

THE "HM" AND "AMERICAN" MORTALITY TABLES.

As far back as February, 1883, the INSURANCE AND FINANCE CHRONICLE, while discussing the question of "suspended mortality" which was at that time agitating the Canadian insurance world, drew particular attention to the fact that the reserves called for by the Institute of Actuaries Hm table, which is the legal government standard of the Dominion, are much heavier than those required by the American table, although the rate of interest assumed be the same in each case. Most persons suppose that the results obtained by all four and one half per cent. tables are for practical purposes alike, but this is by no means the case. Interest is certainly one of the principal factors in the problem, but the rate of mortality itself is also a very important element. We explained this matter at considerable length in our issue of July 1st last, but at the risk of being wearisome will repeat one or two illustrations of the difference between the values brought out by the two tables. We will take a suppositional company whose business is five years old and whose policies were issued at say age 35.

Plan.	Sum assured.	Reserves Hm. Table.	Reserves Am. Table.	Excess of Hm. Reserve.
Life	\$16,000,000	\$916,000	\$851,200	\$64,800
Life paid-up.....	2,000,000	685,780	661,900	23,880
Endowment 15 yrs. 2,000,000		503,180	502,180	1,000
Endowment 20 yrs. 5,000,000		825,350	819,050	6,300
Endowment 25 yrs. 5,000,000		586,800	576,650	10,150
Total	\$30,000,000	\$3,517,110	\$3,410,980	\$106,130

It will be noticed that in the case of such a company the liabilities, if calculated by the Canadian standard, would be more than three per cent. in excess of the amount demanded by the American table with the same rate of interest.

A convincing proof of the truth of our statements is to be found in the fact, that the Confederation Life on two occasions had its policies valued by both standards, the results being as follows:—

Date.	Hm. Table.	American Table.	Excess.	Per ct of Excess.
Dec. 31st, 1882...	\$741,417	\$713,846	\$27,571	3.86
Dec. 31st, 1889..	2,370,502	2,304,806	65,696	2.85

It will be noted that there is less difference proportionately at the latter date than at the former. This is no doubt due to the fact, that during the seven intervening years the proportion of endowment assurances to the whole has much increased, until at present the reserves on these just about equal the total for the life and limited payment policies. The ratio would of course be higher in a company which had a larger proportion of ordinary life policies.

We are pleased to notice that these views are shared by the Dominion Insurance department. Our readers will remember that the Canada Life Assurance Company, in its last annual report, adopted the valuation of its policies as made by the Michigan Insurance Department on the American 4½ per cent. basis, and divided its profits accordingly. The management however reserved \$250,000 as a special preparation for a possible future change of valuation to a four per cent. standard. In the Dominion blue book, lately to hand,

however, the following addition is made to the company's statement of their liabilities:—"Amount added by the Department to bring reserve up to the Institute of Actuaries Hm. 4½ per cent. standard, \$247,126.20." This amount is precisely three per cent. on the amount of the reserves by the American table. If this estimate of the necessary addition be correct, it of course annuls the supposed special reserve, and leaves the company practically just as if it had valued its contracts by the ordinary Canadian standard. Fortunately, however, in the case of the Canada Life it is a matter of comparative indifference which basis is adopted, for by either it is shown to be strong and highly prosperous. The point we have referred to is of but minor importance so far as this particular company is concerned, but it is nevertheless one of much interest to our readers, as showing that all our Canadian companies, including the Canada Life, have already set aside larger reserves than are required by the four and one-half per cent. standard as it is understood in the United States.

FIXED SURRENDER VALUES.

Our New York contemporary, *The Review*, in its issue for September 18, deals editorially with the question of "Life Insurance Surrender Values," for the apparent purpose of demonstrating that companies ought not to pay uniform cash values even on policies uniform in kind and issued at uniform ages. Our contemporary asserts that "there are good reasons why no arbitrary rule can be followed in fixing upon cash surrender values, if the question of equity to both insurer and insured is to be considered." We are told that the subject must be treated by going back to first conditions under which the policy was issued. Here is what follows:—

Briefly stated, a risk is accepted on the certificate of the examiner that the physical condition of the applicant is up to a certain standard. In short, that he is a healthy risk. At the beginning, therefore, all members are upon the same level. Did they remain so, a fair cash surrender value for each year would not be difficult to formulate. Unfortunately, a variation in the quality of the risk begins at once. At the end of one, three, or any stated number of years there is a wide difference in the physical standing of lives that were admitted in the same year. So long as the contract is carried out to maturity in accordance with its original provisions, this variation in the quality of the lives makes no difference, since it equalizes itself through the general law of average.

Now this sounds very plausible, just as a good many smoothly written sayings do where dissimilar ideas are hitched together as though inseparable from each other. The varying deterioration of lives, and, hence, of "the quality of the risk," is well understood, but, unfortunately for our contemporary, has nothing whatever to do with the equitable cash value of policies at a given period of the same kind and issued at identical ages. The reserve on these uniform policies is also uniform and absolute, and is the same in each case at the end of any given year. That reserve has been contributed by the policyholder as an essential condition of the contract whereby the company is enabled, through the operation of "the law of average," to pay every policy claim as it matures by death or expiry. Two