

# Financing world payments balances

*This article, which has been prepared mainly by P W Stanyer and Mrs J A Whitley of the Bank's International Division, describes the pattern of current account surpluses and deficits in the world economy and the changing importance of different types of capital flow in financing them.*

- *Since the first oil shock in 1973–74, the absolute sum of world current account surpluses and deficits (without regard to sign) has doubled from 1%–1½% of the GNP of market economies to 2%–3%.*
- *Before the early 1970s, surpluses and deficits were financed largely by flows of direct investment and concessionary capital; since then, the larger imbalances have been financed principally through the capital markets.*
- *The banks have played an important role, but their lending has not always grown fastest when financing needs appear to have been greatest.*
- *The changing pattern of financing and the increased size of surpluses and deficits have led to a rapid expansion in international financial assets and liabilities. Their real value has been substantially reduced by inflation; this has to some extent been offset by high interest rates, which in turn have altered the pattern of current account surpluses and deficits.*
- *The structural current account surplus of the oil exporters tends to be reduced by their rapidly expanding demand for imports and as their customers find ways of economising on relatively expensive oil.*
- *Although the pattern in which increased current account deficits have been financed has exerted certain contractionary pressures on the international economy, the extent to which those deficits have nevertheless increased reflects the ability of the international financial system to respond rapidly to increased financing needs: without such flexibility, further deflation would have been unavoidable.*

## The extent of the problem

Charts A and B show recent trends in world payments balances, both in aggregate and by groups of countries. The pattern was fairly constant up to 1973, before the first oil price shock, but it has since been dominated by movements in the surpluses of the oil-exporting countries (OEC) and their counterpart deficits elsewhere. Moreover, the higher real value of their oil reserves has enabled some OEC countries, particularly the most populous ones, to finance enlarged current account deficits.

Chart B shows the pattern of current account surpluses and deficits of all market economies, expressed as a percentage of their combined GNP.<sup>(1)</sup> The chart also shows the extent to which surpluses among non-OEC countries have diminished in 1979–81, in contrast to 1974–75 (after the first oil price shock) when there were substantial current account surpluses in a few developed countries, notably West Germany and the United States.

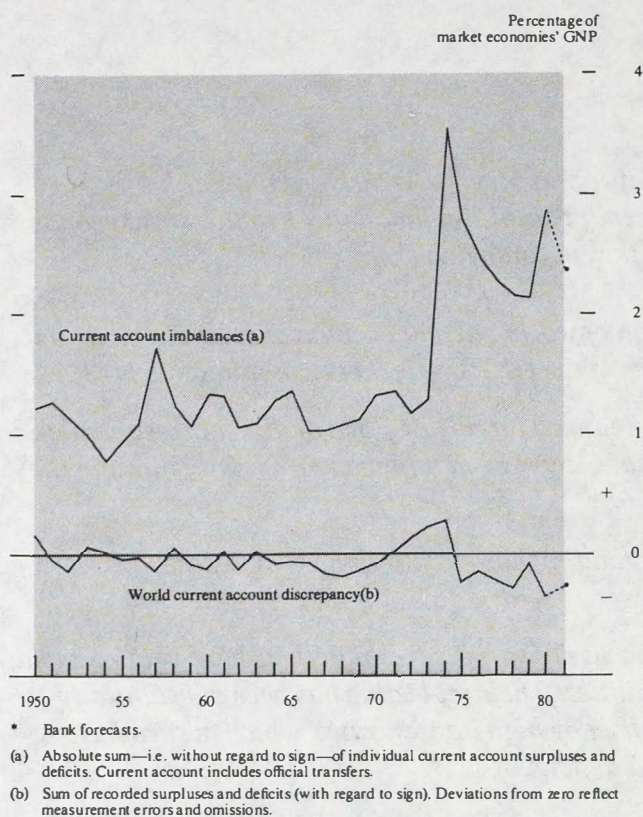
The current account balances shown in Charts A, B and C measure *ex post* transactions which, by definition, have been

matched by capital flows or changes in reserves. They give little indication of the pressures which led to those outcomes, and do not, therefore, necessarily provide a reliable guide to the existence, or size, of any *ex ante* financing problem. Such *ex ante* problems would need to be discussed in the light not only of *ex post* surpluses and deficits, but also of any fiscal deflation in deficit countries and changes in rates of interest and exchange designed to attract finance or to reduce the expected size of current account deficits. In practice, the extent to which any such changes occurred in response to an incipient balance of payments financing problem cannot easily be disentangled from closely related causes, such as the need to contain the inflationary consequences of higher oil prices. Nevertheless, since most oil-importing countries have at different times since 1973 introduced restrictive fiscal and monetary policies in response to pressure on their exchange rates, arising in part from the difficulty of financing increased oil bills, it is likely that *ex ante* current account surpluses and deficits would have been somewhat larger than suggested by the published data.

(1) The groups into which countries have been classified in this paper are defined in the appendix.



**Chart A**  
World current account balances



**Financing the balances, 1960–80**

In order to assess the importance of different types of capital flows in financing current account positions, balance of payments data for individual developed countries, and for OEC and the developing countries in aggregate, have been reorganised so as to group international transactions more according to their economic characteristics than according to the particular sectors concerned. This 'financing presentation', which is similar to the presentation commonly used for the developing countries in aggregate, classifies balance of payments transactions into the following categories:

- Current account**  
of which:  
Goods, services and private transfers  
Official transfers
- Capital account**  
of which:  
Concessionary loans  
Direct investment  
Capital market finance  
Other capital flows
- Official financing balance**  
of which:  
Changes in reserves etc.  
Reserve borrowing from official sources (including the International Monetary Fund)

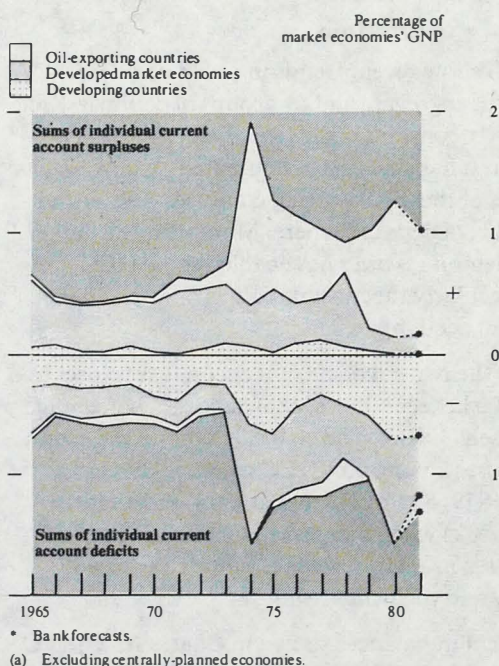
'Capital market finance' comprises portfolio investment, resident banks' foreign transactions, and borrowing from foreign banks by the public and private (non-bank) sectors. This makes it possible to identify those transactions which lead to a change in a country's indebtedness to the international capital markets and, by placing concessionary government loans alongside direct investment, permits some assessment of traditional 'structural' capital flows.<sup>(1)</sup>

Chart C uses this presentation to show the financing counterparts to the payments surpluses and deficits of all market economies. For this purpose, the balance of payments for goods, services and private transfers, rather than the current account balance, has been used, with official transfers being combined with concessionary loans as a financing item. The chart does not attempt to identify the gross size of, or growth in, flows of capital, which may often be offsetting between countries and to that extent will not affect the financing picture shown in the chart.

Two features stand out in this chart. The first is that before the early 1970s payments surpluses and deficits were largely financed by compensating flows of official aid (government grants and concessionary loans) and direct investment. The second, which is also illustrated in Chart D, is the transformation of the role of the capital markets: before the early 1970s this was quite small, particularly for the developing countries, but more recently it has become dominant. During the 1970s borrowing by developing countries from the capital markets not only played a major part in financing deficits, but was sufficiently large to produce, on balance, a rapid accumulation of reserves. Correspondingly, outflows of capital market finance and the investment of reserve assets (in particular by OEC countries) have provided the principal counterparts to the increased surpluses. These developments are discussed more fully below in the context of the international banking system.

The growth of the recycling role of the capital markets during the 1970s reflected the particular characteristics of the deployment of the OEC surpluses. The emergence of the

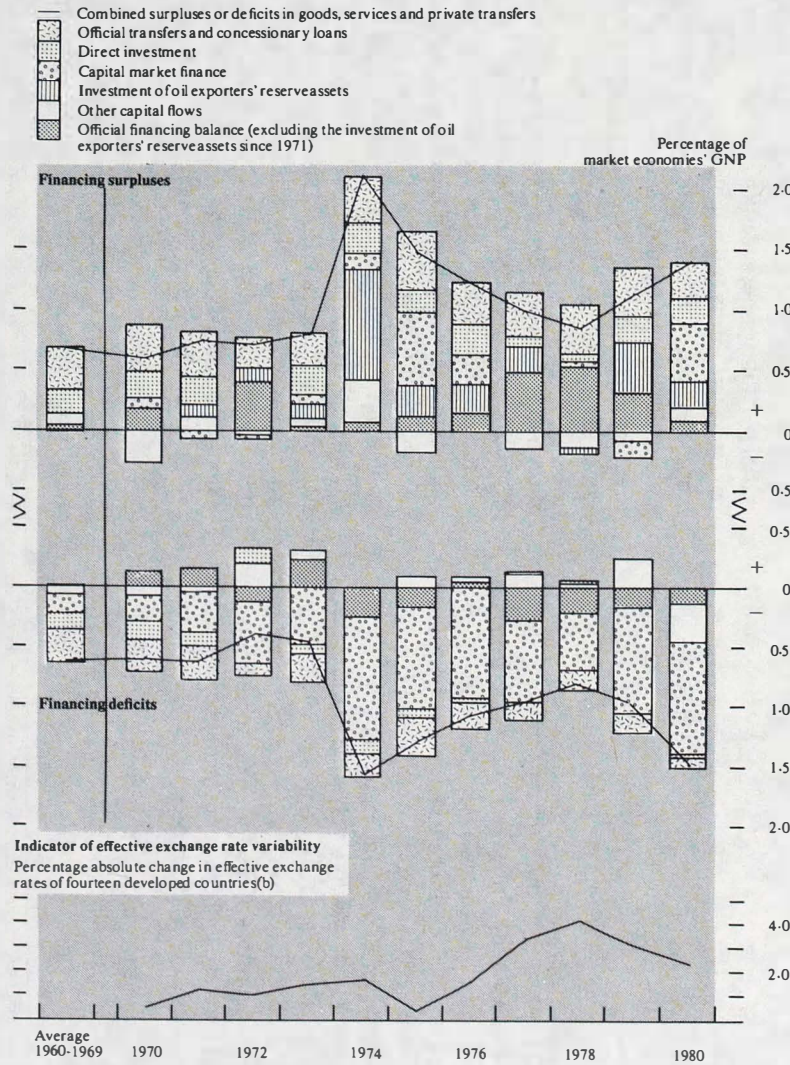
**Chart B**  
The pattern of current account surpluses and deficits<sup>(a)</sup>



(1) Capital market finance, for example to some developing countries, is now to a considerable extent 'structural'. The appendix gives further information on the sources and definitions for the balance of payments data used in this article.

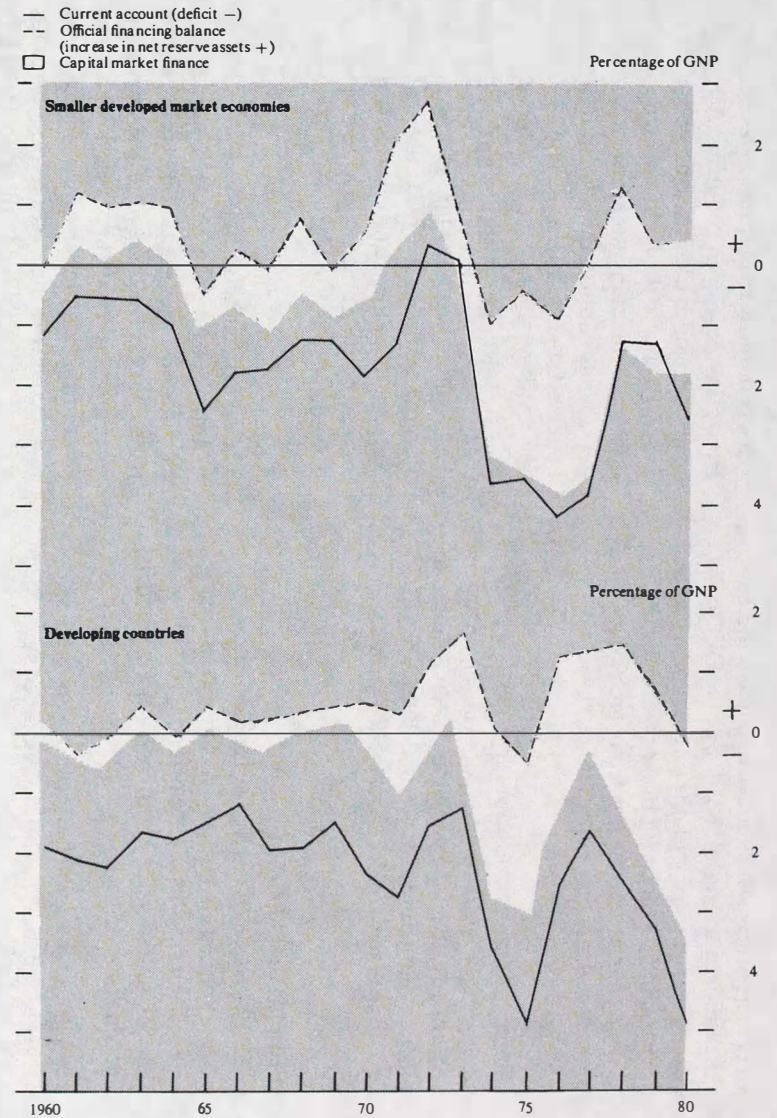


**Chart C**  
**Financing the surpluses and deficits of market economies<sup>(a)</sup>**



(a) Net inflows into surplus countries have been given a minus sign; net outflows from deficit countries have been given a positive sign.  
 (b) 1975 GNP weights. Annual changes refer to movements in year to Q4.

**Chart D**  
**The rising importance of the capital markets in financing current account deficits**





oil-induced deficits in 1974 was sudden and it was therefore inevitable that initially a large proportion of the OEC cash surpluses would be deposited with the international capital markets (either in bank deposits or in short-term securities) and that, in the first instance, the burden of financing would fall largely on capital market finance and reserve movements.<sup>(1)</sup>

For the oil-importing countries, however, official reserves can provide at most only a temporary, or cyclical, financing role. Consequently the banking system has been required to transform its predominantly short-term liabilities to OEC countries into longer-term loans to deficit countries (see Chart C).

### Foreign aid and direct investment<sup>(2)</sup>

During the 1950s and 1960s, foreign aid and direct investment from comparatively few developed countries were important determinants of the current account positions that could be sustained both by developing and developed deficit countries.

The importance of such capital flows (in relation to the GNP of market economies) has been maintained since the 1974 oil shock (see Table A).

**Table A**

#### Net flows of foreign aid and direct investment<sup>(a)</sup>

Annual average flows as percentage of GNP of market economies

Outflows -	1960-73	1974-79
<b>Net official transfers and concessionary loans</b>		
Developed market economies	-0.41	-0.38
of which:		
United States	-0.22	-0.11
Other	-0.19	-0.27
Oil-exporting countries	0.02	-0.16
Developing countries	0.30	0.34
<b>Net direct investment</b>		
Developed market economies	-0.17	-0.23
of which:		
United States	-0.23	-0.14
Other	0.06	-0.09
Oil-exporting countries	0.01	—
Developing countries	0.07	0.09

(a) Country groups are defined in the appendix.

Although aid flows from the United States have declined in relative importance they have been offset by increased outflows from other developed countries, despite budgetary and balance of payments constraints. With the OEC becoming substantial aid donors, the value of the developing countries' aid receipts (in relation to the GNP of market economies) increased after the early 1970s. However, OEC countries' bilateral aid (which in 1979 accounted for three quarters of their total disbursements of concessionary capital) has been concentrated on comparatively few associated countries.

By contrast, OEC countries have not made substantial direct investments abroad. The declining importance of net outflows of direct investment from the United States partly

reflects the growth of direct investment in the United States from other developed countries. After the early 1970s a few major developed countries, notably West Germany, Japan, Switzerland and the United Kingdom, became increasingly important direct investors abroad. Overall, the estimated net receipts of direct investment by developing countries increased slightly after the early 1970s.

### Capital market finance and reserve changes

The counterpart to the limited degree to which the current account surpluses of OEC countries have been offset by concessionary loans and direct investment has been the increased importance of private and official monetary movements (capital market finance and changes in reserve assets).

The official financing balance—which reflects intervention to limit exchange rate changes—became more important as a counterpart to deficits and surpluses after the early 1970s (Chart C). At the same time, the variability of exchange rates grew, and together these developments indicate the extent to which pressure for exchange rate changes between major countries increased during the 1970s. To a degree this can be attributed to the differential impact of increased oil prices on the exchange rates of developed countries. Among other factors, it reflects differences in countries' dependence on imported oil, which gives rise to corresponding differences in their need to increase the share of national production accounted for by other internationally traded goods.<sup>(3)</sup> Furthermore, the geographical distribution of oil deficits has not necessarily coincided either with the countries in which OEC initially spent their oil revenues on goods and services or, when they have been in surplus, with the currency distribution of their initial portfolio preferences. In addition, the reactions of policymakers, firms and wage-earners to higher oil prices varied between countries in the years following the first oil shock and this was an important reason for the divergences in inflation rates and the consequent pressure on exchange rates.

If exchange rates between developed countries had been permitted to float freely, the pattern of capital movements would have been different, as use of reserves and resort to the capital markets are to some extent substitutes. It follows that the extent to which deficit countries are willing to run down their external assets (or surplus countries are willing to reduce their external liabilities) will be an important determinant of the timing and nature of the role of the capital markets. (The official financing figures, as defined in this article and used in Chart C, considerably understate the extent of exchange market intervention as they exclude the proceeds of official borrowing on international capital markets.)

The official financing balance includes the proceeds of any reserve borrowing by central banks and governments from

(1) See the June 1980 *Bulletin*, page 154, for a description of the distribution of OEC portfolios.

(2) In this article, aid is used to describe flows of official transfers (i.e. grants) and concessionary loans. In recent years, obligations arising from membership of the European Community have resulted in large official transfers between European countries, but no attempt has been made to distinguish different types of official transfer.

(3) See the Governor's Ashridge lecture (December 1980 *Bulletin*, page 451).



foreign authorities. The developed economies are usually best placed to attract such finance: for example, about half of the DM 23 billion (\$12 billion) foreign borrowing undertaken by the West German authorities in 1980 was organised directly with foreign national authorities. But the principal official source of balance of payments finance for most deficit countries is the International Monetary Fund (IMF). From 1974 to 1980 aggregate drawings by member countries on the various credit facilities offered by the IMF were about \$35 billion. Moreover, agreement between the Fund and a member country on an economic programme, together with the provision of IMF finance, often leads to a marked improvement in that country's ability to attract finance from the private capital markets.

Table B shows the extent to which oil-importing countries financed their current account deteriorations through exchange market intervention in 1974 and in both 1979 and 1980. Between 1973 and 1974 reserve movements offset almost half of the combined current account deterioration in oil-importing countries (apart from the United States). Those developed economies which during the preceding years ran large current account surpluses, in 1979–80 bore the principal counterpart to the move into surplus by the OEC. But the current accounts of these countries deteriorated much more in 1979 and 1980 in response to higher oil prices than their capital accounts initially strengthened from the direct deployment in their currencies of part of the OEC surplus. Their exchange rates against the dollar—the currency in which the OEC surplus has

been mostly invested—have therefore come under downward pressure.<sup>(1)</sup> But most of these countries (notably West Germany, and initially Japan) resisted this pressure in 1979, and to a lesser extent in 1980, by using their reserves. Table C shows that in 1979 nearly all of the combined deterioration in the current accounts of developing and developed countries (excluding the United States) was offset by changes in reserve movements.

**Table C**  
Changes in balance of payments positions

\$ billions	1979	1980
<b>United States</b>		
Current account	+13	+1
Capital account	+39	-15
Official financing balance(a)	-52	+14
<b>Other market economies (excluding oil-exporters)</b>		
Current account	-69	-69
Capital account	+5	+64
Official financing balance(a)	+64	+5
<b>Oil-exporting countries</b>		
Current account	+66	+39
of which:		
<i>Capital surplus oil exporters</i>	+28	+42
<i>Other countries</i>	+38	-2

(a) Faster rise in assets/slower fall in liabilities -. See the footnote to Table B.

In effect, importers met their increased oil bills by transferring to OEC the ownership of their dollar reserve assets. In the short term this allowed countries to avoid the consequences of higher interest rates and/or lower exchange rates, and these countries consequently attracted only a modest increase in net capital flows in 1979; but this form of financing clearly could not continue indefinitely.

Indeed, in 1980 the pattern of deficit financing changed markedly. Although many countries (notably West Germany) continued to run down their reserves, official monetary movements financed very little of the estimated \$69 billion further swing into current account deficit by the other market economies apart from OEC: net capital inflows attracted directly and indirectly from OEC financed virtually all of this further deterioration. Correspondingly, many countries have increased their borrowings from the international capital markets.

### The role of the international banking system

Chart E contrasts the growth of international banking business with the contribution of capital market finance (which approximates to net bank and bond finance) to financing current payments deficits in the last decade. International lending has not necessarily grown most rapidly in the years when current account deficits were largest; indeed in 1974, when payments deficits more than doubled, new external bank lending increased by little more than one tenth, and in 1976 new lending increased substantially while the size of payments deficits fell.<sup>(2)</sup>

**Table B**  
The use of reserves in 1973–75 and 1978–80

\$ billions	1973	1974	1975	1978	1979	1980
<b>United States</b>						
Current account	7	2	18	-14	-1	—
Capital account	-12	—	-16	-19	20	5
of which, investment of OEC official assets	1	10	7	-1	6	13
Official financing balance(a)	5	-2	-2	33	-19	-5
<b>Other capital-exporting developed countries</b>						
Current account	8	8	8	28	-18	-35
Capital account	-3	-6	-7	-2	-5	17
Official financing balance(a)	-5	-2	-1	-26	23	18
<b>Other developed countries</b>						
Current account	-5	-40	-27	-2	-11	-36
Capital account	6	27	25	18	19	47
Official financing balance(a)	-1	13	2	-16	-8	-11
<b>Developing countries</b>						
Current account	-6	-23	-32	-25	-39	-66
Capital account	14	23	29	40	47	61
Official financing balance(a)	-8	—	3	-15	-8	5
<b>Oil-exporting countries</b>						
Current account	6	68	34	—	66	105
of which:						
<i>Capital surplus oil exporters</i>	5	40	26	14	42	84
<i>Other countries</i>	1	28	7	-14	24	22

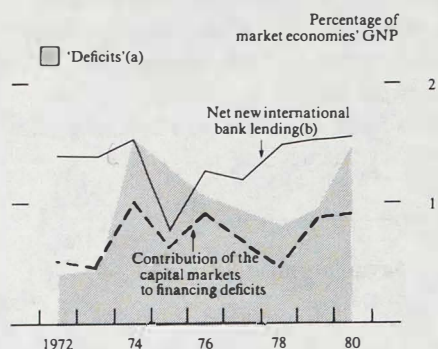
(a) Rise in assets/fall in liabilities -. The United States official financing balance excludes the investment of the official assets of oil-exporting countries.

(1) 'An estimate of the currency composition of total OEC foreign assets shows that the proportion denominated in US dollars has remained stable at around three quarters. The share denominated in sterling has fallen by half from about 10% in 1974 to about 5% in 1979, while that of other currencies has risen correspondingly.' June 1980 *Bulletin*, page 159.

(2) All these measurements are in relation to the GNP of market economies.



### Chart E Payments deficits, capital market finance and bank lending



- (a) Sum of deficits in goods, services and private transfers.  
 (b) International bank lending is measured by BIS estimates of reporting banks' lending in domestic and foreign currencies, which exclude double counting arising from redepositing among the reporting banks. Prior to 1975 the BIS estimates do not include external lending in dollars by US banks. IMF and national sources were used to derive estimates for this lending for the period 1972-74.

When *ex post* current payments deficits are small, much cross-border lending occurs simultaneously in opposite directions—as, for example, banks spread their portfolio risk.<sup>(1)</sup> In 1974–76, by contrast, when deficits were large, most banks seem to have used deposits (largely short-term) from surplus countries to fund longer-term lending to public and non-bank private sector borrowers in deficit countries. In 1975, 1979 and 1980, resident banks in many deficit countries also increased their net external liabilities in order to finance lending to their own economies.

Banks can intermediate between countries with increased current surpluses and deficits without there necessarily being an immediate rise in total bank lending. Surplus and deficit countries may react in different ways to an improvement or worsening of their external position. If payments are settled by a transfer of deposits from the deficit to the surplus country, banks' business may neither expand nor contract. If the surplus country uses the deficit country's payment to repay outstanding borrowing, banks' business will contract. Indeed, it will expand as a result of intermediation between surplus and deficit countries only if the increased borrowing by the deficit country is not offset by a reduction in borrowing by the surplus area. But it may well be that banks' business is unchanged initially (as, for example, deficit countries transfer deposits to surplus countries) and only expands later when the problem creating the need for finance is receding (when deficit countries may find it easier to raise finance).

Banking data show that the flow of finance between geographical groups has indeed responded to a changed external situation.<sup>(2)</sup> In 1974, 1979 and 1980 oil-exporters' deposits with the banks rose substantially. Furthermore, the rate of deposit accumulation by the developing countries slowed substantially in these years, while new borrowing by the oil exporters was also much smaller.

During the mid-1970s, several country groups whose current payments position improved took the opportunity to reduce their outstanding loans, apparently sometimes using their deposits to do so. Conversely, the developing countries borrowed in order to build up reserves. Those countries whose external position worsened, notably many of the smaller market economies, continued to accumulate deposits only slowly, while borrowing more heavily. Deposits from oil-exporting countries slowed as their surpluses diminished, but they were not net absorbers from the international banks until 1978.

Furthermore, many developed countries have been able to finance their worsened current account positions through an increase in the net external liabilities of their own banking systems, so that resident banks use foreign funds to finance domestic lending. A deterioration in the net external position of banks in most industrialised countries (excluding the United States) has usually accompanied the oil-enlarged deficits. A notable exception was the West German banking system in 1980, whose net external assets rose by some \$7 billion, despite a current account deficit of some \$15 billion. Nevertheless, in 1979 the West German banks borrowed heavily from foreigners when the current account first moved into deficit. In Japan, similarly, the domestic banks contributed significantly to the financing of the current account deficit in 1979 and 1980.

As the major reserve currency country, the position of the United States has been somewhat different from that of the rest of the developed world, with the net flow of banking finance to and from US residents not necessarily contributing to the financing of the current account position. Foreign deposit accumulation by US residents has tended to be fastest when US deficits have been largest, while borrowing from foreign banks has not increased most rapidly in the years of the largest deficit. Indeed, US deposits with, and borrowing from, the international banking system both grew particularly rapidly in 1979, when the US current account was virtually in balance. In these circumstances the euromarket appears to be intermediating between surplus and deficit sectors of the US economy.

The role of the United States financial system, discussed above with reference to reserve movements, can be assessed from a different perspective using Table D. The key position of the dollar as a reserve currency meant that banks in the United States fulfilled a major 'turntable' role in both 1974 and 1979. In January 1974, the removal of controls on US bank lending facilitated the recycling of a large inflow of funds. The inflow largely took the form of certificates of deposit issued to foreign banks, which were often used by oil-exporting countries as a means of investing their surplus. The funds were transferred via US banks to countries with newly enlarged deficits (notably Japan and Latin America). In 1979 oil-importing countries (and in particular West Germany and Japan) appear to have withdrawn reserve

(1) See R B Johnston, *Banks' international lending decisions and the determination of spreads on syndicated medium-term euro-credits*. Bank of England Discussion Paper No. 12.

(2) See the Bank for International Settlements quarterly press release on international banking developments, some of which is reproduced in Table 13 in the statistical annex.



assets in the form of US Treasury bills, while the oil-exporting countries held a large part of their additional investments in the United States with the banks, giving rise to a large net inflow of banking capital. In 1975 and 1980, as deficit countries became increasingly unwilling to continue to draw down official reserves, the US banks became active net lenders.

**Table D**  
Changes in US banks' external position<sup>(a)</sup>

\$ billions

Increase in assets -

	1972	1973	1974	1975	1976	1977	1978	1979	1980
Assets	-4	-6	-19	-14	-21	-11	-34	-26	-47
Liabilities	7	9	22	-1	12	8	21	40	11
of which, to official foreigners	2	4	6	-2	1	1	6	7	-
Changes in net position	3	3	3	-15	-9	-3	-13	14	-36
US current account position	-6	7	2	18	4	-14	-14	-1	-

(a) Source: Federal Reserve Bulletin, Table 3.10. All numbers are rounded to nearest billion.

Thus, with the notable exception of the United States, banking flows to and from countries have, as would be expected, contributed to the financing of current balances, so that surpluses have been on-lent via the banking system to countries with deficits. But, as already noted, enlarged deficits and surpluses are not sufficient conditions for the growth of international banking. When deficits worsen, reserves have been run down (or bank deposits accumulated more slowly), while surplus countries have sometimes used their new deposits to repay outstanding loans. Similarly, when imbalances have been less severe, countries may have borrowed in order to increase their deposits or because they have a financing strategy which involves spreading over time their borrowing from the banking system.

### Trade credit

When the prices of traded goods rise, credit extended on those goods normally rises by a corresponding amount, and so when payments balances are increased by a rise in the relative price of, for example, oil, an offsetting flow of trade credit may, for a short period, mitigate the balance of payments cost of the terms of trade loss of the oil-importing countries.

**Table E**  
Estimated change in trade credit extended by oil-exporting countries on sales of oil<sup>(a)</sup>

\$ billions

Reduction in credit outstanding -

1974	1975	1976	1977	1978	1979	1980
11	-	8	-3	-	2	1

Sources: 1974-77 US Treasury; 1978-80 Bank estimates.

(a) Excludes concessional credits extended to some developing countries.

Table E shows how the jump in oil prices in 1974 induced a large rise in credit extended by OEC. In addition, statistics for oil-importing countries point to a substantial positive swing in trade credit in 1974. (The main exception was West Germany, which recorded a net outflow of \$5 billion in 1974—associated with her export boom—after an inflow of \$2 billion in 1973.) At the same time, there was a corresponding movement in unrecorded capital inflows to many developed countries, which may largely represent movements in trade credit.

In 1979 and 1980, by contrast, the cushioning effect on the balance of payments of oil-importing countries of changes in trade credit extended by OEC was nullified as oil producers took advantage of tight market conditions to cut credit periods. The major impact of this in 1979 can be seen from Bank estimates that, if credit terms had been unchanged, short-term trade credit extended by OEC would have increased by around \$22 billion, rather than \$2 billion.

The financing role of this trade credit arises from an immediate adjustment in response to higher oil prices. But it will be of no help in offsetting the continuing imbalances which follow the rise in oil prices and which require a sustained increase in capital flows.

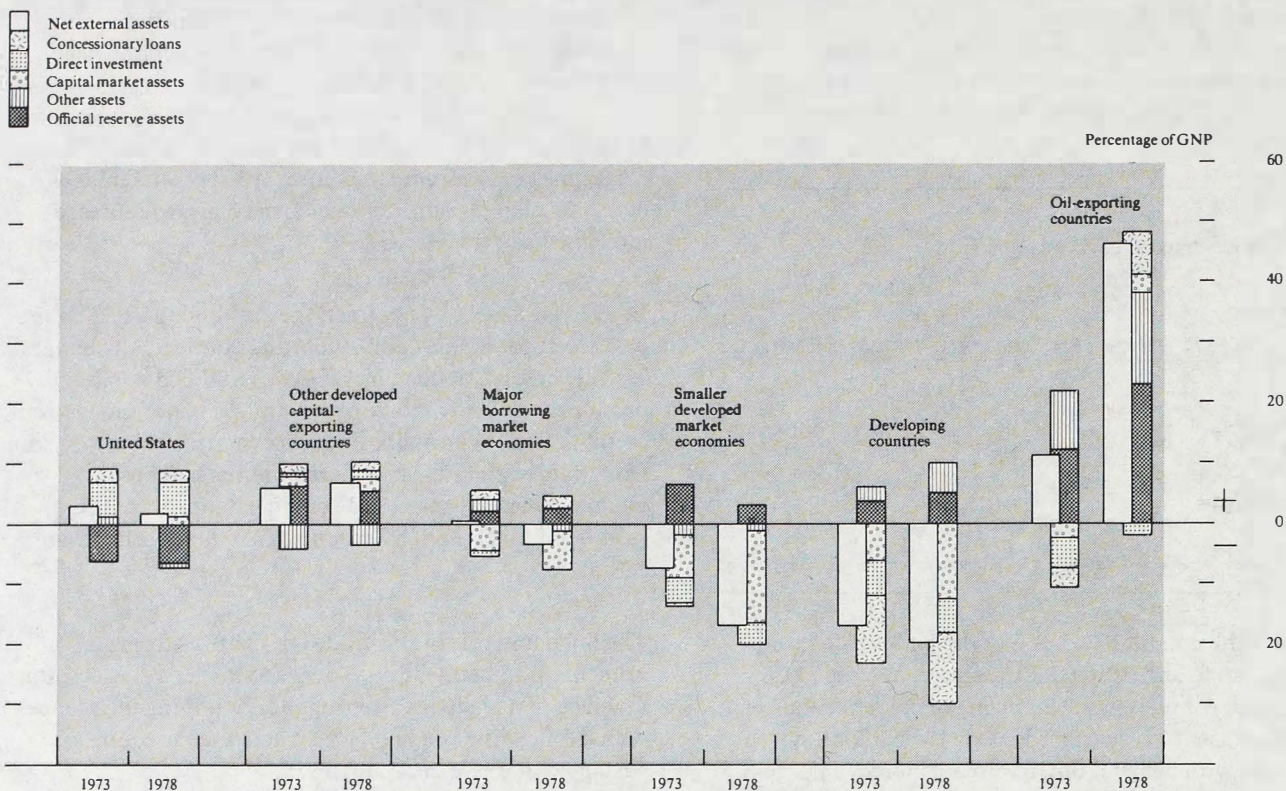
### Stocks of international assets and liabilities

The increased size of global current account balances since 1973 and the changing importance of different types of capital for financing those balances have led to significant changes in both the composition and size of countries' stocks of net external assets and liabilities. By cumulating balance of payments flows for the years since 1950, it is possible to derive a rough picture of countries' external balance sheets, and these are shown in Chart F, expressed as a percentage of those countries' aggregate GNP, for 1973 and 1978—the years preceding the two oil shocks.<sup>(1)</sup> The chart suggests that the implied external balance sheets of the United States and other developed capital-exporting countries changed little (in relation to their GNP) between 1973 and 1978. For the United States, whose total net external assets are small in relation to GNP, net liabilities incurred through purchases of dollars by foreign monetary authorities mostly offset the large stocks of net external assets in the form of direct investments and concessional loans outstanding. The counterpart to the US liabilities to foreign central banks was found principally in the large stocks of reserve assets held by the other developed capital-exporting countries (especially Japan and West Germany), although since 1978 these have diminished considerably. Compared with the United States, these countries have much smaller net external assets (in relation to their GNP) in the form of concessional loans and, especially, direct investment.

(1) A comparison of the implied external balance sheets derived in this way with published estimates which are available for some developed countries suggests that the accumulation of past balance of payments flows gives a fairly accurate picture of the relative importance of different types of investment in countries' external positions. However, valuation adjustments (arising in particular from exchange rate changes), and the size of accumulated balance of payments errors and omissions, can cause large discrepancies between published estimates for net external assets and the implied totals given by summing current account positions. Detailed estimates for the United Kingdom's external assets and liabilities are given in the article on page 203.



**Chart F**  
The estimated composition and size of net external assets by country group<sup>(a)</sup>



(a) Derived by summing dollar balance of payments flows since 1950. Country groups are defined in the appendix.

By contrast, the external position of the other country groups changed quite dramatically between 1973 and 1978, with the large rise in OEC net holdings of official and private financial assets finding counterparts in the increased indebtedness to the international capital markets of the other oil-importing countries.

In aggregate, the net external position of the smaller developed countries is estimated to have deteriorated much more rapidly than that of any other group of countries between 1973 and 1978, with net external liabilities representing around 17% of GNP by 1978 compared with 7% in 1973. Three quarters of this deterioration was reflected in increased indebtedness to the international capital markets and most of the rest was financed by a fall in official reserves in relation to GNP. For the developing countries, an increase in net external liabilities from around 17% of GNP to 20% between 1973 and 1978 was more than accounted for by an increase in indebtedness to the capital markets. This was partly offset by a rise in official reserve assets, and also in unidentified assets, which probably include significant investments in the international capital markets by their private sectors.

In 1978 almost half of OEC net external assets were official reserve assets. The large proportion of OEC's implied net

external assets represented by other assets largely comprises short-term private and official investments in the international capital markets. Since then, OEC net external assets have grown rapidly, reaching about \$350 billion (or two thirds of their GNP) by the end of 1980. While the external balance sheets of most of the traditional deficit market economies—but not of those self-sufficient in oil—have continued to weaken, the principal change in international investment positions has been the particular weakening in the net external position of the group of developed countries referred to in this article as 'other capital-exporting'.<sup>(1)</sup>

### The effect of inflation<sup>(2)</sup>

During periods of increased inflation, nominal interest rates tend to rise so as to limit any reduction in their 'real' levels. The consequent increased interest payments by debtors compensate creditors for the impact of inflation on their investments and directly increase both the current account deficits of debtor countries and the surpluses of creditor countries. This inflation compensation element of higher nominal interest rates is, in effect, an early repayment of capital. As such, it distorts the split of the balance of payments between the current and capital accounts.<sup>(3)</sup> The extent to which the inflation compensation is complete is difficult to ascertain—in practice, the yields on

(1) Belgium and Luxembourg, West Germany, Japan, the Netherlands and Switzerland.

(2) This analysis of the effects of inflation on current account positions follows that used by C T Taylor and A R Threadgold in the Bank's Discussion Paper No. 6, 'Real' national saving and its sectoral composition. It also draws on unpublished work by Ricardo Arriazu of the Central Bank of Argentina. A similar framework has been adopted by B Nowzad and R Williams in IMF Occasional Paper No.3, *External indebtedness of developing countries*.

(3) In practice, capital gains and losses also change net external assets and liabilities, but these are not conventionally considered in the balance of payments. See IMF *Balance of Payments Manual* (fourth edition), paragraph 373.



**Table F**  
**Inflation and the current account position of the oil-exporting and developing countries<sup>(a)</sup>**

\$ billions

	1973	1974	1975	1976	1977	1978	1979	1980
<b>Oil-exporting countries</b>								
Current account	6	68	34	38	28	—	66	105
Net external financial assets, end-year(b)	20	83	120	157	188	189	256	361
Rise in prices (per cent)(c)	24	22	2	8	9	18	12	7
Inflation adjustment(d)	-4	-11	-2	-11	-15	-33	-27	-21
<b>Inflation-adjusted current account</b>	<b>2</b>	<b>57</b>	<b>32</b>	<b>27</b>	<b>13</b>	<b>-33</b>	<b>39</b>	<b>84</b>
<b>Inflation-adjusted current account 1980 \$ billions(e)</b>	<b>4</b>	<b>102</b>	<b>51</b>	<b>43</b>	<b>19</b>	<b>-42</b>	<b>44</b>	<b>84</b>
( = change in real net external assets)								
<b>Developing countries</b>								
Current account	-6	-23	-33	-19	-14	-25	-39	-66
Net external financial assets, end-year(b)	-54	-72	-100	-114	-123	-141	-172	-229
Rise in prices (per cent)(c)	24	22	2	8	9	18	12	7
Inflation adjustment(d)	13	14	1	8	10	23	19	13
<b>Inflation-adjusted current account</b>	<b>7</b>	<b>-9</b>	<b>-31</b>	<b>-11</b>	<b>-3</b>	<b>-1</b>	<b>-20</b>	<b>-52</b>
<b>Inflation-adjusted current account 1980 \$ billions(e)</b>	<b>15</b>	<b>-15</b>	<b>-49</b>	<b>-17</b>	<b>-5</b>	<b>-2</b>	<b>-22</b>	<b>-52</b>
( = change in real net external assets)								

- (a) The methodology used to calculate inflation-adjusted current account positions is rough and ready, and the figures in the table are accordingly illustrative rather than precise estimates. As in the calculation of external balance sheets, particular problems arise from the currency diversification of international assets. To the extent that external assets and liabilities are denominated in currencies which have appreciated against the dollar, this method will underestimate the increase in the dollar value of those assets and liabilities, the converse being the case for assets and liabilities denominated in currencies which have depreciated against the dollar.
- (b) Comprises all assets other than direct investments. The stock is estimated by summing current account and net direct investment flows since 1950.
- (c) Equals percentage increase in UN index of dollar prices of manufactures exported by developed market economies in the year to the fourth quarter of the relevant year.
- (d) Measures the impact of inflation on the average of the opening and closing stocks of external financial assets.
- (e) Using the same deflator as in footnote (c).

certain assets do not respond fully to inflation. This is particularly true for concessionary loans, whose terms typically become increasingly 'soft', or negative in real *ex post* terms, as inflation increases. By contrast, innovations in the international capital markets, which have led to the widespread use of variable or floating interest rates on capital market assets and liabilities, have greatly reduced the extent to which the inflation of the last decade has led to unanticipated changes in 'real' interest rates.

The higher nominal interest payments or early repayment of the capital stock of debt represents a shortening of the real maturity structure of international financial assets and liabilities, thus raising debtor countries' gross borrowing requirements. Although such additional borrowing is consistent with deficit countries rolling over their existing real stock of debt, it may appear that they are incurring further debt so as to finance interest charges on existing debt.

By obliging debtor countries to roll over their existing real stock of debt more frequently, inflation gives financial intermediaries increased opportunities to review the distribution of their asset portfolios. At the same time, by forcing an early amortisation of debt, inflation causes or exacerbates a mismatch between the maturity of debt and the gestation period of any investment it may be financing.

If the creditworthiness of marginal borrowers is perceived to deteriorate on account of the liquidity problems thereby caused by faster inflation, it could become increasingly difficult for such borrowers to roll over the real value of their debt.<sup>(1)</sup> As the proportion of deficit countries' net external liabilities accounted for by capital market debt

increases, high rates of world inflation tend in this way to weaken the external position of marginal borrowers.

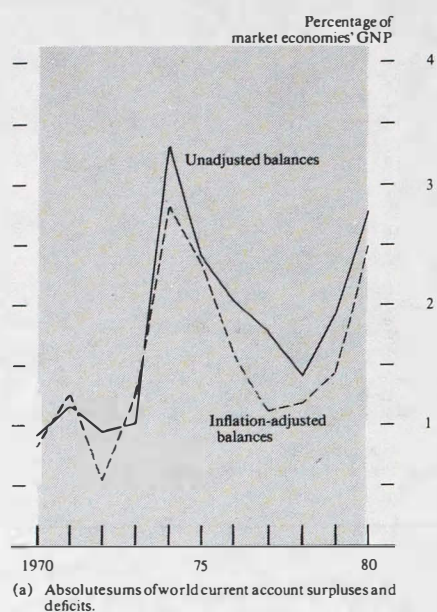
Some insights into the mechanisms by which inflation can affect countries' balance of payments and international investment positions can be gained by considering the impact of inflation on the estimated external balance sheets of different country groups described above. Table F gives some tentative estimates for the changes in the real net external assets of OEC and the liabilities of the developing countries; these estimates have been derived by adjusting the current account positions for the effects of inflation.<sup>(2)</sup> Comparison of the inflation adjustments shown in Table F for 1973 and 1974 with those larger adjustments made in 1979 and 1980, when the inflation rate was half that recorded in the earlier years, reflects the impact of the rapid accumulation of international financial assets and liabilities in the intervening years. An inflation-adjusted current account is obtained by including not only the recorded nominal flows but also the credit (or gain) accruing to debtor countries, whose stock of external liabilities is eroded by inflation, and the counterpart debit (or loss) for creditor countries.<sup>(3)</sup>

The figures in Table F have been combined in Chart G with corresponding calculations for each of the developed market economies to show the extent to which current account imbalances in inflation-adjusted terms may have been less during the past decade than suggested by the published data. (The difference between the two series in 1979 and 1980 is less than might have been expected because the inflation-adjusted current account deficits of those developed countries with large stocks of net external financial assets are significantly larger than their unadjusted deficits.)

- (1) The ratio of interest and amortisation of principal to current payment receipts (the debt-service ratio), which is one of the methods widely used to assess country risk, is directly raised during periods of higher inflation by the 'accelerated capital repayment' effect.
- (2) No attempt has been made to estimate the impact, arising from the currency diversification of international assets, of exchange rate changes on the dollar valuation of international assets and liabilities.
- (3) It has been assumed that the nominal value of direct investments rises in line with inflation.



**Chart G**  
**The impact of inflation on world current account balances<sup>(a)</sup>**



## Conclusions

The oil shocks of the last ten years have forced the world economy to respond to pressures both to adjust to the increased financial imbalances between the world's oil and non-oil sectors and also to finance those imbalances. The extent to which current payments balances between countries increased in 1974 and have remained historically large since then is a measure of the additional financing which has been forthcoming. The pattern of current account surpluses and deficits shown in Charts A and B has been influenced by policy reactions in individual oil-importing countries to anticipated deteriorations in their current accounts, and correspondingly increased external financing requirements, in the aftermath of sharp rises in oil prices. A country may attempt to stem an oil-induced deterioration in its current account through deflation, although any improvement will mostly be at the expense of other oil-importing countries. But if many countries deflate, the declining volume of OEC oil exports, and perhaps a lower oil price, would cause a reduction in the OEC surplus and a corresponding narrowing in the oil importers' aggregate current account deficit. Policymakers in industrial countries had different views as to the appropriate response to the first oil shock. In some countries, it was thought that the deflationary demand effects should not be aggravated by the adoption of restrictive fiscal and monetary policies, and these countries decided, *ex ante*, to finance the expected deteriorations in their current accounts. By contrast, others placed much greater emphasis on policies to contain both the balance of payments and the inflationary consequences of higher oil prices. This produced major variations in current accounts between developed oil-importing countries in the mid-1970s, which are reflected in Chart B.

During the second oil shock, however, developed countries have so far attached much greater importance to containing both inflationary pressures and debt accumulation. A synchronisation of policy and of cyclical positions between developed countries is the principal explanation for the comparatively small size of the combined current account surpluses of non-OEC countries after 1978, and is in marked contrast to 1974–75.

There has also been the longer-term adjustment to the shocks of high oil prices. In part this is through the expansion of exports to OEC countries; but, more fundamentally, such adjustment also takes place through the response—encouraged in many countries by the implementation of energy policies—of the world's non-oil sector to the incentives now offered to reduce its dependence on oil, and of the energy sector to increase investment in energy development.<sup>(1)</sup> All of these forms of fundamental adjustment tend to reduce the structural current account deficit of the oil-importing countries with oil-exporting countries.

The recent accumulation of commercial debt by most oil-importing countries could, in principle, provide the finance for investments to reduce their dependence on imported oil. This would facilitate a sustained reduction in world payments balances and help to remove the possible constraint imposed on world activity by limited energy supplies. But, in the meantime, the cost of servicing the accumulating debt may impose a growing burden on those oil-importing countries whose economies fail to respond to the incentives now offered to use energy more efficiently. If their trading partners make more rapid progress towards these fundamental adjustments, such oil-importing countries would also be confronted by a growing loss of trade competitiveness and would find their domestic economies continuing to be constrained by seemingly intractable structural balance of payments difficulties.

The form which the financing of current account deficits has taken may be encouraging the adoption of short-term deflationary policies designed to achieve a reduction in oil deficits. This partly reflects the type of deficit financing which has had to accompany the OEC surplus since 1973 and which may have increased the risk incurred by countries whose current account tends to be in structural deficit. In particular, capital market debt imposes upon the debtor the risk that any income that might be earned on the proceeds of that borrowing may fall below the cost of servicing it. Such uncertainty may be a particular problem for borrowers whose debt is contracted at floating or variable interest rates during inflationary periods. By contrast, the yield earned by direct investors is closely related to the success of particular ventures. It follows that the risk assumed by deficit countries on their external liabilities may have increased in recent years, not only in line with the rapid rise in those liabilities but also because of the growing proportion of them in the form of capital market debt.

(1) See the Governor's speech on the world economy, reproduced on page 245.



A further possible source of deflationary pressure has arisen from the initial deployment of the predominant share of OEC surpluses in dollar-denominated assets. Other oil-importing countries that wish to attract autonomous capital flows to finance their deficits, rather than rely on borrowing dollars in the international capital markets, are forced to offer more favourable interest rate differentials *vis-à-vis* the United States than would otherwise be the case. Interest rates elsewhere are therefore particularly sensitive to monetary conditions in the United States after sudden oil shocks; and when monetary conditions in the United States are little influenced by external considerations, the discrepancy between the portfolio preferences of OEC investors and the distribution of oil-induced deficits can cause monetary policy in developed countries to be on average more restrictive, following an increase in global payments balances due to a rise in oil prices. But any such restriction may arise not so much from a wish to reduce current account deficits as from the need to finance them.

In general, such short-term deflationary tendencies are not incompatible with the longer-term adjustment of world payments balances to higher oil prices. But in this respect the adjustment process in countries with limited access to the international capital markets (typically the poorest developing countries) requires special consideration as it may depend upon the availability of other forms of finance,

in particular foreign aid. Although the dependence of these countries on net oil imports may be small in absolute terms, a reduction in their total imports may be the only possible response to a large rise in oil prices (and consequent weaker export markets) if additional compensatory finance is not available. The difficulty of importing necessary capital goods may cause a reduction in the domestic investment rate, as there is likely to be little scope to cut imports of consumer goods.<sup>(1)</sup> Indeed, it would often be desirable on economic grounds for an increase in compensatory flows temporarily to exceed the initial trade account deterioration; this would permit such countries to import capital goods associated with energy production and conservation and allow a sustained reduction in energy imports and external financing needs.

Nevertheless, the extent to which extra balance of payments financing—in particular that provided through the international capital markets—has been forthcoming during the past decade has reflected the ability of the international financial system to respond rapidly to the increased financing needs created both by the shocks of rising oil prices and also by major divergences in economic performance between individual developed countries. Without such flexibility, current account deficits and surpluses would necessarily have been much more limited, forcing many countries to reduce external deficits through even greater deflation.

(1) Dell and Lawrence conclude that the experience of a sample of thirteen developing countries suggests that for the poorest among them 'the declines in earned import capacity that occurred [mostly in 1974 and 1975] were passed through to the economy in the form of a reduction in imports of such magnitude that compression of developmental imports was unavoidable'. S Dell and R Lawrence, *The balance of payments adjustment process in developing countries* (New York: Pergamon, 1980) page 77.



## Appendix

*International Financial Statistics* (IFS) and the *Balance of Payments Yearbook*,<sup>(1)</sup> both published by the IMF, are the prime sources for almost all the balance of payments data used in this article. In general, other sources have been used only where the data are not available from published IMF sources. (In a few instances where no other published data are available, for example for certain oil-exporting countries, historical current account data have been estimated from IFS trade data. For the centrally-planned economies, aggregate current account estimates have been derived from BIS, OECD and UN data; but for Yugoslavia, IFS current account data have been used.) For the developing countries and OEC, the components of the capital account are Bank estimates based on a variety of sources. The Bank for International Settlements quarterly press release on international banking developments is the principal source of the banking statistics. Balance of payments data for 1980 have been partly estimated. Bank projections for 1981 are included in Charts A and B.

Estimates of the GNP of market economies are based on figures given in various issues of the *Yearbook of National Accounts Statistics*, published by the United Nations.

The balance of payments and banking data used in this article and a more detailed statistical appendix are available on request from the Bank at the address given on the reverse of the contents page. This further appendix covers the interpretation of world balance of payments discrepancies and totals; international banking statistics; the relationship between capital market finance data and the banking statistics; the reliability of the estimates of international assets and liabilities; and of inflation-adjusted current account positions. The appendix also provides, for the principal country groups, balance of payments data according to the 'financing presentation' used in this article, and tables summarising international banking flows.

### Definitions

#### The financing presentation of the balance of payments statistics

As briefly outlined at the beginning of the main text, this incorporates, in principle, the following conventions:

*Concessionary loans* attempts to measure any movement of long-term inter-governmental non-reserve capital, along with any identified foreign aid loans extended to private sectors. It includes long-term government transactions with the IBRD (but not transactions with the IMF, which are included within the official financing balance). Balance of payments statistics give no indication of the conditions attached to different international transactions—i.e. the interest rate at which capital account transactions occur—but it is assumed that these transactions are in some sense concessionary. It is, however, possible that some of this capital is not concessionary. A more serious problem arises from the difficulty of identifying from published sources those government transactions which are with other governments and those with the capital markets. As used in this paper, this qualification applies essentially to the developed countries, and to OEC prior to 1974, but it is not thought sufficiently serious to invalidate the general pattern of concessionary flows. Nevertheless the data are estimates, mostly derived from various *Balance of Payments Yearbooks*, and should not be regarded as definitive.

*Direct investment* data have mostly been taken from IMF sources. For the United Kingdom it excludes the oil sector. For Switzerland, flows have been derived from stock estimates supplied by the Union Bank of Switzerland.

Similar qualifications apply to the data for *capital market finance*, which are estimates derived from *Balance of Payments Yearbooks*. Capital market finance is the sum of 'portfolio capital', 'foreign borrowing' and 'other domestic bank capital'.

'Portfolio capital' refers to portfolio investment as recorded by the IMF. It therefore excludes transactions in securities of less than one year to maturity, but it includes transactions in government securities. 'Foreign borrowing' approximates to the sum of net overseas market borrowings of the resident government and corporate (private and public) sectors. For most countries satisfactory details are available only for long-term (over one year) transactions, and so changes in short-term debt may be missed, except where specified in the *Balance of Payments Yearbook*. Market borrowings by central monetary institutions have been included under 'foreign borrowing'. Where specified, official reserve borrowing from official sources has been deducted. Long-term trade credit extended or received by the non-bank private sector has been excluded where specified, as it seems unlikely that such trade credit normally reflects indebtedness to the capital markets. 'Other domestic bank capital' is the sum of 'other long-term' and 'other short-term' capital of deposit money banks in the *Balance of Payments Yearbook*. *Capital market finance* excludes any transactions identified in the *Balance of Payments Yearbook* as changes in 'liabilities constituting foreign authorities reserves', except for the United States, where capital market finance includes the reported investment of OEC official assets. For the United Kingdom, capital market finance excludes any oil sector transactions.

*Other capital flows* is derived as a residual and in addition to net errors and omissions includes movements in trade credit and other private and government short-term capital and any identified long-term trade credit extended or received by the non-bank private sector. For the United Kingdom, it includes oil sector capital transactions.

The *official financing balance* comprises changes in official foreign currency and gold reserves together with changes in "liabilities constituting foreign authorities' reserves", borrowing from the IMF, other reserve borrowing from other international institutions, central banks and governments and any counterpart entries to valuation adjustments, gold monetisation or allocations of special drawing rights. For the United States, the official financing balance since 1972 excludes liabilities constituting OEC authorities' reserves (published by the US Department of Commerce in the *Survey of Current Business*). In contrast to the convention often adopted in other presentations of balance of payments statistics, the official financing balance excludes any compensatory borrowing by the authorities from the international capital markets, which is here included as *capital market finance*.

#### World current account surpluses and deficits

The pattern of current account surpluses and deficits shown in Charts A and B differs slightly from that shown in Charts C, E and G. This reflects the treatment of OEC and the developing countries as two single 'countries' in the three later charts, because of the need to use highly aggregated capital account data for these two groups of countries. In Charts A and B the current account position of each developing and oil-exporting country has been treated individually. The discrepancy between the two methods is greatest in 1978 when the small aggregate current account deficit for OEC was the net result of a combination of substantial individual surpluses and deficits. In addition, Chart A (but not the other charts) includes an estimate of the current account position of the centrally-planned economies *vis-à-vis* the market economies (but it does not incorporate balances *between* the centrally-planned economies).

(1) In January 1981, the *Balance of Payments Yearbook* was replaced by *Balance of Payments Statistics*.



**Country groups**

Countries have been classified into the following groups in this article:

*Developed market economies*

- (i) United States
- (ii) Other capital-exporting developed countries:
  - Belgium and Luxembourg      Netherlands
  - West Germany                  Switzerland
  - Japan
- (iii) Major borrowing market economies:
  - Canada                          Italy
  - France                          United Kingdom
- (iv) Smaller developed market economies:
  - Australia                      New Zealand
  - Austria                        Norway
  - Denmark                      Portugal
  - Finland                        South Africa
  - Greece                        Spain
  - Iceland                        Sweden
  - Ireland                        Turkey

*Oil-exporting countries*

- (i) Capital surplus oil-exporting countries:
  - Kuwait                        Qatar
  - Libya                         Saudi Arabia
  - Oman                         United Arab Emirates
- (ii) Other oil-exporting countries:
  - Algeria                        Iran
  - Bahrain                       Iraq
  - Brunei                        Nigeria
  - Ecuador                      Trinidad and Tobago
  - Gabon                        Venezuela
  - Indonesia

*Centrally-planned economies*

- Albania                        Korean Democratic
- Bulgaria                      Republic
- China (excluding Taiwan)    Mongolia
- Cuba                         Poland
- Czechoslovakia              Romania
- German Democratic        USSR
- Republic                      Vietnam
- Hungary                      Yugoslavia

*Developing countries*

- All other countries