

of former years. To the life assurance section sixty companies contributed, while to the annuity section there were forty-two contributors; including three American offices, which sent in their returns for business transacted only in the United Kingdom.

THE FUTURE RATE OF INTEREST PROBLEM.

The question raised and briefly discussed at the recent Congress of Actuaries, New York, as to, What will be the future rate of interest, demands for its answer the exercise of a faculty of foresight not possessed by man. If, however, the question is put in this form, What are the probabilities of a continuance of the present rate, or, an advance, or, a decline in the future rate of interest, there is a problem stated, which, though highly complicated, opens out a legitimate field of enquiry and discussion. One difficulty which lies at the very threshold of this investigation, is this, What is meant by the future rate of interest? No rate is so generally prevalent throughout the world's money markets as to be recognized as "the" rate, nor is the rate at any monetary centre so steadily continuous as to be the standard even of that section. The curves of variation in interest rates are very far from having been parallel; occasionally, indeed, they have crossed each other at an acute angle. So varied have interest rates been at different points and so dissimilar in amount and in their respective times of continuance, that, in looking at the records of a long term of years it is a difficult, if not an hopeless task, to trace a movement which was indisputably general in its character. Another difficulty in attaching a general sense to the term "rate of interest" is the question as to what locality is referred to, for, as we propose to show, the extreme of high and low may be prevailing at the same time in different financial centres.

Before presenting evidences of these baffling variations we would draw attention to the great changes which have come over the monetary world in recent years. As the result of modern means of rapid communication between nations by which all conditions affecting the price of money and its transference become known almost simultaneously, there is developing a degree of solidarity in the world's money markets which, in a monetary sense, is the most important development of modern times. As this goes on there will be a more pronounced tendency to equalize the price of money throughout the financial world than has been hitherto experienced, for streams of money, in one form or other, will flow more freely to and fro in response to demand and supply. By the term "money" in this article is meant only such money as is available for loans and investments, what is commonly called "cash," as well as credit instruments. The distinction between money and capital,

and their several phases of identity will be discussed in a later issue.

How the rates for money, its market prices, have differed at various financial centres in the past is shown by the following tables which we have compiled from data in Mr. Palgrave's masterly statistical work, "Bank Rate and The Money Market":—

CHANGES OF RATE IN ENGLAND, FRANCE AND GERMANY.

Year.	Bank of England, No. of Changes.	Bank of France, No. of Changes.	Bank of Germany, No. of Changes.
1890.....	11	None	3
1891.....	10	None	4
1892.....	4	1	2
1893.....	12	None	3
1894.....	2	None	2
1895.....	None	1	1
1896.....	3	None	3
1897.....	6	None	5
1898.....	6	1	6
1899.....	6	2	7
1900.....	6	4	3

Changes 66 Changes 9 Changes 39

Year.	Bk. of England, *Rate of discount.	Bk. of France, *Rate of discount.	Bk. of Germany, *Rate.
	\$	\$	
1847....	5 7-40 p. c.	1847....	4 19-20 p. c.
1857....	6 13-20 "	1857....	6 3-20 "
1866....	6 19-20 "	1866....	3 7-10 "
1878....	3 4-5 "	1878....	2 1-5 "
1890....	4 1-2 "	1890....	3 "

*In each case the money rate has been converted from £ s. d. into whole numbers and fractions.

The Bank of France has the steadiest record of changes in the rate of interest. As compared with the Bank of England the comparison stands thus, from 1844 and 1900, 57 years, the Bank of France changed its rate 111 times, an average of about twice yearly, while, in the same period, the Bank of England made 400 changes, an average of over 7 times yearly. The period each rate continued in force in the Bank of France and Bank of Germany from 1844 to 1900 was as follows:

Bk. of France, No. of days.	Rate.	Bk. of Germany, No. of days.	Rate.
5,557	3	11,077	4
4,516	4	3,648	5
2,579	2½	2,640	3
2,061	5	1,439	4½
2,027	2	730	6
1,815	3½	430	5½
1,170	6	234	7
353	4½	178	3½
286	7	63	9
120	5½	50	6½
41	8	44	7½
21	7½	37	8
16	9
8	6½
Total 20,570		20,570	

It will be found very interesting to compare the above with the record of the Bank of England for the same period, 1844 to 1900, the rates for each