Comparative Analysis of Depreciation in the Common Market:
United Kingdom

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in this issue:

PART I — ARTICLES

ITALY: Tax Reform I/177

SPAIN: Survey of Death and Gift Duties I/182

Comparative Analysis of Depreciation in the Common Market:

PART IV — UNITED KINGDOM I/190

PART II — RULINGS AND DECISIONS

Germany: Computation of the Net-Worth of a German Permanent Establishment II/47

Netherlands: Bill Proposing Privileged Tax Treatment of Ships Registered Under the Dutch Flag II/48

E.E.C. Developments II/51

... in brief II/53

tax notes II/56
We would like to take this opportunity to thank Mr. A. Spitzer who has completed his term as Editor of EUROPEAN TAXATION and welcome Mr. R. D. Pomp as the new editor. Mr. Pomp received his B.S. degree, summa cum laude, from the University of Michigan and his J.D. degree, magna cum laude, from Harvard Law School. While at Harvard, Mr. Pomp was a teaching assistant in the International Tax Program.

Europe Taxation, a monthly publication of the International Bureau of Fiscal Documentation, is designed to present basic and objective studies of the tax structures of European countries to the commercial, professional and academic communities. The Bureau was founded in 1938 as a nonprofit foundation, organized under the laws of the Netherlands, to disseminate international tax information throughout the world and to analyze international tax problems in a scientific and practical manner. The International Tax Service, a division of the Bureau, prepares, on request, confidential reports on the tax aspects of specific international trade and investment situations for governments, businesses and individuals. The fees charged for such reports reflect only the direct research costs incurred in their preparation.

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COMPARATIVE ANALYSIS OF FISCAL DEPRECIATION
AVAILABLE TO CORPORATE ENTITIES
IN THE EUROPEAN ECONOMIC COMMUNITY

PART IV: UNITED KINGDOM

This article, by Mr. R. D. Pomp* and the staff of the International Bureau of Fiscal Documentation, is part of EUROPEAN TAXATION'S continuing study of fiscal depreciation in the European Economic Community. Previous issues have discussed the Netherlands (March 1970), Belgium (March 1970), France (July 1971), and Germany (November 1972). This article, which incorporates changes made by the recent Finance Act of 1972, may be summarized by the following outline:

I. Introduction
II. Industrial Buildings
   A. Initial Allowance
   B. Writing-Down Allowance
   C. Removal of a Building From Service
   D. Purchaser of a Building
   E. Lessors and Lessees
III. Plant and Machinery
   A. First-Year Allowance
   B. Writing-Down Allowance
   C. Removal of an Asset From Service
   D. Lessor of Plant and Machinery
   E. Plant and Machinery That a Lessee is Obligated to Provide Under the Terms of a Lease
   F. Hire-Purchase
IV. Mines, Oil Wells, and Other Mineral Deposits of a Wasting Nature
   A. Capital Allowances
   B. Removal of an Asset From Service
   C. Purchaser of a Mine, Oil Well, or Other Mineral Deposits of a Wasting Nature
V. Dredging

A. Initial Allowance
B. Writing-Down Allowance
C. Discontinuance of the Trade
VI. Agricultural and Forestry Buildings
   A. Initial Allowance
   B. Writing-Down Allowance
   C. Removal of an Asset From Service
VII. Scientific Research
   A. Capital Allowance
   B. Removal of an Asset From Service
VIII. Patents
   A. Research and Development Costs in Obtaining a Patent
   B. Purchase of Patent Rights
   C. Sale or Lapse of Patent Rights
IX. Know-How
   A. Initial Allowance
   B. Writing-Down Allowance:
      Know-How Purchased by Itself
   C. Writing-Down Allowance:
      Know-How Purchased Together With a Trade
   D. Removal of Know-How From Service

I. INTRODUCTION

There are eight categories of capital expenditure for which depreciation (termed "capital allowances") is taken into account for income tax purposes:
- industrial buildings;
- plant and machinery;
- mines, oil wells, and other mineral deposits of a wasting nature;
- dredging;
- agricultural and forestry buildings;
- scientific research;
- patents;
- know-how.

Although there is considerable variation in the rules that apply to each category, their general effect is the same; the capital expenditure incurred on the acquisition of an asset, less any amount received on its disposition, must be deducted from income over a period of time which varies for each category. 1

There is no statutory definition of "capital expenditure." The distinction between a capital expenditure and a non-capital expenditure has been the subject of numerous judicial decisions. Although in many cases the courts have been unable to articulate a rule of general application, a frequently cited test is as follows:

When an expenditure is made, not only once and for all, but with a view to bringing into existence an asset or an advantage for the enduring benefit of a trade,....there is very good reason.... for

1. With respect to plant and machinery, discussed infra, the taxpayer has the option to forego the capital allowance, In all other cases, the capital allowance, if available, must be taken into account.

I/190
treated such an expenditure as... [a capital expenditure]. 2.

Other cases illustrate that even this rule cannot be taken too literally, and the classification of an expenditure is ultimately one of fact to be decided in the light of each particular situation.

The following terms are basic to the depreciation system:
1) Writing-down allowance (i.e., annual depreciation deduction). This is the amount deducted yearly until the expenditure has been written-off, or the asset ceases to qualify for the allowance. In general, the writing-down allowance is granted in full to the owner of the asset at the end of the taxable period, i.e., assets acquired at the end of the taxable period receive the same writing-down allowance as assets acquired at the beginning of the taxable period.
2) Initial allowance (i.e., initial deduction). This is a deduction granted in the taxable period in which the expenditure is incurred. The initial deduction is in addition to the writing-down allowance and is thus a form of accelerated depreciation.
3) First-year allowance (i.e., first-year deduction). This allowance only applies with respect to machinery and plant. In effect, the first-year allowance is a combination of the initial allowance and the writing-down allowance for the first year.
4) Residue of expenditure or unallowed expenditure (i.e., depreciated cost or book value). This is the amount remaining after subtracting from the initial expenditure the total of all capital allowances granted to date. The gain or loss on the sale of an asset is equal to the difference between the sale proceeds and the residue of expenditure.
5) Balancing allowance (i.e., balancing deduction). This is an additional deduction granted when the capital asset is permanently removed from service by sale or otherwise. The balancing allowance adjusts for the excess of the residue of expenditure over the amount realized (or deemed to be realized) on the removal of the asset from service, and thus recognizes that the allowed depreciation has been less than the depreciation actually sustained.
6) Balancing charge. This is an amount added to the taxpayer's ordinary income in the year in which a capital asset is permanently removed from service by sale or otherwise. The balancing charge adjusts for the excess of the amount realized (or deemed to be realized) over the residue of expenditure, and thus recognizes that the allowed depreciation has been greater than the depreciation actually sustained.

In many cases it is provided that the balancing charge cannot exceed the amount of the capital allowances granted to date. The effect of this provision is that the gain realized on the sale of an asset is taxed as ordinary income to the extent of the depreciation previously taken, while the rest of the gain is taxed as a capital gain.

All capital allowances are based on the original expenditure and take no account of inflation. The allowances and charges are made in the taxable period in which the event giving rise to the allowance or charge occurs. Special rules, however, apply to new and discontinued businesses.

II. INDUSTRIAL BUILDINGS

Capital expenditure incurred in the construction of industrial buildings is eligible for a capital allowance. A detailed definition of an industrial building is provided by statute. In order to qualify, the building must be used for: 3.
- a trade carried on in a mill, factory, or other similar premises;
- a transport, dock, inland navigation, water, electricity, hydraulic power, tunnel, or bridge undertaking;
- the manufacture or processing of goods or materials;
- the storage of:
  (i) goods or materials used in the manufacture of other goods or materials;
  (ii) goods or materials which are to be processed in the course of a trade;
  (iii) manufactured or processed goods which have not yet been delivered to a purchaser;
- the working of a mine, oil well, or other source of mineral deposits;
- husbandry or forestry outside the U.K.; 4.
- ploughing and cultivating land (other than land occupied by the person carrying on the trade);
- a trade consisting of the catching of fish or shellfish;
- a sports pavilion used for the welfare of employees.

Specifically excluded are dwelling-houses, retail shops, showrooms, hotels, or offices.

4. Buildings used for husbandry or forestry inside the U.K. are governed by the rules on "Agricultural and Forestry Buildings," discussed infra.
A. Initial Allowance

There is an initial allowance equal to 40% of the expenditure. 5.

B. Writing-Down Allowance

The writing-down allowance is equal to 4% of the expenditure. 6.

EXAMPLE

In 1973, X spent £100,000 constructing an industrial building. Capital allowances for 1973 will be £44,000, computed as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial allowance: 40% x £100,000</td>
<td>£40,000</td>
</tr>
<tr>
<td>Writing-down allowance: 4% x £100,000</td>
<td>£4,000</td>
</tr>
<tr>
<td>Total</td>
<td>£44,000</td>
</tr>
</tbody>
</table>

C. Removal of a Building From Service

If the building is sold or otherwise removed from service, a balancing charge or allowance may arise. The balancing charge or allowance is dependent on the residue of expenditure before the sale. The residue of expenditure before the sale is equal to the original expenditure less the initial allowance and the writing-down allowances. If the proceeds obtained on the building's disposition (e.g., insurance or sale proceeds) are less than the residue of expenditure, there will be a balancing allowance equal to the residue of expenditure before the sale less the proceeds. If the proceeds exceed the residue of expenditure, there will be a balancing charge equal to the amount of the excess, but not exceeding the total of all previous allowances granted. 7.

EXAMPLE

In 1971, Y sold a building for £200,000. Immediately before the sale, the residue of expenditure (book value) of the building was £50,000, thus £150,000 of gain was realized on the sale. The building had originally been erected by Y at a cost of £150,000. The balancing charge for 1971 is £100,000, computed as follows:

Residue of expenditure before the sale: £50,000
Sale proceeds: £200,000
a) Excess of sale proceeds over the residue of expenditure:

- £200,000 - £50,000 = £150,000
b) Total of all previous allowances:

- £150,000 - £50,000 = £100,000

Since a) exceeds b), the balancing charge is limited to £100,000. Accordingly, £100,000 of gain is taxed as ordinary income while the remaining £50,000 of gain is taxed as a capital gain.

D. Purchaser of a Building

The purchaser is entitled to spread the residue of expenditure after the sale over any remaining portion of the 25 years following the building's first use. 8. The residue of expenditure after the sale is equal to the residue of expenditure before the sale, plus any balancing charge or less any balancing allowance that arose on the sale of the building. Because the balancing charge cannot exceed the total of all previous allowances, the residue of expenditure after the sale cannot exceed the original expenditure incurred in the construction of the building. Thus, regardless of the amount paid, the purchaser's capital allowances can never exceed the expenditure incurred in the construction of the building.

EXAMPLE

Assume that the building referred to in the preceding example was first used in 1965. The writing-down allowance for the purchaser will be £7,895, computed as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residue of expenditure before the sale:</td>
<td>£50,000</td>
</tr>
<tr>
<td>Balancing charge:</td>
<td>£100,000</td>
</tr>
<tr>
<td>Residue of expenditure after the sale:</td>
<td>£150,000</td>
</tr>
<tr>
<td>Number of years remaining in the 25 year period following the building's first use:</td>
<td>19</td>
</tr>
<tr>
<td>Writing-down allowance: £150,000/19</td>
<td>£7,895</td>
</tr>
</tbody>
</table>

It should be noted that although the building was sold for £200,000, the capital allowances are calculated on the basis of £150,000.


6. C.A.A. 1968, s. 2. For expenditure incurred before November 6, 1962, the writing-down allowance is 2½%. Id. 7. Id. s. 3.

8. Id. s. 2.
E. Lessors and Lessees

Lessees and lessees are governed by the above discussed rules. In other words, the person who incurs the capital expenditure, or his successor in interest, is entitled to the capital allowance. For example, a lessee who incurs a qualifying expenditure is entitled to the capital allowance until the leasehold is sold. The sale of the leasehold is treated the same as the sale of a building, discussed supra.

III. PLANT AND MACHINERY

Capital expenditure incurred on the provision of plant or machinery for the purpose of a trade is eligible for a capital allowance. With the exception of motor cars and ships, for which special rules are provided, there is no statutory definition of plant and machinery. Judicial decisions, however, have interpreted these terms to include whatever apparatus is used in carrying on the business, other than stock in trade.

A. First-Year Allowance

The first-year allowance is equal to the whole of the capital expenditure, i.e., expenditure on plant and machinery may be written-off in the taxable period in which it is incurred. However, the taxpayer has the option to forego the first-year allowance or to take a reduced allowance. With the exception of ships, the unused part of the first-year allowance cannot be claimed in later years; however, by foregoing the first year allowance the writing-down allowance in subsequent years will be greater than otherwise.

With respect to ships, the unused first-year allowance may be claimed in later years at the option of the taxpayer, i.e., ships qualify for free depreciation.

B. Writing-Down Allowance

All capital expenditures on plant and machinery are pooled in one account. The writing-down allowance is calculated on the total pool and not on each individual item of plant and machinery. At the end of the taxable period, the writing-down allowance and any initial allowances granted in that period are subtracted from the pool in order to calculate the "pool brought forward." The "pool brought forward" becomes the opening balance of the pool account in the next taxable period.

The writing-down allowance is 25% of the "qualifying expenditure" in excess of any "disposal value to be brought into account." The "qualifying expenditure" is equal to the pool brought forward from the previous taxable period. The "disposal value to be brought into account" is the disposal value (e.g., sale proceeds, insurance proceeds, or market value) of any machinery and plant which are permanently removed from service by sale or otherwise. The disposal value, however, cannot exceed the expenditure originally incurred on the purchase of the asset.

The effect of basing the writing-down allowance on the pool brought forward is that assets which qualify for a first-year allowance do not also qualify for a writing-down allowance in that period.

A taxpayer, other than a company, has the option to forego the 25% writing-down allowance in whole or in part. The unclaimed part of the writing-down allowance cannot be used in later years; however, if the option is exercised, the writing-down allowance in subsequent years will be larger than otherwise.

EXAMPLE

X, an individual, starts a business in 1973 and purchases a new machine for £10,000. If X elects a first-year allowance of 60%, the capital allowance for 1973 will be £6,000, computed as follows:

<table>
<thead>
<tr>
<th>Pool:</th>
<th>£10,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-year allowance:</td>
<td>60% x £10,000</td>
</tr>
<tr>
<td>Pool brought forward to 1974:</td>
<td>£ 4,000</td>
</tr>
</tbody>
</table>

9. Special rules, discussed infra, apply with respect to plant and machinery that a lessee is obligated to provide under the terms of a lease.
11. F.A. 1972, s. 67. For expenditure incurred between July 20, 1971 and March 22, 1972, the first-year allowance is 80% of the expenditure. Special rules apply to the purchase of motor vehicles. See F.A. 1971, s. 43; id. Sch. S. The first-year allowance is excluded if the plant is the subject of a lease-back arrangement.
12. F.A. 1971, s. 41.
15. F.A. 1971, s. 44. The term "pool brought forward" is not found in the law but is used here for convenience.
16. Id.
17. Id.

1972, s. 68.
Since there is no pool brought forward from 1972, there is no writing-down allowance for 1973. Thus the capital allowance for 1973 is £6,000 (the first-year allowance). If in 1974, X buys a second machine for £20,000, elects a first-year allowance of 50%, and elects a writing-down allowance of 25%, the capital allowance for 1974 would be £11,000, computed as follows:

First-year allowance:  
50% x £20,000 = £10,000

Qualifying expenditure (pool brought forward from 1973): £4,000

Writing-down allowance:  
25% x £4,000 = £1,000

Total of the capital allowances: £10,000 + £1,000 = £11,000

Pool brought forward to 1975: £4,000 + £20,000 - £11,000 = £13,000

### C. Removal of An Asset From Service

When an asset is removed from service, its disposal value is credited to the expenditure pool. If the disposal value exceeds the qualifying expenditure, a balancing charge will arise. No balancing allowance can arise as long as the trade continues. When the trade is discontinued, there will be a balancing allowance equal to the qualifying expenditure in excess of any disposal value to be brought into account. 18.

### EXAMPLE

Assume the same facts as in the preceding example. If in 1975, X sells one of the machines for £5,000, the capital allowance for 1975 would be £2,000, computed as follows:

Qualifying expenditure (pool brought forward from 1974): £11,000

Disposal value to be brought into account: £5,000

Qualifying expenditure in excess of the disposal value to be brought into account: £8,000

Writing-down allowance:  
25% x £8,000 = £2,000

Pool brought forward to 1976: £6,000

### D. Lessor of Plant and Machinery

The lessor of plant or machinery is entitled to a first-year and writing-down allowance regardless of whether or not he bears the burden of the wear and tear. 19.

### E. Plant and Machinery That a Lessee is Obligated to Provide Under the Terms of a Lease

Where the terms of a lease require that the lessee provide plant and machinery, such plant and machinery belonging in fact to the lessor, the lessee will be eligible for the capital allowances. On the termination of the lease, however, the lessor must account for the disposal value. 20.

### F. Hire-Purchase

A taxpayer who incurs capital expenditure under a contract providing that he may or shall purchase the plant or machinery on the performance of the contract (hire-purchase), is treated as already owning the plant or machinery. He is thus eligible for a first-year allowance calculated on the full cash price of the assets, and the writing-down allowance is calculated in the normal manner in the subsequent years. 21.

Adjustments are made if the hire-purchase contract is not completed. 22.

### IV. MINES, OIL WELLS, AND OTHER MINERAL DEPOSITS OF A WASTING NATURE

Capital allowances are granted for three classes of capital expenditure incurred in connection with the working of a mine, oil well, or other source of wasting mineral deposits:

**Class I.**
- searching for, discovering, or testing mineral

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18. Id.
19. Id. s. 46. If the lessor is not in the trade of leasing plants or machinery, however, the expenditure does not enter into the pool but is treated separately. For machinery or plant acquired before October 27, 1970, the lessor is entitled to the capital allowance only if he bears the burden of the wear and tear. C.A.A. 1968, s. 42.
20. F.A. 1971, s. 46. For the treatment of lessees prior to October 27, 1970, see C.A.A. 1968, s. 43.
21. Expenditure incurred prior to October 27, 1970, received an initial allowance based on the capital element of each instalment; writing-down allowances, however, were granted on the full cash price.
22. See F.A. 1971, s. 45.
deposits, or winning access thereto, wherever such deposits are situated; 23.
- if located outside the U.K., the acquisition of rights in or over mineral deposits; 24.
- the purchase of land outside the U.K. which is likely to be worthless when the foreign concession under which the mine etc. is worked, comes to an end. 25.

Class II
- the construction of works, wherever located, which are likely to be of little or no value when the source is no longer worked. 26.

Class III
- if located in the U.K., the acquisition of any mineral deposit or land comprising mineral deposits, or any interest in, or rights over such deposits or land. 27.

Different methods of depreciation apply to each of these classes.

A. Capital Allowances

1. Class I
There is no initial allowance. The writing-down allowance is equal to the residue of expenditure multiplied by the greater of 5% or the fraction \( \frac{X}{X + Y} \), where \( X \) = the output from the source in the taxable period and \( Y \) = all future output from the source, as estimated at the end of the taxable period. 28.

EXAMPLE

In 1971, \( X \) incurred £100,000 in exploring for mineral deposits. A source was discovered that was estimated to yield 200,000 tons of minerals. 5,000 tons were mined in 1971. The writing-down allowance for 1971 is £5,000, computed as follows:

Residue of Expenditure: £100,000

\[
\begin{align*}
a) & \quad \frac{5,000}{5,000 + 195,000} \times £100,000 = £2,500 \\
b) & \quad 5\% \times £100,000 = £5,000
\end{align*}
\]

Since b) exceeds a), the writing-down allowance is £5,000.

2. Class II
There is an initial allowance of 40% of the capital expenditure. 29 Writing-down allowances are computed as for Class I.

EXAMPLE

Assume the same facts as in the preceding example. In addition, assume \( X \) spent £4,000 in 1971 on the construction of works which will be worthless when the source is no longer worked. The total allowance for 1971 is £6,720 computed as follows:

Initial allowance: 40\% \times £4,000 = £1,600
Residue of Expenditure:

\[
\begin{align*}
a) & \quad \frac{5,000}{5,000 + 195,000} \times £102,400 = £2,560 \\
b) & \quad 5\% \times £102,400 = £5,120
\end{align*}
\]

The above method of computing the writing-down allowance may produce hardship when a mineral deposit is unexpectedly exhausted. To mitigate this hardship, the taxpayer is allowed to recalculate the allowance in the last six taxable periods by substituting the actual output for the estimated output, 30.

3. Class III
No initial allowance is granted. In order to calculate the writing-down allowance, 31 it is first necessary to determine the "royalty value of the output" of the source in the taxable period. This is the amount of royalties that would be payable if the taxpayer worked the source under a lease commencing with the date the capital expenditure was incurred and expiring at the end of the taxable period. The writing-down allowance is a certain

23. C.A.A. 1968, s. 51.
24. Id. s. 53.
25. Id. s. 54.
26. Id. s. 51.
27. Id. s. 60.
28. Id. s. 57. Under certain circumstances, the writing-down allowance is determined by reference to the seller's residue of expenditure. See text accompanying note 37, infra.
29. Id. s. 56. The 40% rate applies to expenditure incurred after January 17, 1966. Expenditure incurred after October 27, 1970 on mining works in a development area or in Northern Ireland qualifies for an initial allowance equal to 100% of the expenditure with the taxpayer free to claim a lesser amount. See F.A. 1971, s. 52. However, any unused part of the initial allowance cannot be claimed in later years.
30. C.A.A. 1968, s. 57.
31. Id. s. 66.
percentage of the "royalty value of the output" reduced by any royalties actually paid. 32. This percentage is a function of the amount of time that has elapsed since the source was first worked. For a taxable period ending within ten years of when the source was first worked, the percentage is 50%, for a period greater than 10 years but less than 20 years, the percentage is 25%, and for any greater period it is 10%.

B. Removal of an Asset From Service

1. Classes I and II

A balancing allowance or balancing charge arises where assets eligible for a writing-down allowance are sold to a party who continues to use them in a trade. 33. If the proceeds of the sale are less than the residue of expenditure, a balancing allowance arises equal to the difference. Similarly, if the proceeds of the sale exceed the residue of expenditure, the net tax on the gain, a balancing charge arises. However, this charge cannot exceed the total of all the capital allowances which were granted, 34, i.e., the charge cannot exceed the original expenditure. In other words, the amount of the gain which is taxed as ordinary income, cannot exceed the amount of the original expenditure; any other gain will be taxed as a capital gain.

If a source is sold to a person who ceases to work the source, or if a source is retired from service, the writing-down allowance for the last six taxable periods can be recalculated on the grounds that the source has ceased to be worked. 35. However, any sale proceeds or other compensation must be taken into account.

2. Class III

If the source is removed from service by sale or otherwise, any excess or deficit of the capital allowances granted to date over the "cost of acquisition of the output" yields the corresponding balancing charge or balancing allowance. The "cost of acquisition of the output" is equal to the original expenditure less the market value of the source at the time of its removal from service less any capital sums already received for the assets. 36.

C. Purchaser of a Mine, Oil Well, or Other Mineral Deposits of a Wasting Nature

Where assets are purchased under circumstances which give rise to a balancing charge or balancing allowance, the buyer's writing-down allowance is based on the lesser of the purchase price or the residue of expenditure after the sale. 37. The residue of expenditure after the sale is equal to the residue of expenditure before the sale plus any balancing charge or less any balancing allowance that arose on the sale. The initial allowance, however, is based on the purchase price.

V. DREDGING 38.

Capital expenditure incurred on dredging in connection with a trade consisting of maintaining or improving the navigation of a harbor, estuary, or waterway, or in connection with any dock occupied by the taxpayer for the purposes of a trade, 39, if eligible for a capital allowance, Dredging is defined as including the removal of anything forming part of or projecting from the sea-bed, or the bed of any inland water, but only if done in the interests of navigation. 40.

A. Initial Allowance

There is an initial allowance equal to 15% of the capital expenditure. 41.

B. Writing-Down Allowance

The writing-down allowance is equal to 4% of the capital expenditure.

C. Discontinuance of the Trade

If the trade is permanently discontinued, by sale or otherwise, a balancing allowance is granted in the final taxable period equal to the unallowed expenditure (depreciated cost). In no other case is there a balancing charge or a balancing allowance. 42.

32. Id.
33. Special rules apply where only part of the assets are sold. See id. s. 58.
34. Id.
35. See text accompanying note 30, supra.
36. C.A.A. 1968, s. 60. No writing-down allowance is granted in the taxable period in which the asset is removed from service.
37. Id. s. 58.
38. This section applies to expenditure incurred after January 17, 1966.
39. C.A.A. 1968, s. 67. The trade must be one which would qualify for an "industrial building" allowance, discussed supra.
40. Id.
41. Id.
42. Id.
EXAMPLE

X is in the trade of shipbuilding. In 1971, X spent £10,000 widening the channel entrance to the shipyard. The capital allowance for 1971 is £1,900, computed as follows:

Initial allowance: 15% x £10,000
Writing down allowance: 4% x £10,000

If the trade were to be permanently discontinued in 1972, there would be a balancing allowance equal to £8,100 (£10,000 - £1,900).

VI. AGRICULTURAL AND FORESTRY BUILDINGS

Capital expenditure incurred by the owner or tenant of agricultural or forestry land on the construction of farmhouses, farm or forestry buildings, cottages, fences, or other works, for the purposes of husbandry or forestry, qualify for a capital allowance. 43 Agricultural land means land, houses, or other buildings in the U.K. occupied wholly or mainly for the purpose of husbandry.

A. Initial Allowance

There is no initial allowance.

B. Writing-Down Allowance

The writing-down allowance is equal to 10% of the capital expenditure, i.e., the expenditure is written off over a 10 year period.

C. Removal of an Asset From Service

No balancing charge or balancing allowance arises when an asset is removed from service by sale or otherwise.

If the right to the land containing the asset is transferred, the transferor receives whatever allowance the transferee would have received had the transfer not occurred, i.e., the transferee steps into the shoes of the transferor. However, the writing-down allowance for the taxable period in which the asset is transferred is apportioned between the transferor and the transferee. 44

EXAMPLE

X, the owner of agricultural land, spent £1,000 on the construction of a farm building in 1972. The capital allowance for 1972 will be £100, computed as follows:

Capital expenditure: £1,000
Writing-down allowance: 10% x £1,000

If X were to sell the land containing the farm building, the new owner would receive a writing-down allowance of £100 per year (subject to an apportionment in the taxable period in which the transfer occurs), regardless of the purchase price, until the farm building has been fully depreciated or until the land has been sold. There will be no balancing charge or allowance on the sale of the land.

VII. SCIENTIFIC RESEARCH 45

Capital expenditure incurred on scientific research directly undertaken by a taxpayer in connection with a trade qualifies for a capital allowance. 46 Scientific research means any activity in the fields of natural or applied science for the extension of knowledge, but does not include the acquisition of rights in, or arising out of, scientific research. 47

A. Capital Allowance

There is a capital allowance equal to 100% of the capital expenditure, i.e., the expenditure is fully written-off in the taxable period in which it is incurred.

B. Removal of an Asset From Service

Since the capital allowance is equal to the total capital expenditure, no balancing allowance can arise on the removal of an asset from service. If the asset representing scientific research is sold, a balancing charge arises equal to the lesser of the sale proceeds or the capital allowance. 48 In no other case is there a balancing charge.

43. C.A.A. 1965, s. 68. No more than 1/8 of the expenditure on a farmhouse can be depreciated, id.
44. Id.
45. This section applies to capital expenditure incurred after November 6, 1962.
46. C.A.A. 1965, s. 91. The treatment of non-capital expenditure on scientific research closely parallels that of capital expenditure on scientific research. See id. s. 90.
47. Id. s. 94.
48. Id. s. 92.
EXAMPLE
In 1970, X incurred a capital expenditure on scientific research of £1,000. In 1972, X sold the asset representing this expenditure, for £500. There is a balancing charge for 1972 equal to £500, computed as follows:

a) Capital allowance for 1970: £1,000
b) Sale proceeds: £500

Since b) is less than a), the balancing charge is £500. If the asset were sold for £1,500, producing a gain of £1,500, the balancing charge would be £1,000, i.e., £1,000 of the gain would be taxed as ordinary income, and £500 of the gain would be taxed as a capital gain.

VIII. PATENTS
A. Research and Development Costs in Obtaining a Patent

These costs are fully deductible in the taxable period in which they are incurred, 49.

B. Purchase of Patent Rights
1. Initial Allowance
   There is no initial allowance.

2. Writing-Down Allowance
   There is a writing-down allowance granted in equal amounts over a 17 year period, or if shorter, the actual period for which the rights are purchased. 50.

C. Sale or Lapse of Patent Rights

When patent rights are sold (or come to an end without being revived) before the end of the relevant writing-down period, a balancing allowance or balancing charge may arise as follows: 51.
- if the rights come to an end without being revived, there is a balancing allowance equal to the unallowed capital expenditure (book value);
- if the rights are sold for a price less than the unallowed capital expenditure, there is a balancing allowance equal to the unallowed capital expenditure less the proceeds of the sale;
- if the rights are sold for a price which exceeds the unallowed capital expenditure, there is a balancing charge equal to the excess of the sale price over the unallowed capital expenditure, but not exceeding the total of the writing-down allowances actually granted.

EXAMPLE
In 1965, X bought patent rights expiring in 1975 for £1,000. In 1973, these rights were sold for £100. There will be a balancing allowance of £200, computed as follows:

Capital expenditure: £1,000
Less: Writing-down allowances, 52.

<table>
<thead>
<tr>
<th>Years</th>
<th>Allowance</th>
<th>Capital expenditure</th>
<th>Balancing Allowance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965-1972</td>
<td>7 x £1,000</td>
<td>£1,000</td>
<td>£200</td>
</tr>
<tr>
<td>1965-1972</td>
<td>£1,000</td>
<td>£1,000</td>
<td>£200</td>
</tr>
</tbody>
</table>

If in 1973, these rights were to be sold for £600, there would be a balancing charge of £300, computed as follows:

Capital expenditure: £1,000
Less: Writing-down allowances,

<table>
<thead>
<tr>
<th>Years</th>
<th>Allowance</th>
<th>Capital expenditure</th>
<th>Balancing charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965-1972</td>
<td>7 x £1,000</td>
<td>£1,000</td>
<td>£300</td>
</tr>
<tr>
<td>1965-1972</td>
<td>£1,000</td>
<td>£1,000</td>
<td>£300</td>
</tr>
</tbody>
</table>

If the patent rights were to be sold for £2,000, yielding a gain of £1,700, the balancing charge would be limited to £700 (the amount of the writing-down allowances), and would not be £1,700 (the excess of the sale price over the unallowed capital expenditure). £700 of the gain would be taxed immediately as ordinary income; the remaining £1,000 of the gain, although taxed as ordinary income, may, under certain conditions, be spread out over a six year period. 53.

50. Id. s. 378. The allowance is granted only if the income arising from the patent is subject to tax.
51. Id. s. 379. Special rules apply where only part of the rights are sold.
52. No writing-down allowance is granted in the taxable period in which the rights are sold. Id.
53. Id. s. 380.
IX KNOW-HOW 54.

Know-how purchased for use in a trade is eligible for a capital allowance. Know-how is defined as any industrial information and technique likely to assist in the manufacture or processing of goods or materials, or in the working of a mine, oil-well, or other source of mineral deposits, or in the carrying out of any agricultural, forestry, or fishing operations. 55.

A. Initial Allowance

There is no initial allowance.

B. Writing-Down Allowance:
   Know-How Purchased By Itself

Know-how purchased by itself and not purchased together with a trade is eligible for a writing-down allowance equal to 16 2/3% of the capital expenditure, i.e., the expenditure is written-off over a 6 year period. 56.

C. Writing-Down Allowance:
   Know-How Purchased Together With A Trade

If know-how is purchased together with a trade, then, subject to the right of an election, there is no writing-down allowance. The expenditure is instead treated as the purchase of good-will and will enter into the capital gains computation on any subsequent disposition of the purchaser's good-will. However, the purchaser and the seller may jointly elect to exclude this rule, in which case the purchaser receives a writing-down allowance equal to 16 2/3% of the expenditure. 57. The effect of this election on the seller is discussed infra.

D. Removal of Know-How From Service

If the taxpayer discontinues his trade, a balancing allowance arises equal to the unallowed expenditure.

If the taxpayer disposes of know-how by itself and continues to carry on his trade, the sale proceeds are treated as a trading receipt and thus taxed at ordinary rates.

If the know-how is sold together with the trade, then, subject to the right of an election, the sale proceeds are treated as a capital receipt with respect to good-will. However, as discussed supra, the seller and purchaser may jointly agree to exclude this rule, in which case the seller foregoes capital gain treatment. 58.

EXAMPLE

In 1971, Y spent £100,000 on the purchase of chemical formulae and processes for the manufacture of soft-drinks from X, a manufacturer of soft-drinks. After the sale, X continued to carry on his trade. Y's capital allowance for 1971 will be £16,667, computed as follows:

Capital expenditure: £100,000
Writing-down allowance: 16 2/3% x £100,000 = £16,667

The £100,000 will be taxed to X as ordinary income.

If in the preceding example Y purchased X's whole business, then the £100,000 attributable to the know-how would be treated as follows:
- if X and Y jointly elect to do so, Y will receive a writing-down allowance equal to £16,667, and the £100,000 will be taxed as ordinary income;
- if the above election is not made, Y will receive no writing-down allowance and the £100,000 will be taxed as a capital gain.

54. This section applies to know-how acquired or disposed of after March 19, 1968. No capital allowances were granted prior to this date.
56. Id.
57. Id.
58. Id.