Yildiray Yildirim

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Research Interest

Real estate, prepayment modeling and valuation of MBS, leasing, securitization, inflation modeling, and credit risk.

Professional Experience

Baruch College, CUNY, William Newman Real Estate Professor, July 2015-present
Baruch College, CUNY, Chair of William Newman Department of Real Estate, July 2015-present
Baruch College, CUNY, Director, Steven L. Newman Real Estate Institute, July 2015-present
Syracuse University, Michael Falcone Chair in Real Estate, Professor of Finance, 2001-2015
Syracuse University, Director, James D. Kuhn Real Estate Center, 2014-2015.
Syracuse University, Finance Department Chair, 2010-2014.
Syracuse University, Affiliated with Applied Statistics program 2007-2015.
Princeton University, Visiting Associate Professor, Spring 2008.
Pennsylvania State University, Visiting Associate Professor, April 2008.
Sabanci University, Visiting Associate Professor, November 2008.
Goethe-University of Frankfurt, Visiting Associate Professor, April (3rd week) 2009.
Cornell University, Visiting Associate Professor, Spring 2010.
Non academic
- WOTN (CMBS Risk Management Company), Partner, 2002-2005.
- TurkKrediRating, Director of Research, 2006-2008.
- Office of Comptroller of the Currency, Summer 2009.
- Toros Capital (Private Real Estate Fund), Advisory Board Member, 2009-2011.
- U.S. Department of Housing and Urban Development, 2010-2011.
- Borsa Istanbul, Summer 2013.
- Central Bank of Turkey, Visiting Professor, Summer 2015.

Education

Ph.D. Statistics/Finance, Cornell University, Ithaca, 2001
M.A. Economics, Cornell University, Ithaca, 1999
M.Sc. Computer Engineering, University of Houston-Clear Lake, Houston, 1996
B.Sc. Computer Science and Engineering, Yildiz Technical University, Istanbul, 1990

Published and Forthcoming Articles

29. Capital Structure and the Substitutability versus Complementarity Nature of Leases and Debt (With Tom Emmerling, Brent Ambrose and Henry H. Huang), forthcoming, *Review of Finance.*

28. The Impact of Tenant Diversification on Commercial Mortgage Spreads and Default Rates (With Brent Ambrose and Michael Shafer), forthcoming, *The Journal of Real Estate Finance and Economics.*

27. The Subprime Virus (With Sumit Agarwal and Brent Ambrose), *Real Estate Economics,* Vol. 43, Issue 4, pp. 807-1054, 2015.

26. Default and Prepayment Modelling in Participation Mortgages (With Yusuf Varli), *Journal of Banking and Finance,* Vol 61, No. 12, pg 81-88, 2015.

25. Drafting and Securitizing Participation Mortgages: a Re-Introduction (With Spencer J. Coopchik), *The Pepperdine Journal of Business, Entrepreneurship & the Law*, Vol 8, Issue 2, 468-497, 2015.

24. The Impact of Policy Decisions on Global Liquidity during the Recent Financial Crises (With Sait Satiroglu, Emrah Sener and Michael Shafer), *International Journal of Finance and Economics*, Vol 20, No. 2, 178-189, 2015.

23. Government Policies, Residential Mortgage Defaults, and the Boom and Bust Cycle of Housing Prices (With Marius Ascheberg, Robert Jarrow and Holger Kraft), *Real Estate Economics,* Vol 42, No. 3, 627-661, 2014.

22. Markov Switching Dynamics in REIT Returns: Univariate and Multivariate Evidence on Forecasting Performance (With Brad Case and Massimo Guidolin), *Real Estate Economics,* Vol 42, No. 2, pp. 279-342, 2014.

21. Affine Model of Inflation-Indexed Derivatives and Inflation Risk Premium (With Hsiao-Wei, Henry H. Huang), *European Journal of Operational Research,* Vol. 235, Issue 1, pg. 159-169, May 2014.

20. Operational Risk and Equity Prices (With Michael Shafer), *Finance Research Letters,* Volume 10, Issue 4, pg 157-168, December 2013.

19. Dynamic Correlation Among Asset Classes: REIT and Stock Returns (With Brad Case and Yawei Yang), *The Journal of Real Estate Finance and Economics,* Vol. 44, No. 3, 2012.

18. Housing Prices and the Optimal Time-on-the-Market Decision (With Hazer Inaltekin, Robert Jarrow, and Mehmet Saglam), *Finance Research Letters,* Volume 8, Issue 4, pp. 171-226, 2011.

17. The Term Structure of Lease Rates with Endogenous Default Triggers and Tenant Capital Structure: Theory and Evidence (With Sumit Agarwal, Brent Ambrose and Hongming Huang), *Journal of Financial and Quantitative Analysis*, Vol. 46, No. 2, pp. 553-584, April 2011.

16. Price Discovery in Real Estate Markets: A Dynamic Analysis of the REIT Premium (With Abdullah Yavas), *The Journal of Real Estate Finance and Economics,* Vol. 42, No. 1, pp. 1-29, 2011.

15. The Cost of Operational Risk Loss Insurance (With Robert Jarrow and Jeffrey Oxman), *Review of Derivatives Research*, Volume 13, Number 3, Page 273-295, 2010.

14. Leverage, Option Liabilities and Corporate Bond Pricing (With Hueng-Ming Huang), *Review of Derivatives Research,* Volume 11, Issue3, Page 245-276, 2009.

13. Estimating default probabilities implicit in CMBS (With James Kau and Donald Keenan), *The Journal of Real Estate Finance and Economics*, Vol 39, No. 2, 2009.

12. The Dynamics of Operational Loss Clustering (With Anna Chernobai), *Journal of Banking and Finance*, Vol 32/12, pp. 2655-2666, 2008.

11. Credit Risk and Term Structure of Lease Rates: A Reduced Form Model (With Brent Ambrose), *The Journal of Real Estate Finance and Economics,* Vol 37, No. 3, pp. 281-298, 2008.

10. Valuing TIPS Bond Futures in Jarrow-Yildirim Model (With Hueng-Ming Huang), *Risk,* 21(6), 2008.

9. Commercial Mortgage Backed Securities (CMBS) and Market Efficiency with respect to Costly Information (With Andreas Christopoulos and Robert Jarrow), *Real Estate Economics,* Vol 36, No. 3, pp. 441-498, 2008.

8. Estimating Default Probabilities of CMBS with Clustering and Heavy Censoring, *The Journal of Real Estate Finance and Economics*, Vol. 37, No. 2, pp. 93-111, 2008.

7. Modeling default risk: A new structural approach, *Finance Research Letters*, 3, pp. 165-172, 2006.

6. Modeling Default Risk with Partial Information (With Umut Cetin, Robert Jarrow and Philip Protter), *Annals of*

Applied Probability, Vol. 14, No. 3, pp. 1167-1178, 2004.
  - Reprinted, *Financial Derivatives Pricing*, 2008, World Scientific Publishing.

5. How Valuable is Credit Card Lending? (With Arkadev Chatterjea, Robert Neal and Robert Jarrow), *Journal of Derivatives*, Vol. 11, Number 2, Pages 39 – 52, Winter 2003.

4. Pricing Treasury Inflation Protected Securities and Related Derivative securities using an HJM Model (With Robert Jarrow), *Journal of Financial and Quantitative Analysis*, Vol. 38, No. 2, June 2003.
   - Reprinted, *Financial Derivatives Pricing*, 2008, World Scientific Publishing.

3. Estimating Default Probabilities Implicit in Equity Prices (With Tibor Janosi and Robert Jarrow), *Journal of Investment Management*, Vol. 1, No. 1, 2003.
   - Reprinted, *The Credit Market Handbook: Advanced modeling Issues*, ed. G. Fong, 2005, Wiley.

2. Estimating Expected Losses and Liquidity Discounts Implicit in Debt Prices (With Tibor Janosi and Robert Jarrow), *Journal of Risk*, Volume 5 / Number 1, Fall 2002.
   - Reprinted, *Innovations in Risk Management*, ed. P. Jorion, 2004, Risk Books: London.

1. Valuing Default Swaps Under Market and Credit Risk Correlation (With Robert Jarrow), *Journal of Fixed Income*, 11 (4), March 2002.

Working Papers

1. Portfolio Balance Effects and the Equity Market (With Tom Emmerling and Robert Jarrow).

2. Portfolio Balance Effects and the Fed's Large-Scale Asset Purchases (With Tom Emmerling and Robert Jarrow).

3. Consumption Response to Credit Tightening Policy: Evidence from Turkey (With Sumit Agarwal and Muris Hadzic).

4. To Accept or Not to Accept: Optimal Strategy for Sellers in Real Estate (With Tom Emmerling and Abdullah Yavas).

5. Do We Need Non-Linear Models to Predict REIT Returns? (With Brad Case and Massimo Guidolin).

6. Simultaneous implication of credit risk and embedded options in lease contracts (With Chuang-Chang Chang, Hsiao-Wei Ho and Henry Huang).

7. Portfolio Balance Effects and the Cross-Section of Equity Returns (With Tom Emmerling and Robert Jarrow).

8. Piety, Politics, and Portfolio Selection (With Warren Bailey, Orhan Erdem and Cagri Onuk).

Professional Activities

Referee

AMS Grant Application
Economic Modeling
European Journal of Operational Research
Finance and Stochastic
Finance Research Letters
Financial Review
International Journal of Theoretical and Applied Finance
Journal of Housing Research
Journal of Housing Economics
J. Int. Financial Markets, Inst. &Money
Journal of Futures Market
Journal of Money, Credit, and Banking
Journal of Real Estate Finance and Economics
Journal of Risk

International Journal of Forecasting
Journal of Banking and Finance
Journal of Computational and Applied Mathematics
Journal of Credit Risk
Journal of Derivatives
Journal of Economics and Business
Journal of Economics and Dynamic Control
Journal of Entrepreneurial Finance and Business Ventures
Journal of Financial and Quantitative Analysis
Journal of Financial Economics
Journal of Financial Research
Journal of Financial Services Research
Journal of Urban Economics
Management Science
Methodology and Computing in Applied Probability
Mathematical Finance
Quantitative Finance
Operation Research
Real Estate Economics
Review of Futures Market
Risk Magazine
Stochastic Processes and Their Applications
The Quarterly Review of Economics and Finance.
Wilmott Magazine

Book Chapter

Inflation Modelling (With Fabio Mercurio), *Inflation-Linked Products, Risk Books, 2008*.

Patent

Structural finance securities option pricing architecture and process with an application to commercial mortgage-backed securities (CMBS) (with Andreas Christopoulos, Robert Jarrow, et al.), 2014.

Conferences

The International Conference on Financial Development and Economic Stability (FDES-2016), BIFEC (2015), FMA Conference Committee Member (2015), MFA Conference Committee Member (2015), AREUEA-ASSA Conference Program Committee Member (2014), BIFEC Conference Program Committee Member (2013), AREUEA International Conference (2014), Plenary Speaker at International Conference on Mathematical Finance and Economics (2011), Invited Speaker at Istanbul Conference of Economics and Finance (2011), The Bachelier Finance Society (2010), 20th Annual Derivative Securities and Risk Management (2010), AREUEA Annual Conference (2005, 2007, 2009, 2010, 2011, 2012, 2013, 2014, 2015), INFORMS (2009), FMA (2008), The Bachelier Finance Society (2008), American Mathematical Society - Special Session on Current Challenges in Financial Mathematics (2008), EFMA Program Committee Member (2008, 2009, 2010, 2012), AREUEA International Conference Committee Member (2008), INFORMS (2007), FMA (2007), RERI (2007), ARES (2006), FMA (2005), International Conference on Management and Economics (2005), AREUEA Mid-Year Meeting (2005), The Bachelier Finance Society (2004), Liquidity Conference by London School of Economics (2003), EURO/INFORMS (2003), North American Winter Meeting of the Econometric Society (2003), 13th Annual Conference on Financial Economics and Accounting (2002), The Bachelier Finance Society (2002), International Credit Risk Conference (2002), Risk Conference-MathWeek (2001), Quantitative Methods in Finance (2001), German Finance Association (2001), INFORMS (2001).

Seminars

Pennsylvania State University (2015), Homer Hoyt Institute (2015), Baruch College (2015), Lehigh University (2015), Central Bank of Turkey (2011, 2014), Kuwait University (2013), Rensselaer Polytechnic Institute (2013), University of Illinois at Urbana Champaign (2012), World Bank (2012), Islamic Development Bank (2012), National Bank of Serbia (2011), U.S. Commodity Futures Trading Commission (2010), Ozyegin University (2010), Goethe-University of Frankfurt (2009), GARP (2009), AQR (2009), Istanbul University (2009, 2010), Cornell University (2007, 2008), Sabanci University (2007, 2008, 2010), Eximbank of Turkey (2008), The Saving Deposit Insurance Fund of Turkey (2008), Banking Regulation and Supervision Agency of Turkey (2008), University of California Berkeley (2006), FDIC (2006), Pennsylvania State University (2005), Bogazici University (2005), Bilgi University (2004, 2005, 2007, 2009, 2010, 2012), Bates College (2003), Syracuse University (2001, 2002, 2006, 2009), Chicago Federal Reserve Bank (2001), Koc University (2001), University of Wisconsin-Madison (2001), Georgia Institute of Technology (2001), Georgetown University (2000), Princeton University (2000), Baruch College (2000).

Associate Editor

Real Estate Economics 2015 – present
Mathematical Finance Letters 2013 – present
Journal of Labour Relations 2010 – present
The ICFAI Journal of Financial Risk Management 2009 – present

Honors and Awards

Fellow of Weimer School of Advanced Studies in Real Estate and Land Economics, *Homer Hoyt Institute*, 2015.
Thomas Finucane Award for Exceptional Scholarship, 2009.
Sage Graduate Fellowship, Cornell University (1996-1997, 1999-2000).

Teaching

Real Estate
RE Finance and Investment; RE Capital Markets; Case Studies in Real Estate Finance and Development
Investment
Investment; Risk Management: Credit Risk; Fixed Income Securities
Corporate Finance
Corporate Finance; Financial Management; Advanced Financial Management
PhD Courses
Real Estate; Asset Pricing; Corporate Finance
Teaching Ratings are above the Business school averages, *provided upon request*.

Services (Academic)

Developed the undergraduate program in Real Estate at Syracuse University (2009)
- School approved in 2008.
- State approved in 2009.
- Ranked #7 in 2015 by College Factual.

Developed the MBA concentration in Real Estate at Syracuse University (2012)
- School approved in 2012

Real Estate Club Faculty Advisor (2005-2015)
Management Committee (2010-2014)
Promotion and Tenure Committee (2009-2010)
Doctoral Board Member (2004-2008)
Organizer of Finance Workshops (2005-2008)
Director of the Finance Doctoral Program (2005-2008)
President of the Syracuse Chapter/American Statistical Association (2003-2004)
Outside examiner for Undergraduate Honors Thesis, Bates College (2003)
Honor Thesis Advisor, Bruna Almeida Lopes Barreto (2012)

Membership

American Finance Association, Western Finance Association, Financial Management Association, Econometric Society, INFORMS, Bachelier Finance Society, AREUEA, and Urban Land Institute.

Professional Development

ARGUS, SNL Fundamentals of REIT Credit Analysis, Attended Urban Land Institute summer school for courses on Real Estate Finance, Real Estate Development Process: Part II, Advanced Development Process: Commercial.

Media

Bloomberg TV, Record and Herald News, Daily Orange, U.S. News, LiveScience.com, Atlanta Journal-Constitution, Post-Standard, NJ Record, CQ Researcher, Business Week, Atlanta Journal-Constitution, Post-Standard, WCNY Business Close Up: Real Estate, Financial Engineering News, Financial news.