

J.M.
KEYNES
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VI

A Treatise on Money · The Applied Theory of Money

THE COLLECTED WRITINGS OF
JOHN MAYNARD KEYNES

VOLUME VI

A TREATISE ON MONEY
IN TWO VOLUMES

2 THE APPLIED THEORY
OF MONEY

MACMILLAN
CAMBRIDGE UNIVERSITY PRESS
FOR THE
ROYAL ECONOMIC SOCIETY

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First edition 1930
Reprinted 1934, 1935, 1950, 1953, 1960, 1965
This edition 1971
Reprinted 1979

Published for the Royal Economic Society
throughout the world, excluding
the U.S.A. and Canada, by
THE MACMILLAN PRESS LTD
London and Basingstoke
Associated companies in Delhi Dublin
Hong Kong Johannesburg Lagos Melbourne
New York Singapore Tokyo
and throughout the U.S.A. and Canada by

THE SYNDICS OF THE CAMBRIDGE UNIVERSITY PRESS
32 East 57th Street, New York, NY 10022, U.S.A.
Macmillan ISBN 0 333 10719 5 (excluding the U.S.A. and Canada)
C.U.P. ISBN 0 521 22098 X (the U.S.A. and Canada only)

Printed in Great Britain
at the University Press, Cambridge

Library of Congress Cataloguing in Publication Data

Keynes, John Maynard, 1883-1946.
The collected writings of John Maynard Keynes.
Vol. XXIII has imprint: New York, Cambridge University Press,
for the Royal Economic Society.
CONTENTS: v. 1. Indian currency and finance.—
v. 2. The economic consequences of the peace.—
v. 3. A revision of the treaty. [etc.]
1. Economics—Collected works.
I. Royal Economic Society, London.
HB171.K44 330.15'6'08 76-13349

ISBN 0-521-22098-X

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A TREATISE ON MONEY

The Collected Writings of John Maynard Keynes

CONTENTS

VOLUME 2

THE APPLIED THEORY OF MONEY

BOOK V

MONETARY FACTORS AND THEIR FLUCTUATIONS

22	THE APPLIED THEORY OF MONEY	<i>page</i> 3
23	THE PROPORTION OF SAVINGS DEPOSITS TO CASH DEPOSITS	6
24	THE VELOCITIES OF CIRCULATION	17
25	THE RATIO OF BANK MONEY TO RESERVE MONEY	43
26	THE ACTIVITY OF BUSINESS	70

BOOK VI

THE RATE OF INVESTMENT AND ITS FLUCTUATIONS

27	FLUCTUATIONS IN THE RATE OF INVESTMENT —I. FIXED CAPITAL	85
28	FLUCTUATIONS IN THE RATE OF INVESTMENT —II. WORKING CAPITAL	91
29	FLUCTUATIONS IN THE RATE OF INVESTMENT —III. LIQUID CAPITAL	116
30	HISTORICAL ILLUSTRATIONS	132

CONTENTS

BOOK VII

THE MANAGEMENT OF MONEY

31	THE PROBLEM OF THE MANAGEMENT OF MONEY	<i>page</i> 189
32	METHODS OF NATIONAL MANAGEMENT—I. THE CONTROL OF THE MEMBER BANKS	201
33	METHODS OF NATIONAL MANAGEMENT—II. THE REGULATION OF THE CENTRAL RESERVES	234
34	PROBLEMS OF INTERNATIONAL MANAGEMENT—I. THE RELATIONS OF CENTRAL BANKS TO ONE ANOTHER	249
35	PROBLEMS OF INTERNATIONAL MANAGEMENT—II. THE GOLD STANDARD	258
36	PROBLEMS OF INTERNATIONAL MANAGEMENT—III. THE PROBLEM OF NATIONAL AUTONOMY	270
37	METHODS OF NATIONAL MANAGEMENT—III. THE CONTROL OF THE RATE OF INVESTMENT	304
38	PROBLEMS OF SUPERNATIONAL MANAGEMENT	348
	<i>Appendix</i> 1 PRINTING ERRORS IN THE FIRST EDITION	368
	<i>Appendix</i> 2 COMPARATIVE INDEX TO FIRST EDITION AND NEW SETTING OF VOLUME 2	370
	<i>Index</i>	377

Book V

MONETARY FACTORS AND THEIR
FLUCTUATIONS

Chapter 22

THE APPLIED THEORY OF MONEY

We now pass from the pure theory of money and a qualitative study of the characteristics of a system of representative money to the applied theory and a quantitative study of the facts as they exist in the leading monetary systems of today, chiefly in Great Britain and in the United States.

The plan of this volume is as follows.

In Book v we shall treat of the monetary factors and their statistical fluctuations, such as the proportions in which the aggregate of bank money is divided between savings deposits and cash deposits, the velocity of circulation of bank money, and the causes which make this aggregate of bank money to be what it is. The somewhat detailed character of these chapters is essential to enable us to judge of the relative quantitative importance of different factors. For, when the aggregate of bank money has been determined, the statistics of the savings deposits are the most important indication as to how much of this aggregate is being employed in the financial circulation and how much is left for the industrial circulation; and given the volume of the industrial circulation, the velocities of circulation determine, broadly speaking, what level of output and incomes this is capable of supporting.

In Book vi we turn aside from what might be called 'influences on the side of money' to 'influences on the side of investment', examining the causes of fluctuations in the rate of investment and illustrating the argument of this and the preceding books by analysing what happened on several typical occasions in recent history.

In Book vii we reach for the first time the normative side

of our subject—namely, the question of what ideal objectives ought to be aimed at by the currency authorities of national monetary systems and also of the world as a whole, of the obstacles in the way of the attainment of these objectives, of the dilemmas which sometimes present themselves, and of the best means of solution.

In Book v I may appear to the reader to be reverting to the old-fashioned 'quantity of money' approach to the problem of price determination, inasmuch as I shall be concentrating on the *supply* of monetary facilities, or rather on the amount of them available for the industrial circulation. It may be well, therefore, that I should say a precautionary word as to the relationship, as I conceive it, between the quantity of money and the price level.

If habits and methods in the receipt and disposal of incomes are assumed unchanged, if the level of incomes and the volume of output are given, and if there is no change in the velocity of circulation of the business deposits *A*, the amount of monetary facilities needed in the industrial circulation is uniquely determined. If less than this is *available* after providing for the requirements of the financial circulation, it will be impossible to maintain the existing volume of incomes. Furthermore, in equilibrium, when all the factors of production are employed and savings are equal to investment, not only does the volume of the industrial circulation determine the volume of incomes, but it also determines the level of prices and, subject to correction for fluctuations in the volume of output and employment, the rate of earnings. That is to say, *when the price level is in equilibrium with the cost of production* the quantity of money available for the industrial circulation *does* (if habits and methods are unchanged) rule the situation; and the only modification which we need introduce into the traditional formula is the addition of the words 'available for the industrial circulation'. The significance of the changes in the accepted theory which we have developed in Books III and IV lies in their application to

the *modus operandi* of price determination when equilibrium is disturbed, by reason of inequality between savings and investment, and during the transition from one position of equilibrium to another.

This change is, of course, formally compatible with the traditional quantity theory—indeed it must be, since the latter is an identity, a truism. But it is not brought out by the traditional theory in an instructive and intelligible form, and lies covered up, along with other factors, under the omnibus conception ‘velocity of circulation’.

Let us write our quantity equation as follows:

$$M' \cdot V' = \Pi \cdot O$$

where M' is the volume of the industrial circulation, O the volume of output, and Π the price level of output; then—so we have claimed— V' is a complex notion not identified with V , the velocity of circulation. It is compounded of two elements—one of them dependent on habits and methods of banking, business and industry, which is of a similar character to the traditional velocities of circulation, and the other dependent on the balance between saving and investment, being greater than unity when investment is in excess, equal to unity when investment and saving are equal, and less than unity when saving is in excess.

Now Book v of this treatise consists, in the main, of a statistical study of the monetary elements on the left-hand side of this equation, as distinguished from what we have called the investment elements; and these purely monetary elements are the same as, or similar to, those of which the traditional quantity equation takes account.

Chapter 23

THE PROPORTION OF SAVINGS DEPOSITS TO CASH DEPOSITS

The meanings of savings deposits and of cash deposits have been defined in chapter 3, and their relationships to the financial circulation and the industrial circulation in chapter 15. Since the two together make up the total deposits, it follows that a fluctuation in the proportion of the savings deposits to the total deposits is liable to react on the volume of the cash deposits, and in particular on that of the income deposits, unless it is deliberately counteracted by a corresponding fluctuation in the volume of the total deposits. In this chapter we shall consider, on the basis of the statistical evidence, the extent to which the proportion of the savings deposits fluctuates in actual experience, so as to be in a position to consider the magnitude of the reaction of these fluctuations on the general monetary situation.

We saw in chapter 3 that deposit accounts in England and time deposits in the United States roughly correspond to the savings deposits, whilst current accounts in England and demand deposits in the United States roughly correspond to the cash deposits. In the United States the law requires that the amounts of time deposits and demand deposits respectively shall be separately published, so that there is no difficulty in obtaining statistical data—provided we can regard fluctuations in time deposits as approximately representative of the savings deposits. But in England it has been impossible hitherto to obtain any reliable indications, except by the courtesy of the banks themselves.

1. *England.* As a result, however, of enquiries, which, though not exhaustive, represent a fair sample, I have obtained indications which are very interesting indeed and will serve to illustrate

THE PROPORTION OF SAVINGS DEPOSITS

the practical, as well as the theoretical, importance under the present British banking system of transferences backwards and forwards between the deposit and the current accounts. At the same time we must remember, what has been pointed out in chapter 3, that in England the dividing line between deposit and current accounts is decidedly blurred. The bulk of the deposits are held at quite short notice—seven to fourteen days—and as a matter of actual practice are often repaid on demand, a few days' interest being deducted in lieu of notice. The deposits definitely fixed for longer periods are said to be not above a quarter to a third of the total deposit accounts.

In pre-war days the normal percentage of fixed deposit to total deposits in England was generally assumed to have approached 50 per cent.¹ During the war deposit accounts were (relatively to the increase of deposits generally) very greatly depleted, and by 1919 they seem to have stood at not much more than one-third of the total deposits instead of one-half. On the basis of such information as I have been able to obtain from bankers,² the annual percentages of deposit and current accounts to total deposits seem to have moved as in the first table on p. 8.

Thus there has been a progressive restoration in the proportion of deposit accounts towards the pre-war figure almost uninterruptedly from 1919 to 1929.

Since the Midland Bank and Lloyds Bank now publish their percentage figures month by month—examples which will, I hope, be followed by the other banks—it will be useful to quote (second table on p. 8) these figures alongside the more comprehensive estimate given in the previous table.

These figures show that the changes in the relative proportions of deposit and current accounts have been sufficiently large to

¹ Annual averages have been given by Lloyds Bank back to 1902. The percentages of fixed to total deposits were 41·8 in 1902, about 44 from 1903 to 1905, 46·4 in 1906, and about 48·5 from 1907 to 1914. This is very similar to post-war experience. The fixed deposits seem to have been depleted by the Boer War, to have recovered steadily thereafter towards 50 per cent, and to have had this recovery sharply stimulated by the collapse of 'bull' markets in 1906-7.

² The figures given are the average of indications supplied to me by three of the 'Big Five'. More recently two of these have published their figures.

THE APPLIED THEORY OF MONEY

PERCENTAGE OF DEPOSIT ACCOUNTS AND CURRENT ACCOUNTS TO TOTAL DEPOSITS IN ENGLAND

	Deposit accounts (Per cent)	Current accounts (Per cent)
1913	48	52
1919	34	66
1920	38	62
1921	44	56
1922	44	56
1923	43	57
1924	44	56
1925	45	55
1926	46	54
1927	46	54
1928	47	53
1929	48	52

PERCENTAGE OF DEPOSIT ACCOUNTS TO TOTAL DEPOSITS

	Midland Bank (Per cent)	Lloyds Bank (Per cent)
1919	28.6	39.3
1920	33.8	43.3
1921	39.7	49.3
1922	40.0	50.3
1923	40.2	48.5
1924	41.5	49.0
1925	42.7	50.4
1926	43.7	51.4
1927	44.3	52.6
1928	44.7	53.6
1929	46.8	54.8
1930 (6 mos.)	48.3	55.5

cause the movements in total deposits to be a very misleading guide to the movements in current accounts—as is clearly brought out by the table on p. 9.

Thus, if these estimates are correct,¹ whilst total deposits may have been no higher in 1920 than in 1926, current accounts

¹ If they are not, I hope that the bankers who are in a position to know will correct them.

THE PROPORTION OF SAVINGS DEPOSITS

were 16 per cent higher. The continual transference from current to deposit account, brought about the gradual recovery of the deposit accounts after their war depletion to their normal pre-war proportion, was, in fact, operating as a concealed measure of deflation, sufficient—assuming that it affected the business deposits and the income deposits equally—to explain a drop in the price level of about 20 per cent without the help of any change in the volume of the total deposits.

	Average total deposits of nine clearing banks (1924 = 100)	Assumed proportion of current accounts to total deposits	Calculated total of current accounts (1924 = 100)
1919	90*	66	106
1920	100*	62	111
1921	108	56	108
1922	106	56	106
1923	100	57	102
1924	100	56	100
1925	99	55	97
1926	100	54	96
1927	103	54	99
1928	106	53	100
1929	108	52	100

* Estimated figures. The actual figures have never been published.

These figures are particularly helpful towards explaining the magnitude of the fall of price levels between 1920 and 1923, which was quite out of proportion to the fall, if any, in the total deposits, and also their subsequent history between 1923 and 1926. Between 1923 and 1926 the total bank deposits, as published, were unchanged, whilst the consumption index was also almost unchanged. The total of current accounts, however, as is shown by the above table, fell from 102 to 96. Since the volume of output was almost certainly less in 1926 than in 1923, the decrease of current accounts during this period supplies an important missing part of the explanation of the course of monetary events.

The most striking contribution to the explanation of the course of monetary events which is supplied by the separation of the figures of current accounts from total deposits in England relates, however, to the war period. It will be remembered that after the failure of the first War Loan in 1914, which had to be largely subscribed by the Bank of England and other banks, there was an intensive campaign of propaganda to secure subscriptions to subsequent War Loans from the public. It was argued that subscriptions by the banks were inflationary, whereas subscriptions from the public were not; and this argument was held to cover even the case where members of the public took money off deposit account to pay for their subscriptions to War Loans—indeed the banks made special ‘patriotic’ arrangements to facilitate this course. I do not think that it was noticed at the time by anyone that this procedure was capable of becoming a potent instrument of inflation. Actually such subscriptions had the same effect as if the banks had subscribed directly themselves and had increased their current accounts by the full amount of these subscriptions. The transference of money held on deposit account by the public, where it was not functioning as cash at all, to the current account of the Government by whom it was expended, thus swelling other current accounts, increased the quantity of active money quite out of proportion to any observable movement in the total deposits of the banks. Some of the deposit accounts thus disturbed were probably amongst the oldest standing and most reliable accounts of this kind which the banks held. If we were to suppose that no more than one-third of the pre-war deposit accounts were invested in War Loans under the influence of patriotic propaganda, then (supposing deposit accounts to have accounted for half the total deposits before the war) current accounts would be swollen by 33 per cent and would be sufficient to support price levels this much higher than before. The character of the Government expenditure was, in fact, such that by far the greater part of it found its way rapidly into the income deposits, with the result that the trans-

THE PROPORTION OF SAVINGS DEPOSITS

ferences from savings deposits had their full effect in diminishing the purchasing power of money. The course of monetary events in Great Britain in 1915 and 1916 is, indeed, almost a perfect illustration of the manner in which such transferences can affect prices.

It is probable, therefore, that this unobserved factor of transferences backwards and forwards between deposit and current accounts played a considerable part both in the rise of British prices between 1914 and 1920 and in their fall between 1920 and 1926. We should, however, be able to judge of this more precisely as regards the past, and also to adjust our policy in the future, so as to take account of this factor, if all the banks would agree to publish separately the figures of their deposit and of their current accounts, both retrospectively and henceforward.

There is, moreover, a reform of banking practice, as well as of banking publicity, which is indicated as desirable. The present practice of the British banks is to keep the same proportion of reserves against their deposit accounts as against their current accounts. In the United States, on the other hand, this is not so. The member banks of the Federal Reserve System are required by law to keep a reserve of only 3 per cent against their time deposits as compared with figures of from 7 to 13 per cent against their demand deposits. This greatly mitigates the inflationary or deflationary influence on the industrial circulation of fluctuations in that part of the financial circulation which is represented by the savings deposits. It would tend to a smoother working of the British banking system in its effects on industry if the banks were to work to a very low reserve percentage against deposit accounts instead of to the same percentage as against current accounts.¹

If, indeed, we could be assured that deposit accounts accurately

¹ The Royal Commission on Indian Currency (1926) has recommended (§161) the American arrangement for the proposed new central bank for India. Indian banks are to keep 10 per cent of their demand liabilities and 3 per cent of their time liabilities with the central bank. Moreover, this arrangement has been in force in South Africa since 1923.