Hefei (Faye) Wang

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Experiences:

2005 – present	Assistant Professor of Finance, Liautaud Graduate School of Business, University of Illinois at Chicago Course: Managerial Finance (undergraduate, MBA), Fixed Income (MBA)
2010.6 – 2011.1	Visiting Scholar, School of Economics and Management / China Center for Financial Research, Tsinghua University
2009.1 – 2009.6	Research Consultant, Federal Reserve Bank of Chicago
2003	Instructor, Graduate School of Business, Stanford University Course: Doctoral pre-enrollment Statistics course
2000-2005	Teaching Assistant, Graduate School of Business, Stanford University Course: Doctoral Econometrics, MS Finance, MBA Corporate Finance, MBA Investment
2000-2005	Research Assistant, Graduate School of Business, Stanford University For Anat Admati, Peter DeMarzo, Ulrike Malmendier, Manju Puri, Jeff Zwiebel

Education:

2000 - 2005	Ph.D. in Finance, Stanford Graduate School of Business Masters in Statistics, Stanford University Thesis: Essays in Corporate Finance Committee: Anat Admati, Peter DeMarzo and Jeffrey Zwiebel
1997- 2000	B.A. in Mathematics and Computer Science, Wellesley College Summa cum laude. Phi Beta Kappa (junior year)

Research Interests:

- Corporate Finance
- Information Economics
- Asset Allocation

<u>Research:</u>

1. "Staged Financing Contracts with Private Information" (Journal of Financial Intermediation, April 2008, Volume 17, Issue 2, 276-294)

This paper studies the use of incentive contracts when some agents in the population are technically constrained from falsifying reports and stealing cash. The Bolton-Scharfstein contract is the optimal truth-telling contract, but it may not be the optimal contract for a large range of parametric values. This result implies that the "revelation principle" may not give rise to optimal contracts in this setting. The optimal contract may induce falsification and stealing in equilibrium and social welfare may be improved. Moreover, screening different types of agents is too costly for the principal ex ante, and thus, the optimal contract is always a pooling contract.

2. "Reputation Acquisition of Underwriter Analysts – Theory and Evidence" (Journal of Applied Economics, November 2009, Vol XII, Number 2, 331-363)

I examine the role of reputation in a multi-stage strategic information transmission game between an analyst and an investor. While reputation mitigates the conflict of interest in a repeated game, it may induce the biased analyst to elevate potential underperformers to the highest rating category, thus undermining the information quality of the highest message. Uncertainty about firm value helps the unbiased analyst to communicate better information in a single stage game. However, in a multi-stage game, uncertainty increases misrepresentation behavior of the biased analyst. Empirical implications are discussed and tested.

3. "Leverage Management" (joint with Chenyang Wang) (Mathematics and Financial Economics, October 2010 Volume 3, Number 3-4, 161-183)

An asset manager trades off the benefits of higher leverage against the costs of adjusting leverage in order to mitigate expected insolvency losses. We explicitly calculate optimal dynamic incentive-compatible leverage policies in simple versions of this problem. In addition, we provide a complete characterization of the conditions under which the value functions remain finite. This solves a central problem in the portfolio optimization literature.

4. "The Reflection of Macroeconomics in the Western Academic Circle after the Financial Crisis" (joint with Feng Junxin, He Ping, David D. Li) (Economic Perspectives, November, 2011,11-17)
Economic Perspectives is a top peer refereed journal in theoretical Economics in China

We reexamine the development of macroeconomic research and limitations of existing models in providing sufficient warnings and offering pragmatic solutions in the Financial Crisis. The Financial Crisis revealed three topics of research to be of pertinent importance to increasing our understandings of today's economy: 1) modern macroeconomic models should incorporate financial frictions; 2) place more emphasis on the economic globalization and financial market contagions; 3) system of national accounts needs to reflect real economic developments.

5. "Costly Information Transmission in Continuous Time – with Implications for Credit Rating Announcements" (Journal of Economic Dynamics and Control, September 2012, Volume 36, Issue 9, 1402-1413)

This paper formulates a continuous-time information transmission model in which an altruistic sender privately observes a stochastic state variable, and incurs a communication cost when she broadcasts a message. We characterize the sender's optimal announcement strategy using an ordinary differential equation. We prove the optimality of the sender's strategies using a martingale verification argument and show that the sender's optimal strategy involves sending discrete messages. Furthermore, we apply the model to the timing decision of credit rating announcements and provide a framework to study various aspects of rating announcements, such as the probability of rating reversals and the expected time before a rating change.

6. "Leverage management in a bull-bear switching market" (joint with Min Dai and Zhou Yang) (Journal of Economic Dynamics and Control, October 2012, Volume 36, Issue 10, 1585-1599)

Should an investor unwind his portfolio in the face of changing economic conditions? We study an investor's optimal trading strategy with finite horizon and transaction costs in an economy that switches stochastically between two market conditions. We fully characterize the investor's time dependent investment strategy in a ``bull'' market with high risk premiums, and a ``bear'' market with low risk premiums. We show that when the market switches from the ``bull'' market to the ``bear'' market, complete deleveraging, reducing stock holdings, or keeping leverage unchanged may all be optimal strategies, subject to certain market conditions. We further show that the investor may not reduce leverage in the ``bear'' market, particularly for illiquid asset. On the other hand, a lower borrowing cost in the ``bear'' market would prevent sell offs.

7. "Perverse Incentives at the Banks? Evidence from a Natural Experiment" (joint with Sumit Agarwal) AEA 2009 San Francisco paper (work in progress)

Incentive provision is a central question in modern economic theory. During the run up to the financial crisis, many banks attempted to encourage loan underwriting by giving out incentive packages to loan officers. Using a unique data set on small business loan officer compensation from a major commercial bank, we test the model's predictions that incentive compensation increases loan origination, but may induce the loan officers to book more risky loans. We find that the incentive package amounts to a 47% increase in loan approval rate, and a 24% increase in default rate. Overall, we find that the bank loses money by switching to incentive pay. We further test the effects of incentive pay on other loan characteristics using a multivariate difference-in-difference analysis.

8. "Reevaluating the Roles of Large Public Surpluses and Sovereign Wealth Funds" (joint with Bernard Lee) (Asian Development Bank Institute working paper)

We discuss the increasingly important roles of Asian official institutions in the new global financial landscape and historical reasons for the buildup of large public surpluses. We examine investment purposes of sovereign wealth funds as managers of large public surpluses and the challenges faced by these funds before and after the financial crisis. Our academic contribution is that there seems to be a logical inconsistency in the common application of the Berk-Green alpha argument to the management of sovereign wealth funds (SWFs). For instance, the recent work done by Ang, Goetzmann and Schaefer suggests limited or no evidence that alpha-seeking activities have impacts on SWF performance. We argue that the problem may be in the choice of an appropriate benchmark for such large, non-commercial mandates.

9. "A General Framework for Costly Information Transmission in Continuous Time"(joint with Min Dai and Yizhou Cao) (work in progress)

In this paper, we study a costly information transmission problem in the continuous time domain. We formulate a model that incorporates broadcasting costs, misaligned incentives between the information sender and receiver, receiver's naivety, and penalty costs of misrepresenting information. We derive the Hamilton-Jacobi equation associated with this stochastic control problem and characterize the sender's optimal strategy. Two specific model settings are examined here. The infinite time horizon case is solved analytically while the finite time horizon case is solved numerically. Furthermore, this paper includes a practical application of the proposed model to the stock recommendation analysis, which is also solved numerically. The sensitivity of the numerical solution to model parameters is analyzed.

Other Publications:

"Well-posedness, Decay Estimates and Blow-up Theorem for the Forced NLS" joint with Charles Bu, Randy Shull, and Millie Chu (Journal of Partial Differential Equations, 2001, Volume 14, Issue 1,61-70)

"On the Forced Nonlinear Schrodinger Equation" joint with Charles Bu, Randy Shull and Millie Chu (Mathematical and Numerical Aspects of Wave Propagation, Society of Industrial and Applied Mathematics, 2000, 626-630)

Invited Presentations:

2012	International Symposium on Financial Engineering and Risk Management, Changsha, China; (Invited presentation, Session Chair)
2011	Office of the Comptroller of the Currency, US Department of Treasury; Sun Yat-Sen University, Ling-Nan Business School.
2010	International Symposium on Financial Engineering and Risk Management, Taipei; (Invited presentation, Session Chair) Asian Development Bank Institute and ISEAS Workshop, Singapore (Invited Presentation); University of Technology, Sydney, School of Finance and Economics; Tsinghua University, School of Economics and Management; Renmin University, Hanqing Institute of Economics and Finance; Central University of Finance and Economics, Chinese Academy of Finance and Development.
2009	Peking University Guanghua School of Management; Cesifo Banking Conference, Munich (Invited presentation).
2008	Federal Reserve Bank of Chicago; National University of Singapore, Risk Management Institute.
2007	Hong Kong University, School of Economics and Finance; The Chinese University of Hong Kong, School of Business Administration.
2005	University of California, Los Angeles, Anderson School of Management; University of Washington, Foster School of Business; Santa Clara University, Leavey School of Business

Conference Presentations:

2011	European Financial Management Conference, Toronto (Session Chair); World Finance Conference, Rhodes, Greece;
2010	Society of Financial Econometrics (SOFIE) Annual Conference, Melbourne;

	Bachelier Finance Society World Congress, Toronto;
	China International Conference in Finance (CICF), Beijing.
	"Five Star" Conference, Beijing.
2009	American Economic Association Annual Conference, San Francisco;
	Financial Intermediation Research Society Meeting, Prague;
	China International Finance Conference, Guangzhou.
2008	International Symposium on Financial Engineering and Risk Management.
2007	International Symposium on Financial Engineering and Risk Management;
	China International Finance Conference;
	European Accounting Association Conference, Portugal.
2006	China International Finance Conference

Referee Activities:

Journal of Financial Intermediation, Review of Financial Economics, Journal of Economics and Finance, International Review of Economics and Finance

Organization of Sessions and Program Committees:

Financial Management Association conference, program committee, 2009, 2010
Chicago Fed Bank Structure Conference, program committee, 2009
AEA session: "Incentive pay: wealth creation or windfalls" 2009

Awards and Grants:

2011	University of Illinois Faculty Support Program Research Grant
2010	University of Illinois Faculty Support Program Research Grant
2006	Letter from the Dean in recognition of teaching excellence
2004	Stanford Graduate School of Business Human Subject Research Grant
2002	Stanford Graduate School of Business -- Jaedicke Merit Scholarship
2001	Stanford Graduate School of Business -- Jaedicke Merit Scholarship
2000	Wellesley College Trustee Scholar
2000	Fanny Bullock Workman Fellowship for Graduate Studies
2000	Lewis Atterbury Stimson Prize in Mathematics
1999	Schiff Fellowship for Honor Thesis Students
1999	Hughes Research Award
1998	Fairchild Research Award