Chapter VI

LONG-TERM EXPENDITURES - PROBLEMS OF MATCHING
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In allowing for the expenses of earning, even if the 'personal' element is somehow sifted from 'business', the problem of 'matching' costs against revenue will remain. Matching is called for in periodic income evaluation when expenditures incurred during one period do not 'expire' within that period. Matching is also required when the expenditures for which deduction is claimed partake of the nature of joint cost, being relatable to more than one source of income not all of which are taxable. So far as joint costs are concerned allocation can be made in most situations through a simple formula e.g. in proportion to the size of the receipts from different sources. Allocation of long-term expenditures does not admit of such a simple solution. In principle only such expenditures should be set off against the revenue of a period as pertain wholly to that period. Translating this principle into an operational formula is however not easy. The only practicable way to implement it is to go by some arbitrary rules; otherwise inequities may arise from differences in the treatment of similarly circumstanced taxpayers.

Indian income tax too follows certain rules in this regard. The basic rule is that only 'revenue' or current expendi-

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ture can be deducted against current income. While this rule helps to meet the problem of matching by denying any deduction for long-term expenditures, anomalies have arisen because of several factors. First, there is no fixed rule for distinguishing capital from revenue expenditures and the distinction is often drawn on principles which are not all consistent. Secondly, exceptions are made in the case of certain expenditures and allocation is allowed for several such items on a notional basis the rationale for which is not always very clear. The principal exceptions are, investment in certain fixed assets (depreciation is allowed to be charged in respect of these expenditures), capital expenditure on scientific research (these are allowed to be deducted in full in one year), expenditure on the acquisition of patent and copyrights and certain pre-incorporation expenses (these are allowed to be amortized over a specified period). In the case of mining industry, certain exploration expenses are also allowed to be amortized. We propose to examine in this chapter how satisfactory this arrangement is for the treatment of long-term expenditures.

**Capital-revenue distinction as a matching device**

The rule that to qualify as cost an expenditure; must be 'revenue' and not 'capital' in nature has been the conven-

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2 This follows from the provisions of Sec. 37 of the *Income-tax Act, 1961.*
tional device for getting round the problem of matching. This was quite consistent with the general scheme of taxing only the gains of a recurring nature and leaving out all capital type of receipts. The actual working of the rule is however marked by inconsistencies. For, as with receipts, the line between capital and revenue expenditures has not been easy to draw. The Income-tax Act does not indicate how the distinction is to be drawn and, inevitably the question whether a particular expenditure is 'capital' or 'revenue' has led to disputes and court rulings. Some general principles have been enunciated by judicial authorities but no one test or criterion is regarded as paramount or conclusive or of universal application and the line that divides revenue expenditure from capital remains elusive. Decisions mostly turn on fine distinctions in facts from case to case that are of little relevance from the angle of ability to pay and it is often difficult to reconcile one decision with another. How serious these inconsistencies are can be seen from the way the case law on the question has evolved.

The criteria by which Indian judicial authorities decide whether a particular expenditure is revenue or capital are derived primarily from principles enunciated by British courts.

One of the tests formulated for this purpose is whether the expenditure is incurred once and for all or whether it will recur year by year. Once-for-all expenditures only were regarded as 'capital'. A more frequently followed test is whether the expenditure is incurred "with a view to bringing into existence an asset or an advantage for the enduring benefit of a trade", if so, it is capital. Formulated by Lord Cave in the celebrated case, British Insulated and Helsby Cables v. Atherton, this test introduced two additional but alternative considerations viz.: whether the expenditure is intended to secure an asset or an advantage or whether it would beget an enduring benefit. In either case the expenditure would be capital. Another test is whether the expenditure relates to a fixed capital in which case it is 'capital', or to circulating capital. Expenditure on circulating capital is revenue. An alternative approach is to see if the expenditure relates to the "whole structure of the profit making apparatus" the idea being that, if so, the expenditure is not an 'income disbursement'.

None of the tests enumerated above has however

5 Tests for distinguishing capital from revenue expenditure followed in the British income tax as given here is based largely on Sec. B 1.911 of Simon's Taxes.
6 Vallambrosa Rubber Co. Ltd. v. Farmer 5 T.C. 529.
7 John Smith & Son v. Moore, 12 T.C. 266 (H.L.).
8 Lord Macmillan in VanDen Berghs Ltd. v. Clark 1935, ITR Suppl. 17 (H.L.).
been applied without qualification. In numerous instances
they have been departed from and in each case the divergence
has been explained away by pointing out some difference in the
facts which do not seem to have much bearing on matching. For
instance, in one case a lump sum paid by an employer to an
employee on his retirement was held to be a payment on revenue
account even though it was a once-for-all payment. Similarly,
while outlay on the acquisition of an asset or enduring advan-
age is capital, expenditure to get rid of a recurring liability
is not, because the latter is thought to beget only a 'negative'
asset. A payment to get rid of an undesirable capital asset is
however regarded as capital expenditure because of the endur-
ing advantage. Getting rid of a competitor is also considered
an enduring advantage and payment for the same, 'capital' in
nature. 'Endurance' implied in the expression 'enduring
advantage' has subsequently been taken in the relative sense.
Expenditure on knives and lasts used in shoe manufacturing busi-
ness which last for about three years was thus held to be capital
in an English case, whereas in India, durability of five years

9 Smith v. Incorporated Council of Law Reporting
for England and Wales 6 T.C. 477.
10 Anglo-Persian Oil Co. Ltd. v. Dale 16 T.C. 253.
11 Mallett v. Staveley Coal & Iron Co. Ltd. (13 T.C.
772).
12 Associated Portland Cement Manufacturers Ltd.
v. I. R. Comms. 27 T.C. 103.
and even seven years has not been considered sufficiently
13 enduring.

The effect of the modifications made to the general
principles (particularly the enduring benefit test) has been
to permit certain expenditures with a long-term benefit to be
currently expensed. Thus in a case where a cement manufacturer
agreed to provide water supply to a town in consideration of
exemption from municipal taxes for fifteen years, the entire
cost of installing pipelines etc. was allowed to be deducted in
14 the year in which the amount was paid. The argument is that
by this expenditure the taxpayer obtained the avoidance of
certain disadvantages only for a limited period although the
15 period stretched over fifteen years. Earlier it was held by
the Supreme Court that compensation paid by a taxpayer for the
termination of the service of its managing agents under an
agreement which was to run for a number of years was revenue
expenditure even though the expenditure was made "with a view to
save business expenditure in the accounting period as well as
a few subsequent years", because the advantage was not an enduring
16 one.

13 G. L. Pophale, A Quarter Century of Direct Taxation
in India 1939-1964 (1965), para 176, cases in point are
Jagat Bus Service v. CIT 1950 ITR 13 & CIT v. Finlay
Mills (1951) 20 ITR 475 (S.C.).
15 Ibid., p. 659.
16 CIT v. Ashok Leyland Ltd. (1972) 86 ITR 549.
Another effect of modifying the general principles from case to case has been inconsistent treatment of similarly placed taxpayers. Thus, where a company purchased land in the name of the district collector for the purpose of constructing houses for its workers under a subsidized industrial housing scheme sponsored by the Government, the purchase price was allowed to be deducted in full in one year as a welfare expense, whereas in another case sums contributed by the assessee to the State Government for construction of new roads or conversion of unmetalled roads into metalled ones and for improving transport facilities (the land belonging to the Government) were treated as 'capital'. Similarly, while payment for getting rid of an inconvenient agreement is considered 'current' by applying the negative asset test, expenditure to buy off trade rivalry has been held to be capital. In none of these cases the expenditure in question can be said to expire in the year in which it is incurred yet distinctions are drawn on such grounds as that expenditure to get rid of an onerous capital asset is capital. But expenditure on defending title to a capital asset is allowed as revenue expenditure while any expenditure connected with business reputation is regarded as 'capital'. Expenditure incurred in establishing title to a trade mark was however pronounced 'revenue'.

18 H. R. Sugar Factory (P) Ltd. v. CIT (1970) 77 ITR 614.
on the reasoning that attack on trade mark is not an attack on capital.

Such anomalies are particularly striking in the rulings on the nature of expenditures incurred in acquiring mining and quarrying rights. Where land bearing the mine is taken on lease, payment made for acquiring the lease is generally regarded as capital even if the lease is for a definite and brief period, whereas if the right secured by the payment in question is related to the raw material (e.g. the mineral) it is held to be allowable as revenue. In a case where an assessee dealing in conch shells took on lease from the government for three years "the exclusive right, liberty and authority to fish for and take and carry away all chank shells" in the sea off a specified area on yearly rent, the rent so paid was held by the Supreme Court (by a two-to-one majority) to be a capital payment. In 1939 a Full Bench of the Madras High Court had held such payment to be capital expenditure but subsequently (in 1953) another Full Bench of the same court had declared such rent to be a deductible business expenditure. The logic behind the decision of the Supreme Court in this case does not seem to be clear. For, as the dissenting judge pointed out, in the business sense, it was irrational to draw a distinction between the right of

picking and carrying away conch shells and the actual buying of such shells. It is not easy to reconcile this decision with the one taken later whereby the payment made for obtaining a lease of land with exclusive right to collect and remove sand from the land was held to be allowable as revenue expenditure. The arguments put forward to distinguish the facts of this case from those of the conch shell case was that in the former the contract was for removal of the sand lying on the surface of the river bed and no excavation or skilful extraction was required to be performed for obtaining it whereas in the conch shell case, the lessee had to fish from the sea and therefore had to operate in the waters of the sea itself. A little reflection would show that the Court was persuaded by the form rather than substance of the matter and lost sight of the basic rationale of the capital-revenue distinction viz. matching of cost against revenue. (Of course the issues were never presented from that angle before the courts).

Had matching been the aim, the payment in the conch shell case should have been allowed as current cost (in so far as they were allocable over the period of the lease) as indeed it was allowed in the later cases and the lump sums paid in

22 M. A. Jabbar v. CIT (1968) 68 ITR 493. The High Court had pronounced the payment as 'capital'.

23 Ibid., p. 499.

commutation of revenue payments of several years should have been set off in the respective periods instead of being allowed in one year. It is evident that the capital revenue distinction as applied to expenditures has failed to secure matching of costs against revenue, rather it has created anomalies and inequities. For a satisfactory solution to the problem one has to turn to other alternatives.

Possible solutions

The irrationality, from the commercial viewpoint, of denying deduction of payment for acquisition of right to use a capital asset for short periods while permitting deduction for premium paid for a short lease was commented upon by the Tucker Committee. The Committee recommended that except where it goes untaxed in the hands of the recipient any payment which is in the nature of long-term revenue expenditure should be allowed to be written off. Similarly, in respect of payments for acquiring assets or rights or an advantage of only limited duration the Committee suggested that reasonable writing off allowance should be provided.

Consistently with their comprehensive approach the Carter Commission wanted all expenditures to be allowed at some

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25 E.g. in the case referred to in note 14 ante.


time or the other. Long-term tangible assets and intangible of limited life would, in this scheme, be amortized and a new class of assets would be created to include certain defined expenditures whether or not they result in the acquisition of property. Such expenditures also would be eligible for depreciation at some prescribed rate annually. For various reasons the Commission did not think that purchased goodwill should be written off although in their view deduction should be allowed as a matter of practical policy for expenditures which go to build up the goodwill of a business enterprise such as expenditure on staff welfare and cost of know-how. To emphasise that the problem is essentially one of timing the Commission wanted the use of the word 'capital' in this context to be given up.

No doubt the above scheme of amortization of long-term expenditures would go a long way to reduce the uncertainty which has marked the area so far and bring some consistency in their treatment. Although writing off of any expenditure on a notional basis goes against the principle of realization it is expedient to permit amortization of expenditure so specified in the same way as it is allowed now in respect of certain items like cost of patent rights and preliminary expenses such as preparation of project report. To minimise the erosion of the

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30 Secs. 35D and 35E.
tax base resulting from such amortisation however it is necessary to impose certain restrictions at least by way of safeguard.

First, so far as intangibles are concerned, as suggested by the Carter Commission, it would be desirable to permit amortization only in respect of those expenditures which are of a limited life. Broad categories of such items may be identified and enumerated and the period of their amortization laid down as in the case of copyrights and patents. Scope for doubt should be reduced as far as possible so that there is no need to speculate whether a particular expenditure is amortizable or not. There is no case to including purchased goodwill among amortizable intangibles since their life cannot be specified.

31 Recently the Gujarat High Court was called upon to decide whether drawings and patterns used for manufacturing are depreciable plants. For this the judges first considered at length whether such designs constitute a 'book'; for in this context books are treated as 'plant'. This led them on to discuss the basic characteristics of a book in their 'physical' and 'functional' aspects. Finally, they came to the conclusion that the designs in question did deserve to be depreciated at the rates applicable to plant and machinery (CIT v. Elecon Engineering Co. Ltd. 1974-96 ITR 672). In another case, expenditure incurred in acquiring know-how from abroad (by sending the company's directors and managers abroad) was held to be allowable as business expenditure (Sayaji Iron & Engineering Works P. Ltd. v. CIT (1974) 96 ITR 240).

32 Bhoothalingam had recommended amortization of goodwill /S. Bhoothalingam, Final Report on Rationalization and Simplification of the Tax Structure (1968) para 5.12/. There is nothing to show however that he had considered the possible objections to such amortization.
In US Federal income tax assets which do not have a determinable life are not allowed to be depreciated. Of course, in some court decisions such assets as lists of customers have of late been held to be of the same class as those having a determinable life. Also there may be some inconsistency in not allowing amortization for goodwill while permitting full deduction for expenses which serve to build up or maintain goodwill. But as the Carter Commission argued, goodwill generally does not depreciate, and amortization of goodwill is likely to encourage artificial business takeovers. There would also be the problem of placing an independent valuation on goodwill if cost of goodwill was allowed to be amortized.

Since many of the intangibles including expenditures which develop goodwill would be amortized in the scheme envisaged above it is necessary to provide for their recapture in the event of the sale and transfer of the business and all goodwill.


34 "Amortization of Intangibles: An Examination of the Tax Treatment of Purchased Goodwill", 81 Harvard Law Review 859 (1968), Note. The Note also contends that non-amortization of purchased goodwill leads to excessive price being put on fixed assets at the time of their purchase.

35 According to the HLR Note cited above (note 34) goodwill can depreciate in several situations. But this cannot be regarded as common.
gain also should be brought under taxation. The provisions introduced in the Indian income tax in the last few years to provide for amortization of certain intangibles make no attempt to recapture the allowance on appropriate occasions. This coupled with the fact pointed out earlier (Ch. III) that gains on transfer of goodwill created by a concern are not allowed to be taxed even as capital gain aggravates the base erosion from amortization of intangibles.

The Tucker Committee favoured amortization of abortive expenditures also. There is little justification for treating such expenditures as any different from business loss. The possibility that losses arising out of 'hobby' business may be claimed as deductible if abortive expenditures are amortized however calls for caution. As a matter of practical policy no deduction should be allowed for expenditures which are purely in the nature of exploratory investment unless the investment leads to the setting up of a business. This should apply to mining too. If exploration for minerals is to be encouraged a straight subsidy would be preferable to the present system of amortization which can be availed of only if the explorer is already established in the line or gets established within a specified period of time (Sec. 35E).

The HLR note referred to above while pleading for the amortization of all expenditures on goodwill also suggest suitable provisions for their recapture.
Depreciation Allowance

As regards outlays on tangible assets of limited life, the established practice is to allow some deduction on account of depreciation of such assets on a notional basis and thus write off the costs over a number of years. The question for consideration is whether the allowances currently available towards depreciation are justified and adequate.

In considering the rationale for depreciation allowance it needs to be pointed out at the outset that, although apparently justified by the rationale of matching, in equity the case for depreciation is not so obvious as is usually assumed. In England, there was no formal sanction for any depreciation allowance till 1878. The Royal Commission of 1920 found it impossible to make any general recommendation for allowing depreciation. The Royal Commission of 1955 also did not find it easy to accept the case for capital allowances even though the Tucker Committee had supported it. The 1955 Commission however agreed that depreciation has to be allowed, simply because "they (the allowances) have come to stay and they must be taken as an integral part of our system of taxing business profits."

Accepting it as an unavoidable feature coming down as a matter of convention it will still be worthwhile to examine how the


existing system can be made more logical and consistent within itself.

As in England, at first there was no express provision for any allowance for depreciation in Indian income tax. No deduction was admissible for repairs and renewals either. Statutory provision for depreciation was made for the first time in the Act of 1918. It was allowed in respect of buildings, machinery and plant used for business on their original cost. The rates were fixed on a straight line basis, having regard to the estimated life of the assets. Provision was made for carryforward of unabsorbed depreciation too. This position continued under the 1922 Act. The rates were laid down in the rules framed under the Act. Since 1940-41 the original cost basis was replaced by the declining balance method (except in the case of ships). Obsolescence allowance was introduced in 1918. The provision for 'balancing charge' to recapture the deduction granted by way of depreciation allowance however came much later, in 1940-41. Allowance was given separately under the 1922 Act for current repairs.

The scheme of depreciation allowances operative at present is broadly the same as it was under the 1922 Act. It

39 Ibid.

40 Popale, op. cit., paras 101, 102 & 180-184. History of the capital allowances in Indian income tax as outlined here is based on this work.
is allowed on the historical cost at specified rates applied to the written down values of the assets. Following the recommendations of the Bhoothalingam Committee, the rates were considerably simplified in 1969. As against seventeen different rates ranging from 2.5 per cent to 100 per cent, rules now lay down seven different rates applicable to machinery classified under seven categories of 'useful lives' ranging from 5 per cent to 100 per cent. The general rate for unclassified machinery is 10 per cent. The system of prorating the allowance according to the length of the period for which the asset is used has been discontinued. Depreciation at the normal rate is available even if the asset is used for only one day in the relevant year. Extra shift allowance is also given for machinery and plant in proportion to the number of days for which the machinery is run on extra shift as against the normal period taken at a minimum of 240 days (180 days in the case of seasonal factories). The allowance for extra shift is given at the rate of 50 per cent of the normal rate for double shift and 100 per cent for triple shift working. Extra depreciation of 50 per cent of the normal allowance is granted on plant and machinery installed in a hotel if it is 'approved' and is set up by an Indian company. Generally, the allowance can be claimed only by the owner. An exception has been made from April 1971 in respect of renovation expenses on lease hold premises, for which the lessee can get depreciation allowance on fulfilment
of certain conditions. Unabsorbed depreciation is allowed to be carried forward indefinitely.

Provisions for granting accelerated depreciation have also been in operation in Indian income tax in various forms since 1946. Initial depreciation was introduced in 1946 on building and machinery brought into use at the rate of 20 per cent for machinery and 15 per cent for buildings. Another allowance called 'Additional Depreciation' was available between 1949-50 and 1958-59. This was granted at the rate of normal depreciation and, unlike initial depreciation, had to be deducted from the written down value. Since 1954, and until recently, another capital allowance has been in operation in the form of a development rebate. This was given ordinarily at rates varying from 15 to 35 per cent on new plant and machinery including ships depending on whether it was used in a 'priority' industry or a hotel and so on. A reserve of 75 per cent of the rebate was required to be created to earn this allowance. The rebate was withdrawn with effect from 1st June 1974. It has been extended in the case of certain assets by a year or so (vide Sec. 16, Finance Act, 1974). Initial depreciation at the rate of 20 per cent of the cost will be available in respect of new machinery and plant installed in a 'priority industry' (as listed in the ninth schedule to the Income-tax Act) or in a

Sec. 32 (1A).
small scale industry from 1.4.1975. The total amount of the allowance for normal and initial depreciation cannot however exceed the original cost of the asset.

The provisions for depreciation have come in for various criticisms from time to time. The major grievance of taxpayers deriving income from business is that the allowances are inadequate especially when prices are rising. To cure this deficiency, a plea is often made for allowing depreciation on current cost and at accelerated rates with option to the taxpayer to deduct the full cost of depreciable assets in the first year itself.

If the scheme of depreciation allowance is to be framed on rational and logically consistent lines it must be recognized first that there are many different concepts of depreciation not all of which are relevant for purposes of determining taxable income. Viewed as an element of cost - and that alone is relevant for determining income - depreciation is not a physical phenomenon but a value concept and has to be interpreted in terms of changes in the value of an asset. Determination of true, economic 'depreciation' however presents


43 E.g., depreciation can mean physical deterioration, decline in price, or ... a method of cost allocation. See for a discussion of these ideas, Concepts of Depreciation (1960) by Louis Goldberg.
formidable problems. It was demonstrated by Hotelling in 1924 how the depreciation determined independently of the 'theoretical selling price' (i.e. cost made up of operating expenses and depreciation spread over the number of units of the product) differs from what is obtained by using a mathematical formula in which the value of a machine is given, as it should be, in terms of time, value of output, operating cost, scrap value, useful life and rate of interest. The trouble arises essentially from the fact that the value of a machine and that of a unit of its output are not independent, but interrelated. Application of such an approach in the real world is however not feasible, even when the formulation of asset values runs in terms of 'opportunity value' as proposed by Wright.

Very recently Baxter has attempted to translate the economic concept of depreciation based on the asset valuation approach into an operational form by using the concept of 'deprival value' of an asset as the basis for valuation.

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45 'Opportunity value' is defined by Wright as "the cost, loss or sacrifice which would have to be incurred if the firm did not have those services" /F.K. Wright, "Towards a General Theory of Depreciation", *Journal of Accounting Research*, II (1964)7.

46 W. T. Baxter, *Depreciation* (1971). The concept of deprival value is derived from the notion "that the value to a firm of an asset which it
This approach promises to be acceptable both as an economic concept as well as an accounting principle as it would allow accountants to compute asset values without too much reliance upon highly subjective estimates of costs and revenue, unlike the alternative approach which involves estimating the discounted value of the expected flow of services from an asset. It is however too early to say whether this happy marriage between economic and accounting approaches will actually come about. Till then it should be clear that any system of depreciation allowance based on the expected life of assets is bound to be arbitrary. Harcourt has shown that the accountants' formula for depreciation is of no help in arriving at true net income even under a set of extremely simplifying assumptions that are associated with steady-state growth or 'golden age'.

It is thus impossible to judge even roughly whether the depreciation allowed in the income tax assessments has enabled costs to be matched against revenue, for the 'cost'

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(previous footnote contd.)

has is usually going to be the costs that ownership postpones or avoids, and that in most circumstances, will equate to an arm's length determined cost of replacing the goods or services that the existing asset provides". (D. Brown, "Depreciation by Baxter" (Review), Accounting & Business Research, vol. 1, 1970-71.

47 Brown, op. cit.

involved in using a capital asset cannot be determined for any arbitrary period. If, however, depreciation allowances are viewed not as an element of cost but as the source of funds for financing the replacement of assets, then their adequacy may be judged by examining whether the allowances actually granted have fallen short of the requirements of replacement. Such an examination whose theoretical frame was originally provided 49 by Domar, is attempted below with the help of data available for the corporate sector in India.

Adequacy of depreciation allowances

In an economy (or an industry, or even a firm) where gross investment per annum (G) remains constant and assets are replaced at the end of their useful service life (assuming that they have a fixed life of say m years), replacement (R) in a year would be equal to G made m years ago. If depreciation (D) is provided on the straight line method at the rate of \( \frac{1}{m} \) every year, after m years, R would equal G and also D. It was demonstrated by Domar that the identity of R & D is destroyed in a situation where investment is rising over time.

Since investment of Re. 1 growing at the compound rate of \( r \) would become \( (1 + r)^m \) at the end of m years while


50 Ibid.
replacement cost would still be Re. 1, the ratio of replacement to gross investment \( R/G \) would be:

\[
\frac{1}{(1+r)^m} \quad \ldots \quad (1)
\]

But since, on the given assumptions, Re. 1 invested \( m \) years ago grows as follows,

\[
1, \ (1+r), \ (1+r)^2, \ \ldots \ \ldots \ (1+r)^{m-1}
\]

the capital stock at the end of \( m \) years is given by the sum of the above geometrical series, which is equal to \( \frac{(1+r)^m - 1}{r} \).

Depreciation (D) of this stock on the straight line method comes to \( \frac{(1+r)^m - 1}{r} \). Since \( G = (1+r)^m \),

\[
D/G = \frac{1 - \frac{1}{(1+r)^m}}{\frac{1}{(1+r)^m} - \frac{1}{r}} \quad \ldots \quad (2)
\]

Dividing (1) by (2)

\[
\frac{R}{D} = \frac{rm}{(1+r)^m - 1}
\]

which approximately equals \( \frac{51}{51} \).

This is derived as follows:

\[
\frac{R}{D} = \frac{rm}{(1+r)^m - 1} \quad \approx \quad \frac{rm}{e - 1}
\]

But \( \frac{rm}{e - 1} \approx \sqrt{\frac{1}{rm} - \frac{1}{2} + \frac{rm}{12} \ldots} \), \( \ldots \) \( \approx \) \( \sqrt{\ldots} \).

\[
\approx 1 - \frac{rm}{2} + \frac{rm}{12} \quad \text{when } rm < 2
\]

Hence, \( \frac{R}{D} \approx \sqrt{1 - \frac{rm}{2} \left(1-\frac{rm}{6}\right)} \) for \( rm < 2 \).
1 - \[ \frac{rm}{2} (1 - \frac{rm}{6}) \] when \( rm < 2 \).

Values of \( R \) for different values of \( rm \) derived from the above formula are:

<table>
<thead>
<tr>
<th>( rm )</th>
<th>( R/D ) (%)</th>
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<tbody>
<tr>
<td>0.1</td>
<td>95</td>
</tr>
<tr>
<td>0.5</td>
<td>77</td>
</tr>
<tr>
<td>1.0</td>
<td>58</td>
</tr>
<tr>
<td>1.5</td>
<td>44</td>
</tr>
<tr>
<td>2.0</td>
<td>33</td>
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</tbody>
</table>

It may be seen that for values of \( rm > 0.1 \) quite a substantial portion of depreciation allowed on the straight line method is likely to be 'unwanted' if judged by the requirements of replacement and serve to provide a fund for net investment, - a point further elaborated by Harrod and Bhaduri.

Now, according to estimates made by Patnaik, between 1950 and 1967, private corporate investment in India grew at the rate of 10 per cent per annum (compound). The growth rate of fixed capital slackened only after 1967. For the period 1960-1972, the growth rate of private corporate investment may be taken at 8 per cent per annum. As for \( m \), the proportion of capital stock

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55 Figures for 1961-62 to 1972-73 relating to medium and large public limited companies are as follows: Growth rate of gross fixed assets of medium and large public limited companies

(f.n. contd.)
to depreciation provision appears to be around 18. This suggests that the average life of assets used here is around 18 or so (since $D = K/m$, $m = K/D$). Considering however, that the average life of machinery and plant in USA was about thirty years as late as the fifties, the actual length of life of assets in India may be taken to be 25 and the value of $rm$ may be put at 2, assuming a compound growth rate of 8 per cent per annum. For $rm = 2$, according to the formula set out earlier $D/G$ works out to 43 per cent, and $R/D$ 33 per cent. The actual proportion of $D$ to $G$ for the Indian private corporate sector over the period 1960-61 to 1972-73 turns out to be 67 per cent on an average (Table 6.1, line 8) giving rise to the presumption that depreciation allowances have been in excess of what was required for replacements. Even with $rm = 1.25$ p.c. and $m = 25$), depreciation allowed would appear to be more than adequate.

It must be added however that the relationships between $R & D$ set out above are based on the assumption of constant prices. Rise in prices tends to narrow the gap between $R$ and $D$. But the degree of inflation required for equalising $R$ and $D$,

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(previous footnote contd.)

<table>
<thead>
<tr>
<th>Year</th>
<th>Growth Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1961-62</td>
<td>10.3</td>
</tr>
<tr>
<td>1962-63</td>
<td>9.6</td>
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<td>1970-71</td>
<td>6.8</td>
</tr>
<tr>
<td>1971-72</td>
<td>8.9</td>
</tr>
<tr>
<td>1972-73</td>
<td>7.2</td>
</tr>
</tbody>
</table>

Source: RB88

Domar, op. cit.
### TABLE 6.1

**DEPRECIATION, DEVELOPMENT REBATE, REPAIRS AND CROSS FIXED ASSET FORMATION OF LARGE AND MEDIUM COMPANIES IN INDIA**

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Gross Fixed Asset (Rs. Crores)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>130.97</td>
</tr>
<tr>
<td><strong>2. Gross Fixed Asset (Rs. Crores)</strong></td>
<td>1741.27</td>
<td>1924.00</td>
<td>2112.83</td>
<td>2340.02</td>
<td>2560.86</td>
<td>2794.70</td>
<td>3031.52</td>
<td>3275.70</td>
<td>3520.58</td>
<td>3765.56</td>
<td>4017.14</td>
<td>4260.36</td>
<td>4569.42</td>
<td>-</td>
</tr>
<tr>
<td><strong>3. Depreciation (Rs. Crores)</strong></td>
<td>96.29</td>
<td>103.99</td>
<td>112.93</td>
<td>129.67</td>
<td>147.81</td>
<td>152.44</td>
<td>187.15</td>
<td>196.72</td>
<td>212.79</td>
<td>236.33</td>
<td>252.50</td>
<td>276.09</td>
<td>296.63</td>
<td>-</td>
</tr>
<tr>
<td><strong>4. Development Rebate (Rs. Crores)</strong></td>
<td>-</td>
<td>25.98</td>
<td>37.76</td>
<td>30.00</td>
<td>32.53</td>
<td>39.17</td>
<td>53.73</td>
<td>49.15</td>
<td>36.76</td>
<td>48.69</td>
<td>25.37</td>
<td>47.65</td>
<td>88.64</td>
<td>-</td>
</tr>
<tr>
<td><strong>5. Depreciation and Development Rebate (Rs. Crores)</strong></td>
<td>130.97</td>
<td>150.69</td>
<td>159.67</td>
<td>168.34</td>
<td>191.61</td>
<td>240.88</td>
<td>245.87</td>
<td>249.65</td>
<td>254.42</td>
<td>257.87</td>
<td>323.74</td>
<td>380.32</td>
<td></td>
<td>-</td>
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<tr>
<td><strong>6. Repairs-maintenance (Rs. Crores)</strong></td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>68.42</td>
<td>75.54</td>
<td>82.02</td>
<td>88.73</td>
<td>100.32</td>
<td>115.29</td>
<td>133.27</td>
<td>150.44</td>
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<td>-</td>
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<tr>
<td><strong>7. Gross Fixed Asset/ Depreciation (line 1 + line 2)</strong></td>
<td>13.1</td>
<td>18.5</td>
<td>18.7</td>
<td>18.0</td>
<td>17.3</td>
<td>18.3</td>
<td>18.6</td>
<td>19.3</td>
<td>18.6</td>
<td>17.9</td>
<td>19.7</td>
<td>19.92</td>
<td>18.6</td>
<td></td>
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<tr>
<td><strong>8. Depreciation/Gross Fixed Asset Formation (line 3, line 2)</strong></td>
<td>56.9</td>
<td>59.8</td>
<td>57.1</td>
<td>60.9</td>
<td>67.6</td>
<td>67.1</td>
<td>62.7</td>
<td>72.7</td>
<td>73.4</td>
<td>87.5</td>
<td>73.8</td>
<td>64.8</td>
<td>67.1</td>
<td></td>
</tr>
<tr>
<td><strong>9. Capital Allowances/ Gross Fixed Asset Formation (line 5, line 2)</strong></td>
<td>71.7</td>
<td>79.8</td>
<td>70.3</td>
<td>84.4</td>
<td>84.9</td>
<td>73.5</td>
<td>77.6</td>
<td>85.2</td>
<td>94.3</td>
<td>96.00</td>
<td>86.5</td>
<td>83.0</td>
<td>82.3</td>
<td></td>
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<tr>
<td><strong>10. Repairs/Depreciation provision (line 6, line 3)</strong></td>
<td>44.9</td>
<td>40.1</td>
<td>41.7</td>
<td>41.7</td>
<td>42.4</td>
<td>43.9</td>
<td>48.3</td>
<td>50.7</td>
<td>44.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Excluding land.

** Development rebate is worked out by multiplying the figure of development rebate reserve as given in the balance sheets by 4/3 since under the law the reserve was required to be created for 75 per cent of the rebate.

** Source:**
with \( m = 20 \) and a real rate of growth of 5 per cent, is 7.5 per cent. With \( m = 25 \) the required rate of inflation is about 8.5 per cent. Since the rise in the prices of capital goods has not exceeded this rate (see Appendix to Ch. II), and the rate of growth of investment has also not been less than 5 per cent over the years depreciation has tended to outrun replacement quite appreciably. Further, Bhaduri has shown that the gap between the two widens where the assumed life-time of assets for purposes of depreciation happens to be shorter than their actual life time, so much so that if the assumed life is only 10 years while the actual life is 15 years, then the excess of depreciation over replacements goes up from (approx.) 44 p.c. to 60 p.c. (at 5 p.c. steady growth rate with no gestation lag). It is well known that plant and machinery usually have longer life than what is assumed for depreciation for tax purposes and machinery is often kept in use long after their values are fully depreciated in the books. Taking all these factors into account, so far as the replacement needs are concerned, depreciation allowances provided in the Indian income tax seem to have been more than adequate.

**Depreciation and current repairs**

The above conclusion derives further support from the

---

57 Domar, *op. cit.*, Table II.

58 Bhaduri, *op. cit.*
fact that, in addition to depreciation, deduction is allowed separately for repairs. Strictly speaking, deduction for expenditure on maintenance and repairs can be allowable only as a supplement to depreciation to make up for the deficiency, if any, of the latter to take care of the actual decay of assets and to keep capital value depreciation at the rates stated in the accounts. In order that repairs do not cover replacement, the law allows deduction only for current repairs. In actual application, however, the expression has been interpreted so liberally that even heavy repairs amounting virtually to replacement can go as 'current' repairs. Replacements which have the effect of raising the productive efficiency of the asset have also been held to come within the category of 'repairs' (e.g. of petrol engines by diesel ones). In some


60 For a discussion of the case law on the point, see A. Bagchi, "Depreciation and Current Repairs in Income Accounting", BFM, Sept. 18, 1971.


In one case expenditure of about 32,000 on overhauling two cargo boats whose original cost was Rs.75,000 and the written-down value Rs.4,000 or so after twenty years' use was allowed as 'current' repair even though it was on record that only the skeletons of the boats were retained and all other structures removed. C. R. Corera & Brothers v. CIT (1963) 49 ITR 188.
cases accumulated repairs of many years have been allowed to be currently expensed. Data on company finances show that expenditure on repairs is on the average over 40 per cent of depreciation charged in the accounts—in some years it is as high as 50 per cent (Table 6.1, line 10) — and forms about 30 per cent of the annual gross investment. It is obvious that under the present arrangement, deduction for repairs and depreciation allowances overlap and these deductions serve to secure funds actually in excess of the legitimate needs of replacement. Of course this may not be true of every individual firm. But when there is a surplus of funds for the economy as a whole, any stringency experienced at the firm level must be attributed to imperfections of the capital market.

In short, it is pointless to look upon depreciation as a cost element because in an economy characterized by both technological change and monopoly there is no way of knowing what the service life of a piece of capital equipment will be. Assuming that the service lives are estimated somehow, depre-


63 Charging replacements under current repairs is doubly advantageous. Apart from securing current expensing of capital expenditure it helps to escape the recapture provisions which are applicable on the sale of the asset where such expenditures are capitalised and depreciation charged in the usual course (See Bagchi, op. cit.).

ciation allowances based on such estimates tend to outrun replacement needs if there is some growth in the gross investment. Inflation may of course upset this relationship but the degree of inflation needed for this to happen depends on the rate of growth of investment and the length of asset life assumed for depreciation calculation.

As for price adjustment for depreciation, revaluation of fixed assets in order to secure a large depreciation allowance to their owners would not be justified unless similar adjustments for gains and losses are made in respect of other assets like debts and liabilities. It is noteworthy that both the Tucker Committee and the Royal Commission rejected the suggestion for revaluation after a careful consideration. The plea for adopting 'current operating profit' as the tax base put forward by Parker and Harcourt does not meet the objections that are generally raised against the current cost basis in income computation. Opinion among accountants on the issue 'historical v. current cost valuation of assets' remains divided.


66 cf.: "On the surface, corporations with large investments in long-term depreciable assets would seem to be penalized under the historic cost systems and potentially could be the long overdue 'beneficiaries' of allowing replacement cost depreciation for income tax purposes. Perhaps such is the case. Yet it is not that clear (for example) that permitted capital cost allowances in an expanding economy
No doubt some countries (e.g., France and Japan) allow price level adjustment or revaluation of assets but it is also a fact that liberal depreciation provisions have been a source of huge surpluses in capitalist countries which even a fast-changing technology is finding it difficult to absorb.

Parker and Harcourt also found that in U.K. between 1958 and 1966 the capital allowances taken together exceeded what would be allowable to the companies on current cost accounting.

In India too, the capital allowances as a whole have been as high as 90 per cent of the gross fixed asset formation in some years and usually around 80 per cent (line 9 of Table 6.1). To the extent it serves to generate 'unwanted' funds, depreciation allowances in computation of taxable income clearly constitute a source of base erosion. Thus the rationale for a liberal depreciation policy has to be looked for elsewhere.

Justification for liberal capital allowance and accelerated depreciation is indeed often advanced on grounds of their stimulating effects on investment. Since the case for capital allowance are appreciably less than replacement cost depreciation charges." / I.S. Rosen, Current Value Accounting and Price-Level Restatements (1972), p.69 /

Controversy over this issue figures prominently in the accounting literature.

68 Parker and Harcourt, op. cit., pp. 27-29.
is based mainly on these arguments - Kaldor wanted depreciation allowances to be viewed only in this way - it may not be out of place here to examine how valid they are in the current Indian context.

Capital allowance in Indian Income-tax

Basically the case for liberal allowances like accelerated depreciation and development rebate is premised on the reasoning that income taxation discourages investment and risk-taking by reducing the rate of return and elongating the pay-back period and that depreciation allowances based on the economic life of the assets cannot neutralise this disincentive effect since the present worth of the tax rebates from depreciation fails to reduce the cost of the asset by an amount proportionate to the rate of tax. The disincentive effect of income tax on risky investment can be offset by allowing a hundred per cent deduction of the cost of capital goods in the

69 Kaldor, op. cit., para 136.


71 E. Cary Brown, "Business Income Taxation and Investment Incentives", in Essays in Honour of Hansen (1948). The case for accelerated depreciation is sometimes stated on the ground that value of assets depreciates faster in the earlier years of their life (George Terborgh, Realistic Depreciation Policy, 1954). As the earlier discussion would however show, true economic depreciation is indeterminate. Hence a completely 'neutral' depreciation formula cannot be devised in practice. For a critical discussion of Terborgh's proposals see V. V. Borkar, Income-tax Reform in India (1971), Ch. 6/
first year and full loss-offset whereby the government pays for any 'losses' of the firm at the same rate as it taxes the firm's income. In a dynamic context, that is, where the rate of investment is growing, accelerated depreciation can secure a permanent reduction in the effective tax rate. These arguments and the anxiety to foster the growth of investment impelled the authorities in many countries to introduce capital allowances in various forms. Thus some countries (e.g. U.K.) granted an initial depreciation allowance together with an investment allowance which permitted more than 100 per cent of the capital expenditure to be amortized while some countries (notably Sweden) permitted depreciation to be charged freely at the rates chosen by the taxpayer.

Currently, capital allowances are granted in U.K. in the form of a first year allowance - combining initial and writing down allowance up to 80 per cent at the option of the taxpayer in the case of plant and machinery and up to 40 per cent for industrial buildings. In the case of a new ship or fixed plant and machinery in a 'development area', the allowance can go up to 100 per cent of the cost. The system of giving investment grants as a subsidy which was in operation for some time has been discontinued partly because such grants do not

72 Cary Brown, *op. cit.*
discriminate between the efficient and the inefficient and perhaps also because it was found cumbersome. Writing down allowances are available at the standard annual rate of 25 per cent on reducing balance basis. Costs of depreciable assets are aggregated to form a pool of qualifying expenditure. Balancing allowance applies when there is a permanent discontinuance of trading and balancing charge in the infrequent event of total disposal exceeding the pool of qualifying expenditure. No balancing adjustment is made for a single machine's disposal. As the writing down allowances are given on a global basis, with certain exceptions, it is no longer necessary to retain their separate identity.

In U.S.A. option is allowed to the taxpayer to choose the rate at which the assets are to be depreciated for tax purposes and also the method of computing the depreciation, subject to certain restrictions. The rate depends on the estimated life of the asset and the taxpayer can elect for the 'Class Life System' whereby the Treasury has to establish a

76 Separate account has to be maintained only for certain assets and for this the taxpayer is deemed to carry on a 'notional trade' (See Chaffey, op. cit., and J. W. Shock, "The Capital Allowance Provision in Finance Act 1972", ETR, 1973).
limited number of broad identity classes with the lives of each specified separately. This election permits the use of any estimated life within the acceptable range which, under the so-called 'Asset Depreciation Range', may be shorter than the specified life by even 20 per cent. As for the method of computing the allowance, any method consistently followed can be used - such as the declining balance, the double-declining balance, the straight line method or the sum-of-years-digits method - so long as the total allowance does not exceed what is produced by the declining balance method over the first two-thirds of the property's useful life. Those who choose the 'Class Life System' may opt for the use of the newly prescribed percentage repair allowance rule, whereby all additions, improvement and repairs, with the exception of 'excluded additions', are deductible currently up to the allowed percentage for the asset class in question. An additional first year depreciation at the rate of 20 per cent of the first $10,000 of cost to each taxpayer is granted since 1958 with a view to stimulating the growth of small business. There are however elaborat recapture provisions.

To stimulate investment in exploration of oil and gas, liberal allowances are granted in the U.S. law since long.

77 Sommerfeld, Anderson and Brock, An Introduction to Taxation (1972), ch. 14.

78 Ibid.
Many of the exploration and development costs can be currently expensed and an allowance is available also on account of depletion on a cost or percentage basis at the option of the taxpayer. Since 1962 an investment credit has been granted intermittently in respect of 'qualified investment'. It was suspended in 1966, revived in March 1967, repealed in 1969 and reintroduced in 1971. The credit is given against the tax at the rate of 7 per cent of the 'qualified investment'. Specified percentage of the cost of 'qualified property' are treated as 'qualified investment', the percentage depending on the class life of the assets. There are provisions for carryback for three years and carryforward for two years where the tax liability for the year of investment is insufficient to absorb the credit.

Continuance of incentives for investment in fixed assets raises two important questions: (i) 'do they really work?', and (ii) assuming they do, in the form in which they are given, are they beneficial for a country like India in the present situation?

Although they have been in operation in many countries, the cost basis is operated with the following formula:

\[
\text{Unrecovered depletable cost} \times \frac{\text{Number of estimated recoverable units remaining}}{\text{units sold during the year}} = \text{cost depreciation for year}
\]

The percentage basis permits deduction of up to 22 per cent of the 'gross income from the property'.

79 The cost basis is operated with the following formula:
it is by no means certain that incentives like accelerated depreciation and similar allowances are really effective in stimulating investment. No doubt these allowances reduce the payback period and thus the effective tax rates — and that is what probably matters more in capital budgeting than the fact of quicker write-off of assets in the accounts. But the investment function is much too complicated to permit any unqualified assertion that income tax definitely inhibits investment activity or that incentives like accelerated depreciation lead to a larger flow of investment.

The impact of tax incentives allowed in USA on capital spending was subjected to critical analysis at a conference held in 1967 under the auspices of the Brookings Institution. Summing up the papers presented at the Conference and the discussions thereon, Fromm, the editor of the volume which brought out the papers and the results of the deliberations, observes, "If any general conclusion can be drawn from the discussion, it is that the subject is far from closed." In a discussion paper in the same volume Harberger has argued that the incentives

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82 See Tax Incentives and Capital Spending (1971) by Gary Fromm (ed.).

83 Ibid.
provided in the U.S. income tax were not a failure, - at least they produced a shift in the composition of investment. The fact however remained that in USA gross private investment as a proportion of GNP declined after the introduction of the incentives in 1962.

In U.K. liberal depreciation and investment allowances have been used also as instruments for influencing the regional distribution of industry, but the results have been quite disappointing. A commonly offered explanation is that investment decisions are taken almost invariably on the basis of pretax profits, which, if true, means that all these concessions are mere windfalls to the investors.

Objections against liberal capital allowance

Granting however that the incentives do have an effect on the direction, if not on the quantum, of investment spending, the question next arises whether such incentives are beneficial for the Indian economy at present. There are several reasons for doubting the soundness of permitting the continuance of these incentives in their present form. First, if industrial activity has been stagnating in India and growth has been poor, it is not because of lack of industrial capacity. The presence

84 A. C. Harberger, "Discussion" in Gary Fromm, op. cit., Ch. VII.
85 Allan, op. cit., p. 163.
of huge excess capacity in many lines of production points to the possibility that the capital allowances have encouraged wasteful investment in creating production capacity just as the depletion allowances have led to over-investment in oil industry in USA.

Secondly, though some discrimination was made in favour of 'priority industries' in that investment in plant and equipment for use in such industries earned a development rebate at a relatively high rate, the capital allowance provisions have been generally unselective. Moreover, the use of the term 'plant and machinery' without any specification as to what constitutes 'plant' has paved the way for claim for development rebate being admitted in respect of such investments as books and sanitary fittings. Even pipelines used in hotels have been held to be eligible for the rebate. Some of these items have since been excluded from the category of investments qualifying for development rebate. But the fact that this could happen points to the risks involved in allowing an unselective incentive for investment in plant and machinery.

Thirdly, the sumptuous capital allowances have placed large funds in the hands of investors. As will be argued later (Ch. X), the system of company taxation now obtaining has, by discouraging distribution of corporate surpluses, helped the accumulation of profits in the hands of companies and this, it

is believed by many, has not been good for the quality of investment. On the contrary, it may have aggravated the concentration which marks the ownership of wealth and economic power in India. That the benefit of accelerated depreciation would encourage the growth of giants was recognized by Domar and while arguing in favour of accelerated depreciation he had observed that a good case can be made for limiting it to firms below certain size. A study of 257 manufacturing companies undertaken by V. D. Lall showed that the 'Top Seven' business houses not all of whom showed dynamic benefited to a larger extent from the tax incentives, of which development rebate was an important ingredient, than others. Another objection to the liberal depreciation policy - particularly valid during an inflation - is its destabilizing effect produced by reduction of tax liability. But a more disturbing aspect of the effects of capital allowances is that they tend to create a bias in favour of capital intensive industries. In the current economic

88 Domar, QJE, 1953, Sec. IV.
90 This is an argument for giving depreciation allowances at original cost (See Domar, QJE, 1953, op. cit., Sec. IV).
91 This proposition is contested by some. For instance L. C. Gupta, "Development Rebate, Capital Intensity and Employment", EPW, Jan. 6, 1973 argued that development rebate is neutral between techniques of varying capital intensities. This conclusion is based on some very restrictive assumptions which are not valid in the real world.
situations this, if true, is a decisive argument against permitting such allowances to continue.

As it is, there are many factors, like relatively low interest rates (the rise in interest rates has taken place only recently), which operate to reduce the cost of capital far below and push up the market price of labour far above their shadow prices and there is a persistent bias in favour of more capital-intensive industries and techniques of production than is warranted by factor-endowments or shadow prices of factors. While fiscal measures like capital allowances encourage this tendency, market imperfections and immobilities in general aggravate them. There is evidence to show that investment in fixed assets has grown much faster than employment (Table 6.2). In fact, between 1959 and 1968, the latest year for which data are available, the factory sector has grown in terms of number of factories, fixed capital and output as well as employment but the annual increase in employment has been the slowest varying between 1 per cent to 8 per cent and in one year (1967), the growth was negative whereas fixed capital (at constant prices) has grown at rates ranging between 4.8 per cent to 34 per cent (col. 7 of Table 6.2). Thus even with adjustment for prices, growth of fixed capital appears to have been much faster than the growth of employment.

92 The author owes many of these ideas to an unpublished paper by M.K. Rakshit.
### Table 6.2

**Key Characters in the Factory Sector over the Decade 1959-68**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of factories</th>
<th>Fixed capital (Rs. crores)</th>
<th>Employment (number)</th>
<th>Output (Rs. crores)</th>
<th>Value Added (Rs. crores)</th>
<th>Fixed capital at constant price (Rs. crores**)</th>
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</thead>
<tbody>
<tr>
<td>1959</td>
<td>37434</td>
<td>2022.44*</td>
<td>3568008</td>
<td>3406.65</td>
<td>894.62</td>
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<td>1960</td>
<td>40467</td>
<td>2276.68*</td>
<td>3643656</td>
<td>3914.92</td>
<td>1017.26</td>
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</tr>
<tr>
<td></td>
<td>(8.1)</td>
<td>(12.6)</td>
<td>(2.1)</td>
<td>(14.9)</td>
<td>(13.7)</td>
<td></td>
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<td>1961</td>
<td>42818</td>
<td>2733.32*</td>
<td>3728919</td>
<td>4523.69</td>
<td>1171.81</td>
<td>2633.50</td>
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<tr>
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<td>(2.3)</td>
<td>(15.5)</td>
<td>(15.2)</td>
<td>(15.6)</td>
</tr>
<tr>
<td>1962</td>
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<td>3767.23*</td>
<td>4009831</td>
<td>5091.36</td>
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<td>(3.2)</td>
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<td>(7.5)</td>
<td>(12.5)</td>
<td>(9.3)</td>
<td>(34.0)</td>
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<td>45757</td>
<td>3161.25</td>
<td>4201333</td>
<td>5810.76</td>
<td>1460.35</td>
<td>2822.04</td>
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<td>(3.5)</td>
<td>( - )</td>
<td>(4.8)</td>
<td>(14.1)</td>
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<tr>
<td>1964</td>
<td>46268</td>
<td>3961.58</td>
<td>4528149</td>
<td>6730.74</td>
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<td>(1.1)</td>
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<td>(15.8)</td>
<td>(14.3)</td>
<td>(20.5)</td>
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<tr>
<td>1965</td>
<td>48458</td>
<td>4832.41</td>
<td>4696184</td>
<td>7596.21</td>
<td>1883.42</td>
<td>3893.96</td>
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<td>(4.7)</td>
<td>(22.9)</td>
<td>(3.7)</td>
<td>(12.8)</td>
<td>(12.8)</td>
<td>(14.5)</td>
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<th>Year</th>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
<th>Column 4</th>
<th>Column 5</th>
<th>Column 6</th>
<th>Column 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1966</td>
<td>49346</td>
<td>5855.47</td>
<td>4750224</td>
<td>8715.25</td>
<td>2045.05</td>
<td>4228.39</td>
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<pre><code>  | (1.8)    | (21.2)   | (1.2)    | (14.7)   | (8.6)    | (8.6)    |
</code></pre>
<p>| 1967 | 50717    | 6449.46  | 4716200  | 9307.73  | 2113.40  | 4432.31  |
| (2.8)    | (10.1)   | (-0.7)   | (6.8)    | (3.3)    | (4.8)    |
| 1968 | 55821    | 7339.83  | 4825137  | 10378.18 | 2304.65  | 4909.27  |
| (10.0)   | (13.8)   | (2.3)    | (11.5)   | (9.0)    | (10.7)   |</p>

Figures in brackets indicate rate of growth over the preceding year in percentages.

* Productive capital was reported for these years in place of fixed capital in the earlier reports.

** Figures in this column are derived by deflating the figures in Col. 3 by the CSO's index of capital goods prices.

Growth of output also outstripped employment every year, and so did value added. The fact that even in the public sector investment of approximately Rs.5,600 crores created employment for no more than 8,04,792 (as of 1972-73) speaks of the strong bias for capital intensive techniques.

The extent to which factor mix can be influenced by fiscal policies is a matter on which no definite judgment can be pronounced. The scope for factor substitution in most industries is not very large at least in the short run. There is also the possibility of a trade-off between employment and growth (since a larger share of labour in the national income may mean a decline in savings). Even so, the policy of subsidising investment in fixed assets through provisions like initial allowances (or for that matter tax holiday in terms of exemption of profits up to a certain percentage of capital), would seem to conflict with the high priority accorded at present to creation of employment. For such policies do tend to produce a bias in favour of capital intensive techniques and against labour substitution which may be possible over the long run. Even though, admittedly, growth of employment depends ultimately on growth of capital stock it is


questionable whether investment in the form of labour-saving plant and equipment (e.g. tractors in preference to human labour) which are designed more for labour-surplus economies is desirable for India. Withdrawal of the development rebate was therefore justified. Even the case for initial depreciation is not all that clear.

From the foregoing discussion it would be evident that excessively liberal capital allowances would not be in accord with our economic or social objectives. The allowances currently in operation cannot be called too liberal but there is scope for improvement. The lines on which such reform can be attempted are indicated below.

Since there is no way of determining the economic life of assets and their true depreciation, there is little point in trying to be too meticulous about the rates of depreciation for different kinds of assets. It is futile to try to refine the income concept in this way. There is a good case for adopting the straight line method and applying a general rate of depreciation for all types of assets. The extreme form of this approach is to allow full deduction of investment.

More on grounds of simplicity than because it would be more neutral as suggested by Borkar (op.cit), though it would perhaps be less damaging to neutrality than alternatives like accelerated or decelerated depreciation.
costs in the very first year. To allow complete freedom to the assessee in this regard, however, would as the U.K. Royal Commission pointed out, deprive the Government of an important instrument of policy and cause undue drain on revenue. The group appointed by the Social Science Research Council of Australia to examine the Australian Tax system felt that if any flexibility is to be allowed in fixing depreciation allowances the discretion should be left to the Revenue. It is to be noted that Sweden gave up free depreciation after a trial.

Considering every thing, the rates fixed in 1969 seem good enough to take care of the price rise unless inflation gets totally out of hand. There is also nothing wrong in allowing depreciation on the declining balance method as is the practice now. However, for simplicity, two basic rates may be introduced, one (say, of 20 per cent) for all machinery and plant (other than office appliances) and 10 per cent for

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other assets. There is room for rationalisation in other directions also e.g. by removing the existing link between depreciation allowance and the remaining period of an asset's life as is maintained in the case of second-hand ships (vide Rule 5. of the Income-tax Rules). Also there seems to be no ground for allowing any extra shift allowance for 'plants' used in hotel business. The system of making balancing adjustments might be simplified by following the British method of crediting the proceeds to the account of each asset class (grouping the assets under two broad classes) and leaving the adjustments to be made only on the winding up of the business. The calculation of balancing charge/or allowance is too cumbersome at present.

There is no justification for providing any kind of capital allowance apart from normal depreciation as indicated above whether as development rebate or as initial depreciation. If anything, there is a case for levying a tax on capital as a way of promoting employment. Alternatively, a tax holiday linking the exemption to the capital employed per job may be considered on the lines suggested recently by Gulati. The need for discontinuing the

development rebate was recognized by Bhoothalingam, who suggested a levy on the capital of companies. The Wanchoo Committee also suggested imposing a levy on company capital and giving a concession to employment-oriented industries. A tax credit for increased in production beyond a certain level was in force for some time (Sec. 280Z) but it was discontinued. The scheme was too complicated. A simple employment oriented tax credit or tax holiday scheme should not be impossible to devise and such schemes seem to be working well in a number of developing countries (like Malaysia).

To reduce the area of dispute over the distinction between capital expenditures and current repairs and to ensure that repairs do not provide a cover for employment, deduction for repairs may be restricted to a specified percentage (say 5) of the original cost of the asset or alternatively as a fraction of the depreciation allowed. In USA taxpayers are allowed the

and Shaw on one side and Gulati and Krishnan on the other. The issues raised in that controversy are however not germane to the present discussion (A. T. Peacock & G. K. Shaw, "Fiscal Measures to Improve Employment in Developing Countries", Public Finance, no. 3, 1971; I. S. Gulati & T. N. Krishnan, "A Comment", Public Finance, no. 4, 1972).

99 Bhoothalingam, op. cit., paras 5.24-5.27.


101 See for a discussion of the shortcomings of these tax credit schemes, Report of the Working Group on Central Direct Taxes Administration (1968), para 5.33.
option to deduct the cost of all additions, improvements and repairs with the exception of 'excluded additions', up to a specified percentage. Repair percentages are laid down separately for different class of assets. Expenditures which raise the productivity of an asset by more than 25 per cent are regarded as 'excluded addition'. Whether an actual expenditure comes within the excluded category would however seem to be a potential source of disputes.

**Expenditure on Research and Development**

It is necessary here to refer to another class of capital expenditures which are allowed to be expensed currently, viz., expenditure on scientific research and development (R & D). Liberal allowance for R & D expenditure is in vogue in many countries. In USA, R & D expenditure has been accorded preferential treatment since the twenties. In Indian income tax the deduction for expenditure as R & D was introduced first by way of a provision for amortization over five years. Later, full first year deduction of capital expenditure on R & D including such expenditure incurred during three years immediately preceding the commencement of business was permitted apart from development rebate on investment in new plant and machinery set up for scientific research at the rate of 35 per cent. Development rebate has since been withdrawn. But very

recently a provision for weighted deduction of 150 per cent of the expenditure has been introduced in respect of contributions to an approved research institution. Salary paid to research staff and cost of material used in research for three years preceding the commencement of business is also deductible now in the first year of business.

The urgency of promoting of R & D in an underdeveloped country cannot be denied. In India the expenditure on R & D as a proportion the GNP is extremely poor compared to advanced countries. State encouragement for R & D is therefore surely called for. A tax incentive for R & D, however, raises two problems. First, there is the difficulty of policing. It is difficult, if not impossible, for the tax administration to ensure that the benefit of deduction for R & D is given only for expenditure on genuine research. Secondly, not all firms can benefit from this tax relief. It is only the relatively large firms which can afford to set up an R & D unit and do useful research. Assistance for private R & D is therefore likely to accentuate the monopolistic tendencies in the economy. Baran & Baran.

103 Sec. 35 (2A) of the Income-tax Act, 1961.

104 One company reported a drop in profits from Rs.3.17 crores in 1971 to Rs.2.52 crores in 1972 while showing a deduction of Rs.45.43 lakhs in 1972 on research as against Rs.0.38 lakh in 1971. ("The Age of Research", EPW, Dec. 29, 1973). Allegations of misuse of deduction allowed for R & D expenditure have been voiced in Parliament and Government has promised a review to ensure
Sweezy include R & D allowances among the factors responsible for the problem of surplus for giant corporations in advanced countries. Given the fact that monopolistic practices are at the root of inefficiency and slow growth of technology, assistance for R & D carried out by individual firms may therefore be counterproductive in securing technological progress. However, if R & D is to be encouraged, a better alternative would perhaps be to allow a straight subsidy administered by an organization like the Council of Scientific and Industrial Research or to allow deduction only in respect of contributions to universities or such institutions for purposes of research.

To sum up, the present arrangement for allocating long-term expenditures is far from satisfactory. They are based largely on principles evolved out of court rulings but no clear guideline is available whereby proper matching can be achieved. Principles on which capital allowances are based are also unsound in theory. These allowances are a major source of base erosion. There is considerable room for improvement even accepting the case for permitting liberal capital allowances as a way of promoting investment.

that larger companies do not take an undue advantage of them. (Statement made by Minister of State for Planning in Lok Sabha on 12.3.1975).