Chapter 2
The effects of financial institutions

We have seen in the previous chapter how a pattern of accelerated spending, defined *ex ante,* would tend to generate rising trade imbalances in the early 1980s. But these projected imbalances are unlikely to occur in practice because growth of spending will be limited by financial constraints.

The purpose of this chapter is to consider prospects for spending and trade balances on an *ex post* basis, taking account of constraints implied by financial institutions. The first section sets out an analytic framework for the simultaneous determination of spending, income and trade. This is followed by a discussion of some general properties of financial adjustment processes within a world trading system. The third section examines the effects of financial institutions on adjustment processes in different parts of the world. The fourth section presents projections of spending, income and trade taking account of financial constraints, and the final section examines how far the outcome would be altered by changes in objectives and constraints.

2.1 Financial adjustment processes

In all parts of the world public and private institutions seek to maintain or expand their spending in pursuit of a variety of social and individual objectives. In so doing they are constrained by their income, their own financial objectives and by the credit limits placed on them by financial institutions. In particular, financial institutions limit divergence between spending and income if it results in a rapidly cumulating indebtedness.

Changes in trade have a direct effect on income earned within a country. Thus so long as financial objectives and constraints have any influence on spending decisions, changes in trade will indirectly affect the level of internal spending. Such induced changes in spending generally feed back into external trade flows, especially demand for imports. The effect is normally to diminish the magnitude of *ex post* changes in the country's trade balance, compared with what would have happened if internal spending had remained unchanged. For example, an increase in exports will usually generate additional income and internal spending, causing a rise in imports which goes at least some way towards offsetting the improvement in the trade balance resulting from the initial increase in exports. In an extreme case, the *ex post* trade balance might not change at all; the rise in imports induced by additional spending might be equal to the increase in exports. However, the adjustment process will never be instantaneous so there is always likely to be at least a temporary rise or fall in the *ex post* trade balance in response to a rise or fall in *ex ante* trade flows.

There is one case in which internal spending may remain unaffected by changes in export earnings. Consider the example of an oil-exporting country with large foreign exchange reserves where all oil revenue accrues directly to the government. In this case it is quite possible that fluctuations in the value of oil exports will have no influence whatever either on internal spending or on imports, their only consequence being to alter the rate at which the government accumulates external assets.

It is also possible that *ex ante* changes in external trade may be compensated by structural adjustments which reduce or eliminate the need for changes in the level of internal spending. For example, in a country whose government regulates imports, changes in export earnings may be compensated by tightening or relaxing the system of import control or, in a country with a liberal trade regime, an *ex ante* deterioration in trade might be compensated by a fall in the exchange rate, sufficient to stimulate exports and discourage imports.

But in practice compensating structural changes are usually slow and incomplete. In this chapter we shall confine our attention to changes in spending which would have to occur in the absence of structural adjustments. Possible gains or losses resulting from 'restructuring' in the fields of energy and manufactures will be dealt with in the next chapter.

A formal representation

Let us now consider how processes of financial adjustment can be represented formally. The first step is to establish accounting relationships between trade, income, spending and financial deficits for each country or bloc.

The accounting system used in our model (see p11) has three relevant concepts:

B the balance on commodity trade

Y real income
H domestic spending (plus net exports of services).

We must now distinguish

S net exports of services
and D domestic spending (excluding net exports of services) where D = H—S

The measure of real income in our accounts is income derived from domestic output (GDP). This does not include net receipts of profits, remittances, aid and other transfers from other countries. Nor does it include direct investment flows from other countries which may finance internal spending without giving rise to a financial deficit. Here we shall denote net receipts of income and direct investment from other countries by T.

Given these accounting adjustments, the overall financial surplus (+) or deficit (—) of a country or bloc may be defined as

$$F = (Y + T) - D = Y + T + S - H$$

This represents the combined financial balance of all internal institutions, banks, governments, companies and private individuals, after netting out their lending to one another. It is equal to the balance of payments surplus or deficit of the country or bloc on trade, services, income transfers and direct investment. Since income from domestic output, Y, is equal to domestic spending plus net exports of services and goods —

$$Y = H + B$$

it follows by substitution that

$$F = Y + T + S - H$$
$$= B + S + T$$

This identity, linking the combined financial surpluses or deficits of institutions in each bloc to the overall balance of payments surplus or deficit of the bloc on current account and direct investment flows, is an *ex post* identity which says nothing about how balances are adjusted. To consider this we must now make assumptions about the objectives of relevant institutions and about the adaptations which occur if their objectives are mutually incompatible.

For this purpose we define two fundamental targets — a normal or desired level of domestic spending, D*, and a desired financial surplus or deficit, F*, (both measured in real terms). Given these two targets for spending and financial balances, we may define the level of domestic income at which both could be achieved as

$$Y^* = D^* + F^* - T$$

In other words, for spending objectives and financial objectives to be fulfilled simultaneously it is necessary that income generated by domestic output be sufficient to cover desired spending and net financial accumulation, less net transfers of income and direct investment from other countries.

There is a corresponding implication for the trade balance. The trade surplus or deficit must be sufficient, after allowing for net exports of services and net receipts of income and direct investment from abroad, to match the combined target financial surplus or deficit of all domestic institutions. Thus we may define a target trade balance, B*, such that

$$B^* + S + T = F^*$$

If the actual trading position allows spending and financial targets to be met simultaneously, then we assume that actual levels of spending, income and financial accumulation will conform to the targets. In practice such an equilibrium is not often achieved.

Given world prices, the state of export markets, and the supply position within the country or bloc, let us denote the trade balance to be expected *ex ante,* if internal spending objectives were fulfilled, by B_o. In a world recession the problem for many or most countries is that the *ex ante* trade balance, B_o, falls below the target, B*. An alternative way of putting this is that external trade does not generate sufficient income for spending objectives to be achieved in full except at the cost of some or all institutions falling short of their financial targets.

In general, part of the necessary adjustment is likely to be made by reducing spending, and part by shortfalls in financial balances. Such an adjustment may be denoted by

$$D - D^* = \alpha\,(Y - Y^*)$$

where α is a parameter between 0 and 1 indicating the severity of expenditure adjustment. The actual financial surplus or deficit will then be

$$F - F^* = (1 - \alpha)\,(Y - Y^*)$$

For simplicity we shall treat net service exports and transfers and direct investment receipts from abroad as being fixed. We may then write

$$H - H^* = D - D^* = \alpha\,(Y - Y^*)$$

and $$B - B^* = F - F^* = (1 - \alpha)\,(Y - Y^*)$$

The adjustment of spending will cause an adjustment of the trade balance, mainly through induced changes in imports. We may write

$$B - B_o = -\mu\,(H - H^*)$$

where μ measures the sensitivity of changes in the trade balance to changes in domestic spending, for the moment assuming unchanged world prices and spending in other blocs. The combination of trade and spending adjustment processes determines the eventual outcome. The *ex post* trade balance is given by

$$B - B_o = \frac{\gamma}{1 + \gamma}\,(B^* - B_o) \text{ where } \gamma = \frac{\alpha\,\mu}{1 - \alpha}$$

Put in words, a discrepancy between the target trade balance B* and the *ex ante* trade balance B_o is partially corrected by adjustment of spending, the adjustment being the more complete the more severe is the adjustment of spending to income (α) and the greater the sensitivity (μ) of the trade balance to spending.

In our projections of the world system as a whole the adjustment process becomes more complex because of feedbacks into world prices and spending in other blocs. The reaction of trade to changes in spending is governed by the 'real' side of our model,

Table 2.1 Adjustment profiles for a constant tendency to shortfall in the trade balance[a]

(percentage of shortfall eliminated)

	Normal adjustment[b]	Strong adjustment[b]	Very strong adjustment[b]
Low sensitivity of trade balance to spending ($\mu = 0.2$)			
First year	38	54	64
Second year	70	80	86
Fifth year	96	98	99
High sensitivity of trade balance to spending ($\mu = 0.4$)			
First year	55	71	78
Second year	77	87	91
Fifth year	97	99	99

[a] The tendency to shortfall in the trade balance is measured by $B^* - B_o$

[b] Alternative adjustment processes assumed in projections of the model. The adjustment profiles shown illustrate the effects of adjustment of spending within a single bloc, assuming fixed world prices and unchanged spending in other blocs. The coefficients of adjustment are as follows:

	α	β
Normal	0.75	0.50
Strong	0.86	0.57
Very strong	0.90	0.60

discussed in the previous chapter. Implied values of the partial adjustment parameter, μ, for the trade balance are in the range 20-40%.

Our projections in this chapter will assume that if the outcome persistently falls short of financial targets, the rising cumulative deficit exerts increasing pressure for adjustment of spending. Thus, defining the cumulative discrepancy, R, by

$$R = R_{-1} + (F - F^*)$$

the adjustment process in the model takes the form

$$H - H^* = \alpha (Y - Y^*) + \beta R_{-1}$$

where β is a parameter measuring the strength of pressure for correction of cumulated past deficits.

For a given and constant discrepancy between the *ex ante* trade balance B_o and the target B^*, this formulation implies a progressive, and eventually complete, adjustment of the *ex post* trade balance.

Depending on the strength of the adjustment process and on the sensitivity of the trade balance to internal spending, a constant discrepancy would be corrected, in the model, by 40-80% in the first year, by 70-90% by the second year, and by 96-99% by the fifth year. The assumption that excess financial deficits cannot be allowed to accumulate without limit evidently implies that persistent tendencies to a shortfall must ultimately be eliminated. In the long run the *ex post* trade balance is then governed entirely by financial constraints: spending has to adjust fully to financial objectives. The strength of the adjustment process and the degree to which the country or bloc is open to external trade influence the speed of adjustment and the extent of cumulative financial shortfalls during the adjustment process (see Table 2.1).

2.2 General implications of financial adjustment

There are some properties of financial adjustment processes within a world system which are quite well known. For example, if trade targets are mutually inconsistent in the sense that most or all blocs aim for a surplus, the process of expenditure adjustment becomes cumulatively deflationary for the world as a whole. Each bloc cuts its spending, trying to improve its trade balance, but in so doing it worsens the position of other blocs which respond by cutting their spending further, causing a recessionary spiral.

Another familiar proposition is that the expenditure adjustment process may tend to depress the level of spending and trade in the world as a whole if it is asymmetric. Blocs with excessive deficits may be compelled to cut their spending severely while 'surplus' blocs make little or no adjustment in the opposite direction.

The implicit counterpart to these results is the proposition that if trade targets were mutually consistent and if the process of adjustment were uniform and symmetrical, then the financial adjustment process would have no effect on total world spending but would merely redistribute spending between blocs. Under such conditions total world income would be the sum of the *ex ante* spending

levels of individual blocs. Provided spending targets were genuinely given *ex ante,* changes in the pattern of world trade and prices would have no impact on aggregate world production and income. Tendencies to trade imbalance would cause a redistribution of production and income between blocs but would not affect world totals.

It is abundantly clear that the processes of financial adjustment which exist in the modern world do not conform with the postulates of consistency and symmetry required for the above result to hold good in reality. Thus even if the targets for accelerated growth of spending discussed in Chapter 1 genuinely represented the combined objectives of institutions within every bloc, there is no reason to expect that total world spending would in fact rise in the early 1980s at the rate assumed in our *ex ante* projection.

The problem is not that the combined trade targets of different blocs are inconsistent in the sense of being too ambitious but rather that adjustment processes are asymmetrical and non-uniform. It seems likely that few countries want to achieve large balance of payments surpluses; on the other hand many countries evidently incur deficits willingly and are capable, within bounds, of financing them. The main surplus countries, those in OPEC, are embarrassed by the size of surpluses forced on them by high demand for oil in the rest of the world. Other potentially surplus countries such as Japan and Germany have appeared anxious to avoid any chronic surplus position for fear that this would force up their exchange rates to a point which seriously damaged the profitability of their industries. Indeed Japan now faces the problem of avoiding not only overvaluation of its currency but also discriminatory import controls aimed against its manufactured exports.

Asymmetry and non-uniformity are most evident in the policies of international financial institutions such as the IMF and commercial banks. They frequently seek to negotiate reductions in spending in heavily indebted countries but have neither the motive nor the means to place corresponding pressure for higher spending on creditor countries.

A similar asymmetrical pressure is exerted by domestic banking institutions in most countries, although this is compensated in some cases by government deficits and by incentives to encourage companies to borrow.

If there were no *ex ante* trade imbalances, or if those imbalances diverged only marginally from the pattern required to meet financial objectives, the asymmetry of financial adjustment would matter little from the point of view of world spending and trade. But in the 1970s, and prospectively in the 1980s, pronounced tendencies to imbalance have combined with financial constraints to depress world growth and to limit very severely the possibilities of expansion for many individual blocs and countries. In these circumstances the processes of financial adjustment become very important. The next section therefore examines in more detail how the spending and deficits of different blocs are restrained in practice.

2.3 Financial adjustment in practice

The specific mechanisms regulating spending vary considerably in different parts of the world. Here we consider countries in four groups — oil exporters, non-oil developing countries, developed market economies and centrally planned economies. Adjustment processes in the first and last of these groups can be described quite simply. The cases which need more thorough consideration are those of non-oil developing countries and Western industrial countries.

It has already been mentioned that the level of spending in the main oil-exporting countries is determined almost entirely by governments and is scarcely influenced by fluctuations in trade or by external financial pressures. For our purposes the growth of spending in such countries will be regarded as being determined *ex ante* by internal objectives.

As for the centrally planned economies, their imports from other blocs have always been carefully regulated to maintain a close balance on trade overall. Imports from hard currency countries have mainly been financed by sales of gold, raw materials and energy. Although centrally planned countries also borrowed from the West in the 1970s, the rate of borrowing has been small relative to their internal income and is now inhibited by the political climate. The bloc as a whole is therefore likely to continue to maintain a near balance in its external trade, implying that, as in the past, the limit on its economic expansion will be set mainly by the internal supply position with regard to food, raw materials and energy.

Non-oil developing countries

The non-oil developing countries constitute the group whose imports and spending are most obviously constrained by export earnings and external sources of finance. Since the mid-1970s these countries have had large trade deficits, expected in total to exceed $50 billion at current prices in 1980 (see Table 2.2). Their large debt requires them to make substantial interest payments, making their external deficits on current account (excluding official aid) larger still. Since aid and direct investment inflows cover only about one-third of the total deficits, the remainder has to be financed by borrowing, creating a debt which has risen from $75 billion in 1973 to an anticipated $280 billion by the end of 1980.

The fundamental reason for the deficits and debts of non-oil developing countries is that their internal growth objectives have a high priority on account of their low income levels and persistent growth of population. The need for rapid internal expansion is incompatible with balance in external trade while their export earnings remain low, especially when they depend on imports of energy and manufactured producer goods.

In the 1950s and 1960s the ability of developing countries to incur trade deficits depended mainly on the sponsorship of Western governments and official institutions which alone were in a position to provide them with aid or foreign currency loans. But the growth of international commercial banking since

Table 2.2 Financing trade deficits: Non-oil developing countries[a]

($ billion)

	1973	1975	1978	1980[b]
Trade balance	−10.8	−40.2	−30.3	−53.6
Net services and private transfers	− 0.5	− 5.6	− 5.2	−14.4
Balance on current account[c]	−11.3	−45.8	−36.2	−68.0
Official aid	4.5	6.9	7.6	10.8
Net direct investment	4.3	5.3	6.5	8.4
Net long-term borrowing from official sources	5.5	11.4	16.3	19.1
Net long-term borrowing from commercial sources	6.4	14.9	21.0	26.9
Residual[d]	− 9.4	7.3	−15.2	2.8

[a] Includes Greece, Portugal, Yugoslavia, Israel and South Africa as well as some countries with significant oil production – notably Mexico and Egypt.

[b] Projected figures.

[c] Excluding official transfers.

[d] Principally, changes in reserves and short-term borrowing.

Source: IMF May 1980, *World Economic Outlook*, pp. 97 & 101.

the late 1960s has very much diversified the potential sources of finance. Thus in the 1970s some developing countries borrowed heavily from commercial banks, most of the counterpart deposits being placed with those banks by the official institutions of oil-surplus countries.

The combination of borrowing by non-oil developing countries and accumulation of deposits by oil exporting countries has brought about an expansion of deficits and surpluses, debts and reserves, far larger than that sponsored by the Central Banks and official international institutions of Western countries. A large part of the debt is owed by a few countries (in 1978 the debts of Brazil and Mexico alone amounted to one quarter of the total). Other developing countries remain at least potential clients of the international commercial banks, so long as the bankers regard them as acceptable borrowers and their governments regard the banks as acceptable creditors.

The evident risk of borrowing by low income countries is that they may become heavily dependent on trade deficits, resulting in a fast-growing external debt with rising interest charges. Both sides are then placed in great difficulty. It is not easy for the banks to force low-income deficit countries to restore external financial viability, nor for their governments to cut internal spending and imports to meet the banks' requirements. The IMF has several times been brought in by creditors to negotiate restrictions with debtor governments, placing it in the unfortunate role of bailiff, enforcing the payment of other people's debts (see Table 2.3).

Official institutions such as the IMF and World Bank have been responsible, if conservative, lenders on their own account, seeking to prevent accumulation of debt on terms or to an extent which might force borrowing countries towards bankruptcy. But financing of deficits on 'responsible' terms has been inadequate to meet the circumstances of the 1970s when OPEC surpluses, created mainly by the energy demands of developed countries, were not matched by deficits in the major oil-importing blocs. The USA, Western Europe and Japan 'passed on' their deficits to non-oil developing countries without institutions being created to finance such deficits in a secure way.

Large-scale commercial lending to non-oil developing countries is no more sensible in the long run than lending to low-income individuals with chronic tendencies to overspend. It is evident that multilateral trade cannot be financed indefinitely on this basis. The alternative would have been for high income oil-importing countries to incur deficits on the appropriate scale themselves, providing non-oil developing countries with better opportunities for increasing exports instead of increasing their debt. To see why this has not happened, we now consider mechanisms of adjustment in the developed countries themselves.

Developed countries

In the first twenty years after World War II the countries of Western Europe were subject to financial constraints not very different in nature, though much less stringent in degree, from those now faced by non-oil developing countries. With fixed exchange rates and limited mobility of private financial capital, their governments were obliged to take primary responsibility for the finance of any deficits on trade, invisibles and direct investment, through depletion of exchange reserves or through official external borrowing. Trade deficits tended to force governments to undertake deflationary fiscal and monetary policies in order to protect official exchange reserves.

In practice European countries other than the UK rarely had to make any prolonged adjustment, since

Table 2.3 External debts[a] of non-oil developing countries[b]

($billion)

	1973	1975	1978	1980[b]
Creditor institutions				
Governments	36.9	50.8	76.2	97.6
International institutions	12.2	18.6	35.4	49.0
Commercial banks	13.1	30.9	76.7	106.2
Other private	13.8	14.5	23.1	26.8
Total	75.9	114.9	211.6	279.5
Debtor areas				
Latin America	25.7	42.2	82.9	104.2
Asia	23.6	32.3	53.9	72.3
Africa	10.5	16.7	33.1	43.3
Middle East	7.7	12.2	22.9	30.9
Europe	8.4	11.5	18.8	28.8
Ratio of total debt to		(per cent)		
annual exports of goods and services	69.8	76.2	86.3	74.0
annual GDP	13.7	15.0	19.2	19.3

[a] Public and publicly guaranteed.

[b] See Table 2.2

Source: IMF, *op. cit.*, pp. 102-3

their balances of payments usually remained manageable despite high growth rates of internal spending. The option of deliberate exchange rate devaluation to correct tendencies to trade deficit was used quite successfully (although not without accompanying short-term financial restriction) by France on several occasions. The USA enjoyed the privilege of being the single genuine reserve currency country: it did not need to worry about balance of payments deficits since these were financed automatically as other countries accumulated dollar reserves. Consequently, its financial and monetary policies were dictated almost entirely by internal considerations.*

When the fixed exchange rate system broke down at the beginning of the 1970s, the processes of financial adjustment in developed countries were already starting to change. One underlying development was the increasing tendency to trade imbalance between developed countries as tariffs were reduced or removed and trade in manufactures expanded rapidly. Another related change was the build-up of inflation, which varied considerably between countries. These two changes together made fixed exchange rates inconsistent with balanced trade at full-employment levels of spending.

At the same time liberalisation of private international financial transactions gave rise to the possibility, indeed the necessity of speculative anticipation of exchange rate changes. Private international banking expanded rapidly to serve commercial customers and soon also provided a medium for deposits and borrowing by governments of developing countries. Increasingly large and unstable flows of commercial funds could no longer be offset by drawing down official exchange reserves. Thus in the early 1970s the Central Banks of western countries abandoned the attempt to enforce fixed exchange rates and allowed exchange rates to be determined in a global foreign exchange market. They have continued to intervene directly in that market by buying and selling currencies, although not with any great long-term success. The situation has therefore arisen that if governments wish to influence exchange rates they must do so by influencing demand for currencies in the market. This they achieve in some degree by raising or lowering domestic rates of interest, but principally by securing confidence in their overall monetary and economic policies.

*The one external financial problem faced by the USA was attempts to convert external dollar holdings into gold. The consequent drain on US gold reserves was limited by pressure on foreign monetary institutions not to buy gold and, eventually, by ending convertibility of the dollar into gold. Only once, in 1960, was internal policy appreciably influenced by the gold drain.

Table 2.4 Exchange rate crises: Italy, 1974

	GDP (change over six months at annual rate %)	Consumer prices	Prime lending rate (%)	Official support for exchange rate ($ million)	Exchange rate (1973 Q1 = 100)
1973 Q1	+ 6.1	11.3	7.0	1195	100
Q2	+ 6.0	13.0	7.0	1432	93
Q3	+13.4	12.1	10.3	616	90
Q4	+ 9.0	10.3	9.5	1154	91
1974 Q1	+ 5.9	16.9	12.8	2651	87
Q2	+ 2.7	22.8	18.0	2489	85
Q3	– 2.6	24.4	18.5	513	84
Q4	– 7.7	26.6	19.5	1281	82
1975 Q1	– 6.2	20.9	18.0	108	81
Q2	– 3.8	13.2	14.0	– 60	82

Key events

January 1973: establishment of dual exchange rate regime.

February 1973: commercial lira allowed to float, free of EEC arrangements.

January 1974: Bank of Italy penalties on excess borrowing increased.

March 1974: IMF agreement on letter of intent (limited budget deficit, ceiling on credit expansion); $ 1.9 billion EEC assistance.

Summer 1974: $1.8 billion drawn from IMF; $2 billion loan from Germany.

August 1974: budget tightened with higher indirect taxes, charges for public services and taxes on high incomes.

November 1974: peak prime lending rate.

Floating exchange rates have not freed financial policies from external constraints as had been hoped at the beginning of the 1970s, especially in weaker trading countries. The threat of an inflationary spiral set off by depreciation of the exchange rate (which raises world prices in terms of domestic currency) has simply replaced the former threat of exhaustion of reserves. The discipline of market confidence

Table 2.5 Exchange rate crises: UK, 1966

	GDP (Change over six months at annual rate, %)	Retail prices	Minimum Lending Rate (%)	Official support for exchange rate ($ million)	Exchange rate (1975 Q3 = 100)
1975 Q3	–0.6	30.6	11.0	453	100
Q4	+0.2	16.5	11.25	723	97
1976 Q1	+4.3	14.9	9.0	1356	96
Q2	+4.8	15.3	11.5	3535	88
Q3	+3.4	12.5	13.0	1523	85
Q4	+2.3	14.6	14.25	220	79
1977 Q1	+0.8	20.7	9.5	–3278	82
Q2	+1.2	20.3	8.0	–1561	82

Key events

November 1975: application to IMF for $2 billion (oil facility and non-conditional *tranche*).

February 1976: Public Expenditure White Paper announces cuts.

March 1976: £ falls below $2.00: exchange rate crisis more-or-less continuous until November.

June 1976: $5.3 billion standby arranged with leading Central Banks.

September 1976: Announcement of government intention to borrow $3.9 billion from IMF; strict conditions anticipated.

October 1976: MLR raised to record 15%; £ falls below $1.60.

December 1976: agreement with IMF (budget cuts to reduce public borrowing by £2 billion, ceiling on credit expansion).

Table 2.6 Exchange rate crises: USA, 1978

		GDP (Change over six months at annual rate, %)	Consumer prices (Change over six months at annual rate, %)	Federal funds rate (%)	Official support for exchange rate[a] ($ million)	Exchange rate (1977 Q3 = 100)
1977	Q3	+5.9	7.4	5.82	800	100
	Q4	+4.5	6.2	6.51	15060	98
1978	Q1	+2.0	5.7	6.76	15080	94
	Q2	+5.0	8.9	7.28	– 4780	93
	Q3	+6.0	10.3	8.10	– 4640	88
	Q4	+4.6	8.9	9.58	18390	87
1979	Q1	+3.3	9.3	10.07	– 8500	88
	Q2	–0.6	12.5	10.18	– 9870	90
	Q3	+0.4	14.2	10.95	8340	88
	Q4	+2.4	13.1	13.58	180	90
1980	Q1	+1.5	14.3	15.05	– 8630	90
	Q2	–4.0	15.9	12.69	n.a.	90

Key events

January 1978: expansionary budget proposed for 1979.

Summer 1978: acceleration of inflation, real growth stronger than expected, high trade deficit.

November 1978: crisis package – increased discount and Federal funds rates, mobilization of foreign currency for exchange intervention, announcement of intention to issue "Carter bonds" in Germany and Switzerland.

Summer 1979: acceleration of monetary growth and price inflation.

October 1979: second crisis package – discount rate and reserve requirements raised, shift of monetary policy to focus on monetary base rather than interest rates.

[a]Official support for the dollar was mainly through intervention by non-US monetary authorities.

necessary to maintain exchange stability has proved as strict as the former discipline of protecting a fixed exchange rate. Indeed the discipline has become stricter on balance because it now embraces the United States. There is no longer any individual monetary authority in the developed countries which could unilaterally stimulate a sustained increase in spending regardless of attitudes in the foreign exchange market.

The typical pattern of adjustment forced on major governments by exchange rate crises in the 1970s is illustrated by episodes in Italy, the UK and the USA (see Tables 2.4—2.6). The most dramatic of all was the moment in 1978 when the government of the USA, the country which had for years dominated international trade and finance, was forced to change its internal monetary policy in response to loss of confidence. Neither the IMF nor foreign governments had ever succeeded in bringing influence to bear on the US government's internal policies, but the foreign exchange market did. In 1978 the continuing fall in the market value of the dollar, despite massive intervention in its support by the Central Banks of Europe and Japan, forced a continuous rise in US interest rates. Eventually, it was necessary for the USA to adopt a crisis package of restrictive measures, ending internal economic growth and forcing its economy into recession.

The original optimism about floating exchange rates rested on the belief that depreciation of a currency would quite quickly improve a country's competitive position in trade. The threat of appreciation of the currencies of surplus countries would force their governments to choose between accelerated spending or a loss of competitiveness. Thus any government which wished to stimulate spending in its country could do so, while allowing its currency to depreciate.

Governments have at times been tempted to ignore depreciation of the exchange rate or even encourage it, hoping that the above mechanisms would soon come into operation. However, in practice the destabilising consequences of loss of confidence in the foreign exchange market always made themselves felt and exchange rates fell uncomfortably fast. This forced restrictive policies on offending governments before beneficial changes in competitiveness or in the policies of other governments had time to materialise.

The financial policies favoured by the foreign exchange market are at present extremely conservative. Holders of a foreign currency rarely have any interest in the expansion of spending in that country. On the other hand they are concerned about the preservation of the currency's value and they gain a better return the higher the country's interest rate.

The situation is aggravated by the widespread view that conservative financial policies are the best way to restrain inflation. Thus a secure currency has come to be that of a country whose government refrains as far as possible from deficit spending and curtails private borrowing through high interest rates in pursuit of a low target for growth of the money supply. Such policies quickly eliminate tendencies to deficit (although they do not always succeed in meeting money supply targets). The by-product, which is of little interest to external currency holders but of great interest to those concerned with growth of income and trade, is that countries with liberal exchange regimes have a strong tendency to eliminate trade deficits. While low-income countries with tight exchange controls and chronic shortages of export earnings can and do finance large trade deficits, developed countries with high export earnings and free exchange regimes are in effect rendered incapable of maintaining large trade deficits by the foreign exchange market's insistence on conservative internal financial policies.

Evidently the preference for restrictive policies is not confined to the foreign exchange market. Many governments in developed countries believe in them and some go further than would be necessary to maintain a reasonable exchange rate for their country's currency. What the experience of the 1970s has shown is that governments which stimulate spending and accept a trade deficit are sooner or later forced to change their policies by external loss of confidence in their currencies. Thus in the end the foreign exchange market imposes a decisive constraint.

2.4 Projections embodying financial constraints

Having discussed the principles and practice of financial adjustment, we now examine the prospective impact of financial constraints in the early 1980s, comparing the *ex ante* projection of trade imbalance presented in Chapter 1 with revised projections which embody adjustments of expenditure to financial targets.

The first step is to consider the purely redistributive implications of uniform and symmetrical adjustment towards a set of mutually consistent targets for all blocs, without any modification of the ambitious spending objectives assumed in our *ex ante* projection. We then examine the deflationary effects of asymmetrical or non-uniform financial adjustment. The final section of the chapter will consider the implications of changes in assumed spending objectives and in the magnitude of financial targets.

Purely redistributive adjustment

To define a uniform adjustment process, assume that every bloc alters its spending, whether up or down, according to the same 'normal' profile illustrated in Section 2.1 above (Table 2.1 on p.25). This implies correction of 38-54% of any external disequilibrium in the first year, depending on the openness of the bloc to external trade, rising to 70-77% in the second year and 96-97% in the fifth year.

To complete the specification we must also define a set of mutually consistent financial objectives for each bloc, expressed in the form of implied target trade balances. The developed blocs, with increasingly conservative financial policies, may be assumed to aim at a combined trade balance of zero — Western Europe accepting a small target deficit on account of its net service exports, matched by a corresponding target trade surplus for Japan on account of its negative balance on services, transfers and direct investment. The centrally planned bloc, like the USA and the 'other developed' bloc, may be assumed to aim at a zero trade balance.

For developing blocs other than the Middle East we assume target trade deficits slightly larger than

Table 2.7 Target trade balances

($1975, billion)

	Average trade balances 1964-72	Average trade balances 1973-79	Assumed target balances 1980-85
USA	+6.3	− 7.7	0
Western Europe	−8.0	−19.5	− 5
Japan	+6.3	+ 9.0	+ 5
Other developed	−0.8	− 2.6	0
Latin America	−2.4	− 8.8	−10
Africa	−0.4	− 3.0	− 5
Asia	−8.0	− 5.9	−10
Middle East	+5.2	+39.3	+25
Centrally planned	+1.6	− 0.9	0

See p. 11 for accounting definitions.

Table 2.8 Uniform financial adjustment: a hypothetical projection[a]

	1985 trade balances		Growth of per capita spending 1979-85		
	Ex ante[b]	Projected	Target[c]	Projected	Excess (+) or shortfall (–)
	($1975 billion)		(% per year)		
USA	– 44	– 8	2.5	1.8	–0.7
Western Europe	– 70	– 9	3.0	2.3	–0.7
Japan	– 1	+ 4	4.0	4.2	+0.2
Other developed	– 8	– 3	3.0	2.5	–0.5
Latin America	0	– 9	4.5	5.0	+0.5
Africa	+ 33	+ 2	6.0	10.1	+4.1
Asia	– 44	–17	6.5	4.9	–1.6
Middle East	+157	+47	4.5	13.8	+9.3
Centrally planned[d]	– 23	– 8	5.0	4.7	–0.3
World total[d]	0	0	2.7	2.7	0.0

[a] See text and Appendix A for assumptions.

[b] Assumes spending targets achieved exactly.

[c] Targets consistent with gradual convergence of blocs (see Table 1.3).

[d] Spending data exclude China (see Table 1.1) The figure for growth in world GDP per capita or spending per capita is always some 1½% below the average across blocs; this happens because population growth is concentrated in low-income blocs.

those which materialised on average in the period 1973-78, to be financed not only by aid and direct investment but also, and in most cases principally, by additional net borrowing. Finally, to preserve the overall consistency of the targets, we impute a hypothetical target trade surplus to the Middle East equal to the sum of the other developing blocs.

The effect of the uniform adjustment process would be to reduce *ex ante* trade imbalances very considerably *ex post* (see Table 2.8). The projected deficit of Western Europe in 1985 is cut from $70 billion (at 1975 prices) to $9 billion. Correspondingly, the projected surplus of the Middle East in 1985 is reduced from $157 billion to under $50 billion. As noted earlier, uniform and consistent financial adjustment has no effect on total world spending and GDP. But the distribution of growth between blocs is considerably modified. The developed blocs other than Japan are required to cut growth in their spending by over ½% per year and the developing Asia bloc has to cut back by more than 1½% per year below the evidently over-ambitious target which we assumed in Chapter 1. Two blocs, Africa and the Middle East, are required to make almost all of the counterpart upward adjustment in spending since *ex ante* they are the blocs which would significantly exceed their financial targets. The implied *ex post* growth rates of per capita spending, 10% per year for Africa and nearly 14% per year for the Middle East, are wildly unrealistic (especially when it is remembered that these averages include non-oil countries in the two blocs). The implied growth rates of imports of manufactures into these blocs are even more absurd (14% per year and 23% per year, respectively). This projection is in fact an illustration of why symmetrical and uniform financial adjustment does not, and could not, rectify large and persistent *ex ante* tendencies to trade imbalance.

A deflationary non-uniform adjustment

Now consider a non-uniform pattern of adjustment, while retaining the same spending and trade targets. We shall assume stronger, more rapid adjustment towards financial targets on the part of the centrally planned bloc, the USA and Western Europe, but no financial adjustment at all on the part of the Middle East.

The outcome is still a major reduction in projected trade imbalances, though less than before since the adjustment process is rendered more difficult due to a greater conflict of objectives in deficit blocs. The growth rate of total world spending is reduced by 1½% per year, the cutback being greatest in developing Asia, but also above average in the USA, Western Europe, the 'other developed' bloc and the centrally planned economies. Japan loses least as it has most to gain from lower world prices for oil and raw materials. Given the reduced pressure of world demand, the projected prices of oil and other primary commodities are, respectively, 23% and 12% lower, relative to prices of manufactures, than in our *ex ante* projection.

As a whole the projection begins to acquire a somewhat dismal realism. The low growth rates for the USA and Western Europe imply either continued low productivity growth or chronic, rising unemploy-

Table 2.9 Non-uniform financial adjustment[a]

	1985 trade balances		Growth of per capita spending 1979-85		
	Ex ante[b]	Projected	Target[c]	Projected	Excess (+) or shortfall (–)
	($ 1975 billion)		(% per year)		
USA	– 44	–12	2.5	0.6	–1.9
Western Europe	– 70	–15	3.0	1.1	–1.9
Japan	– 1	+ 2	4.0	3.8	–0.2
Other developed	– 8	– 7	3.0	1.3	–1.7
Latin America	0	–16	4.5	3.6	–0.9
Africa	+ 33	– 6	6.0	7.3	+1.3
Asia	– 44	–22	6.5	3.3	–3.2
Middle East	+157	+84	4.5	4.5	0.0
Centrally planned[d]	– 23	– 6	5.0	3.4	–1.6
World total[d]	0	0	2.7	1.2	–1.5

[a] *Pattern of adjustment:*

Very strong: centrally planned
Strong: USA and Western Europe
Normal: other blocs
None: Middle East
(for profiles of adjustment see Table 2.1)

[b,c,d] See Table 2.8.

Table 2.10 Composition of 1985 trade balances: *ex ante* and *ex post*[a] projections

(% of GDP)

	Primary commodities[b]		Manufactures	
	Ex ante projection[c]	*Ex post* projection	*Ex ante* projection[c]	*Ex post* projection
USA	– 2.2	– 1.1	+ 0.3	+ 0.4
Western Europe	– 8.0	– 6.2	+ 5.1	+ 5.5
Japan	–12.7	–10.8	+12.5	+11.1
Other developed	+ 1.3	+ 1.3	– 3.0	– 3.0
Latin America	+ 7.1	+ 4.8	– 7.2	– 7.4
Africa	+28.5	+18.7	–18.0	–20.6
Asia	– 4.8	– 2.9	– 4.3	– 2.5
Middle East	+56.7	+47.9	–20.1	–24.2[d]
Centrally planned[e]	– 0.7	– 0.2	– 0.1	– 0.1

[a] Projection with non-uniform financial adjustment (See Table 2.9)

[b] Food, raw materials and energy.

[c] Projection assuming spending targets are achieved fully in all blocs (see Chapter 1).

[d] The Middle East's imports of manufactures are the same in both projections but its national income is lower in the *ex post* projection.

[e] See Table 1.1.

Note: 1985 world prices for primary commodities relative to manufactures are projected as follows:

(1975 = 100)	*Ex ante* projection	*Ex post* projection
Food and raw materials	109	96
Energy	294	226

ment. The average growth rates for developing blocs apart from Africa and the Middle East are too low for any major catching-up of living standards and probably imply little progress at all in many non-oil developing countries. Japan emerges as the only bloc likely to achieve a reasonable growth target with a reasonable trade balance. All other blocs are way off their targets, mostly on the down side.

The implied adjustments of trade flows include lower demand and prices, reducing imbalances in energy and raw material trade, and lower imports of manufactures by developed blocs tending, if anything, to increase imbalances in trade in manufactures (see Table 2.10).

The prospect delineated by this projection still rests on assumptions which may in certain respects be too optimistic. The spending targets remain the ambitious ones chosen in Chapter 1 to be consistent with sustained growth and eventual convergence of living standards. The *ex post* trade imbalances still imply financial recycling between blocs on a considerably larger scale than was achieved in the late 1970s. We must therefore consider, finally, the possible effects of lower growth objectives and tighter financial targets.

2.5 Sensitivity of the results

As shown earlier (Section 2.1) the strength of financial adjustment processes affects the speed of adjustment more than the medium-term outcome. The latter may, however, be sensitive to growth objectives and, especially in a constrained situation, to the pattern of financial targets towards which adjustment processes are directed.

The assumed growth objectives set out in Chapter 1 were probably more ambitious, particularly for the USA and Western Europe, than those likely to obtain in reality. But since these two blocs are expected to be heavily constrained by conservative financial policies, their *ex ante* growth objectives do not have much weight in determining *ex post* results. To illustrate this we have calculated a revised projection in which targets for growth of per capita spending in the USA and Western Europe are cut by 1% a year (from 2.5% to 1.5% and 3% to 2% respectively).

One consequence of lower spending objectives is that the USA and Western Europe would come nearer to their financial targets by 1985, with *ex post* growth of their per capita spending reduced by 0.2% to 0.3% per year. The other main consequence would be that developing blocs lost export revenue and, except in the case of the Middle East, would be compelled to cut their own spending by as much as the USA and Western Europe. Japan would be least affected, gaining through lower oil prices much of what it lost through depression of trade in manufactures.

Although this example shows that the internal growth objectives of developed countries may influence the medium term growth of world trade and the prospects for developing blocs, that influence is weak. By the same reasoning it follows, equally, that

Table 2.11 The effects of reduced growth objectives in the USA and Western Europe[a]

	Base projection[b]	Reduced growth	Base projection[b]	Reduced growth	Difference
	($ 1975 billion)		(% per year)		
USA	–12	– 7	0.6	0.3	–0.3
Western Europe	–15	–10	1.1	0.9	–0.2
Japan	+ 2	+ 2	3.8	3.8	0.0
Other developed	– 7	– 8	1.3	1.1	–0.2
Latin America	–16	–17	3.6	3.3	–0.3
Africa	– 6	– 6	7.3	6.8	–0.5
Asia	–22	–23	3.3	3.1	0.2
Middle East	+84	+76	4.5	4.5	0.0
Centrally planned[c]	– 6	– 7	3.4	3.2	–0.2
World total[c]	0	0	1.2	1.0	–0.2

a Reduction in target growth rates by 1% per year.
b Non-uniform financial adjustment (see Table 2.9)
c See Table 2.8, note d.

accelerated growth objectives would be insufficient in themselves to prevent slow growth or stagnation when financial constraints are tight.

The other important determinant of projection results in this chapter is the assumed pattern of financial targets. The outcome is in fact very sensitive to changes in these targets. If they are tightened up in such a way as to restrict expansion in any one bloc, the cutback in its imports reduces the earnings of other constrained blocs bringing a cumulative multiplier process into operation.

Consider, for example, a $15 billion reduction in the target deficits of developing blocs (other than the Middle East). This is a small adjustment relative to world trade or income (it is equal to 1½% of world trade in manufactures and only 0.2% of world GDP). It is very small by comparison with the change in spending targets just considered (which implied a $260 billion cut in *ex ante* spending levels by 1985). Yet the impact of this small tightening of financial targets is projected to be slightly greater by 1985 than the effect of the cut in spending objectives. The consequence for Asia, Africa and Latin America would be reductions of between 0.8% and 1.4% in per capita growth rates. The developed blocs would find their trade deficits increased with *ex post* spending cut back by about ¼% per year. The projected loss in terms of world GDP in 1985 amounts to $150 billion, ten times the size of the reduction in target trade deficits.

How large would target trade deficits have to be in order to nullify the restrictive effects of trade imbalance on growth in spending in all blocs and in the world as a whole? The answer to this has already been given by the *ex ante* projection in Chapter 1 which assumed the full achievement of spending objectives. The necessary deficits, although in most cases not large as percentages of national income, are huge compared with those which can at present be financed in practice. The conclusion must be that world economic growth will be severely constrained so long as major tendencies to trade imbalance persist.

Table 2.12 The effects of tighter financial targets for developing blocs[a]

	1985 trade balances		Growth of per capita spending 1979-85		
	Base projection[b]	Tighter financial targets	Base projection[b]	Tighter financial targets	Difference
	($ 1975 billion)		(% per year)		
USA	–12	–13	0.6	0.4	–0.2
Western Europe	–15	–16	1.1	0.9	–0.2
Japan	+ 2	+ 1	3.8	3.7	–0.1
Other developed	– 7	– 8	1.3	1.1	–0.2
Latin America	–16	–13	3.6	2.8	–1.2
Africa	– 6	– 2	7.3	5.9	–1.4
Asia	–22	–18	3.3	2.5	–0.8
Middle East	+84	+74	4.5	4.5	0.0
Centrally planned[c]	– 6	– 7	3.3	3.1	–0.2
World total[c]	0	0	1.2	0.9	–0.3

[a] Target deficits of Latin America, Africa and Asia reduced by $ 5 billion for each bloc.

[b] Non-uniform financial adjustment (See Table 2.9).

[c] See Table 2.8, note d.