depress an exchange rate that was already falling). This still leaves countries free to borrow externally and to intervene in exchange markets to prevent their rates from rising or falling. Implicitly, therefore, countries would be pursuing current balance aims. The IMF and the OECD could monitor countries' policies and their balance of payments consequences and, when apparent incompatibilities arise, could urge countries to alter their policies. In this process the IMF and OECD would be concerned not only with the results for OECD countries but with the implications for the

non-OECD non-OPEC world. Whether this ex post approach is preferable to an explicit and systematic ex ante effort to establish balance of payments targets is left to the reader.

To sum up briefly, it can be said that the laissez-faire case will appeal to many economists. The arguments against it, apart from the fact that, rightly or wrongly, governments are not accepting it, are that it might produce a series of fruitless devaluations and in the process aggravate price-wage instability and it might induce a greater degree of resource reallocation than is necessary to cope with the temporary OPEC surplus.

If governments are going to continue to manage their deficits--as they have done during the past year by deliberately borrowing and intervening in exchange markets--it is important that the balance of payments aims they are pursuing be compatible with those of their neighbors and be of a magnitude that can be financed. We have examined six bases according to which the OECD countries might establish a set of consistent aims for their current deficits and the corresponding incremental debt that they will be incurring over the next few years.

Of these six criteria, fairly decisive objections have been identified for Numbers 1 and 4. Number 2 (economic size) and Number 5 (normal surpluses adjusted for "oil deficits," as defined above) merit further consideration. Number 3 (rate of return on investment) and Number 6 (potential exports to OPEC) might degenerate into a negotiation. But adherence to a set of negotiated aims would be preferable to active pursuit of incompatible aims.