

## K. OZGUR DEMIRTAS

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### EMPLOYMENT

- Associate Professor of Finance (with tenure), Baruch College Fall 2007
- Assistant Professor of Finance, Baruch College September 2003

### EDUCATION

- Ph.D. in Finance, Boston College, Chestnut Hill, Ma September 2003  
(Dissertation Committee: Wayne Ferson (co-chair), Pierluigi Balduzzi (co-chair)  
Alan Marcus, Jeff Pontiff, Hassan Tehranian)
- B.S. in Electrical and Electronics Engineering, Bogazici University, Istanbul May 1998  
(High Honors)

### PUBLICATIONS

- [9] “Aggregate Earnings, Firm-Level Earnings and Expected Stock Returns”  
**Journal of Financial and Quantitative Analysis**, *forthcoming*  
(with Turan G. Bali and Hassan Tehranian)

*This paper provides an analysis of the predictability of stock returns using market, industry, and firm-level earnings. Contrary to Lamont (1998), we find that neither dividend payout ratio nor the level of aggregate earnings can forecast the excess market return. We show that these variables do not have robust predictive power across different stock portfolios and sample periods. In contrast to the aggregate-level findings, earnings yield has significant explanatory power for the time-series and cross-sectional variation in firm-level stock returns and 48-industry portfolio returns. It is the mean-reversion of stock prices as well as the earnings' correlation with expected stock returns that are responsible for the forecasting power of earnings yield. These results are robust after controlling for book-to-market, size, price momentum and post-earnings announcement drift. At the aggregate-level, the information content of firm-level earnings about future cash flows is diversified away and higher aggregate earnings do not forecast higher returns.*

- [8] “Is There an Intertemporal Relation Between Downside Risk and Expected Returns?”  
(with Turan G. Bali and Haim Levy)  
**Journal of Financial and Quantitative Analysis**, forthcoming

*This paper examines the intertemporal relation between downside risk and expected stock returns. Value at risk (VaR), expected shortfall, and tail risk are used as measures of downside risk to determine the existence and significance of a risk-return tradeoff. We find a positive and significant relation between downside risk and the portfolio returns on NYSE/AMEX/Nasdaq stocks. VaR remains a superior measure of risk when compared to the traditional risk measures. These results are robust across different stock market indices, different measures of downside risk, loss probability levels, and after controlling for macroeconomic variables and volatility over different holding periods.*

- [7] “Nonlinear Mean Reversion in Stock Prices”  
**Journal of Banking and Finance**, forthcoming  
(with Turan G. Bali and Haim Levy)

*This paper provides new evidence on the time-series predictability of stock market returns by introducing a test of nonlinear mean reversion. The performance of extreme daily returns is evaluated in terms of their power to predict short- and long-horizon returns on various stock market indices and size portfolios. The paper shows that the speed of mean reversion is significantly higher during the large falls of the market. The parameter estimates indicate a negative and significant relation between the monthly portfolio returns and the extreme daily returns observed over the past one to eight months. This result holds for the value-weighted and equal-weighted stock market indices and for each of the size decile portfolios.*

- [6] “Nonlinear Asymmetric Models of the Short Term Interest Rate”  
**Journal of Futures Markets**, 26 (9) 2006.

*This paper introduces a generalized discrete time framework to evaluate the empirical performance of a wide variety of well-known models in capturing the dynamic behavior of short term interest rates. A new class of models which displays nonlinearity and asymmetry in the drift, and incorporates the level effect and stochastic volatility in the diffusion function is introduced in discrete time and tested against the popular diffusion, GARCH, and Level-GARCH models. Based on the statistical test results, the existing models are strongly rejected in favor of the newly proposed models because of the nonlinear asymmetric drift of the short rate, and the presence of nonlinearity, GARCH, and level effects in its volatility. The empirical results indicate that the nonlinear asymmetric models are better than the existing models in forecasting the future level and volatility of interest rate changes.*

- [5] “Peer Pressure: Industry Group Impacts on Stock Valuation Precision and Contrarian Strategy Performance”  
**Journal of Portfolio Management**, Spring 2006  
(with Turan G. Bali, Armen Hovakimian, and John Merrick)

*Investment bankers focus on narrow, industry-based peer groups for individual stock valuation. And some market-neutral equity hedge fund managers restrict their portfolios to be sector-neutral as well. Yet, academic research into contrarian strategy investment performance has typically invoked full universe valuation and ignored industry effects. Here, we find in favor of the bankers' and hedge fund managers' approach. Industry effects matter. Narrow industry-based peer groups improve stock valuation precision for three key valuation ratios. While our analysis of the dynamics of these ratios indicates substantial inertia in relative value rankings, we find that average returns to industry-based contrarian portfolio strategies are positive, statistically*

significant, and persistent. And over a sample that extends through the “new economy/old economy” and boom/bust period of the late 1990s, contrarian strategies were particularly profitable for NASDAQ-listed stocks. Most importantly, using our full sample of stocks, we show that an industry-neutral strategy is far superior to an industry-exposed, full universe strategy in Sharpe ratio terms over every horizon for each valuation ratio. Thus, contrarian strategy portfolio performance is significantly improved in risk-adjusted terms when implemented in its industry-neutral hedging form.

[4] “Testing Mean Reversion in Financial Market Volatility: Evidence from S&P 500 Index Futures”

**Journal of Futures Markets**, forthcoming

(with Turan G. Bali)

*This paper presents a comprehensive study of continuous time GARCH modeling with the thin-tailed normal and the fat-tailed Student-t and generalized error distributions (GED). The paper measures the degree of mean reversion in financial market volatility based on the relationship between discrete time GARCH and continuous time diffusion models. The convergence results based on the aforementioned distribution functions are shown to have similar implications for testing mean reversion in stochastic volatility. Alternative models are compared in terms of their ability to capture mean-reverting behavior of futures market volatility. The empirical evidence obtained from the S&P 500 index futures indicates that the conditional variance, log-variance, and standard deviation of futures returns are pulled back to some long-run average level over time. The paper also compares the performance of alternative GARCH models with Normal, Student-t, and GED density in terms of their power to predict one-day-ahead realized volatility of index futures returns and provides some implications for pricing futures options.*

[3] “Small Sample Bias in Panel Data”

**Finance Letters**, forthcoming

(with Turan G. Bali)

*There exists a small sample bias in predictive regressions, when a rate of return is regressed on a lagged stochastic regressor, and the regression disturbance is correlated with the regressors’ innovations. Although this bias can be a serious concern in time-series predictive regressions, it is not significant in panel data setting. By using simulations and stock level data, we document that as the number of cross sections used in the panel data increases the bias in coefficient estimates becomes negligible.*

[2] “Can Overreaction Explain Part of The Size Premium”

**International Journal of Revenue Management**, forthcoming

(with A. Burak Guner)

*This paper uncovers several empirical regularities in the returns of small stocks. First, within the sample of firms that have low market capitalizations, stocks with low past profitability (“laggers”) bring returns significantly higher than those of stocks with high past profitability (“leaders”). Second, the size premium is generated largely by small laggers. Moreover, both patterns are particularly pronounced at earnings-announcement dates, suggesting that unexpected earnings growth can explain a portion of the abnormal returns to small stocks. Since these findings point to market inefficiency, they are especially important for the revenue management of money managers who invest in small stocks.*

- [1] “Predictability of Risk Measures in International Stock Markets”  
**Stock Market Volatility**, edited by Greg N. Gregoriou, *forthcoming*  
(with Turan Bali)

*This paper investigates the predictability of variance and value at-risk (VaR) measures in international stock markets. We find that for all G7 countries considered in the paper persistency in variance is significantly higher than that in VaR. Variance of the stock market indices for Germany and Italy has the highest persistence, whereas the persistence is low for the US and Canada. However, different than the case of variance, the strongest predictability of VaR is obtained for Japan. We conclude that although the second moment of stock return distributions is highly predictable for Germany and Italy, tails of the distribution are more persistent for Japan.*

## WORKING PAPERS

- [12] “Contrarian Investment, New Share Issues and Repurchases”  
(with Turan G. Bali and Armen Hovakimian),  
**3<sup>rd</sup> round at Review of Finance**

*This paper examines the returns to investment strategies based on the interactions between value-to-market indicators and corporate financing transactions that increase or decrease the firm's outstanding equity, i.e., equity issues and repurchases. Portfolio-level analyses and firm-level cross-sectional regressions indicate that the well-documented contrarian profits soar when value stocks which repurchase shares (value repurchasers) and growth stocks which issue shares (growth issuers) are considered. The results also show that value-to-market ratios cannot capture the cross-sectional variation in expected stock returns when value issuers and growth repurchasers are considered. Based on various risk measures, we find that value repurchasers are not riskier than growth issuers. Furthermore, value repurchasers (growth issuers) experience the highest increase (decrease) in future growth rates. Our findings are consistent with the misvaluation explanation for the superior returns of value stocks.*

- [11] “Bond versus Stock: Investors’ Age and Risk Taking”  
(with Turan G. Bali, Haim Levy and Avner Wolf)  
**1<sup>st</sup> round at Journal of Monetary Economics**

*This paper examines the proportion of wealth invested in stock and bond portfolios as a function of the investors' age, i.e., investment horizon. It has become increasingly popular to advise investors to relocate their funds from a primarily stock portfolio to a primarily bond portfolio as they get older. However, the existing theory does not support this advice: the well-known decision rules such as Mean-Variance (MV) or Stochastic Dominance (SD) rules are unable to explain this common practice. In this paper, we utilize the recently developed Almost Stochastic Dominance (ASD) and Almost Mean Variance (AMV) approaches and employ various datasets to examine the dominance of stock and bond portfolios as a function of the investment horizon. We find that, for short investment horizons, all portfolios are efficient. However, for medium and longer horizons, only the portfolios with higher stock proportions are efficient. The results indicate that ASD and AMV rules unambiguously support the popular practice of advising higher stock to bond ratio for long investment horizons. Hence, we provide an explanation to the practitioners' recommendation within the expected utility paradigm.*

- [10] “Investigating ICAPM in International Futures Markets”  
(with Turan Bali and Kishore Tandon)  
**1<sup>st</sup> round at The Journal of Futures Markets**

*We use GARCH modeling with the thin-tailed normal and the fat-tailed Student t, generalized error, and generalized t distributions to simultaneously generate risk measures and forecast expected futures returns. The maximum likelihood parameter estimates indicate that the relation between risk and return is flat in futures markets. This result is robust across eight different countries.*

## **WORK IN PROGRESS**

- [9] “Relation between Risk and Expected Return and Cash Flow News”  
(with Turan G. Bali),
- [7] “Net Issuance Factor in Stock Prices”  
(with Turan G. Bali and Armen Hovakimian),
- [6] “Asymmetric Mean Reversion in Stock Prices”  
(with Turan G. Bali)
- [5] “Level of Earnings Momentum”  
(with Turan G. Bali and Yi Tang)
- [4] “Range Based Volatility and Cross-Section of Stock Returns”  
(with Turan Bali)
- [2] “Examining the High Frequency SP500 Futures”  
(with Turan Bali)
- [1] “The Anatomy of the Relationship between Analyst Earnings Estimates and Stock Returns”

## **PROFESSIONAL HONORS, PRIZES, FELLOWSHIPS**

- Presidential Excellence Award for Distinguished Teaching, 2007
- Recipient of Eugene M. Lang Research Fellowship, 2007
- Faculty Recognition Award for Scholarly and Creative Achievements, 2007
- Faculty Recognition Award for Scholarly and Creative Achievements, 2006
- Teaching Excellence, Deans List, 2007
- Teaching Excellence, Deans List, 2006
- Teaching Excellence, Deans List, 2005
- Teaching Excellence, Deans List, 2004
- PSC-CUNY Research Award Recipient, 2008
- PSC-CUNY Research Award Recipient, 2007
- PSC-CUNY Research Award Recipient, 2006
- PSC-CUNY Research Award Recipient, 2005
- PSC-CUNY Research Award Recipient, 2004
- Zicklin School of Business Teaching Excellence Award, 2004-2005
- Donald J. White Teaching Excellence Award, Boston College, 2002
- Graduate Fellowship, Boston College, 1998-02

- Honors List, Bogazici University, 1998

- Ranked within top 50 in Turkish College Entrance Exam, 1993
- National Academic Excellence Award, 1993

## **PROFESSIONAL ACTIVITIES**

Editorial Board Member: International Journal of Revenue Management

Reviewer for the Management Science, Journal of Banking and Finance, Review of Quantitative Finance and Accounting, Multinational Finance Journal, Journal of Applied Finance, Physic-A.

## **PRESENTATIONS**

- FMA meetings Fall 2008
- EFA meetings Zurich, Summer 2006
- UMASS Amherst, Spring 2006
- FMA meeting Stockholm 2006
- Penn State University, Fall 2005
- Baruch College, 2004
- EFA meetings Maastricht, August 2004
- Boston College, 2004
- Rice University, 2003
- Drexel University, 2003
- Koc University, 2003

## **ACADEMIC SERVICE**

- Hiring Committee Member, Baruch College
- Course Coordinator for MBA level classes
- Ph.D. Dissertation Committee, Department of Finance, Baruch College.
- Graduate Curriculum Committee, Baruch College, City University of New York.
- Undergraduate Honors Committee, Baruch College, City University of New York.
- Teaching Mentor for the new Business School Faculty, Baruch College.
- Chair of the Sub-committee on course syllabuses (under Graduate Curriculum Committee)
- Mentor and Lecturer for the Investment Club.
- Member of the Center for International Business Education and Research (CIBER) at Baruch College.
- Undergraduate Honors Committee, Baruch College, City University of New York.
- Faculty Advisor, Department of Finance, Baruch College.

**COURSE EVALUATIONS** (out of 5.00)

<b>Term</b>	<b>Course</b>	<b>Section</b>	<b>Teaching Evaluation</b>
Spring 2008	FIN 9770	MBA-Flex-time	<b>5.00</b>
Spring 2008	FIN 3710	Undergrad	<b>4.99</b>
Fall 2007	FIN 9770	MBA-Honors	<b>4.99</b>
Fall 2007	FIN 9770	MBA-Regular	<b>4.98</b>
Spring 2007	FIN 9770	MBA-Regular	<b>4.97</b>
Spring 2007	FIN 9770	MBA-Regular	<b>4.95</b>
Fall 2006	FIN 9770	MBA-Regular	<b>4.95</b>
Fall 2006	FIN 9770	MBA-Honors	<b>4.91</b>
Fall 2005	FIN 9770	MBA-Honors	<b>4.97</b>
Spring 2005	FIN 3710	Undergrad	<b>5.00</b>
Spring 2005	FIN 3710	Undergrad-Honors	<b>4.96</b>
Fall 2004	FIN 3710	Undergrad	<b>4.95</b>
Fall 2004	FIN 3710	Undergrad	<b>4.98</b>
Sprng 2004	FIN 3710	Undergrad	<b>5.00</b>
Spring 2004	FIN3710	Undergrad	<b>4.89</b>
Fall 2003	FIN3710	Undergrad	<b>4.69</b>
Fall 2003	FIN3710	Undergrad	<b>4.81</b>