CORRESPONDENCE

The F.T.*–Actuaries Fixed Interest Indices (J.I.A.* **105**, 24)

In § 7.4 the authors list three uses for price indices, the last of which is to act as a link for the purpose of determining policy benefits. Paragraph 12 of the schedule to Statutory Instrument 929 (1975) states that benefits may be linked to "*The Financial Times* Actuaries Share Indices jointly compiled by *The Financial Times*, The Institute of Actuaries and the Faculty of Actuaries". The D.o.T. have confirmed that in their opinion this definition does include the new fixed interest indices.

Although it is legally permissible, it would in my opinion be extremely dangerous to offer a policy linked to such an index. The composition of the index is continually shifting, for example, by what the paper calls 'shorteners' and 'sliders'. It seems that it would therefore be impossible to attempt to match the index with exactly corresponding investments. The obvious dangers of mis-matching have been sufficiently aired in past Institute discussions to need no further emphasis by me.

As far as I am aware no policies in this country have yet been issued linked to gilt indices, but as Mr Short said in his remarks the concept of 'indexation' is popular in America and may become so in this country.

No doubt the D.o.T. will reconsider the existing regulations in the light of the recent changes made to the gilt indices. It would be unfortunate if, in the meantime, the Institute appeared to condone a possibly unsound practice.

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The problems of matching an index probably require to be dealt with at greater length than Mr Seymour's letter suggests.

Changes in a portfolio which is designed to match exactly an index are required whenever there are any capital changes in the index.

In the case of the *F.T.*-Actuaries All-Share index there are normally 30 to 50 companies removed and a like number added each year. Furthermore there are rights issues, take-over bids and conversion of convertible unsecured loan stocks. In fact there are 400 to 500 capital changes each year in the ordinary share index. In practice (and here one is of course considering U.S. practice as there are a number of 'indexed funds' in U.S.A.) exact matching is not normally undertaken and investment is concentrated on the larger companies on the argument that reproducing 80% to 85% of an index is sufficiently accurate and reduces the number of transactions from the formidable number that would strictly be required. The saving in transaction costs outweighs the argument for strict matching. The omission of most of the smaller companies might lead to some bias in performance over a period, but we should not like to predict the direction of the bias. We would suggest close matching is reasonably possible—a small degree of underperformance being the likely outcome after taking account of transaction costs. The level of risk, i.e. of deviation from the index value, could (and should) be very small.

Capital changes in a gilt index arise on account of new issues ('tap' stocks), calls on partly paid stocks, maturities, 'sliders' and 'shorteners'. The number of capital changes is fewer than for an ordinary share index, there is better marketability and some of the changes occur on predictable dates. There would be no risk in matching the 'all stocks' index; any management group offering funds for each of 'under 5 years', '5 to 15 years' and 'over 15 years' groups would be able to move 'sliders' at equilibrium prices between the three funds depending on relative sizes. Even in the case of a management group offering only one of these there is not however a mis-matching situation which could currently be described as extremely dangerous. For example, in the 'over 15 years' group there are only nine stocks (out of 26) with optional redemption dates. The coupons of those with an earliest date in this century are 9%, 6¾%, 3½%, 3% and 3%. If interest rates fell to 9% and 9% Treasury 1992/96 would become a 'slider'. We find it hard to agree that extremely dangerous mis-matching will occur; in fact we would suggest that the level of risk is no greater (and probably smaller) than in the case of a fund matching an ordinary share index. The question could of course be widened if in future we saw the issue of a large number of redeemable gilts with a spread of redemption dates. It is also possible that other types of stock will be issued in future which would increase the level of risk; a clause safeguarding the issuer against significant changes in the nature of the gilt market would seem to be required. As there could also be significant changes in the nature of the ordinary share market a safeguarding clause would be equally necessary for equity funds.

This reply has been restricted to consideration of risk in contracts where the benefit is directly related to an ordinary share or gilt index; we expect a small management charge would be made to cover managements costs, transactions costs and the risk involved in minimal mis-matching. Whether an 'index fund' is a sensible investment policy where benefits are not directly related to an index is a separate question.

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