University Pre

JOURNAL OF FINANCIAL AND QUANTITATIVE ANALYSIS

December 1972

A SPECIAL ISSUE DEVOTED TO FINANCIAL INSTITUTIONS

DAVID H. PYLE
Descriptive Theories of Financial Institutions under Uncertainty

GEORGE F. BROWN, JR.
Optimal Management of Bank Reserves

DAVID A. WALKER
A Recursive Programming Approach to Bank Asset Management

BERNELL K. STONE The Cost of Bank Loans

GEORGE G. KAUFMAN Deposit Variability and Bank Size

NEIL B. MURPHY
A Reestimation of the Benston-Bell-Murphy Cost Functions for a Larger
Sample with Greater Size and Geographic Dispersion

ALAN KRAUS and HANS R. STOLL Parallel Trading by Institutional Investors

WILLIAM R. BRYAN
Treasury Advanced Refundings: An Empirical Investigation

STEVEN A. LIPPMAN Optimal Reinsurance

JOURNAL OF FINANCIAL AND QUANTITATIVE ANALYSIS

A JOINT PUBLICATION OF THE GRADUATE SCHOOL OF BUSINESS ADMINISTRATION UNIVERSITY OF WASHINGTON AND THE WESTERN FINANCE ASSOCIATION

EDITORIAL STAFF

Charles W. Haley, Managing Editor Nancy L. Jacob, Associate Managing Editor Lynn Lewicki, Editorial Assistant

BOARD OF EDITORS

Charles W. Haley, Washington Fred P. Morrisey, UC, Berkeley Edward W. Reed, U.S. National Bank of Oregon Ezra Solomon, Stanford J. Fred Weston, UCLA

ASSOCIATE EDITORS

Marshall E. Blume, Pennsylvania Charles P. Bonini, Stanford Richard S. Bower, Dartmouth William Breen, Northwestern Michael J. Brennan, UBC Myles Delano, Michigan State Thomas R. Dyckman, Cornell Peter A. Frost, Washington Robert C. Goshay, UC, Berkeley Nils H. Hakansson, UC, Berkeley Robert S. Hamada, Chicago Mark Hanna, Georgia Warren H. Hausman, MIT Frank C. Jen, SUNY, Buffalo

Richard H. Bernhard, North Carolina State Michael C. Jensen, Rochester George Kaufman, Oregon Alan Kraus, Stanford Henry A. Latané, North Carolina John G. McDonald, Stanford Jacob B. Michaelsen, UC, Santa Cruz Stewart C. Myers, MIT Alfred N. Page, Washington Roger B. Upson, Minnesota James Van Horne, Stanford George von Furstenberg, Indiana Paul Wells, Illinois Richard R. West, Oregon Robert L. Winkler, Indiana

WESTERN FINANCE ASSOCIATION

Executive Committee

W. Scott Bauman, President David K. Eiteman, Vice President Thomas E. Stitzel, Secretary-Treasurer Oregon State University Charles W. Haley, Editor Harold W. Stevenson

Leslie P. Anderson Richard V. Cotter James C. T. Mao David H. Pyle

University of Oregon

University of California, Los Angeles

University of Washington Arizona State University Colorado State University University of Nevada

University of British Columbia University of California, Berkeley

INSTITUTIONAL MEMBERS

Southern California Edison Company Weeden and Company, Inc.

Mountain States Telephone Company California State College, Los Angeles

National Economic Research Association

Copyright 1973 by the Graduate School of Business Administration, University of Washington.

The Journal of Financial and Quantitative Analysis is published in January, March, June, September, and December by the Graduate School of Business Administration, University of Washington, Seattle, Washington 98195, in conjunction with the Western Finance Association. Second-class postage paid at Seattle, Washington.

The December issue is a special issue devoted to one topic of interest to the JFQA's readership. The March issue contains selected papers, abstracts of papers, discussants' comments, and the Proceedings of the Western Finance Association meetings.

The views and opinions expressed are those of the authors and do not necessarily reflect those of the Graduate School of Business Administration of the University of Washington nor of the Western Finance Association.

For individuals, the annual subscription rate to the JFQA is \$10.00; for firms or libraries, the annual rate is \$15.00. Single copies are \$2.50, except the special issues, the price of which is \$3.00. Annual subscription rates for individuals and libraries outside the United States (except Canada) are \$11.00 for individuals and \$16.00 for libraries. The fiscal year of the Journal of Financial and Quantitative Analysis begins on January 1.

Manuscripts and editorial correspondence should be sent to the Managing Editor. Advertising inquiries and books for review should be addressed to the Associate Managing Editor. Correspondence dealing with subscriptions and billing should be addressed: Subscription Manager, JFQA, Mackenzie Hall DJ-10, University of Washington, Seattle, Washington 98195. Claims for missing issues must be made within two months of the scheduled publication month.

Correspondence pertaining to the Western Finance Association should be sent to Professor Thomas E. Stitzel, School of Business, Oregon State University, Corvallis, Oregon 97331.

JOURNAL OF FINANCIAL AND QUANTITATIVE ANALYSIS

Volume VII, Number 5, December 1972

Descriptive Theories of Financial Institutions under Uncertainty David H. Pyle	2009
Optimal Management of Bank Reserves	2031
A Recursive Programming Approach to Bank Asset Management	2055
The Cost of Bank Loans	2077
Deposit Variability and Bank Size	2087
A Reestimation of the Benston-Bell-Murphy Cost Functions for a Larger Sample with Greater Size and Geographic Dispersion	2097
Parallel Trading by Institutional Investors	2107
Treasury Advanced Refundings: An Empirical Investigation	2139
Optimal Reinsurance	2151
Announcement	2157
Index to Volume VII	2159

Journal of Financial and Quantitative Analysis

Statement of Ownership, Management, and Circulation

Title of Publication:	Journal of Financial and Quantitative Analysis	
Frequency of Issue:	Five times per year (January, March, June, September, December)	
Location of Office of Publication:	Mackenzie Hall, University of Washington, Seattle, Washington 98195	
Location of General Business Office:	Mackenzie Hall, University of Washington, Seattle, Washington 98195	
Publisher:	Graduate School of Business Administra- tion, University of Washington	
Editor:	Charles W. Haley	

Extent and Nature of Circulation:	Average Number of Copies Each Issue (preceding 12 months)	Actual Number of Copies, September 1972 Issue		
Total Number of Copies Printed: Paid Circulation:	1700	1800		
Sales through dealers and				
carriers, street vendors,				
and counter sales	0	0		
Mail subscriptions	1400	1408		
Total Paid Circulation	1400	1408		
Free Distribution by Mail or Other Means:				
Samples, complimentary, and of	ther			
free copies	200	108		
Copies distributed to news age	ents			
but not sold	0	0		
Total Distribution	1600	1516		
Office Use, Leftover, Unaccounted	100*	284*		
Total	1700	1800		

^{*}Most of these are later sold by mail order

Signature of Editor Charles W. Haley Charles W. Haley