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# THE INDEXATION OF CAPITAL GAINS

BY J. M. MACLEOD

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## Part I—General

### 1. INTRODUCTION

1.1 1982 saw the introduction of a new dimension in financial planning both for individuals and for institutional investors; namely the indexation of capital gains. In his Budget speech in the House of Commons on 9 March 1982, the Chancellor of the Exchequer, Sir Geoffrey Howe, spoke as follows:

> I propose that as from this April, gains will in principle be calculated after taking account of inflation which occurs after that date. No relief will however be given in respect of the first year of ownership . . .
>
> Because we have not found it possible to extend the new scheme to cover past gains, I propose also that the exempt slice should be increased to £5,000. That is the best solution to the problem of the past and will simplify administration both for the taxpayer and the Revenue. For the future, I intend that this threshold should be statutorily indexed.
>
> There will be no revenue cost in the coming year. In 1983–84 the cost of these two measures will be £55m.
>
> But this ought not to be looked at as a measure of the cost to the Exchequer. It is rather a measure of the tax that ought never to have been levied in the first place. This change is no more than simple justice, which should be welcomed on all sides of the House.

1.2 This announcement produced considerable surprise, on several counts. For one thing, all representations in past years to successive Chancellors on the subject of capital gains indexation had been turned down on the grounds of administrative complexity; indeed the so-called 'exempt slice', referred to by the Chancellor above, had actually been introduced by him in 1980 in answer to this very problem.

### 2. THE LEGISLATION

2.1 What was being proposed was no more than this: suppose an investment was bought at time $t$ for a sum of $P(t)$, and sold $n$ years later for a sum of $P(t+n)$. Then, provided $n$ was greater than 1, the taxable gain on that transaction would not be the 'gross' or 'nominal' gain $P(t+n)-P(t)$ as in the past; but

$$P(t+n)-\frac{I(t+n)}{I(t+1)}P(t)$$

where $I(x)$ was the monthly Retail Price Index (RPI) at time $x$. In other words, an 'indexation factor' of

$$\frac{I(t+n)}{I(t+1)}-1$$

would be applied to the purchase price $P(t)$ to give an 'indexation allowance' of

$$\left[\frac{I(t+n)}{I(t+1)}-1\right]\times P(t)$$

and this allowance would be subtracted from the nominal gain in order to derive the taxable gain.

2.2 Simple though this change seemed, there was very little that could be called simple about the Finance Bill that followed the Budget announcement. On the contrary, the Bill incorporated four further ramifications, namely:

(a) The practice of 'bed and breakfasting' was to be abolished.
(b) Indexation was indeed to be applied to capital gains, but was to be restricted to capital *gains*; capital losses were not to be indexed, nor could small gains be converted into losses—they were to be ignored.
(c) The foregoing restriction was applied to its inexorable conclusion with the result that all purchases of a given stock after April 1982 were to be regarded as separate transactions, and permanently recorded as such for all time. Such stocks could never be pooled with any other purchases of the same stock made at different dates. Rules were devised for identifying which of those separate transactions were to be 'matched' with a subsequent partial sale of that stock, and these rules were set out in the Bill.
(d) Even in the case of assets purchased before April 1982, (or rather, because of the 12-month waiting period, April 1981) original purchase prices and not, as one might expect, market prices ruling at April 1982 were used as the basis for indexation, although only inflation after that date was allowed for.

2.3 These points provoked considerable controversy at the time. Due however to the tight deadlines that inevitably attend the passage of a Finance Bill, it was not possible to give all the points the consideration they deserved. The Bill therefore passed virtually unchanged into the statute book to become the Finance Act 1982.

2.4 The points do however give rise to interesting implications. They are therefore discussed in turn in the following four sections.

## 3. THE ABOLITION OF BED AND BREAKFASTING'

3.1 'Bed and breakfasting' is the colloquial term for the virtually simultaneous selling and repurchasing of an asset that would otherwise be retained intact. Its purpose is to establish a profit or loss at that particular time. Up to April 1982, the transactions could be done on favourable terms, which in the case of shares comprised exemption from Inland Revenue stamp duty; a reduction in Stock Exchange commission; and a narrowing of the jobber's turn. These favourable terms would not apply if the profit or loss concerned was achieved by selling one stock and repurchasing another.

3.2 Bed and breakfasting was therefore a standard technique, accepted by the Revenue, and, in the case of shares, practised in the following circumstances:

(a) When it appeared that gains would be made in the year as a whole, bed and breakfasting could establish losses which in effect postponed the date at which tax on those gains would be payable. Because such postponement cost the investor virtually nothing, he effectively enjoyed full interest on the tax so deferred throughout the period of the postponement—i.e. until the stocks in question were finally sold.

(b) When a concession was available which could not be carried forward to a future year, bed and breakfasting could establish gains which were in effect tax free. This circumstance was of particular application to private investors who since 1979 have been granted an annual exemption which has increased from an original £1,000; to £3,000 in 1980; and, in 1982, as already noted, to a not insignificant £5,000.

3.3 Bed and breakfasting was not however of advantage when it appeared that losses would be made in the year as a whole. To manufacture an artificial gain in these circumstances would have been wasteful. It would have been far better to carry the loss forward a year or two and set it against the gains that would be made then in the normal course of events.

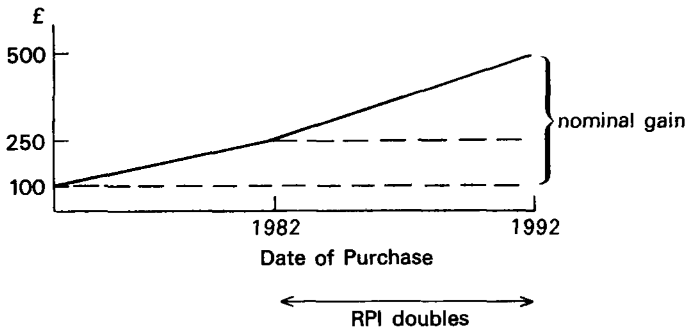
3.4 The new legislation abolished the practice of 'bed and breakfasting' to the extent that it required a longer interval of time to pass between the two halves of the operation before they could be regarded as two separate transactions for tax purposes. The two halves of the operation had in fact to be carried out in separate stock exchange accounts. This effectively eliminated all the advantages that bed and breakfasting had previously produced (though a combination of normal selling and simultaneous repurchase for cash could possibly retain some of them).

3.5 Had however cheap bed and breakfasting been allowed to continue under indexation, its usefulness as an investment technique in the two instances described in paragraph 3.2 would respectively have been modified as follows:

(a) There would have been fewer instances in which it would have been advantageous for an investor to establish a loss, since the indexation base of the stock concerned would have been *lowered* by the operation; as well as one year's indexation being lost. Thus if a stock although standing below its purchase price were expected handsomely to outperform the RPI in future, this could make bed and breakfasting unjustified; while if the stock were likely to be a poor performer then it would presumably make more sense to dispose of it altogether. The instances in which the outlook for the stock fell between those two limits, in which case bed and breakfasting might possibly pay off, would therefore have been limited.

(b) Private investors would however have continued to find the technique of benefit in utilizing their annual exemption. In these instances, they would have had the added advantage of having the indexation base of their investments increased in the process from their original purchase price to their current market price.

3.6 This latter point raises a further question. Would not such cheap bed and breakfasting benefit all investors who had investments standing at a profit, by enabling them to increase their indexation bases more or less when they pleased, and thus lead to a virtual bed and breakfasting free for all? At first sight one might think so, but consider the following example.




3.7 Suppose an investor who purchased an asset for £100 in the dim and distant past (between 1965 and 1981, at any rate!) finds that asset standing at £250 in April 1982. Were he to hold on to that asset for another 10 years (during which time the RPI has, say, doubled) and then sell it for £500, then his nominal gain at that time will be £400.

3.8 However, the indexation factor, the ratio of the 1992 RPI to the 1982 RPI less 1, will be 1·00 which, applied to the original purchase price of £100 gives an indexation allowance of £100. This will reduce the £400 nominal gain to a chargeable gain of £300. At a CGT rate of 30% tax will amount to £90, payable in 1992.

3.9 Had the investor been able to bed and breakfast in 1982, the repurchase price would be £250; and it would be to this figure, and not to the original £100 that the indexation factor would be applied when working out the tax bill at the final sale in 1992. Ignoring for the moment the twelve month waiting period, the indexation allowance will be the product of 1·00 and £250, i.e. £250, which exactly extinguishes the nominal gain experienced between 1982 and 1992.

3.10 So the only CGT payable by the investor will be that payable at the time of the bed and breakfasting in 1982; namely tax on the full nominal gain of £150—i.e. 30% of £150 or £45.

3.11 But this £45, invested at a rate of interest equal to the rate of inflation from 1982 to 1992 will exactly equal the £90 tax which we have seen is what the investor would have had to pay had he not bed and breakfasted in 1982!

3.12 So although bed and breakfasting would have increased the indexation base of his investment from £100 to £250, such an advantage would have been totally illusory. No tax benefit would have accrued. Indeed the investor would actually have suffered by the process, for the following reasons:

(a) He would have had to bear the costs and expenses of the bed and breakfasting operation itself.
(b) He would have lost one year's indexation between 1982 and 1992 (not included in the illustration just given).
(c) Investments can now be *guaranteed* actually to outperform inflation; as opposed merely to keep pace with it, as assumed in the above example. So the £45 saved by not bed and breakfasting in 1982 would more than provide the £90 eventually required in 1992. It follows therefore that cash is still better kept 'locked up' in a continuously-held investment and the CGT thus 'saved' invested in the market (though the advantage is a lot less than it was!).
(d) By raising the indexation base, the investor increases the likelihood of thereafter making a real capital loss, which would then be ignored. Consider for example the situation when in 1992 the above investor sells his asset not for £500 but for £400. Having bed and breakfasted, his CGT at 1982 will be unchanged at £45 (obviously); yet his CGT at 1992 will still be zero. Not having bed and breakfasted however, his nominal gain will this time be £300, not £400; yet his indexation allowance will still be £100, as before, giving him a one final tax bill of £60. £60 payable in 1992 is clearly even more preferable to £45 payable in 1982!

3.13 So however the price of the stock eventually behaves—whether it outperforms inflation; falls short of it; drops below the current market price; drops below the original purchase price—the effect is the same. *The investor will lose out if he tries to bed and breakfast merely to increase the indexation base of his investment* provided of course his CGT tax-rate position at that time is the same as it would be on eventual sale. And this reasoning applies whether the stock was purchased before April 1982 (as in the above example) or after April 1982; and whether or not there were other losses, realized or prospective, against which such a gain could apparently be offset or 'sheltered'.

3.14 It follows therefore that as far as the normal tax-paying institutional investor is concerned, indexation of itself would have reduced, if not eliminated the scope for bed and breakfasting anyway. Explicit legislation to that effect in the 1982 Finance Act was therefore to that extent irrelevant. Private investors on the other hand will regret the loss of the technique; but as they now receive a handsome annual exemption they can hardly complain.

3.15 Given that bed and breakfasting was an inducement, albeit a marginal one, to retain a stock as opposed to investing elsewhere in some more intrinsically profitable share, surely on balance few can mourn its passing.

## 4. THE NON-INDEXATION OF LOSSES

4.1 The legislation, in stipulating that losses should not be indexed, was indeed putting a most literal interpretation on the definition of the measure which was 'the indexation of gains'.

4.2 A justification of this restriction could presumably be made out of the fact that since indexation reduces the size of any capital gain and increases the size of any capital loss, the investor who is taxed on gains less losses would be having it both ways were gains *and* losses both to be indexed.

4.3 The Revenue however justified the restriction on the basis that it would reduce the overall cost of the new measures.

4.4 Investors on the other hand claimed that stock exchange investments by their very nature consist of swings and roundabouts; in contrast to investments in land or property or works of art which tend steadily to accrue in value. All types of investors benefit from the new indexation measures. The non-indexation of losses leaves the latter largely unaffected. By recouping some of the cost of indexation by this means, the legislation unfairly penalizes those who through the stock exchange would invest in industry; thus causing resources to be diverted towards other possibly less worthy forms of investment.

4.5 It could also of course be argued that were an investor able to turn himself into a unit trust, he would then be able to set losses against gains on an indexed basis; to go to massive lengths to stop him doing so as an individual would appear therefore to be something of an over-reaction.

4.6 Investors also argued that to index gains but not losses would distort the market since investors would be less inclined to go for high-risk high-reward situations—another economically desirable activity in present times. This argument surely overlooks the fact that *all* taxation distorts the market. Thus, capital taxes 'distort' the market towards income producing investments and vice versa; favourable tax concessions for gilts distort the market for equities; currency premiums distort the market geographically, and so on. Last but not least, cheap bed and breakfasting as already noted distorts the market, encouraging money to be locked into lack-lustre investment as opposed to its being switched into a more profitable fresh direction. To index gains but not losses is therefore no more and no less of a market distortion than these other examples.

4.7 The situation is in fact an exact mirror image of what obtains and has obtained in the gilt market; where capital gains can be made tax-free (by retaining the stock beyond its anniversary); whereas capital losses can be made tax-deductible (by selling the stock before its anniversary). No squeals of 'market distortion' have ever been recorded on this score!

4.8 While on the subject of market distortions, it should be mentioned that the new indexation principle does remove the market distortion that the old style capital gains tax did impose, namely the incentive to 'hang on' to a poor performing stock because its disposal would create an immediate tax liability. It has been shown in § 3 that under the new indexation provisions, a bed and breakfast operation is fairly neutral taxwise—the immediate tax liability is offset by an increase in the indexation base. By the same token, therefore, a switch from one stock to another will in general also be fairly neutral taxwise in future.

4.9 So on the question of the non-indexation of losses the Revenue would seem to be on firm, albeit surprising ground. Indeed were losses to be allowed to be created or increased as a result of indexation it is arguable that in the long term CGT would disappear altogether.

4.10 This treatment of losses does increase the relative attractiveness of unit trusts against that of direct investment for all CGT payers.

## 5. POOLING AND MATCHING

5.1 The requirement that losses should not be indexed implied that multiple purchases of a given stock—or at any rate, those made subsequent to April 1982—should be separately identified, right up to the time of their disposal. Otherwise, were one such purchase to result in a gain, and the other in a loss, the distinction would be lost sight of were the two transactions ever to be merged or 'pooled' into one.

5.2 With different purchases thus separately identified, it was considered necessary to devise rules for determining which purchase should be deemed to have been disposed of were only part of that multiple holding to be sold. The following rules were therefore devised to determine which of several past purchases of a stock should 'match' a partial sale of those purchases ('bed and breakfast' deals are ignored, remember):

(i) Choose first the stocks that were purchased in the 12 months prior to the sale, starting with the oldest and working forwards ('fifo').
(ii) Then choose the stocks that were purchased more than 12 months prior to the sale, starting with the most recent and working backwards to April 1982 ('lifo').
(iii) Then dispose of the pool consisting of stocks purchased between 1965 and April 1982 together with those stocks purchased prior to 1965 in respect of which an election was made.
(iv) Then deal with those stocks purchased prior to 1965 in respect of which an election was not made—also on a 'lifo' basis and not a 'fifo' basis as in the past.

5.3 The labyrinthine complexity of these rules provoked much criticism from many quarters. It would make sensible investment decisions virtually impossible; it would create an administrative nightmare, the cost of which could be some £200m per year; institutions would require special new computers to perform the work, etc, etc. The fact that records of individual, possibly small, transactions would have to be maintained and regularly recalculated until kingdom come, with the oldest having to be retained the longest, was particularly criticized. The only beneficiaries identified were accountants, who would have to be consulted and paid for the preparation of even the smallest of income tax returns.

5.4 There was therefore considerable pressure applied to the Revenue to scrap these matching rules in favour of a modified system of 'pooling'. Such pooling would keep individual purchases separate for an initial twelve months, as under the new legislation; but would then allow the transaction to enter the pool for that stock, as in the past. That pool would then be indexed as a whole against the RPI; each purchase being adjusted as it entered the pool by the RPI prevailing at that time, i.e. twelve months after acquisition. It would be necessary to record merely the total number of shares in the pool; their total purchase price and the total of purchase prices geared as just described to say an RPI of 100; and to reduce all three items pro rata whenever part of the pool was sold, just as if the pool was a single stock. For some reason this system of deferred pooling was termed 'parallel pooling'.

5.5 Even though such a modified form of pooling was only a partial breach of the principle that losses should not be indexed (losses in a stock would only be indexed by pooling if there were other gains *in that same stock* against which they could be set; losses in a holding as a whole would not be indexed by pooling) the Revenue were insistent that separate identification of individual purchases should henceforth be made.

5.6 The irony of the situation is that the complexity of the matching rules as set out in the Finance Act 1982 actually favour the investor compared with the simplicity of, say, a straightforward 'first-in-first-out' rule for the following reasons:

(a) To go first for stocks held for less than 12 months means that such stocks do not have to complete their (in the indexation sense) unproductive waiting period.

(b) In the case of stocks held for more than 12 months there is actual benefit to the investor in being allowed to retain longer those stocks that were purchased earlier, which is the consequence of the 'lifo' system adopted. This is because the resultant total tax in real terms will be the same irrespective of the order in which the component stocks of a holding are deemed to be sold. Under 'lifo' however less actual tax will in general be payable in the earlier years than under any other system of matching; so the resultant tax bill will be less in actual terms. In other words under 'lifo' the investor benefits from the fact that more tax is locked away in original investments for longer; under 'fifo' the reverse would be the case.

## 6. THE TREATMENT OF ASSETS PURCHASED PRIOR TO APRIL 1981

6.1 The legislation stipulates that when an asset had been purchased prior to April 1981, the original purchase price should be used as the basis for indexation; and not as one might suppose, the market price ruling at April 1982.

6.2 The indexation allowance in the case of assets purchased prior to April 1981 thus becomes

$$\left[\frac{I(t+n)}{I(\text{April 1982})}-1\right]\times P(t)$$

6.3 By adjusting in this way the denominator and not the numerator of the expression in paragraph 2.1, the indexation allowance of a long-held investment could fall considerably short of the inflationary gain sustained after April 1982 itself. Investors indeed pointed out that the date and price at which such an investment was originally bought was irrelevant in assessing what gain was attributable to inflation in the period April 1982 onwards and claimed that $P$(April 1982) or failing that $P$(April 1981) should replace $P(t)$ in the above expression.

6.4 Perhaps so. Such a rule would however exaggerate the indexation allowance for those stocks which had outperformed inflation in the pre-1982 period; if by 'exaggerate' one means 'exceed the indexation allowance that would have been granted in respect of the post-1982 period had the indexation system been around from the beginning'.

6.5 As an example, consider the case of a business built up from literally nothing in 1972, and sold in 1992 for £1 million. If indexation had been in existence throughout, the indexation allowance in this case would be nil, whatever happened to inflation in those 20 years. This apparently surprising result is due to the fact that in 1992 the entire value of the business is gain. It may be as much as £1 million, 1992 style; but the CGT of £300,000 is also measured in £'s, 1992 style. So there is no need of further adjustment.

6.6 Any attempt therefore to accord an indexation allowance in this situation, based on 1981 or 1982 market prices, would be inappropriate.

6.7 A similar argument applies to those who suggested that indexation should be calculated by jobbing backwards from the selling price, instead of forwards from the purchase price; that is to say, to those who wanted to make the taxable gain

$$\left[\frac{P(t+n)}{I(t+n)}\times I\,(\text{April 1982})\right]-P(t)$$

in the case of investments purchased prior to April 1981.

6.8 Such a rule although simple and although making full allowance for post-1982 inflation ignores the fact that the April 1982 market price could have been higher than

$$\frac{P(t+n)}{I(t+n)} \times I\,(\text{April 1982})$$

in which case an indexed loss was being created in the post-April 1982 period, for which full credit would be taken. This would be wholly contrary to the 'no indexation of losses' rule.

6.9 So no indexation allowance formula other than one that retains original purchase prices, even for stocks purchased before April 1981, can be justified. However, values of $I(t)$ for values of $t$ prior to April 1982 cannot be reconstituted, because such stocks were pooled, and individual values of $t$ are thus unknown. Such values cannot therefore appear in any indexation formula either.

6.10 There is therefore no possible alternative to the method proposed. Even though post-1982 indexation may not thereby be fully allowed for, that is made up for by the fact that the tax on the pre-1982 gain continues to be locked up in the investment. The points mentioned previously about stocks in general continue to apply to these pre-1982 purchases also. That is to say, it is not advantageous to bed and breakfast them, even were it possible to do so at nil cost; and it is still preferable to retain them, other things being equal, rather than sell them ahead of other stocks purchased after April 1982.

6.11 The above arguments do not however apply to assets purchased prior to Budget Day 1965 and in respect of which the CGT election was not made. Because the indexation allowance is applied to the pre-1965 purchase price and not to the Budget Day 1965 market price; and is moreover then apportioned, there is every inducement to dispose of such assets. Because of the new matching rules, such a disposal would be more difficult if further assets or stocks of the same class were acquired after 1965.

## Part II—Investment Considerations

### 7. GENERAL

7.1 The major effect of the new legislation is that by indexing capital gains, the overall tax that will be derived by the Revenue from this source will be reduced.

7.2 Investors must not of course assume that their future liability to CGT will be reduced to such an extent that it will be eliminated altogether. Admittedly, CGT in future will be levied only on the capital appreciation of an asset after any income has been taken out; so that even an equity which showed a greater real return than that obtained from indexed gilts could still be free of CGT. However since losses cannot be indexed when set against gains—see paragraph 4.9—it follows that investors must assume that they will in general continue to make some gains each year on which CGT is payable. The introduction of indexation does however alter the strategy which these investors should in consequence adopt, and such strategy is described in this section.

7.3 Such strategy will not however apply to those institutional investors who have brought forward or can foresee such massive losses (notably gilt edged—see paragraph 4.7) that no CGT is likely to be paid for many years ahead. Their situation is similar to that of private investors, and is described in § 8.

7.4 Prior to indexation, the effect of CGT was to be a disincentive to the sale of any stock that stood above its purchase price, and to be a stimulus to the sale of any stock that stood below its purchase price. As already noted, indexation reduces both these distorting influences; leaving the investor free to consider the intrinsic merit of each of his individual investments and to make that the major determinant in his decision whether to retain or to dispose of it.

7.5 The factors that will in future continue to restrain the investor from switching out of a stock standing at a profit are dealing costs, which generally work out at about $7\frac{1}{2}\%$ of the transaction, together with the loss of one year's indexation. The latter could be worth up to around $2\frac{1}{2}\%$ of the value of the asset. In addition interest on the CGT locked into the investment will also be lost, but as explained in paragraph 3.12(c) this lost interest will not as in the past be at the full market rate; but at that market rate *less* the future rate of inflation—say some 2% or 3% per annum for as long as the investment would otherwise be held. If the investment was a candidate for disposal at the time in question anyway, the period for which it would otherwise continue to be held would presumably be minimal.

7.6 So the overall effect of CGT on the decision whether or not to switch and take a profit is that switching costs will rise from about $7\frac{1}{2}\%$ to about 10% of the asset value.

7.7 Investors should not however sell an investment at a profit merely in order to increase the indexation base of their assets (see paragraph 3.13). Nor should they sell and repurchase merely in order to establish a gain to offset a loss already incurred (whether on a gilt or not)—far better to allow the loss to be carried forward and thus absorb other gains which, as pointed out in paragraph 7.2 above, can be expected to be sustained in the normal way in the not too distant future.

7.8 The investor will therefore benefit from taking a profit if and only if the stock in question looks like proving a low performer.

7.9 The factors that will in future restrain the investor from switching out of a stock standing at a loss are dealing costs, and the loss of one year's indexation; which as when taking gains, together amount to some 10% of the asset value. In addition a reduction in the indexation base will be sustained; while on the other hand there is the postponement of tax on the gain against which the loss concerned can be set.

7.10 This time, the latter two factors do not necessarily cancel each other out. Indeed, the reduction in the indexation base is not always a disadvantage in these circumstances. If the stock is likely to prove only an average performer in future, the high indexation base provided by the original purchase price could prove unnecessary.

7.11 The investor will therefore be fully justified in selling a stock at a loss if, as with stocks sold at a profit, the stock looks like proving a low performer. There is however scope towards the end of a year in which gains have been taken to examine those stocks which promise a somewhat higher performance, but which because they stand at a loss, might therefore also be sold. Only a stock which although standing at a loss was expected one day to regain its original purchase price in real terms merits complete immunity from such consideration.

7.12 The foregoing considerations imply that indexation places greater emphasis on individual investments' own merits when making investment decisions, thus reducing the investment environment almost to a non-CGT situation. This cannot but make for a healthier and more efficient equity market.

7.13 They also imply that, with the possible exception of the end of year tax-loss selling described in paragraph 7.11 above, investors can forget about the complex provisions of the indexation legislation, including the intricate matching rules, when making investment decisions. Detailed reference to those rules will thus in the main be necessary only when the resultant tax computation comes to be made.

## 8. PRIVATE AND OTHER NON-TAX PAYING INVESTORS

8.1 Small private investors who expect consistently to fall within the £5,000 + annual exemption limit can of course ignore the effects of CGT completely. Large private investors who expect consistently to exceed the annual exemption limit are in the same situation as tax-paying institutions, and their CGT strategy will be as set out in § 7.

8.2 Between these two extremes are those ordinary private investors who might exceed the annual exemption limit in some years but not in others; and who, because their annual exemption allowance cannot be carried forward will always want it to be utilized to best advantage. In order to use up their allowance, it will pay such investors to sell stocks that are standing at a profit and which they would otherwise decide to hold. As well as escaping tax, such transactions would increase the indexation base of the investments concerned. It is for this latter reason that this ploy would also be of use to the non-tax-paying institutions referred to in paragraph 7.3.

8.3 The ordinary private investor who has made taxable gains in excess of the annual exemption limit in one particular year will also usually be justified in selling other stocks (notably short-term gilt edge) at a loss in order to bring down his overall gain for the year. In this case he will see a reduction in the indexation base of the stocks thus sold, but if a CGT free path can be confidently predicted for the years immediately ahead, this is unlikely to matter.

8.4 So for one or other of the above reasons, these investors will be well advised in many instances to dispose of their investments and reinvest the proceeds. These investors will have complete freedom to reinvest their money where they like and not necessarily back into the same stock. Indeed they will be positively encouraged to do so, since they will want the proceeds to be reinvested straight away. To reinvest them straight away in the original stock will however count as bed and breakfasting and thus defeat the object of the exercise!

8.5 It will be of even greater benefit to the private investor who is sitting on a very large (over £5,000) gain in a single stock and who wishes to realize that gain in order to utilize his annual exemption in successive years if he were to reinvest in a different stock. Otherwise, when he comes to repeat the operation the following year, he will because of the matching rules (see paragraph 5.2) have to resell the stock he turned over the previous year before he can realize a further slice of profit from that particular holding. This consideration will particularly affect those private individuals who have for instance inherited a sizable stake in a company that forms virtually their only asset.

8.6 It would seem appropriate therefore were individuals to be allowed to carry forward their £5,000 annual exemption from one year to the next. This would then obviate the above jiggery-pokery. It would also bring the holder of a single asset (e.g. an item of property), who cannot sell his investment other than in one single piece into line with the holder of shares who, by switching his portfolio, can take advantage of the annual exemption allowance on the way.

8.7 The Chancellor did, as noted in paragraph 1.1, express his intention to statutorily index that annual exemption allowance in future. This seems unnecessary since he also stated that the allowance was a *quid pro quo* for pre-1982 inflation. For whatever inflation took place prior to 1982 is now known and fixed in £ terms. The underlying asset may not of course be realized for many years yet. But in the meantime, the liability for tax on that pre-1982 inflation does not increase in £ terms—if anything, the longer the asset is held the more the fact that the underlying tax liability is locked up works to the investor's advantage.

8.8 Instead of statutorily indexing the annual allowance it would seem to be more beneficial all round were investors to be allowed to carry it forward—perhaps for a maximum of 5 years in all giving a total of £25,000. This would make the allowance more analogous to the CTT system than to the income tax system which it at present resembles. Since CGT is a capital tax and not an income tax this is perhaps not inappropriate.

8.9 Such an arrangement would also go some way to redressing the balance between direct investment on the one hand and life assurance investment on the other—particularly lump sum investment. A few years back, there was little to choose taxwise between investment in a unit trust and in a single premium life assurance policy. Since then, successive changes in capital gains tax law have shifted the balance in favour of the direct investment route. First there was the total exoneration of unit trusts from all liability to capital gains tax. Then came the small disposal exemption for private individuals. Then came the annual exemption first of £1,000 but now a significant £5,000. None of the capital gains tax paid by a life office could be set against these concessions. Were however an individual to be allowed to carry forward his annual exemption in the manner suggested, any investment he made through a life office would leave his capital gains tax concessions intact and available for other purposes.

## Part III—Unit-Linked Life Assurance

### 9. THE NEW LEGISLATION

9.1 As institutions subject to capital gains tax, life assurance companies will experience a reduction in their overall tax bill as a result of the new legislation. In the case of ordinary life companies, that will be reflected in increased bonuses and profits which will be earned and distributed in the normal way.

9.2 The effect on unit-linked business will however be less straightforward. This will particularly apply to policies that are linked to internal funds and which operate on the 'net pricing' principle, as the following illustration will explain.

9.3 Consider the situation before capital gains tax became indexed, i.e. before April 1982. A prospective policyholder who is about to part with his small premium $p$ is confronted by two seemingly identical unit-linked offices. Both have investors' funds that total $P$; their expenses are the same; their investment skills are the same; their marketing expectations are the same. The two funds will therefore grow in step and will be realized in step, realization of successive parts $P_i$ of $P$ being made at time $i$ ($i=0$ to $\infty$). Only in one respect are the two offices different: one office purchased all its assets for a price of $P$. The other office, established earlier, had purchased its assets over a longer period of time for a total of $X$. It thus has an unrealized capital gains tax liability of $P-X$.

9.4 To the prospective new investor therefore the newer office, with no such unrealized liability, will be the more attractive vehicle for his premium. However there will be nothing to choose between the two offices if, in addition, the older office has a sum $R$, not included in the asset figure of $P$ mentioned above, which is equal to

$$t\,(P-X)\,v^n$$

where $t$ is the rate of CGT appropriate to the office, $v$ is calculated at the net rate of interest expected to be obtained from investing $R$, and $n$ is the weighted average of the intervals to the points $i$ at which the assets $P$ are deemed to be realized, since that sum will be available to pay off all CGT bills that the other office escapes.

9.5 If the prospective new investor is satisfied that such a sum $R$ currently exists somewhere within the office earmarked for the payment of CGT on the investments $P$, then he will be content to add his small premium $p$ to the existing $P$ on equal terms. In practice this will be achieved through the mechanism of unit pricing.

9.6 Consider now the new situation created in April 1982 by the introduction of capital gains indexation. The same prospective policyholder with his small premium $p$ is again confronted by the same two funds as before; each with assets of value $P$, the one set purchased at $P$, and the other purchased at $X$.

9.7 Whenever the two funds dispose of a portion of their assets $P_i$ at time $i$, the new fund will receive an indexation allowance (ignoring the 12-month waiting period) of $P_i[(1+j)^i - 1]$ where $j$ is the intervening rate of inflation (as measured by the RPI). The older established fund however will receive an allowance of

$$\frac{X}{P} P_i \left[(1+j)^i - 1\right]$$

since it is on the smaller cost of $X$ that its indexation allowance will be based. The sum of all the differences will therefore be

$$\frac{P-X}{P} \sum_i P_i[(1+j)^i - 1]$$

or

$$(P-X)[(1+j)^n - 1]$$

9.8 The older fund thus loses out in two respects when compared with the newer. Not only will its assets be realized to give a nominal gain *higher* by $P-X$ than that of its counterpart; the indexation allowance to be subtracted from that gain to give the taxable gain will be *smaller* by $(P-X)[(1+j)^n - 1]$ than that of its counterpart. In these circumstances there will be nothing to choose between the two funds if the older fund has additional assets $R$ equal to

$$t\,(P-X)\, v^{\,n}(1+j)^n$$

$$\text{i.e. } t\,(P-X)\, V^{\,n}$$

where $V$ is calculated at the real and not the market rate of investment return. To a first approximation this is the amount of the contingent capital gains tax itself.

9.9 After 1982, $X$ in the above formula will not be the original purchase price of the investments, but their original price increased by indexation allowances up to the moment in question. This means that eventually, when the effect of indexation has begun to bite, $R$, the sum that a would-be investor would want to see an office set aside, will be less under indexation than before; and it will be in that way that the beneficial effect of indexation will be passed on to such policyholders.

9.10 It could be though that funds already existing at April 1982 would have shown an increase in the amount $R$ a prospective investor joining after that date would expect to see set aside for CGT. Provided however $n$ had been calculated on a realistic basis in the first place, (e.g. it had not taken advance credit for the fact that the fund would continue to expand through the acquisition of future new business), such an increase in $R$ would only have been small; and would have been offset by the fact that a new policyholder would not have had to wait 12 months before the indexation on the investments to which his purchased units were linked took effect. A formula for $R$ which takes the 12-month waiting period into account is set out in the Appendix.

9.11 The foregoing arguments follow from the fact that in the case of an internal linked fund, one offer price and one bid price apply at any given time. Where policies are linked to external unit trusts, CGT is allowed for by a deduction that is applied to each individual policy at the time of exit. Different considerations therefore apply to policies of that type.

## Part IV—Finance Act 1983

### 10. PARALLEL POOLING

10.1 After this paper was presented, the 1983 Finance Bill was published which did indeed permit institutional investors to elect to pool their investments along the lines envisaged in paragraph 5.4. This has now become the Finance Act 1983.

10.2 For any such investor who did so elect, the 'matching' rules set out in paragraph 5.2 would be modified. Rules (ii) and (iii) would be combined to read

then dispose of the pool consisting of stocks purchased between 1965 and a date 12 months before the date of sale; together with those stocks purchased prior to 1965 in respect of which an election was made.

10.3 Such a concession will of course lead to considerable administrative simplicity. In addition since as observed in paragraph 5.5 all pooling permits the effective setting off of losses in a given stock against gains in that stock, the concession has the advantage that it leads to a limited indexation of losses.

10.4 On the other hand, such pooling of stocks held for more than 12 months is a departure from the 'last-in first-out' rule which would otherwise apply to those stocks; and as noted in paragraph 5.6 any such departure will be to the disadvantage of the investor.

10.5 For the non-CGT paying institutional investor referred to in paragraph 7.3 the choice will be simple. Administrative simplicity will be the sole relevant consideration, and such an investor should therefore have no hesitation in electing to accept the concession.

10.6 Other institutional investors will have a more difficult choice to make. They will have to take into account such factors as the rate of real return they expect to make on their investments; the volatility of those investments and the amount of CGT already 'locked away' in their existing investments. Only by modelling could it be determined whether a tax advantage or disadvantage was likely to result from a decision to elect to pool; and in the latter case what might be its size. A decision as to whether administrative simplicity outweighed such a tax disadvantage would then have to be made.

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## APPENDIX

*Modification to the value of* R *to allow for the 12 month indexation waiting period*

The formula developed in paragraphs 9.6–9.8 ignores the 12 month waiting period. Full consideration of this feature will result in the formula given in paragraph 9.8 being modified as follows:

(1) Since the prospective policyholder with his small premium $p$ cannot expect to receive full indexation straightaway, the allowances he will receive in the new fund will be $p_i\,[(1+j)^{i-1}-1]$. This will cause $P$ to become $P/(1+j)$ in paragraph 9.8.

(2) $X$ in paragraph 9.8 will be the aggregate of the following:

(a) for investments purchased more than one year previously: the original purchase price of those investments increased by indexation allowances in respect of the intervening period,

(b) for investments purchased in the preceding 12 months: the original purchase price of each investment divided by $(1+j)^{1-k}$, where $k$ is the proportion of a year the investment had been held.

This will mean that P–X, the contingent gain in the formula in paragraph 9.8, will be replaced by 'the contingent gain less any indexation allowances earned to date, and any indexation allowances expected to be earned in the ensuing 12 months'.