This chapter estimates how available resources might be divided up between the public and private sectors, and between consumption and investment, given the level of GDP and the net resources devoted to the balance of trade. After reyiewing the claims of the public sector and of private investment it will be possible to see how much is left over for private consumption, and to examine the implications for the growth of personal incomes.

## Public expenditure

2. It is well known that it can be rather misleading to measure the share of resources appropriated by public expanditure at constant 1963 prices

In current price tems the share taken by the publiz sertor tends to grow more rapidly because a substantial proportion of public expenditure is incurred for services such as administration, health, education and defence in which little or no productivity growth is imputed. The relative price effect - i.e the extra growth of the public sector's share of resources when measured at current prices - is normally of the order of about $1 \%$ per year for all public expenditure on goods and services; the effect is att ributable to current rather than investment expenditures.
3. Estimates published in the White Paper (Onnd. 5178) imply that when meatured at 1963 $^{\circ}$ prices public expenditure on goods and services will grow between 1972 and 1976 at almost the same rate as par GDP. There will be rather faster growth of current expenditure and slower growth of investment than in the past. .
4. Table V-l shows past and projected ratios of public expenditure to GDP, both at constant 1963 prices and in current price terms. The latter figures for 1976 are based on estimates of the relative price effect in the White Paper.

Table V-1 Pub1ic expenditure on goods and services

$$
\text { (i million, } 1963 \text { market prices) }
$$

| Year | Current expenditure | Investment <br> in dwellings | Other fixed inyestment | Total public expenditure on goods and services | Toさal as \% of GDP at factor cost |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\begin{aligned} & \text { At } 1963 \\ & \text { prices } \end{aligned}$ | At current prices |
| - 1961 | 4933 | 315 | 1644 | 6892 | 26.9 | 26.4 |
| 1965 | $\begin{aligned} & 5395 \\ & (2,3) \end{aligned}$ | $\begin{gathered} 526 \\ (13.7) \end{gathered}$ | $\begin{array}{r} 2061 \\ (5.8! \end{array}$ | $\begin{aligned} & 7983 \\ & (3.7) \end{aligned}$ | 27.3 | 28.2 |
| 1969 | $\begin{aligned} & 5806 \\ & (1,8) \end{aligned}$ | $\begin{gathered} 686 \\ (6 \ldots 9) \end{gathered}$ | $\begin{array}{r} 2297 \\ (2.7) \end{array}$ | $\begin{aligned} & 8789 \\ & (2.4) \end{aligned}$ | 27.4 | 30.3 |
| 1972 | $\begin{aligned} & 62.49 \\ & (2.5) \end{aligned}$ | $\begin{gathered} 546 \\ (-7,3) \end{gathered}$ | $\begin{aligned} & 2598 \\ & (4.2) \end{aligned}$ | $\begin{aligned} & 9393 \\ & (2,2) \end{aligned}$ | 27.7 | 30.8 |
| Fast growth assimption |  |  |  |  |  |  |
| 1976 | $\begin{array}{r} 7000 \\ (29) \end{array}$ | $\begin{gathered} 537 \\ (-0.4) \end{gathered}$ | $\begin{array}{r} 3020 \\ (3.8) \end{array}$ | $\begin{aligned} & 1055 \\ & (3.0) \end{aligned}$ | 26.0 | 30.1 |
| Slow growth as sumption |  |  |  |  |  |  |
| 1976 | $\begin{array}{r} 7000 \\ (2,9) \end{array}$ | $\begin{gathered} 537 \\ (-0.4) \end{gathered}$ | $\begin{array}{r} 3020 \\ (3,8) \end{array}$ | $\begin{aligned} & 10557 \\ & (3.0) \end{aligned}$ | 27.8 | 32.2 |

Figures in brackets are average growth rates, \% per year.
5. The share of resources absorbed by the public sector (measured at current prices) increased significantly betweon 1961 and 1965 and again between 1965 and 1969. The reason for the small size of the increase in the ratio of public expenditure to GDP since 1969 is that the relative price effect has been very much smaller than usual; and this can only have bappened because the pay of public sector employees has risen unusually slowly relative to other incomes, The figure for 1972 is therefore a misleading guide to the share of resources absorbed by the public sector; and if the pay of public employees were to catch up again in relative terms, the currentwprice ratio of public expenditure to GDP in 1976 could be nearly $1 \%$ higher than the figures projected in the table.

## Private investment

6. The level of private housebuilding in 1972 has been about $20 \%$ higher than in the previous year, while cther private fixed investment has risen by only

4\% above the very depressed 1971 leyel and is still lower than in 1970 。 Using the same methods as in the earlier paper to adjust private investment for variations in the pressure of demand, the underlying par growth rate since the middle $1960^{\prime} \mathrm{s}$ is estimated to have Geen just under $6 \%$ per year.
7. In the past, booms in private househuilding such as those in 1964 and 1968 have been followed by downturns of some severity. While the present boom mast be expected to Eiatten off over che next two or three years, the level of private housebuilding is unlikely to decline because of the strong incentives to the private secto: provided by government housing policy, Given the low levels of public sector housebuilding forecast in Cmid. 5178 , total investment in housing ir 1976 is expected to be no higher than the previous peak in 1968, even under che assumption of fast growth of GDP

Table V-2 Private investment and stockbuilding (f miliion 1963 prices)

| Year | Fixed <br> investment | Stockbuilding | Total investment | Total as \% of GDP at factor cost |
| :---: | :---: | :---: | :---: | :---: |
| 1961 | 2956 | 352 | 3308 | 12.9 |
| 1965 | $\begin{aligned} & 3449 \\ & (3.9) \end{aligned}$ | 436 | $\begin{aligned} & 3885 \\ & (4.1) \end{aligned}$ | 13.3 |
| 1969 | $\begin{aligned} & 3923 \\ & (3.3) \end{aligned}$ | 441 | $\begin{aligned} & 4354 \\ & (2.9) \end{aligned}$ | 13.6 |
| 1972 | $\begin{aligned} & 4232 \\ & (2.6) \end{aligned}$ | 100 | $\begin{gathered} 4332 \\ (-0.2) \end{gathered}$ | 12.8 |
| Fast growch assumption |  |  |  |  |
| 1976 | $\begin{aligned} & 5638 \\ & (7.4) \end{aligned}$ | 493 | $\begin{aligned} & 6131 \\ & (9.1) \end{aligned}$ | 15.1 |
| Slow growth assumption |  |  |  |  |
| 1976 | $\begin{aligned} & 5141 \\ & (5,0) \end{aligned}$ | 187 | $\begin{aligned} & 5328 \\ & (5.3) \end{aligned}$ | 14.0 |

Figures in brackets are average growth rates: \% per year.
8. Other private fixed investment will grow more rapidly; recovering from very depressed levels in 1971 and 1972. An increase of $7 \%$ is expected next year and a further increase of about $12 \%$ in 1974 . Under the slow growth assumption little further increase in expected, but under the stimulus of fast growth in deqand private fixed investment is expected to continue to grow at $6 \%$ per year up to 1976 。
9. The recovery in demand in 1972 and 1973 wi.11 probably lead to substantial stockbuilding in 1973. Published estimates show very large reductions in stocks in the first three quarters of 1972 . But recent research ${ }^{(1)}$ suggests that the official estimates of the stock appreciation component of the increase in value of stocks have been too high in recent years, and consequently that stockbuilding has been underestimated A revised series for stockbuilding has been constructed on the assumplion that the stock appreciation component of the reported change in the value of stocks has been overestimated by a fraction rising from $11 \%$ in 1960 to $25 \%$ in 1965 , and remaining constant thereafter. (See Appendix Table 11). The revised figures imply a rather stable ratio of end-year stock to GDP over the whole period 1960-72 and stocks do not appear to be very far below their normal levels relative to output even at the end of 1972.
10. Total private investment, including stockbuilding, absorbed a very low share of output in 1972. Even under the slow growth assumption the ratio of private investment to GDP is expected to rise sharply from under 13\% in 1972 to nearly $15 \%$ in 1974; with fast growth in demand the ratio would rise to about $15 \frac{1}{2} \%$ in 1974. The upswing in private investment together with increases in public expenditure will absorb a considerable part of the increase in output over the next few years

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## Private Consumption

11. To calculate par levels of private consumption and the future growth of consumption consistent with different assumptions about the growth of G.D.P. and about the balance of trade, consumption must be treated as the residual component of demand. It is implicitly assumed that consumption is stimulated or restrained by fiscal or monetary action so as to achieve the given overall growth of demand for G.D.P.
12. Under par conditions the rate of growth of private consumption must normally be silghtly less than che rate of growth of G.D.F because of the tendency for investment to take a rising share of the available resources and because of the increased target surpluses on goods and services needed to maintain a reasonable balance of payments position Over the past twelve years private consumption has actually grown at an average rate of $3 \%$ per year; the growth rate was much lower than this when the balance of payments position improved, during 1967-71, and rather faster in years such as 1972 when the balance of payments position was allowed to deteriorate.
13. Table $V-3$ gives summary projections for private consumption in 1972-6 under various different conditions; a full set of estimates will be found in Appendix Tables 11-14. It is worth noting that in 1972 G.D.P. was about $£ 1,000$ million (at 1963 prices) below par, defined as a level consistent with $2 \frac{1}{2} \%$ unemployment. But private consumption in the same year was if anything already above par; under conditions of steady growth and with adequate resources devoted to the foreign balance the whole of the extra $£ 1,000$ million of resources available in the par economy would have been required for fixed investment, stockbuilding and larger net exports.

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| Table V-3 Resources available for private consumption |  |
| ---: | :--- |
|  | (Expenditures at factor cost: $\quad$ millon, 1963 prices) |


| Year | GDP ${ }^{(1)}$ | Public expenditure | Private investment | $\begin{aligned} & \text { Balance } \\ & \text { of trade } \end{aligned}$ | Private consumption |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Actual |  |  |  |  |  |
| 1961 | 25609 | 6639 | 3149 | -286 | 16107 |
| 1965 | 29118 | 7683 | 3700 | -402 | $\begin{aligned} & 18138 \\ & (3.0) \end{aligned}$ |
| 1969 | 31939 | 8408 | 4153 | 18 | $\begin{aligned} & 19359 \\ & (1.6) \end{aligned}$ |
| 1972 | 33726 | 9037 | 4105 | -710 | $\begin{aligned} & 21294 \\ & (3.2) \end{aligned}$ |
| Par |  |  |  |  |  |
| 1972 | 34741 | 9037 | 4652 | -48 | 21100 |


| Fast growth assumption |  |  |
| :--- | :--- | :--- |
| 1976 | 40465 | 10157 |

(a) devaluation to $\$ 1,60$ in 1973
(b) continued depreciation to $\$ 2,00$ in 1976
(c) fixed exchange rate at $\$ 2.35,1973-6$
$\frac{\text { Slow growth assumption }}{1976} 10157$

| (a) devaluation to $\$ 1.80$ in 1973 | 178 | 22416 |
| :--- | :--- | :--- |
|  |  | $(1.3)$ |
| (b) continued depreciation to $\$ 2.001976$ | -1050 | 23644 |
|  |  |  |
| (c) fixed exchange rate at $\$ 2.35,1973-6$ | -1648 | 24242 |
|  |  | $(3.3)$ |

(1) Expenditure estimate of GDP at factor cost.
(2) Including stockbuilding.
(3) Exports less imports of goods and services, at factor cost.

Figures in brackets are average growth rates, \% per year.
14. For the period up to 1976 , the fast G.D.P. growth assumption will naturally permit quite rapid growth of private consumption. But only if the balance of payments could be allowed to go into massive deficit (as under (b) and (c) in Table V-3) could consumption grow as fast as output. If a reasonable balance of payments position is to be achieved (as for example under (a) in the Table), the average growth of consumption will have to be restrained to about $3 \%$ per year, considerably less than the assumed $4 \frac{1}{2} \%$ per year growth of G.D.P., in order to leave adequate resources for private inves ament, stockbuilding and net exports.
15. Under the slow growth assumption, Taoie v-3 shows a very low average growth rate of consumption ( $1.3 \%$ per year under (a) in the Tabie) unless the balance of payments could be allowed co fun into huge deficit.
16. The main squeeze on private consunpricn omes in 1973-4. Whether under the fast or slow growth assumptions, there wuid be large increases in investment and stockbuilding in these two years as compared witn 1972. Pubiic expenditure is also forecast to rise particulariy fast. lif progress is to be made towards putting the balance of payments to rights, there will have to be a virtual standstill in private consumption for at least the nexr year because it is already over $3 \%$ higher than the average level in 1972.
17. Once the disposition of resources has been put into a more sustainable. pattern, with larger provision for investment and ner exports, private consumption could of course be allowed to start to grow once more at almost the same rate as G.D.P.

## Consumption and fiscal policy

18. The real income of the personal sector varies in relation to G.D.P. not only because of taxation and transfers from the public authorities but also on account of changes in the ratio of impor prices to domestic prices and because
of variations in the share of income accruing to companies as undistributed profits. To see how the growth of personal income and hence consumption may have to be stimulated or restrained relative to G.D.P. we have made estimates of the likely effect of some of these influences on personal consumption.
19. The projections already described in the preceding section show required levels of private consumption, under alternative assumptions about the future growth of G.D.P. and exchange rate movements, needed to provide the assumed growth of demand. Estimates can also be made of the levels of consumption which would be generated by the assumed growth of G.D.P. on specified assumptions about fiscal policy, import prices and the distribution of income between companies and the personal sector. The projections of generated consumption in this paper allow for changes in the share of income retained by companies which occur because of changes in the pressure of demand; but they assume a constant personal savings ratio, a constant ratio of net taxation to income and constant relationships between import prices, export prices (which also affect company profits) and domestic prices. The projections start from the actual ratio of consumption to G.D.P. in 1972.
20. The difference between required and generated consumption (the 'initial consumption gap') must be assumed to be closed either by changes in the ratio of net taxation to income or by movements of import and export prices relative to domestic prices. The effects of the latter ('terms of trade' effects) have been calculated on the same assumptions as in our earlier paper. Figures for the terms of trade effect can be used to show how much of the initial gap remains to be closed by fiscal monetary action.
21. Appendix Table 15 gives detailed projections of the initial consumption gap and terms of trade effects for 1972-76 under various assumptions about the growth of G.D.P, and movements of the exchange rate. Par figures are shown in Table V-4 below. Already in 1972 chere is an initial consumption gap
because of the need to make more resources available for investment and the balance of trade; the less favourable terms of trade in the par economy (because of the lower level of relative costs needed to achieve sufficient export growth) would largely have closed this initial gap. This implies that the actual effects of net taxation on consumption for 1972 as a whole were not very different from par requirements; but of course the average for the year only reflects a part of the large tax reductions in the budget and by comparison with the present position the par economy would require tighter fiscal policy.

Table V-4 Par consumption and fiscal policy

$$
\text { (£ million, } 1963 \text { prices) }
$$

|  | Required <br> consumption | Generated <br> consumption | Initial <br> gap | Terms of <br> trade <br> Effect | Fiscal (3) <br> policy <br> Effect |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1972 | 25202 | 25942 | -740 | -576 | -164 |
| 1973 | 25618 | 26687 | -1069 | -748 | -321 |
| 1974 | 26326 | 27494 | -1168 | -915 | -253 |
| 1975 | 27356 | 28472 | -1116 | -1072 | -44 |
| 1976 | 28495 | 29528 | -1033 | -1230 | 197 |

(1) Assuming the same ratios of net taxation to income and the same relationship between import and export prices and domestic incomes as for the actual economy in 1972.
(2) The effects on generated consumption of differences between par and actual 1972 import and export prices (relative to domestic incomes).
(3) Additional effects on generated consumption required to make it equal to required levels.

See Appendix for more detailed explanations.

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22. The par estimates for 1973-76 show an increasingly deflationary terms of trade effect because of the need for continued reductions in relative costs to maintain the external position. The projections suggest that very slight fiscal stimulus might be needed after 1973 to keep demand growing at the par rate.
23. The par figures show the implications of assuming that the economy follows a path of steady growth and balance of payments equilibrium. Alternative projections starting from the actual position in 1972 (see Appendix Table 15) have quite different implications for the consumption gap and fiscal policy, depending on what is assumed to happen to the balance of payments. Without large devaluation continued fiscal stimulus is required to sustain the growth of demand in the face of rapidly widening deficits on trade in goods and services. If very large devaluations are assumed, the growth of consumption must be restrained in order to leave room for fast growth of exports within the assumed overall totals for G.D.P; most of the necessary deflation of domestic demand is projected to come from the terms of trade effect.

[^0]:    (1) A project at the Department of Applied Economics sponsored by the Department of Trade and Industry has been investigating the measurement of stock appreciation by companies.

