

## Chapter IV The balance of trade

Between 1971 and 1972 the balance of payments deteriorated very suddenly. The 'basic balance' moved from a surplus of £1,100 million to a deficit of £400 million and the current account from a surplus of £1,000 million to a position of bare balance. The previous chapter has shown that a substantial surplus on trade in goods and services would be required over the next four years in order to fully protect the U.K.'s reserve position. It is clear that management of the balance of payments is likely to present particularly difficult problems over the coming years. A rather elaborate analysis of the prospects for the balance of trade has therefore been undertaken in order to explore the consequences of different assumptions about exchange rate policy and about the rate of expansion of demand in the economy.

2. The main factors which have to be taken into account are exchange rate movements, the rate of inflation of costs in the U.K. relative to major competitors, the pressure of demand in the U.K. and the rate of expansion of demand in the rest of the world.
3. The first task is to assess the trends underlying the fluctuating balance of trade over the past twelve years. Estimates of the 'trend' trading position have been reconstructed, correcting the actual performance for all the short-term or fluctuating influences which it has been possible to identify. These 'trend' estimates are extrapolated into the future to provide a basis for estimating the effects of a range of alternative assumptions about actual movements of the exchange rate and GDP up to 1976.
4. More precisely, the trend estimates of exports, imports and the terms of trade show what the balance of trade in goods and services might have been in the past and could be in the future if GDP and stockbuilding were always at their par

levels (corresponding to a constant  $2\frac{1}{2}\%$  level of unemployment) and if the volume of world trade, exchange rates and relative costs were all on their respective trends. The trend values assumed for these latter are simply the values of logarithmic trends fitted to actual series for 1960-72; they show the volume of world trade growing at 9% per year, the exchange rate falling by 2% per year and relative costs also falling (because of the trend decline in the exchange rate) by about 1% per year.

5. The purpose of the trend estimates is simply to enable us to see the longer-term underlying movement of exports, imports and the terms of trade more clearly. A second and different task is to reconstruct and project the pattern of trade in the par economy where definite target surpluses on goods and services (specified in the previous chapter) must be achieved. The par estimates set a standard against which the actual past or projected future trade performance can be measured, in terms both of the level of relative costs and of the real resources devoted to the balance of trade. Par estimates are calculated by estimating the level of relative costs which would be necessary, from year to year, to make the U.K. sufficiently competitive to achieve the target trade surpluses.

The trend level of imports, disaggregated by major categories

6. The growth of imports of goods and services (at 1963 prices) has shown a persistent acceleration over the past twelve years, and this acceleration is all the more marked when a rough allowance is made for the effects of variations in the pressure of demand in the U.K.

7. We have disaggregated imports into five major categories in order to obtain a clearer picture of the reasons for the acceleration in the growth of total imports.

(a) The volume of food, drink and tobacco imports has remained rather steady, insensitive to cyclical fluctuations in GDP, and showing almost no trend increase. The projections to 1976 assume a small decrease due to higher food production in the U.K. under the stimulus of the Common Agricultural Policy.

(b) Imports of fuels (mainly petroleum) have grown quite rapidly. We assume that at the margin Britain's fuel requirements are met entirely from imports, at the rate of about £5 increased imports for every £100 addition to GDP (at 1963 prices). After allowing for deviation of GDP from par we find a rather steady growth of about 10% per year in fuel imports throughout the period 1960-72. We allow for a reduction of £300 million at 1963 prices in annual oil imports by 1976 as a result of growth of production from the North Sea oil and gas fields and a halt to the long-standing decline in output of coal. On this basis trend fuel imports will only rise by 5% per year from 1972 to 1976.

(c) Imports of industrial materials (basic materials and semi-manufactures) must be adjusted for several factors. The level of these imports relative to GDP depends on stockbuilding and on the volume of exports which have a much higher import component than most domestic expenditure. We allow a basic 5% import coefficient for deviations of GDP from par together with an additional 25% import coefficient for deviations of stockbuilding from par and a 20% import coefficient for deviations of exports from trend. These adjustments quite successfully explain the unusually fast growth of imports of industrial materials in the 1964 boom and in the post-devaluation years 1968-70 when exports grew rapidly. After making these adjustments imports of industrial materials show a fairly steady 'trend' growth at about 6% per year. This category of imports has grown faster than GDP partly because it includes a large proportion of semi-manufactures which have displaced U.K. products in the home market.

8. In the first half of 1972 imports of industrial materials were surprisingly high, given the low level of industrial output and the decumulation of stocks. Inspection of the Overseas Trade Statistics reveals large increases in the volume of imports of many semi-manufactures which are imported in competition with U.K. production. But in projecting the future trend we have supposed that the rate of growth will not be faster than in earlier years.

(d) Imports of finished manufactures are adjusted for deviations of GDP from par with a marginal import coefficient of 10%. We estimate that the import surcharge in force from end-1964 to 1966 reduced imports of finished manufactures by about £50 million (at 1963 prices) in 1965 and £100 million in 1966 - but that an extra £50 million of postponed imports arrived in 1967 after the withdrawal of the surcharge. Trend imports of finished manufactures have grown by 16% per year throughout the period 1960-72 and now account for about one quarter of total imports. It is the sustained fast growth of this category which mainly accounts for the accelerating growth of total imports. We assume that the trend growth rate of 16% per year will continue up to 1976: even then imports will account only for about 20% of the U.K. market in finished manufactures.

9. The rate of growth of imports of manufactures must depend to some extent on the competitive strength of U.K. producers. But it seems impossible to estimate the magnitude of any such effect, at least at the level of disaggregation used here. The devaluation of 1967 did not have any measurable effect in slowing down the growth of manufactured imports, presumably because of the presence of influences working in the other direction. One reason why it is hard to detect the effect of devaluation in restraining imports of manufactures may be that the simultaneous stimulus to exports increases demand for many particular manufactured imports. Having failed to detect any significant relationship in past data (estimates of the response to a reduction in relative costs show the wrong sign), we

have not made any allowance for the effect in the future.

(e) The remaining category of imports comprises services (plus a residual needed to reconcile the other categories which are on a trade statistics basis with total imports of goods and services as shown in the balance of payments and national income accounts). After adjustment for deviations of GDP from par with a marginal import coefficient of 5% we find a trend growth rate of 4% per year.

The trend growth of total imports

10. Having adjusted the five categories of imports for various non-trend factors and then projected the trend level of each category to 1976 we obtain an accelerating trend level of total imports which grows at 4.2% per year 1961-65, 5.4% 1965-69, 8.6% 1969-72, and is expected to grow at 7.1% per year 1972-76.

11. The fast trend growth of imports poses serious problems for the U.K. because the trend growth of exports has been little more than 5% per year. Rapid growth of imports of manufactures has been a general phenomenon in all the major industrial countries during the last decade. Table IV-1 shows that the growth of imports into the U.K. has not been fast by international standards, even when allowance is made for the relatively slow growth of GDP. By 1970 the penetration of imports of manufactures from the other major industrial countries was still not particularly marked in the U.K. as compared with the other countries; the ratio of these imports to GDP was still lower than in all the member countries of the E.E.C. One cause of the rapid growth of imports of manufactures has doubtless been the liberalization of trade through removal of quantitative restrictions in the fifties, followed by reduction and removal of tariffs in EFTA and the E.E.C., and the widespread reduction in tariffs under the Kennedy Round which has only recently been completed.

Table IV-1 Growth of trade in manufactures\* between ten major industrial countries, 1960-70

Country	Growth of value of imports from other nine countries, 1960-70 (% per year)	Imports from other nine countries as ratio to GDP at factor cost, 1970 (%)
Japan	18.0	1.9
France	17.9	7.7
Germany	16.1	8.0
Italy	15.3	7.4
Belgium-Luxembourg	15.0	29.2
U.S.A.	14.9	2.4
Netherlands	13.5	30.4
U.K.	9.6	6.0
Canada	9.4	12.3
Sweden	8.1	10.8

\* SITC sections 5 - 8.

Sources: U.N. Commodity Trade Statistics and National Accounts of OECD Countries.

12. Given the uniformity of this phenomenon and the commitment to further mutual tariff reductions as the U.K. and other EFTA members join the E.E.C. it seems almost certain that imports of manufactures into the U.K. will continue to grow very rapidly over the next few years unless some effective measures are put into effect to prevent this happening. Exchange rate changes seem to have had no significant effect on the growth of these imports in the past and one cannot count on the exchange rate to restrain their growth over the next few years.

#### The trend level of exports

13. The two variable factors for which exports are adjusted are cyclical fluctuations in world trade and variation in costs of production in the U.K. relative to competing industrial exporters.

(a) World trade (as measured by the total volume of industrial exports from major industrial countries) has grown on average at 9% per year with rather pronounced cyclical fluctuations about the trend. The elasticity of U.K. exports with respect to world trade is estimated to be 0.5.

(b) It is very difficult to construct an adequate measure of industrial costs on an internationally comparable basis. We have therefore used GDP deflators as a provisional indicator. Deflators for the U.K.'s major competitors are weighted for exchange rates changes so that relative costs are measured in a common unit of account. On this basis the U.K.'s relative costs of production remained rather steady from 1960-67, fell suddenly by almost the full amount of devaluation in 1968, started to rise quite fast in 1970-71, but were held steady by the depreciation of sterling in 1972. In 1972 relative costs, measured in this way, were still 10% lower than in 1967 and the incomes freeze and \$2.35 exchange rate promise a still lower level of relative costs in 1973.

14. The main evidence on the response of exports to changes in relative costs is of course the experience of the years before and after the devaluation in November 1967. Using this particular measure of relative costs we find the following pattern of elasticities to be reasonably satisfactory:

current year 't'	.25
year 't-1'	.24
year 't-2'	.14
year 't-3'	.09
etc	—
long-run elasticity	.85

15. Table IV-2 shows estimates of the effects on exports of the uneven movement of relative costs and of fluctuations in world trade. Over the period after devaluation, 1967-1970, the volume of exports of goods and services increased by nearly 30%. Of this increase about £450 million (at 1963 prices) is attributed

to the 1967 devaluation, £300 million to the recovery in world trade, and £1,200 million to trend factors.

Table IV-2 The trend level of exports

(£ million, 1963 prices)

Year	Actual exports	Effects of deviations from trend		Trend exports
		Relative costs	World trade	
1960	5327	+134	+150	5053
1961	5487	+115	-21	5393
1962	5578	+72	-44	5550
1963	5809	+37	-98	5870
1964	6044	+2	-20	6062
1965	6343	-65	-26	6434
1966	6631	-150	-55	6836
1967	6655	-211	-163	7029
1968	7469	-55	+36	7488
1969	8170	+131	+162	7877
1970	8621	+228	+135	8258
1971	9046	+142	+57	8847
1972	9127	-1	-125	9253

16. The trend growth of exports has been 5% per year, with the U.K.'s relative costs falling by 1½% per year and world trade expanding at 9% per year. Under the same trend conditions we would expect exports to grow at the same rate in the future - some 2% per year slower than trend imports.

#### The trend terms of trade

17. To complete the analysis of the trend movement of the balance of trade in goods and services, the terms of trade (the ratio of the export to the import price deflator) must also be adjusted for various identified sources of disturbance - principally price variations due to fluctuations in the volume of world trade,



the effects of devaluation, and exogenous disturbances to import prices.

18. There is a quite perceptible correlation of U.K. import prices with fluctuations in world trade because commodity prices tend to rise and fall with world demand; using the volume of trade in manufactures as an indicator, the import price deflator is estimated to follow fluctuations in world demand with an elasticity of 0.36.

19. Changes in relative costs are assumed to have only a very small effect on the terms of trade (an elasticity of 0.1) except when relative costs change because of differential rates of inflation (rather than exchange rate movements). There appears to be a larger but temporary effect on the terms of trade (an elasticity of 0.5) because of delays in the adjustment of import prices to domestic inflation.

20. The terms of trade is adjusted to an estimated trend value by correcting for deviations of world trade, exchange rates and relative costs from their respective trends under the assumptions outlined above. We have also removed any residual unexplained fluctuation in the import price deflator.

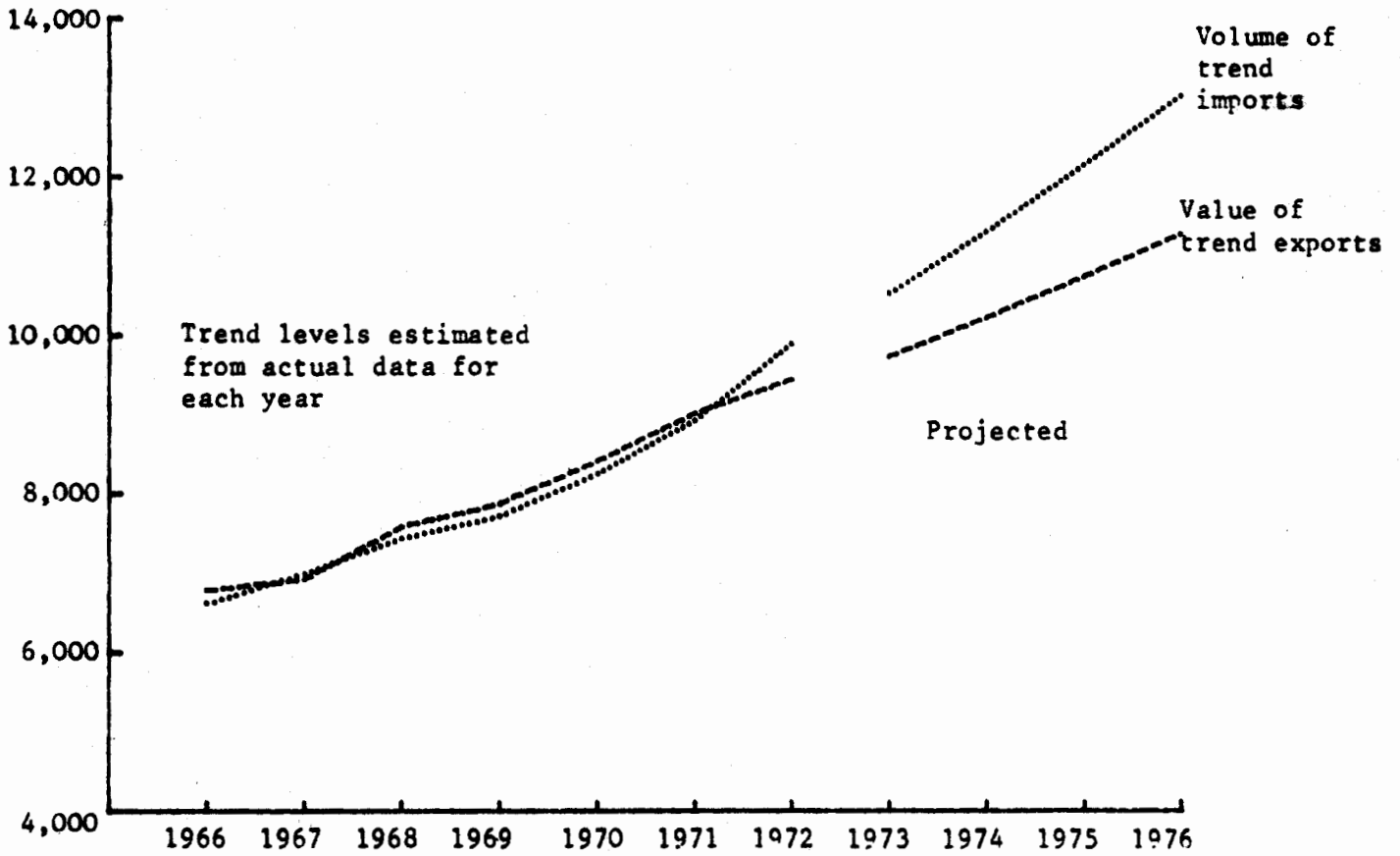
21. In the next few years the trend terms of trade is projected to deteriorate very slightly because of the higher prices that will be paid for food imports after entry to the E.E.C.

#### The trend balance of trade

22. The adjustments to imports, exports and the terms of trade described above provide estimates of what the balance of trade in goods and services might have been if GDP and stockbuilding were at their par levels and if the volume of world trade, the exchange rate and relative costs all followed logarithmic trends fitted to their actual movement in 1960-72.

23. Appendix Table 7 shows the full set of trend estimates. Between 1960 and 1971 the outcome is a small surplus on trade in goods and services which fluctuates

Trends in the balance of trade in goods and services



Note: Exports are shown at 1963 import values (current values deflated by the import price deflator).

Source: Appendix Table 7.

a little from year to year because the adjustments made to actual figures have still not explained all the short-term movements of the component series. The estimates for 1972 show a sudden sharp deterioration of the trend position; the deficit is then projected to widen quite rapidly in 1973-76.

24. The trend growth rates of exports, the terms of trade and the various categories of imports are all quite well defined in the past data; past growth rates have only been modified, in making projections, for various specific reasons mentioned in earlier sections of this chapter. But there is a real difficulty in specifying the levels from which the projections should start because inevitably the estimates for 1972, or any other year, are not entirely free from unexplained fluctuation; and it happens that the problem looks particularly bad for 1972. Rather than linking the projections to 1972 alone, we have therefore used a fitted trend figure for 1972 as the base. Close inspection of the Appendix table will show that this procedure implies unusually small increases in exports, and even more in imports, between 1972 and 1973 because the estimates for 1972 were above the fitted trend. The discontinuity can also be seen in the Chart. The alternative procedure of linking to 1972 alone would have resulted in even larger deficits in the projected trend balance of trade.

25. The trend estimates described at some length in the preceding sections provide a starting point for a range of alternative estimates and projections based on different assumptions about the pressure of demand in the U.K., the volume of world trade, the level of relative costs and so on. In each case the estimates are obtained simply by reversing the previous process of adjustment to incorporate the effects of assumed deviations from trend in the variables which affect the trading performance of the economy.

The par balance of trade

26. There is no reason why the trend balance of trade, as estimated here, should provide satisfactory surpluses or deficits on goods and services from the point of view of management of the balance of payments as a whole and the liquidity position. Indeed the trend balance on goods and services is projected to move into large deficits which are quite unacceptable from this point of view.
27. In this section par estimates are constructed to show the underlying movement of relative costs which would be necessary to secure an acceptable balance of trade and the net resource costs (i.e. the excess of real exports over imports) associated with such a pattern of trade. This requirement of maintaining a reasonable balance of trade and payments is one of the conditions which defines the par economy.
28. The target surpluses or deficits on trade in goods and services required to maintain the U.K.'s reserve position have been described in the previous chapter. For most of the 1960's it was quite reasonable to show a small deficit on goods and services. But since then, and particularly during the next few years, it will be necessary to show a surplus (rising to £400 million at 1963 values in 1976) to offset unfavourable movements in other balance/<sup>of</sup>payments items and to pay for U.K. contributions to the E.E.C. budget.
29. In the par economy the growth of imports would gradually have accelerated from 4% per year to 8% per year over the period 1960-72 for the reasons discussed above.
30. Up to 1966 actual relative costs were sufficiently competitive to achieve reasonable trade balances at the par pressure of demand (corresponding to 2½% unemployment). From then on unit costs needed to fall steadily, overtaking the fall in actual costs (which occurred suddenly as a result of the 1967 devaluation) in 1971.

31. The estimates in Appendix Table 8 show par relative costs already 10% below actual costs in 1972, and needing to fall by about 7% per year up to 1976 - implying an exchange rate of about \$1.60 in 1976 if the inflation of U.K. costs is no faster than that of her competitors. This rapid fall in par unit costs is necessary to achieve a sustained growth in export volumes of some 9.0% per year which will secure the target trade surpluses despite a small deterioration of the terms of trade.

32. The resource costs of achieving the par trade targets are not large because the required adjustments to the terms of trade are small. The increase in net resources required for the balance of trade from 1972 to 1976 is £600 million. Of this the higher target trade surplus itself accounts for £250 million; the remainder is needed to offset the 2.2% deterioration in the terms of trade caused by the continued need to push down relative costs.

Alternative projections, 1972-76

33. For estimates of the implications of alternative growth rates of GDP and different exchange rate policies starting from the actual position in 1972 we assume that world trade will recover from its present recession and will have risen 3% above the 1960-72 trend in 1976. We also assume throughout that U.K. costs in own currency terms will rise no faster than those of principal competitors. In the past two years inflation in the U.K. has on average exceeded that in other countries by 5% per year; the assumption implicit in our projections would therefore represent quite a favourable outcome of the freeze and policies on prices and incomes which may follow it.

34. We have constructed several projections of the balance of trade, embodying the fast and slow growth projections of GDP and various alternative assumptions about the exchange rate.

Table IV-3

## Projections of relative costs

(Index: 1963 actual = 100)

Year	Trend value	Alternative exchange rate assumptions					Par value
		Fixed rate \$2.35	Continued Depreciation	1973 devaluation to			
				\$2.00	\$1.80	\$1.60	
1972	86.2	89.0	89.0	89.0	89.0	89.0	71.6
1973	84.8	84.4	84.4	71.9	64.7	57.5	66.6
1974	83.5	84.4	80.4	71.9	64.7	57.5	62.2
1975	82.1	84.4	76.6	71.9	64.7	57.5	58.5
1976	80.8	84.4	72.9	71.9	64.7	57.5	55.4

35. Under the 'fixed rate' assumption sterling is pegged at \$2.35 from the beginning of 1973 and the rate is only adjusted thereafter to compensate for any changes in parities of major competitors. Table IV-3 shows that this assumption implies a 5% year-on-year fall in relative costs in 1973 because sterling only depreciated to around \$2.35 rather late in 1972. Relative costs would then remain fixed up to 1976 because of the assumption that U.K. inflation is contained to the same rate as in other countries. Although the \$2.35 rate puts relative costs back on trend in 1973, the trend does of course continue to fall and relative costs would be above trend in 1976.

36. Under the 'continued depreciation' assumption relative costs are pushed down by about 5% each year through gradual depreciation of the exchange rate. By contrast, the first of the 'devaluation' assumptions achieves almost the same total reduction in relative costs by an immediate adjustment to \$2.00 at the beginning of 1973. Calculations have been made for two larger immediate devaluations to \$1.80 and \$1.60 respectively. The latter leaves relative costs at very nearly the estimated par level for 1976.

Table IV-4 Projections of the balance of trade on goods and services in 1976

Assumption	Exports (£ million 1963 prices)	Imports	Terms of trade (1963=100)	Balance of trade (£ million, 1963 import values)
<b>A. <u>Fast GDP growth</u></b>				
1. Fixed rate	11147 (5.1)	13298 (8.5)	100.1	-2144
2. Continued depreciation	11921 (6.9)	13452 (8.8)	98.6	-1698
3. Devaluation to \$2.00 in 1973	12520 (8.2)	13572 (9.1)	98.5	-1245
4. Devaluation to \$1.80 in 1973	13508 (10.3)	13770 (9.5)	97.4	-609
5. Devaluation to \$1.60 in 1973	14705 (12.7)	14009 (9.9)	96.3	149
<b>B. <u>Slow GDP growth</u></b>				
1. Fixed rate	11147 (5.1)	12500 (6.8)	100.1	-1346
2. Continued depreciation	11921 (6.9)	12655 (7.2)	98.6	-901
3. Devaluation to \$2.00 in 1973	12520 (8.2)	12775 (7.4)	98.5	-447
4. Devaluation to \$1.80 in 1973	13508 (10.3)	12972 (7.8)	97.4	188
5. Devaluation to \$1.60 in 1973	14705 (12.7)	13212 (8.3)	96.3	947

Figures in brackets are average growth rates 1972-76, % per year.

37. Table IV-4 summarizes the implications of these various assumptions. More detailed results are given in Appendix Tables 9 and 10. Given the fixed exchange rate, exports would still grow slightly faster than trend from 1973 onwards because of the assumed recovery in world trade. Continued depreciation of the exchange rate could push the growth of exports up to nearly 7% per year at the cost of a small deterioration in the terms of trade. Immediate devaluation could have much more dramatic effects on the growth of exports, producing average growth rates to 1976 of 8%, 10% or 13% per year if the rate was fixed at \$2.00, \$1.80 or \$1.60 respectively.

38. Fast growth of exports would be achieved at the cost not only of deterioration in the terms of trade but also of some acceleration of the growth of imports. But the improvements in the net balance on goods and services resulting from more vigorous devaluation of the exchange rate are still large, especially when it is remembered that the figures in the table are expressed at 1963 values.

39. The table shows that with a fast expansion of GDP the growth of imports up to 1976 is expected to average between  $8\frac{1}{2}$  and 10% per year. After allowing for deterioration of the terms of trade, the only projection to show a surplus on goods and services by 1976 is the one which assumes an immediate devaluation of 30% to \$1.60. Under the alternative assumption of very slow growth of GDP (and hence rising unemployment) the projected growth of imports is reduced by about  $1\frac{1}{2}$ % per year; but even then large deficits on goods and services are still expected in 1976 unless an immediate devaluation to an exchange rate below \$2.00 is assumed.

40. It has already been emphasized in chapter I that the estimates of the effects of devaluation are particularly hypothetical, not only because of the objections to carrying out such a policy but also because it is almost impossible that inflation of domestic costs could be contained as we have assumed under the stress of large devaluations. There is a precedent for a 30% devaluation shortly after entry to the E.E.C. (France in 1958) but there is no precedent for combining such a large devaluation with a successful freeze on domestic incomes.

41. It was also made clear in chapter 1 that the projections assuming fast growth of GDP are themselves hypothetical because it would be inconceivable for the Government to maintain a policy of fast growth of demand if the balance on goods and services continued to deteriorate very rapidly. Indeed none of the projections in table IV-4 above look at all realistic because they all have quite unacceptable consequences for the balance of payments, for unemployment, for consumption or for domestic price inflation.



More favourable estimates for the balance of trade

42. These estimates do of course depend entirely on some assumptions, particularly about the persistence of past trends, which cannot be made with real confidence. The following paragraphs indicate the quantitative significance of some of the more vulnerable assumptions.

43. The response of exports to changes in relative costs is particularly uncertain because past evidence is limited. It is unlikely that in the future relative costs will move very differently from in the past without very large devaluation; it is only the projections assuming large devaluations which are really sensitive to the assumed elasticities. The projected trend of exports is more vulnerable. It might easily be 1% per year more favourable than our estimate, in which case the balance on goods and services would be improved by about £400 million (in 1963 values) in 1976.

44. It seems rather unlikely that the trend growth of imports will be much lower than we have projected. But it may be reasonable to suppose that in fact imports of manufactures are sensitive to relative costs and that any improvement here would help to reduce the growth of imports. Again this is only relevant if a substantial reduction in costs is achieved in the future relative to the past trend; the quantitative significance of any prospective reduction in costs is the less for imports than for exports because manufactures comprise a smaller part of the total.

45. The estimates of the trend terms of trade are particularly uncertain. The terms of trade in 1976 might quite easily turn out 2% more favourable than our estimates, bringing an improvement of about £250 million (in 1963 values) to the balance on goods and services.

46. Considering the uncertainty over exports and the terms of trade, it is quite likely that under any given conditions the out-turn on the balance on goods and services in 1976 could be £600-£700 million more favorable than the estimates given here. It is also quite likely that the out-turn could be that much worse. But the trends are so unfavourable that even if the figures for the balance of trade in table IV-4 were written up by £700 million (at 1963 values) the deficits would still be unacceptably large except under those projections which assume immediate further devaluation of the exchange rate.