

ARTICLES, PAPERS AND PUBLICATIONS OF ACTUARIAL INTEREST

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THE INSTITUTE OF BANKERS

The London Discount Market Today

This booklet contains the three Ernest Sykes Memorial Lectures, 1962. The second lecture, 'The Functioning of the London Discount Houses' by H. F. Goodson, was noticed in *J.I.A.* **88**, 244. The first lecture by Wilfred King gives a very good historical account of the Discount Market and concludes with the author's account of what he believes to be the distinctive role of the market.

The third lecture, 'The Commercial Banks and the London Discount Market', by C. W. Linton, gives a fairly detailed account of the banks' daily relations with the market.

This booklet can be strongly recommended to all actuaries interested in the functioning of the money market. Students studying for Associate (4) or Fellowship (7) should find it very helpful.

Lloyds Bank Review

July 1962

CRAMP, A. B. *Two Views on Money*

An interesting article showing the similarities between the controversy at the present time between the views of the Radcliffe Committee and what might be termed the 'orthodox' view, and the controversy which took place prior to the passing of the Bank Charter Act, 1844, between the 'Banking School' and the 'Currency School'. Both these disputes depended on the framing of a suitable definition of money and, money being defined, on how the supply of it could be controlled adequately.

The account of these disputes involves some useful discussion of the important institutional changes that have taken place during the last 100 years.

SOCIETY OF INVESTMENT ANALYSTS

Journal, No. 2, May 1962

Most of the space in this issue of the *Journal* is given to summaries of the work done at the first Congress of European Investment Analysts, held at Courcheval in January 1962.

The two principal activities of the Congress were the work by five

Commissions on various technical subjects and a Commission on Resolutions. The five technical subjects were:

- (1) Consolidation of Accounts.
- (2) Depreciation and Provisions.
- (3) Manufacturing, Trading, and Profit and Loss Accounts.
- (4) The Incidence of Fiscal Legislation on the Presentation of Accounts.
- (5) Directors' Report and other Information to Shareholders.

The Resolutions indicate the kind of information that Investment Analysts would like to see in various types of Accounts.

Scientific American

Vol. 207, No. 1, July 1962

HAMMOND, E. CUYLER. *The Effects of Smoking*

The author has done a considerable amount of research into the effect of smoking on health. In this article he brings together the results of much statistical investigation, experimental work and autopsy study, presenting altogether a formidable amount of evidence in favour of his conclusion: 'The mildest statement I can make is that, in my opinion, the inhalation of tobacco smoke produces a number of very harmful effects and shortens the life span of human beings'.

He suggests that the easiest way to avoid these possible consequences is not to smoke at all, but one can avoid the most serious of them by smoking cigars or a pipe instead of cigarettes, provided that one does not inhale. If an individual insists on smoking cigarettes he should limit his consumption and not inhale. He concludes that extensive research should be undertaken to determine the effects of various constituents of cigarette smoke and to find means of removing those that are most harmful. Until this has been done it is advisable to reduce the total tar and nicotine content of cigarette smoke by means of effective filters. At present the effectiveness of filters varies considerably.

NATIONAL BUREAU OF ECONOMIC RESEARCH

Occasional paper 79

EASTERLIN, RICHARD A. *The American Baby Boom in Historical Perspective*

The author is Professor of Economics at the University of Pennsylvania. He examines the recent rise in fertility in the U.S.A., in the 'light of the Kuznets-cycle conception of economic change'. The economists' view is that the recent upsurges in the birth rate can be linked with swings in the demand for labour during a period of restricted immigration. A rise in the rate of labour market entry can, after a time lag, bring a decline in fertility.

OPERATIONS RESEARCH SOCIETY OF AMERICA

Journal, Vol. 10, No. 3, May-June 1962

OSBOURNE, M. F. M. *Periodic Structure in the Brownian Motion of Stock Prices*

The author's summary of his article: The internal structure of stock prices is examined by comparison with simple random walks of basic step $\frac{1}{2}$, in which the individual price changes ΔP are the step length, and the volume measures the rate at which the steps are taken. It is found that there is definite evidence of periodic in time structure corresponding to intervals of a day, week, quarter, and year; these being simply the cycles of human attention span. The evidence is not in the periodicity of the price sequences $P(t)$, rather in the distribution of the first and second differences of $P(t)$, especially the second moment of ΔP (or variance), and in the rate at which the steps are taken. It is also shown that there is a periodic 'space structure' in the price co-ordinate P , corresponding to the Brownian Motion in the presence of equally spaced sites of preferred occupancy and reflexion barriers, at the whole numbers. There is also marked evidence of 'clustered' activity, the data being analysed by methods appropriate to cosmic ray bursts, or star counts on astronomical photographs. In general, the picture of price motion as simple random walks is supported qualitatively; quantitatively there are some substantial departures from this simple picture.

Journal of Common Market Studies

Vol. 1, No. 1, May 1962

The purpose of this note is to bring to the notice of readers the publication of a new journal the aim of which is to 'sharpen awareness and to deepen detailed study of the manifold specific problems with which the European Community confronts us'. It hopes to provide a forum of high-level exchanges between scholars and policy-makers in different fields.

This first number contains at least two articles of interest to those working in financial and industrial institutions. The one, 'Implications for the Operations of the Firm' by John Pinder, discusses how joining the Common Market may affect the different sectors of the firm—sales in the Home Market, the Continental Market and the Commonwealth Markets; buying; production; transport; labour; finance; legal and institutional questions and general policy. The other, 'Fiscal Harmonization and British Company Earnings' by A. E. Jasay, discusses mainly the effect on British firms of a shift in the finance of the social services from general taxes to a payroll tax.

THE BRITISH COMPUTER SOCIETY

The Computer Journal

Vol. 5, No. 1, April 1962

HOARE, C. A. R. *Quicksort*

The paper describes an economical sorting method for use on computers with a random-access store large enough to make internal sorting worth while. The method proceeds by repeated partition of the data into segments;

at each stage a value of the sorting key is chosen within each segment, and the items are divided into two groups by a technique which involves scanning from each end in turn. Several refinements of the method are discussed. In the figures quoted for a comparison of Quicksort with a merge sorting method on one computer, the Quicksort times are less than two-thirds of those for merge sorting. The method is claimed to be well suited to machines with more than one level of storage.

PUBLICATIONS ISSUED BY HER MAJESTY'S STATIONERY OFFICE

Central Statistical Office. Financial Statistics. No. 1, May 1962. (7s. 6d.)

A monthly publication to bring together the key financial and monetary statistics of the United Kingdom previously published in a number of different ways, with the addition of new information. An analysis of the investments of superannuation funds in the public sector is included.

The Pensions Commutation (Amendment) Regulations, 1962. S.I. 1962 No. 667. (3d.)

These regulations amend the Pensions Commutation Regulations of 1955 by substituting new rates for the calculation of the capital sum obtained in commutation of the pensions of retired officers of the armed forces, civil servants, etc.