

JOURNAL OF FINANCIAL AND QUANTITATIVE ANALYSIS

VOL. 18 NO 3 SEPTEMBER 1983 UNIVERSITY OF WASHINGTON GRADUATE SCHOOL OF BUSINESS ADMINISTRATION PUBLISHED JOINTLY WITH THE WESTERN FINANCE ASSOCIATION



JOURNAL OF FINANCIAL AND QUANTITATIVE ANALYSIS

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

	VOL	1	8,	NO.	З,	SEI	PTE	ME	BER	1983
Nonparametric Tests of Models of Investor-Behavior . Hal R. Varian					•			•		. 269
The Use of Risk and Return Models for Multiattribute Decisions with Decomposable Utilities								•		. 279
Geometric Mean Approximations								•		. 287
On Optimal Asset Abandonment and Replacement . Keith M. Howe and George M. McCabe			•					•		. 295
Assumption Financing and Selling Price of Single-Family Homes										. 307
Functional Forms and the Capital Asset Pricing Model Bill McDonald					•			•		. 319
Negotiated Brokerage Commissions and the Individual Gerald A. Blum and Wilbur G. Lewellen	Inve	stc	or		•	• •		•	•••	. 331
Comparative Performance of the Black-Scholes and Roll-Geske-Whaley Option Pricing Models William E. Sterk					•					. 345
A Dynamic Global Portfolio Immunization Strategy in th of Multiple Interest Rate Changes: A Dynamic Immuniz Minimax Strategy										. 355
Floating Rate Notes and Immunization					·					. 365
The Impact of the New York City Fiscal Crisis on the Interest Cost of New Issue Municipal Bonds David S. Kidwell and Charles A. Trzcinka										. 381
An Analysis of the Performance of Publicly Traded Venture Capital Companies		•			•					. 401

POLICY ADVISORY COMMITTEE

Guilford C. Babcock, University of Southern California Charles A. D'Ambrosio. University of Washington Donald E. Farrar, Benham Management Corporation Alan Kraus, University of British Columbia William F. Sharpe, Stanford University Seha M. Tinic. University of Alberta

ASSOCIATE EDITORS

Gordon Alexander, University of Minnesota Richard H. Bernhard, North Carolina State University Roger Bey, University of Tulsa Gerald O. Bierwag, University of Arizona Stephen J. Brown, Yale University George Constantinides, University of Chicago Louis H. Ederington, Georgia State University Robert A. Eisenbeis, University of North Carolina, Chapel Hill Thomas W. Epps. University of Virginia Peter A. Frost, University of Washington Michael R. Gibbons, Stanford University Christopher James, University of Oregon Robert A. Jarrow, Cornell University George Kaufman, Lovola University

WESTERN FINANCE ASSOCIATION 1983/84 Executive Committee

Paul Malatesta, University of Washington

Seha M. Tinic, President-elect Alan Kraus, Vice President Michael Joehnk, Secretary-Treasurer Edward A. Dyl, Past President University of Wyoming Robert C. Higgins, Managing Editor, *JFQA* University of Washington Maclyn L. Clouse, Director Bradford Cornell, Director University of California, Los Angeles Michael Hopewell, Director

INSTITUTIONAL MEMBERS

University of Calgary Faculty of Business University of California, Los Angeles Study Center for Finance and Business Economics

University of Southern California Graduate School of Business Administration University of Utah

CORPORATE SPONSOR

Leland O'Brien Rubinstein Associates Los Angeles, California

Copyright 1983, Graduate School of Business Administration, University of Washington

Journal of Financial and Quantitative Analysis—ISSN 0022-1090/USPS 872-260

EDITORIAL STAFE

Robert C. Higgins, Managing Editor Marty Auvil, Editor Beda Herbison, Office Manager John Sandoz, Editorial Assistant University of Washington

Ronald Masulis, University of California, Los Angeles

John G. McDonald, Stanford University Richard Pettit. University of Houston George E. Pinches, University of Kansas Gary G. Schlarbaum, Purdue University Eduardo Schwartz, University of British Columbia

Jay Shanken, University of California, Berkeley

Bruno H. Solnik, CESA, Jouy-en-Josas, France

Eric H. Sorensen, University of Arizona Rene M. Stulz, Ohio State University Robert Taggart, Boston University James Van Horne, Standard University Joseph Vinso, University of Southern California

Department of Finance

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

Selected papers from the Western Finance Association Annual Meetings, including the Trefftzs Award paper and the Distinguished Speaker's comments, will appear in the December issue.

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.

Subscription rates are as follows: Individual Outside U.S.A., add for foreign mail (U.S. funds)	\$20.00/yr. \$ 5.00/yr.	\$50.00/3 yrs. \$15.00/3 yrs.
Firm or Library Outside U.S.A., add for foreign mail (U.S. funds)	\$30.00/yr. \$ 5.00/yr.	\$85.00/3 yrs. \$15.00/3 yrs.
Foreign Airmail	\$25.00/yr.	\$75.00/3 yrs.

Subscriptions will not be accepted for less than a full year. Some back issues are in stock and are available at \$7.00 per copy. Out-of-print issues may be obtained from Xerox University Microfilms International, 300 North Zeeb Road, Ann Arbor, Michigan 48106. Claims for missing issues must be made within six months of the date of publication. A subscription to the *Journal of Financial and Quantitative Analysis* automatically entitles the subscriber to membership in the Western Finance Association.

Manuscripts submitted for publication and correspondence relating to editorial matters should be addressed to Professor Robert C. Higgins, Managing Editor, *Journal of Financial and Quantitative Analysis*, Graduate School of Business Administration, Mackenzie Hall, DJ-10, University of Washington, Seattle, Washington 98195. Manuscripts are to be sent in triplicate with a \$20 submission fee for Western Finance Association members (\$30 for nonmembers).

Correspondence relating to advertising, subscriptions, billing, single-copy orders, missing issues, permission to reprint, and change of address should be addressed to Ms. Beda Herbison, Office Manager, *Journal of Financial and Quantitative Analysis*, Graduate School of Business Administration, Mackenzie Hall, DJ-10, University of Washington, Seattle, Washington 98195.

Correspondence pertaining to the Western Finance Association should be sent to Professor D. Stuart Bancroft, Secretary-Treasurer, School of Business Administration, Pacific Lutheran University, Tacoma, Washington 98447.

POSTMASTER: Send address changes to *Journal of Financial and Quantitative Analysis*, Graduate School of Business Administration, Mackenzie Hall, DJ-10, University of Washington, Seattle, Washington 98195.

From the Managing Editor's Desk

With this issue, the *JFQA* says thank you to 10 retiring Associate Editors and welcomes 18 new Associate Editors.

An Associate Editor's job is time-consuming, often tedious, and almost invisible. Yet, without such individuals, no academic journal could function effectively. All of us owe Andrew Chen, Robert Hamada, Frank Jen, Cheng-Few Lee, Barr Rosenberg, Clifford Smith, Bernell Stone, David Walker, Richard West, and Robert Winkler a sincere thank you for a job well done. Their help, guidance, and patience have contributed greatly to the *JFQA* and to the profession.

The new JFQA Associate Editors are:

Gordon Alexander Roger Bey Stephen J. Brown George Constantinides Louis H. Ederinaton Robert A. Eisenbeis Thomas W. Epps Michael R. Gibbons Christopher James Robert A. Jarrow Paul Malatesta Ronald Masulis Eduardo Schwartz Jay Shanken Eric H. Sorensen Rene M. Stulz Robert Taggart Joseph Vinso

University of Minnesota University of Tulsa Yale University University of Chicago Georgia State University University of North Carolina, Chapel Hill University of Virginia, Charlottesville Stanford University University of Oregon Cornell University University of Washington University of California, Los Angeles University of British Columbia University of California, Berkeley University of Arizona Ohio State University Boston University University of Southern California

I am confident they will meet the standards set by their predecessors and that under their guidance the *JFQA* will continue to flourish. Welcome aboard.

Robert C. Higgins Managing Editor, *JFQA*

THE JOURNAL OF FINANCIAL AND QUANTITATIVE ANALYSIS



is pleased to announce plans for the publication of a Special Issue entitled

JAPANESE FINANCE:

Corporate Finance, Financial Markets, and Financial Institutions

PURPOSE:

The Japanese economy and its financial markets are the world's second largest. The purpose of the Special Issue will be to (1) test the suitability of modern financial concepts and research methodologies for the Japanese economy, (2) present extensions or modifications of modern concepts relevant to the Japanese economy, and (3) introduce American reseachers to the Japanese financial economy and to leading Japanese scholars.

CALL FOR PAPERS:

You are invited to submit a research manuscript dealing with microfinancial aspects of the Japanese economy for possible inclusion in the Special Issue. Manuscripts should be submitted in triplicate no later than *September 30, 1984.* The usual submission fees of \$20 for Western Finance Association members and \$30 for non-members will apply. Address submissions to:

> Professor Robert C. Higgins JFQA Special Issue: Japanese Finance Graduate School of Business Administration University of Washington, DJ–10 Seattle, WA 98195 (206) 543-4598