

JOURNAL OF FINANCIAL AND QUANTITATIVE ANALYSIS

March 1978

- C. C. HUANG, I. VERTINSKY, and W. T. ZIEMBA
On Multiperiod Stochastic Dominance
- DAN GALAI
On the Boness and Black-Scholes Models for Valuation of Call Options
- JOSEPH E. FINNERTY
The Chicago Board Options Exchange and Market Efficiency
- GEORGE FOSTER
Asset Pricing Models: Further Tests
- JEFFREY F. JAFFE
Corporate Taxes, Inflation, the Rate of Interest, and the Return to Equity
- JACK BECKER
General Proof of Modigliani-Miller Propositions I and II Using Parameter-Preference Theory
- GORDON J. ALEXANDER
A Reevaluation of Alternative Portfolio Selection Models Applied to Common Stocks
- C. DWAYNE DOWELL and R. CORWIN GRUBE
Common Stock Return Distributions During Homogeneous Activity Periods
- RICHARD C. BURGESS and BRUCE T. O'DELL
An Empirical Examination of Index Efficiency: Implications for Index Funds
- FRANK J. FABOZZI and JACK CLARK FRANCIS
Beta as a Random Coefficient
- RODNEY L. ROENFELDT, GARY L. GRIEPENTROG,
and CHRISTOPHER C. PFLAUM
Further Evidence of the Stationarity of Beta Coefficients
- W. BRADFORD CORNELL and J. KIMBALL DIETRICH
Mean-Absolute-Deviation Versus Least-Squares Regression Estimation of Beta Coefficients
- DAVID P. ROCHESTER and SAMUEL C. HADAWAY, JR.
Further Evidence of Seasonal Adjustment of Times Series Data
- DENNIS E. LOGUE and RICHARD JAMES SWEENEY
Aspects of International Monetary Influences
- RICHARD A. SHICK and JAMES S. TRIESCHMANN
Some Further Evidence on the Performance of
Property-Liability Insurance Companies' Stock Portfolios
- STYLIANOS PERRAKIS and JOHN ZERBINIS
Identifying the SSD Portion of the EV Frontier: A Note
- WILLIAM L. BEEDLES
A Note on Evaluating Non-Simple Investments
- C. SCHWESER
Multidimensional Security Pricing: A Correction
- ROBERT A. EISENBEIS and EDWARD I. ALTMAN
Financial Applications of Discriminant Analysis: A Clarification
- O. MAURICE JOY and JOHN O. TOLLEFSON
Some Clarifying Comments on Discriminate Analysis
- ELTON SCOTT
On the Financial Applications of Discriminate Analysis: Comment

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
Lynn Lewicki, Editorial Associate
University of Washington

ASSOCIATE EDITORS

Richard B. Bernhard,
North Carolina State
Gerald O. Bierwag, Oregon
Michael J. Brennan, UBC
Andrew H. Chen, Ohio State
Thomas R. Dyckman, Cornell
Peter A. Frost, Washington
Robert S. Hamada, Chicago
Frank C. Jen, SUNY, Buffalo
George Kaufman, Oregon
Michael A. Klein, Indiana
Alan Kraus, UBC
Cheng-few Lee, Illinois
John G. McDonald, Stanford
Richard Pettit, Houston

George E. Pinches, Kansas
Barr Rosenberg, Berkeley
Gary G. Schlarbaum, Purdue
Clifford W. Smith, Jr., Rochester
Bruno H. Solnik, CESA, Jouy-en-Josas,
France
Bernell K. Stone, Georgia Institute
of Technology
James Van Horne, Stanford
David A. Walker, Director, Economic
Research Office, Comptroller of the
Currency
Richard R. West, Dartmouth
G. A. Whitmore, McGill
Robert L. Winkler, Indiana

WESTERN FINANCE ASSOCIATION

1977-78 Executive Committee

| | |
|--|---------------------------------------|
| A. Blaine Huntsman, President | University of Utah |
| David H. Pyle, President-Elect-- | University of California, Berkeley |
| Thomas E. Stitzel, Secretary-Treasurer | Boise State University |
| Charles W. Haley, Editor | University of Washington |
| John P. Herzog, Past President | Simon Fraser University |
| Guilford C. Babcock | University of Southern California |
| Michael J. Brennan | University of British Columbia |
| Nancy L. Jacob | University of Washington |
| Brian M. Neuberger | San Diego State University |
| Keith V. Smith | University of California, Los Angeles |

INSTITUTIONAL MEMBERS

| | |
|---|---|
| California State College, Bakersfield | University of California, Berkeley |
| Center for Business and Economic Research | School of Business Administration |
| Huntsman Chemical and Oil Corporation | University of California, Berkeley |
| Idaho State University | School of Management |
| College of Business | University of California, Los Angeles |
| Loyola Marymount University | Study Center for Finance and Business Economics |
| College of Business Administration | University of Utah |
| University of Calgary | School of Business |
| Faculty of Business | |

Copyright 1978 by the Graduate School of Business Administration, University of Washington.

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, and a Proceedings Issue is published in November. Second-class postage is paid at Seattle, Washington.

The Proceedings Issue contains selected papers, abstracts of papers, discussants' comments, and the proceedings of the Western Finance Association meetings. From time to time a special issue, devoted to one topic of interest to the readership, is published.

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 \$15.00 (three-year rate, \$40); for firms or libraries, the annual rate is \$25.00 (three-year rate, \$70). Annual subscription rates for individuals and libraries outside the United States (except Canada) are \$16.00 for individuals (three-year rate, \$43), and \$26 for libraries and firms (three-year rate, \$73). Single copies are \$5.00. The fiscal year of the *Journal of Financial and Quantitative Analysis* begins on January 1.

Manuscripts and \$25 submission fee per manuscript (\$15 for W.F.A. members) as well as editorial correspondence should be sent to the Managing Editor. Correspondence relating to advertising, subscriptions, and billing should be addressed: Subscription Manager, *JFQA*, University of Washington, DJ-10, Seattle, WA 98195.

Correspondence pertaining to the Western Finance Association should be sent to Professor Thomas E. Stitzel, Secretary-Treasurer, School of Business Administration, Boise State University, 1910 University Blvd., Boise, Idaho 83725.

| | |
|---|-----|
| On Multiperiod Stochastic Dominance | 1 |
| <i>C. C. Huang, I. Vertinsky, and W. T. Ziemba</i> | |
| On the Boness and Black-Scholes Models for Valuation of Call Options | 15 |
| <i>Dan Galai</i> | |
| The Chicago Board Options Exchange and Market Efficiency | 29 |
| <i>Joseph E. Finnerty</i> | |
| Asset Pricing Models: Further Tests | 39 |
| <i>George Foster</i> | |
| Corporate Taxes, Inflation, the Rate of Interest, and the Return of Equity | 55 |
| <i>Jeffrey F. Jaffe</i> | |
| General Proof of Modigliani-Miller Propositions I and II Using Parameter-Preference Theory | 65 |
| <i>Jack Becker</i> | |
| A Reevaluation of Alternative Portfolio Selection Models Applied to Common Stocks | 71 |
| <i>Gordon J. Alexander</i> | |
| Common Stock Return Distributions during Homogeneous Activity Periods | 79 |
| <i>C. Dwayne Dowell and R. Corwin Grube</i> | |
| An Empirical Examination of Index Efficiency: Implications for Index Funds | 93 |
| <i>Richard C. Burgess and Bruce T. O'Dell</i> | |
| Beta as a Random Coefficient | 101 |
| <i>Frank J. Fabozzi and Jack Clark Francis</i> | |
| Further Evidence on the Stationarity of Beta Coefficients | 117 |
| <i>Rodney L. Roenfeldt, Gary L. Griepentrog, and Christopher C. Pflaum</i> | |
| Mean-Absolute-Deviation versus Least-Squares Regression Estimation of Beta Coefficients | 123 |
| <i>Bradford Cornell and J. Kimball Dietrich</i> | |
| Further Evidence of Seasonal Adjustment of Times Series Data | 133 |
| <i>David P. Rochester and Samuel C. Hadaway, Jr.</i> | |
| Aspects of International Monetary Influences | 143 |
| <i>Dennis E. Logue and Richard James Sweeney</i> | |

Some Future Evidence on the Performance of
Property-Liability Insurance Companies' Stock Portfolios 157
Richard A. Shick and James S. Trieschmann

Identifying the SSD Portion of the EV Frontier: A Note 167
Stylianos Perrakis and John Zerbini

Evaluating Negative Benefits 173
William L. Beedles

Multidimensional Security Pricing: A Correction 177
C. Schweser

Financial Applications of Discriminant Analysis:
A Clarification 185
Edward I. Altman and Robert A. Eisenbeis

Some Clarifying Comments on Discriminant Analysis 197
O. Maurice Joy and John D. Tollefson

On the Financial Application of Discriminant
Analysis: Comment 201
Elton Scott

Announcements 206

U.S. POSTAL SERVICE
STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION
(Required by 39 U.S.C. 3685)

| 1. TITLE OF PUBLICATION JOURNAL OF FINANCIAL AND QUANTITATIVE ANALYSIS | | 2. DATE OF FILING 10-4-77 | | | | | | | | |
|---|---|--|------|---------|--|--|--|--|--|--|
| 3. FREQUENCY OF ISSUE 5 times a year | A. NO. OF ISSUES PUBLISHED ANNUALLY 5 | B. ANNUAL SUBSCRIPTION PRICE \$20.00 | | | | | | | | |
| 4. LOCATION OF KNOWN OFFICE OF PUBLICATION <i>(Street, City, County, State and ZIP Code) (Not printers)</i> Mackenzie Hall, University of Washington, Seattle, King County, Washington 98195 | | | | | | | | | | |
| 5. LOCATION OF THE HEADQUARTERS OR GENERAL BUSINESS OFFICES OF THE PUBLISHERS <i>(Not printers)</i> Mackenzie Hall, University of Washington, Seattle, King County, Washington 98195 | | | | | | | | | | |
| 6. NAMES AND COMPLETE ADDRESSES OF PUBLISHER, EDITOR, AND MANAGING EDITOR | | | | | | | | | | |
| PUBLISHER <i>(Name and Address)</i> Graduate School of Business Administration, University of Washington, Seattle, WA | | | | | | | | | | |
| EDITOR <i>(Name and Address)</i> Charles W. Haley | | | | | | | | | | |
| MANAGING EDITOR <i>(Name and Address)</i> as above | | | | | | | | | | |
| 7. OWNER <i>(If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual must be given.)</i> | | | | | | | | | | |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:50%;">NAME</th> <th style="width:50%;">ADDRESS</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table> | | | NAME | ADDRESS | | | | | | |
| NAME | ADDRESS | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| 8. KNOWN BONDHOLDERS, MORTGAGEES, AND OTHER SECURITY HOLDERS OWNING OR HOLDING 1 PERCENT OR MORE OF TOTAL AMOUNT OF BONDS, MORTGAGES OR OTHER SECURITIES <i>(If there are none, so state)</i> | | | | | | | | | | |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:50%;">NAME</th> <th style="width:50%;">ADDRESS</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table> | | | NAME | ADDRESS | | | | | | |
| NAME | ADDRESS | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| 9. FOR COMPLETION BY NONPROFIT ORGANIZATIONS AUTHORIZED TO MAIL AT SPECIAL RATES <i>(Section 132.122, PSM)</i> The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes <i>(Check one)</i> | | | | | | | | | | |
| <input checked="" type="checkbox"/> HAVE NOT CHANGED DURING PRECEDING 12 MONTHS <input type="checkbox"/> HAVE CHANGED DURING PRECEDING 12 MONTHS <i>(If changed, publisher must submit explanation of change with this statement.)</i> | | | | | | | | | | |
| 10. EXTENT AND NATURE OF CIRCULATION | AVERAGE NO. COPIES EACH ISSUE DURING PRECEDING 12 MONTHS | ACTUAL NO. COPIES OF SINGLE ISSUE PUBLISHED NEAREST TO FILING DATE | | | | | | | | |
| A. TOTAL NO. COPIES PRINTED <i>(Net Press Run)</i> | 2330 | 2412 | | | | | | | | |
| B. PAID CIRCULATION | | | | | | | | | | |
| 1. SALES THROUGH DEALERS AND CARRIERS, STREET VENDORS AND COUNTER SALES | 0 | 0 | | | | | | | | |
| 2. MAIL SUBSCRIPTIONS | 1900 | 1950 | | | | | | | | |
| C. TOTAL PAID CIRCULATION <i>(Sum of 10B1 and 10B2)</i> | 1900 | 1950 | | | | | | | | |
| D. FREE DISTRIBUTION BY MAIL, CARRIER OR OTHER MEANS SAMPLES, COMPLIMENTARY, AND OTHER FREE COPIES | 100 | in | | | | | | | | |
| E. TOTAL DISTRIBUTION <i>(Sum of C and D)</i> | 2000 | 2016 | | | | | | | | |
| F. COPIES NOT DISTRIBUTED | | | | | | | | | | |
| 1. OFFICE USE, LEFT OVER, UNACCOUNTED, SPOILED AFTER PRINTING | 330 | 396 | | | | | | | | |
| 2. RETURNS FROM NEWS AGENTS | 0 | 0 | | | | | | | | |
| G. TOTAL <i>(Sum of E, F1 and 2—should equal net press run shown in A)</i> | 2330 | 2412 | | | | | | | | |
| 11. I certify that the statements made by me above are correct and complete. | SIGNATURE AND TITLE OF EDITOR, PUBLISHER, BUSINESS MANAGER, OR OWNER <i>Charles W. Haley</i> | | | | | | | | | |
| 12. FOR COMPLETION BY PUBLISHERS MAILING AT THE REGULAR RATES <i>(Section 132.121, Postal Service Manual)</i> | | | | | | | | | | |
| 39 U. S. C. 3626 provides in pertinent part: "No person who would have been entitled to mail matter under former section 4359 of this title shall mail such matter at the rates provided under this subsection unless he files annually with the Postal Service a written request for permission to mail matter at such rates." | | | | | | | | | | |
| In accordance with the provisions of this statute, I hereby request permission to mail the publication named in Item 1 at the phased postage rates presently authorized by 39 U. S. C. 3626. | | | | | | | | | | |
| SIGNATURE AND TITLE OF EDITOR, PUBLISHER, BUSINESS MANAGER, OR OWNER <i>Charles W. Haley</i> | | | | | | | | | | |