## DEPRECIATION IN INSURANCE COMPANIES' ASSETS.

An important contribution on the subject of the treatment of depreciation in assets due to an enhanced rate of interest is made by Mr. R. R. Tilt, F.I.A., actuary and secretary of the General Reversionary and Investment Company in the current number of the *Journal* of the Institute of Actuaries. In view of the course of events since this article was written and of the problems arising from what may be hoped will be mainly a temporary depreciation in investments, which now face insurance companies generally, the article is particularly apropos. While all of its conclusions may not be agreed with, and it has to be borne in mind that the paper is written from the English standpoint, yet it will repay very careful study by those on this side who are interested in and have to deal with the problem of investment at the present time. We subjoin a summary of the more important points covered:-

## HEAVY DEPRECIATION.

At the outset of his paper, Mr. Tilt points out that life offices have at the present time, chiefly in consequence of a rise in the rate of interest, large arounts of depreciation to face, amounts which in some cases are the equivalent of a substantial part of the quinquennmal surplus. During the period of a falling rate of interest ending in 1897, says Mr. Tilt, the companies made substantial reductions in the valuation rates of interest. But it does not appear that the offices in the aggregate did more than hold their own against the diminishing earning power of their funds. The average rate of interest earned by all British offices after deduction of income tax fell from £4 4s 5d in 1885 to £3 14s 2d in 1900 or a reduction of 10s 3d.

It is not to be expected, continues Mr. Tilt, that the rate of interest obtained from a large aggregate of investments of many different classes will vary as much or so quickly as the rate which is determined by fluctuations in the demand for that proportion of readily transferable capital which is available for investment from time to time, but, over a series of years, the tendency of the two rates will be in the same direction. It is not surprising, therefore, to find that the average yield of the life office investments fell much more slowly than the yield from Stock Exchange investments during that period of rapid inflation of prices which culminated in 1897, nor is it surprising that the fall in the life office rate continued for some years after the yield of the Stock Exchange investments had commenced to rise. Old mortgages at the higher rates of interest of earlier periods would be repaid, and would have to be reinvested, and new money would be invested at a rate below the average, whilst that average would be artificially high by the valuation of investments at the lower prices paid for them in earlier years. Mr. Tilt subsequently proceeds:-

## REASONS FOR THE CHANGES.

There appear to me to have been three main causes for these changes:

First.—The hidden reserves of the offices created by the increase of market values over book values: these hidden reserves which gradually increased up to 1897 had the effect of maintaining the Life Offices'

rate; from 1897 onwards depreciation reduced these reserves instead of increasing the published rates of interest; when the hidden reserves disappeared depreciation was written off the book value of the assets and the effect appears in the Life Offices' rate just as it is shown in the rate of the three stocks.

Secondly.—The slower movement in the rate of interest of the life funds (to which I have already referred). Up to 1897 the continuous fall in the rate of interest had been fully felt on the Stock Exchange, but not in the life office investments, and from 1897 onwards the position was the same as to the rise in the rate. (The movement in the rate of interest of the life offices is made slower artificially by the custom of adjusting values to market prices quinquennially instead of yearly. The rise in the rate of interest shown by Stock Exchange investments in any year is thus spread over the following five years of the aggregate rates of the life offices).

The third cause is, I think, that the increase in the proportion of the life office funds invested in Stock Exchange Securities tends to bring the two rates together, and this cause seems to me the one of most importance. It indicates greater stability in the rate of interest in the future so long as investments are retained at present values, or, expressed otherwise, that a fall in the rate of interest will be accompanied in the future by a larger increase in capital

## THE VALUATION OF ASSETS IN BALANCE SHEET.

It appears to me, proceeds Mr. Tilt, that the proper course at a periodical valuation is in the first place to make a rigid valuation of the assets. The securities for mortgages and loans should be carefully investigated, repayment or reduction being required in weak cases, and if, in any cases, these measures are ineffective, the securities should be realized or written down, and a reduced estimate should be formed of the annual income from these assets. Stocks and shares whether redeemable or not should be taken at the prices of the day with adjustment for accrued interest. The values of house property and ground rents should be considered carefully and should, as a rule, be taken at a reduc-tion of any estimate of the market value. Loans repayable by terminable annuities and similar securities should, strictly speaking, be valued at the rate of interest obtainable for these securities at the date of valuation, but it would be sufficient probably to alter these values when there was clearly a quarter per cent, or more difference in the rates of interest.

It must be remembered that, in a time of a rising rate of interest, the depreciation in the assets is by no means fully represented by the fall in Stock Exchange securities. Ground rents and house property will fall in value (modified in some cases by exceptional circumstances as, for instance, an increased demand for houses in the centre of a flourishing city), and the securities for mortgages and loans will show a reduced margin of value.

I am aware that this treatment of the balance sheet does not meet with favour in every quarter. I cannot put my finger on references, but I have seen it suggested that the present market value of the assets is not the value to be considered because a company will not require to realize them at the present time, and if it did prices would immediately fall and large blocks of stock could not be sold at the values put upon them. To push this argument to its limit seems