The domestic financial implications of financing a balance of payments deficit on current account

The object of this article is to show what are likely to be the main flows of funds among the various sectors of the economy when the country is in balance of payments deficit on current account. It concentrates in particular on the differing consequences of the various ways in which the deficit may be financed, including the outcome for the money stock and the banks' reserve ratios.

Payments abroad on current account are made for goods, services, debt interest, dividends, and various grants and transfers. However, a current account deficit may for convenience be regarded as stemming from an excess of imports of goods over exports. This article therefore looks in the first instance at what happens when companies import goods. Thereafter it looks further at inflows on capital account, which must in the event counterbalance the deficit where it is not financed by a loss of foreign exchange reserves.[1]

Examples are mainly illustrated by simplified flow of funds tables. Such tables show, first, the financial surplus or deficit of the various sectors – here, the counterpart of the overseas sector's surplus is a deficit in the company sector – and then how each sector finances its deficit or disposes of its surplus. A use of funds (that is investment in financial assets or repayment of borrowing) is marked (+), and a source of funds (receipts from disposals of financial assets or from borrowing) is marked (–).[2] Effects on the money stock and on the banks' reserve ratios are shown in subsidiary tables alongside each flow table.[3] The examples do not deal with any subsequent reactions to changes in the banks' reserve ratios; and it is assumed throughout that the various transactions do not affect immediate spending on goods and services.

An import of goods by a company will usually be matched initially in one of the following ways:

A By a payment in sterling
Money is transferred from the importer's account with a UK bank to the overseas supplier's account with a UK bank (Table A/1); the importer may in fact do this by increasing his overdraft (Table A/2).

B By a payment in foreign currency
The importer will generally need to buy foreign exchange (in effect from the Exchange Equalisation Account when – as for the moment assumed here – the authorities are operating in the market); he then uses it to pay the overseas supplier (Table B).

C By an extension of trade credit
The goods are moved without any transfer of funds (Table C).

From the tables, it is evident that money stock falls initially unless the importer increases his overdraft (Table A/2) or obtains trade credit (Table C). Subsequent effects, if the banks react to a change in their reserve ratios, are not pursued in the tables. The ratios fall most when the external reserves fall (Table B) because that provides the central government with sterling finance, which, other things being equal,

[1] See also two previous articles: 'Inflows and outflows of foreign funds', June 1962 *Bulletin*, page 93, and 'The Exchange Equalisation Account: its origins and development', December 1968 *Bulletin*, page 377. The contribution of external transactions to changes in the money stock is shown in columns 7 and 8 of Table 12/3 of the statistical annex. The uses and limitations of this kind of table were described in an article in the December 1972 *Bulletin*, page 512.

[2] A general description of flow of funds analysis is given in *An introduction to flow of funds accounting: 1952–70* (Bank of England, 1972).

[3] Compared with the figures in the statistical annex various simplified definitions have been adopted here. Holdings of notes and coin by the public have been ignored, and the *money stock* is defined to equal the total of (domestic) bank deposits only. *Eligible liabilities* are equal here to all sterling bank deposits, whether held by residents or non-residents, plus the banks' net position (deposits less lending) in foreign currency. *Reserve assets*, which in practice include a proportion of local authority and private sector debt, are restricted here to central government debt. The *reserve ratio* is the ratio of reserve assets to eligible liabilities.

Table A / 1
Imports paid for in sterling

	Companies	Banks	Overseas
Surplus +/ deficit –	–100		+100
Sterling bank deposits	–100	–	+100

Banks' balance sheet

	Liabilities	Assets
	in sterling	
Companies	–100	–
Overseas	+100	–

M3	Eligible liabilities	Reserve assets	Ratio
–100	–	–	–

Table A / 2
Imports paid for out of sterling bank advances

	Companies	Banks	Overseas
Surplus +/ deficit –	–100		+100
Bank lending in sterling	–100	+100	
Sterling bank deposits		–100	+100

Banks' balance sheet

	Liabilities	Assets
	in sterling	
Companies	–	+100
Overseas	+100	–

M3	Eligible liabilities	Reserve assets	Ratio
–	+100	–	falls

Table B
Imports paid for in foreign currency

	Central government	Companies	Banks	Overseas
Surplus +/ deficit –		–100		+100
Reserves	–100			+100
Bank lending in sterling	+100		–100	
Sterling banks deposits		–100	+100	

Banks' balance sheet

	Liabilities	Assets
	in sterling	
Central government	–	–100
Companies	–100	–

M3	Eligible liabilities	Reserve assets	Ratio
–100	–100	–100	falls

Table C
Imports obtained on trade credit

	Companies	Overseas
Surplus +/ deficit –	–100	+100
Overseas investment in UK companies	–100	+100

No change in the banks' assets and liabilities, nor in M3, eligible liabilities, or reserve assets

reduces its borrowing from the banks and the supply of reserve assets to them.[1] The ratios are also reduced where importers increase their overdrafts.

Usually, the story does not end there. Non-residents are unlikely to want to add indefinitely to their sterling accounts; the external reserves are limited and the Government may wish to replenish them; and trade credit falls due for repayment. More generally, UK residents – and non-residents for that matter – will not usually allow the whole of a big change in their net financial position, the necessary counterpart of the current account deficit, to be reflected simply in a transfer of sterling or foreign currency bank deposits or in trade credit. Subsequent financial transactions between sectors will achieve a more balanced change in asset holdings. In what follows, several such financial transactions are considered in turn, and their effects are again summarised in simplified tables. They are all shown as capital inflows which augment the exchange reserves. Typically, the total effect – of an import, the initial financial transaction to match it, and these subsequent financial transactions – can be seen by taking Table B, in which the import is initially matched by a fall in the exchange reserves, with one or other of Tables D to J, or some combination of them.

Some sorts of capital inflow are of course more likely to be important than others, depending on all the circumstances. In 1974, for example, the chief forms of finance were public sector borrowing in

[1] It is assumed throughout that when the banks provide finance for the central government they always take up debt in the form of reserve assets and not, for example, longer-dated gilt-edged stocks.

foreign currency, increases in overseas sterling holdings, and companies' borrowing abroad in various ways.

If, when the exchange rate is floating freely, there are no official transactions in foreign exchange, there can of course be no change in the official reserves. However, the money stock will still fall whenever non-residents let their sterling bank deposits increase or when the banks let their net liabilities in foreign currency increase.

D Finance obtained by the central government

As noted above, where the deficit is financed by a fall in the exchange reserves, the banks' holdings of reserve assets are reduced and their reserve ratios fall. The central government exchanges foreign currency for sterling with the importer. This sterling finances part of its borrowing requirement, and its need for domestic finance is equivalently reduced; and other things being equal it is able to reduce its borrowing from the banking system, leaving the banks' reserve ratios lower than they otherwise would have been.

Subsequent financial transactions will not reverse the fall in reserve ratios unless the central government is required once more to increase its borrowing in sterling from the banks. It is not required to when, in the following ways, itself raising overseas finance or borrowing in foreign currency. In Table D/1 it borrows £100 million in foreign currency from the banks – for example, under the $2·5 billion facility negotiated in 1974. The way in which it finances its borrowing requirement is changed, but domestic financial conditions are not directly affected. Thus, by borrowing in foreign currency, the central government merely increases both its foreign currency assets and its foreign currency liabilities; it does not receive any sterling finance, nor do the banks gain reserve assets. The banks' combined balance sheet shows that their foreign currency assets and their foreign currency liabilities are each higher than before by equal amounts, which leaves their net foreign currency position – and therefore their reserve ratios – unaffected. In Table D/2 overseas holders take up sterling-denominated securities of the central government after buying sterling from the EEA: the rise in the external reserves would increase the central government's need to borrow domestically but for the fact that the concomitant overseas take-up of government debt reduces it. The effect is to leave domestic financial conditions unchanged. They would also be unaffected if the central government borrowed foreign currency direct from abroad instead of, as in Table D/1, from the banks. Thus, in Table D/3, it obtains foreign currency from (say) the International Monetary Fund in exchange for sterling: the external reserves rise by the amount of foreign currency drawn, and the payment of sterling to the Fund would increase the central government's need for sterling finance but that the Fund at once uses its sterling to take up government debt, in the form of non-interest-bearing notes. There is no effect on the domestic financial system. Similarly, sterling swapped with currency is generally employed in government debt on behalf of the lender. If the Government were to borrow from abroad simply by incurring a liability in foreign currency, that is without paying sterling for the currency, there would of course be no sterling transactions in the domestic system. [1]

E–G Borrowing in foreign currency by local authorities or public corporations

When local authorities or public corporations borrow foreign currency under the exchange cover scheme, they surrender the proceeds to the central government in exchange for sterling. The domestic impact depends on what the alternative form of borrowing would have been. In

[1] For a note on the mechanism and statistical treatment of borrowing from the IMF, and of swaps and currency deposits from other central banks and governments, see the March 1965 *Bulletin*, page 15.

Table D / 1

Central government borrows foreign currency through UK banks

	Central government	Banks	Overseas
Reserves	+100		−100
Bank lending in foreign currency	−100	+100	
Foreign currency bank deposits		−100	+100

Banks' balance sheet

	Liabilities	Assets in foreign currency
Central government	−	+100
Overseas	+100	−

No change in M_3, eligible liabilities, or reserve assets

Table D / 2

Overseas sector takes up central government debt denominated in sterling

	Central government	Overseas
Overseas lending in sterling to public sector	−100	+100
Reserves	+100	−100

No change in the banks' assets and liabilities, nor in M_3, eligible liabilities, or reserve assets

Table D / 3

Central government borrows foreign currency direct abroad

	Central government	Overseas
Overseas lending in foreign currency to the public sector	−100	+100
Reserves	+100	−100

No change in the banks' assets and liabilities, nor in M_3, eligible liabilities, or reserve assets

Table E

Public corporations borrow foreign currency direct abroad, replacing borrowing from the Government

	Central government	Other public sector	Overseas
Central government lending	−100	+100	
Overseas lending in foreign currency to public sector		100	+100
Reserves	+100		−100

No change in the banks' assets and liabilities, nor in M_3, eligible liabilities, or reserve assets

Table F

Local authorities borrow foreign currency direct abroad, replacing borrowing from banks

	Central government	Other public sector	Banks	Overseas
Overseas lending in foreign currency to public sector		−100		+100
Reserves	+100			−100
Bank lending in sterling	−100	+100	−	

Banks' balance sheet

	Liabilities	Assets in sterling
Central government	−	+100
Other public sector	−	−100

M_3	Eligible liabilities	Reserve assets	Ratio
−	−	+100	rises

Table G

Local authorities borrow foreign currency direct abroad, replacing borrowing from persons

	Central government	Other public sector	Persons	Banks	Overseas
Overseas lending in foreign currency to public sector		−100			+100
Reserves	+100				−100
Purchases of gilt-edged by non-bank private sector	− 30		+ 30		
Purchase of local authority debt by non-bank private sector		+100	−100		
Bank lending in sterling	− 70			+70	
Sterling bank deposits			+ 70	−70	

Banks' balance sheet

	Liabilities	Assets in sterling
Central government	−	+70
Persons	+70	−

M_3	Eligible liabilities	Reserve assets	Ratio
+70	+70	+70	rises

turn, in Tables E, F, and G, public bodies substitute £100 million of foreign currency borrowing by way of bond issues abroad for borrowing from the central government, borrowing from the banks, and borrowing from the personal sector.

In Table E – substitution for borrowing by public corporations from the central government (through the National Loans Fund) – the domestic financial consequences are exactly the same as with foreign currency borrowing by the central government. For although relieved of the obligation to provide sterling to public corporations through the National Loans Fund, the central government must instead provide them with the same amount of sterling in exchange for the surrendered foreign currency. The rise in the external reserves would increase the central government's need for domestic finance if it had not now to provide less to the corporations through the NLF. Thus, other things being equal, the amount it needs to borrow from the banks is unchanged.

In Table F – substituting for borrowing in sterling by local authorities from the banking system – the local authorities again sell the currency proceeds to the central government for sterling, which increases the latter's need for sterling finance. However, as there is nothing this time to reduce the central government's need for sterling finance for any other purpose, the net effect is to increase its need for domestic finance and so, other things being equal, to increase the banks' holdings of reserve assets and raise their reserve ratios.

In Table G – substitution for borrowing in sterling by local authorities from the market, assumed in this example to be from persons – the outcome is less clear-cut than before, depending as it does on how the market disposes of the funds which local authorities no longer require. If, for instance, persons add £70 million to their bank deposits and invest £30 million in gilt-edged stocks, the money stock and the banks' holdings of reserve assets rise by £70 million, raising the banks' reserve ratios. Domestic monetary conditions are easier the more the personal sector replaces its holdings of local authority debt by bank deposits rather than by central government debt.

In these examples, public bodies are taken to borrow abroad direct by means of bond issues: but the domestic financial consequences would be just the same if they borrowed foreign currency indirectly through UK banks. That would merely increase the foreign currency assets and foreign currency liabilities of the banks by equal amounts, leaving the situation otherwise the same as with bond issues.

H UK banks switch foreign currency deposits into sterling

In Table H/1 it is assumed that UK banks sell some foreign currency claims on overseas to the EEA for sterling. The external reserves rise, increasing the central government's need to borrow domestically. Other things being equal, the banks' reserve assets are correspondingly increased. Although their eligible liabilities also increase (for these include the net liability of a bank's foreign currency deposits less its foreign currency claims), their reserve ratios rise too.

There is an equivalent situation if non-residents increase their sterling deposits with UK banks – as in Table H/2. They buy sterling to place with the banks; the external reserves rise, requiring the central government to borrow more domestically; and this augments the reserve assets of the banks, whose sterling deposits and reserve assets have therefore increased by equal amounts, raising their reserve ratios. Neither here nor in Table H/1, however, is there any direct effect on the money stock – for neither the banks' net liabilities in foreign currency nor their sterling liabilities to non-residents count as part of it.

Table H / 1

UK banks switch foreign currency assets into sterling

	Central government	Banks	Overseas
Reserves	+100		−100
Bank lending in sterling	−100	+100	
Bank lending in foreign currency		−100	+100

Banks' balance sheet

	Liabilities	Assets
	in foreign currency	
Overseas	–	−100
	in sterling	
Central government	–	+100

M_3	Eligible liabilities	Reserve assets	Ratio
–	+100	+100	rises

Table H / 2

Overseas sector increases sterling deposits with UK banks

	Central government	Banks	Overseas
Reserves	+100		−100
Bank lending in sterling	−100	+100	
Sterling bank deposits		−100	+100

Banks' balance sheet

	Liabilities	Assets
	in sterling	
Central government	–	+100
Overseas	+100	–

M_3	Eligible liabilities	Reserve assets	Ratio
–	+100	+100	rises

Table J

Overseas sector takes up UK company debt

	Central government	Companies	Banks	Overseas
Overseas investment in UK companies		−100		+100
Reserves	+100			−100
Bank lending in sterling	−100		+100	
Sterling bank deposits		+100	−100	

Banks' balance sheet

	Liabilities	Assets
	in sterling	
Central government	–	+100
Companies	+100	–

M_3	Eligible liabilities	Reserve assets	Ratio
+100	+100	+100	rises

J Overseas lending to the private sector (other than banks)

In the final examples, the overseas sector lends direct to the private sector, for instance by buying newly-issued debentures (but it could be any other financial assets). The external reserves rise as non-residents buy sterling to finance the purchase. This increases the central government's need for domestic finance and therefore, other things being equal, its need to borrow from the banks, which raises their holdings of reserve assets. The private sector's sterling deposits with the banks rise – companies receive sterling deposits in exchange for their debentures. Thus the money stock and the banks' holdings of reserve assets have risen by equal amounts; and so the banks' reserve ratios increase.

The domestic monetary situation is the same if the private sector, with exchange control permission, borrows foreign currency for use at home, whether from UK banks or direct from abroad. In either case, companies sell the foreign currency proceeds of their borrowing to the central government for sterling, augmenting their own sterling bank deposits and the central government's need to borrow from the banks. However, where the private sector borrows the foreign currency through the banks, either the composition of the banks' foreign currency assets changes (if they reduce their foreign currency claims on overseas to lend more to UK companies) or both sides of their foreign currency books increase (if they borrow more foreign currency to do so).

Conclusion

If the country is in heavy deficit and the authorities are using the exchange reserves, imports of goods, which are most often paid for in foreign currency, will in the first instance typically generate falls in the reserves, in the money stock, and in the banks' reserve ratios (Table B).

Where the fall in the exchange reserves is made good by the central government borrowing in foreign currency or abroad (Tables D/1, D/2, and D/3) or by public bodies borrowing in this way instead of from the central government (Table E), the falls in the money stock and reserve ratios are not themselves reversed. In the other instances presented above, the reserve ratios of the banks are restored, or partly restored, by the capital inflow; and in two of them so is the money stock – when the private sector acquires bank deposits instead of local authority deposits (Table G) and when the overseas sector buys financial assets from the private sector (Table J). [1]

The reserve ratio is not the only constraint on the banks and may not be the most important; other controls, such as supplementary special deposits required against increases in interest-bearing liabilities, or common prudence, may also constrain their actions. Moreover, there can be consequent effects on the economy even if the money stock and the reserve ratios are initially unaffected; for with the transfer abroad of some financial assets, as entailed by the deficit, the relative prices of the remaining stock of financial assets will tend to change somewhat, with possible consequences for activity in the economy.

[1] Put in terms of Table 12/3 in the statistical annex, the initial fall in the money stock (column 10 – the reduction in companies' sterling bank deposits) has its counterpart in the increase in public sector external finance (column 7 – a fall in exchange reserves providing sterling funds for the central government). The subsequent restoration of the reserves from capital inflows (a positive entry in column 7) will in turn restore the money stock only when there are no offsetting increases in external finance (negative entries in columns 7 or 8). In the examples covered by Tables D/2, D/3, E, and F, the overseas sector takes up public sector debt (negative entries in column 7), and the increase in reserves does not require the public sector to borrow more from the banks to finance it; and in Tables D/1, and H/1 and H/2, the banks' net external liabilities increase (negative entries in column 8). In none of these examples, therefore, are the capital inflows directly associated with any restoration of the money stock; this happens only where, as in Tables G and J, the public sector borrows more from the banks, and there is no further change in external finance.