

CORRESPONDENCE

FACTORS CONTROLLING THE RATE OF INTEREST
ON LONG-TERM INVESTMENTS*(To the Editors of the Journal of the Institute of Actuaries)*

SIRS,

In an early number of the *J.I.A.* there is an interesting reference to the subject of Mr Raynes' paper (*J.I.A.* Vol. LXVI, p. 167) which appears to have escaped the notice of those members who joined in the discussion.

There is of course much interesting matter in these early volumes, which perhaps are not often studied nowadays, and one series of articles well worth reading is "On the Rates of Interest for the Use of Money in Ancient and Modern Times" by William Barwick Hodge, Vice-President of the Institute of Actuaries and Fellow of the Statistical Society. In one of these articles, on p. 70 of Vol. IX of the *Assurance Magazine and Journal of the Institute of Actuaries* (as our *Journal* was then styled), the theory that the rate of interest bears a relation to the duration of human life is quoted from Sir William Petty's *Treatise on Taxes and Contributions*, published as early as 1662. Hodge's description of the theory is as follows:

"There occurs in this *Treatise* a singular and fanciful notion as to the relation between the rent and the selling value of land, which appears very extraordinary when proceeding from a person so well versed in such matters as Petty. The number of years' purchase of the rent the fee simple is naturally worth, he estimated at as many years as one man of fifty years old, another of twenty-eight, and another of seven years old, all being alive together, might be expected to live. 'Now in England', he says, 'we esteem three lives equal to one and twenty years; and, consequently, the value of land to be about the same number of years' purchase'; and, further on, he speaks of land selling in other countries for thirty years' purchase, 'by reason of the better titles, more people, and, *perhaps, truer opinion of the value of three lives*'."

Alongside Hodge's deprecation of the idea as "singular and fanciful" it is interesting to put Cassel's evaluation of the same thought:

"Into the very heart of the problem of the supply of capital entered the clear-sighted Sir William Petty."

Such divergence of opinion at different dates is, at all events, encouraging to any whose views do not accord with the conventional thought of the day.

I am, Sirs, etc.

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