

# The Second Annual EITC Business & Management Workshop: Emerging Financial Services (EITC-B&M 2009)

"Mortgage Risk Management: Crsis and Solutions"

**Conference Proceedings** 

Friday, April 24, 2009 Taipei Economic and Cultural Office in New York 1 East 42<sup>nd</sup> Street, New York, NY 10017 U.S.A.

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# **Conference Theme**

The purpose of this workshop is to investigate best practices in residential mortgage risk management as it relates to the current housing finance crisis, and discuss the potential effectiveness of alternative solutions. The crash of the subprime lending industry was the first event of the current global financial meltdown. However, the magnitude of the financial problem is now far beyond the total size of subprime lending. The current crisis revealed that there are numerous other problems in the global capital market system need to be identified and fixed.

This workshop organizes the investigation from both the government (e.g. regulatory and social policy) and the private business viewpoints. Distinguished panelists will discuss the fundamental issues contributing to the current housing finance crisis, the challenges faced in addressing this crisis, and how effective various proposed solutions will be in fixing the problem, both in the short term and the long term.

**Ren-Raw Chen**, Fordham University **Jordan Hu**, Riskval Financial Solutions **Tyler T. Yang**, IFE Group (**Conference Chair**)

# **Conference Program**

# Friday, April 24, 2009

Welcome remarks 09:00am - 09:10am Amb. Kenneth Liao (廖大使港民) Director General of Taipei Economic and Cultural Office in New York

## **Opening speech**

09:10am - 09:40am

**Barry Dennis**, President, Habitat Economics (former PricewaterhouseCoopers Partner and Leader in Government Housing Finance Practice)

**Keynote speech** 09:40am - 10:10am

Patrick Lawler, Chief Economist, Federal Housing Finance Agency

**Break** 10:10am - 10:30am

### Session I: Housing Finance Regulations and Policies

10:30am - 12:15pm Moderator: **Alven Lam**, Director, United States Department of Housing and Urban Development

Panelists:
Jian Chen, Director of Capital Market, Fannie Mae
Wenli Li, Economic Advisor and Economicist, Federal Reserve Bank of Philadelphia
Tyler Yang, Chairman, IFE Group
Barry Dennis, President, Habitat Economics
Patrick Lawler, Chief Economics, Federal Housing Finance Agency

**Lunch** 12:15pm - 01:45pm

### Session II: New Trends in Capital Markets

01:45pm - 03:30pm Moderator: **Tyler Yang**, Chairman & CEO, IFE Group

Panelists: **David Zhang**, Head Global Mortgage Strategy, Credit Suisse Investment Bank **I-Shang Jackson Chow**, Vice President, Morgan Stanley **Jay Guo**, Head of Strategy and Research, Seer Capital Management **Rui Yao**, Associated Professor, Baruch College

### Break

03:30pm - 03:45pm

### Session III: Credit, Rating, and Valuation Modeling

03:45pm - 05:30pm Moderator: **Jordon Hu**, President, RiskVal

Panelists: **Ren-Raw Chen**, Professor, Fordham University **Dunmu Ji**, President, Hedge Systems **Cameron Miller**, Associate Director of Global Fixed Income Research, Standard and Poors **Lida Chen**, Director, Barclays Group

# **Abstracts and Biographies**

**Conference Chair & Session Moderator** 

# **Tyler Yang**

Chairman & CEO IFE Group Email: tyler.yang@ifegroup.com

### BIOGRAPHY

Tyler Yang is the Chairman and CEO of IFE Group, a financial consulting company focused on financial risk management. He has over twenty years of academic and industry experience in fixed income analytics and portfolio engineering. His specialties include managing risk-based capital, pricing mortgage and asset backed securities, designing and executing hedging instruments and strategies, and developing enterprise-wide risk policies. He published over two dozens housing finance related articles in top finance and real estate journals and frequently gives speeches at professional meetings globally. Dr. Yang is active in several academic and practical organizations. He is a founding Director of the Global Chinese Real Estate Congress and the founding Vice President of Asian Real Estate Society, of which he is also an ex-President and served as the Executive Director for seven years. He is a Co-Editor of several leading refereed journals. Dr. Yang currently serves as the independent actuary of the Federal Housing Administration mutual mortgage insurance fund. He was previously the Sr. Director of Credit Portfolio Engineering at Freddie Mac, the Director of Housing Finance at PricewaterhouseCoopers, a Sr. Research Economist at Fannie Mae, and has been faculty member of Georgetown University, George Washington University, and California State University at Long Beach. He received his Ph.D. in Finance from the University of Illinois at Urbana-Champaign.

# **Opening Speech**

# **Barry Dennis**

President, Habitat Economics (former PricewaterhouseCoopers Partner and Leader in Government Housing Finance Practice)

### BIOGRAPHY

Dennis has been a leader in the area of economics and financial consulting for more than thirty years. He has provided consulting services to both private and public sector clients working in the areas of economic analysis, financial analysis, policy analysis, and simulation modeling. He had been a partner of PricewaterhouseCoopers LLP for seventeen years. He established and managed numerous financial and economics analytical practices. While with the Office of Government Services division, he led the firm's Financial and Economics Analysis group, the Asset Securitization group, the Housing Finance group, and the WCP Financial Risk Management group. Prior to his role in the PwC government services division, Mr. Dennis was in the PwC Washington National Tax Services. In this role, Mr. Dennis provided consulting services to private sector clients on the financial and economic effects of tax laws and regulations. As financial economist in the Office of Tax Analysis, Mr. Dennis was involved in both the tax legislative and the U.S. government budget processes. He analyzed the economic effects of tax legislation and constructed computer models to estimate the impact of tax laws on federal tax receipts. He presented analytical and quantitative results to top administration policy officials and to members of Congress and their staff. Mr. Dennis contributed to both the corporate and individual tax receipts models at the Treasury. He concentrated on financial sector issues. Mr. Dennis earned letters of commendation from members of Congress, and an official citation and award from the Secretary of the Treasury. Mr. Dennis received his Master's Degree in Economics from the University of Maryland and a Bachelor's Degree in Economics and Political Science from Ball State University.

# Keynote Speech

# **Patrick Lawler**

Chief Economist Federal Housing Finance Agency

### BIOGRAPHY

Patrick J. Lawler is Chief Economist and Associate Director for Policy Analysis and Research at the Federal Housing Finance Agency (FHFA) formerly Office of Federal Housing Enterprise Oversight (OFHEO). He supervises the production of FHFA's House Price Index, as well as internal and external analyses on a variety of topics relevant to FHFA. Before joining OFHEO in 1994, Mr. Lawler served for six years as Chief Economist for the Senate Banking Committee where he worked on several key banking and housing finance statutes, including FIRREA, FDICIA, and the Federal Housing Enterprises Financial Safety and Soundness Act of 1992, which established the current regulatory framework for Fannie Mae and Freddie Mac. He also served on the staffs of the Federal Reserve Board and the Federal Reserve Bank of Dallas.

## Session I: Housing Finance Regulations and Policies

## Moderator

# Alven Lam

Director United States Department of Housing and Urban Development

#### BIOGRAPHY

Alven Lam is director of international research at the Office of International Affairs, U.S. Department of Housing and Urban Development (HUD) in Washington D.C. He manages research projects and bilateral and multilateral cooperation on housing, finance, and sustainable development policy exchange programs. In 2001, he was invited by an Assistant Secretary of HUD to manage a Presidential-level U.S.-China Housing Initiative, which is a bilateral exchange between HUD and the Chinese Ministry of Construction with the focuses on finance and building technology. Since then, Mr. Lam has developed international training and cooperation and research projects with USAID, Overseas Private Investment Corporation, United Nations Habitat Program, and the Governments of Spain, Mexico, Canada, Uganda, Ghana, El Salvador, and other multilateral banks and international organizations. Mr. Lam has 25 years of international development and research experience specializing in economic development, housing policy, geographic information system, local government finance, property taxation and other technical assistance projects. He has served in the U.S. delegations to major multilateral meetings including the UN-Habitat Governing Council, UN Commission on Sustainable Development, UN Commission for Population and Development, and the World Urban Forum. Prior to joining HUD, he was research fellow at the Lincoln Institute of Land Policy in Cambridge, Massachusetts. Mr. Lam received a doctoral degree from Harvard University Graduate School of Design.

### Session I: Housing Finance Regulations and Policies

# Jian Chen

Director of Capital Market Fannie Mae

### BIOGRAPHY

Dr. Jian Chen is Director of Risk Oversight in the Capital Markets Strategy group in Fannie Mae, where he manages the credit risk of over \$115 billion credit sensitive assets, including RMBS, CMBS, Non-Performing Loans, and Subprime loans. He has worked vigorously to reduce Fannie Mae's credit losses, improve servicer performance, and help homeowner stay in the home at an affordable and sustainable basis. He is also an Adjunct Professor of Finance in Johns Hopkins Carey Business School.

Prior to his current positions, Dr. Chen started his career in Fannie Mae's credit modeling group, building credit risk pricing models for Fannie Mae's \$2.7 trillion mortgage guaranty portfolio. He then moved to Fannie Mae's Capital Markets Research group, where he built sophisticated prepayment and pricing models for Fannie Mae's \$800 billion mortgage investment portfolio, including Hybrid ARM, Reverse Mortgage, AltA ARM, and other non-congenital mortgage products. He holds a Ph.D. in Computational Finance from Robert H. Smith School of Business, University of Maryland. He is also a Charted Financial Analyst charter holder.

Dr. Chen also keeps active participation in academic research. His research interest lies in modeling, pricing, and hedging of Fixed Income Securities, including MBS and ABS. His dissertation, "<u>Hedging the Interest Rate and Credit Risk of MBS</u>", is one of the most influential papers on risk management of mortgage-backed securities. He has constantly participated in academic conferences and given talks on quantitative analysis of MBS. Another important research area of Dr. Chen is housing economics and housing policy. He is one of the first researchers to identify the unsustainable trend in the house price of the United States during the peak of housing boom in summer 2006 by examining the household housing affordability. He is the first to empirically identify the correlation between housing affordability and homeownership between big metropolitan areas.

## Session I: Housing Finance Regulations and Policies

### Wenli Li

Economic Advisor and Economist Federal Reserve Bank of Philadelphia

### **BIOGRAPHY**

Wenli Li is an Economic Advisor and Economist with the Federal Reserve Bank of Philadelphia. Her research area includes consumer credit, residential housing, and financial intermediation. She has published extensively in leading economic journals. Prior to her current post, Dr. Li served as an Economist at the Board of Governors of the Federal Reserve System in Washington D.C., and the Federal Reserve Bank of Richmond. She received her undergraduate degree from Tsinghua University and Ph.D. from the University of Minnesota.

# **David Zhang**

Head Modeling, Credit Suisse Investment Bank

### BIOGRAPHY

David Zhang is a Director and head of mortgage modeling at Credit Suisse Mortgage Trading, responsible for agency and non-agency mortgage modeling and various pricing and risk issues. His group also worked on Japanese and Korean Mortgages, as well as CMBS. Previously, he was Senior Research Director at FreddieMac, where he was responsible for modeling interest rate, mortgage prepayment and valuing interest rate derivatives, callable and convertible bonds and mortgage products. He also worked at CIBC Oppenheimer Financial Products in New York and University of Chicago. He has a Ph.D in Geophysical Fluid Dynamics from Princeton University.

# **I-Shang Jackson Chow**

Vice President, Morgan Stanley

### **BIOGRAPHY**

Jackson Chow is the Vice President of Model Review & Governance team at Global Valuation Review Group from Morgan Stanley. He is mainly responsible for reviewing models related to mortgage products including residential and commercial. Prior to joining Morgan Stanley, Dr. Chow had been a Director at Fitch Rating responsible for mortgage research and rating model development, a SVP at People's Choice responsible for asset management and secondary trading, and a VP at Hegemon Capital in charge of its residential mortgage portfolio. Dr. Chow received his Ph.D. in statistics from University of California, Riverside

# Jay Guo

Head of Strategy and Research Seer Capital Management

### BIOGRAPHY

Jay Guo, Ph.D., is a Director at Seer Capital Management responsible for developing quantitative research and trading models and generating trading strategies. He was a Director and trader at Credit Suisse Mortgage Proprietary Trading group focusing on trading strategies and quantitative modeling. Prior to performing that role, he was a Director in the ABS Research group, which has been consistently top ranked as the All-America Research Team in real estate and modeling by Institutional Investors from 2004 to 2007. Jay joined Credit Suisse from Fannie Mae, where he was an economist in Credit Policy and Finance Division. Jay has published a dozen research articles in leading finance and economics journals, such as Oxford Bulletin of Economics and Statistics, Journal of Future Market, et al. His views and research on mortgage and real estate markets have been quoted by The Wall Street Journal, Chicago Tribune, Market Watch, The New York Times, Business Week, et al. Jay holds a Ph.D. in Economics from Indiana University, Master degrees in Economics and Statistics, a B.S. in Mathematics from Beijing Normal University (BNU). He is a member of the Board of Directors of the not-for-profits BNU Education Foundation for the Poor.

# Rui Yao

Associate Professor Baruch College The City University of New York

### **BIOGRAPHY**

Dr. Rui Yao is an associate professor of real estate from the Zicklin School of Business, Baruch College, City University of New York, where he has taught finance and real estate courses for seven years. Dr. Yao's major research areas include commercial mortgage default and prepayment modeling, optimal inter-temporal asset allocations, and household housing and mortgage decisions. He has published academic research papers in top academic journals in Finance as well as Real Estate. He serves as an associate editor for *International Real Estate Review*. He received his Ph.D. in Finance and Real Estate from the University of North Carolina at Chapel Hill.

### Moderator

# Jordon Hu

President, RiskVal

### BIOGRAPHY

Mr. Jordan Hu has 20 years of experience in the financial industry. He was vice president in Salomon Brothers, Goldman Sachs, and Citigroup. He started RiskVal Financial Solutions, LLC in 2001 focusing on fixed income interest rate and credit derivative trading.

### **Ren-Raw Chen**

Professor, College of Business, Fordham University email: <u>rchen@fordham.edu</u>

#### **BIOGRAPHY**

Ren-Raw Chen has over twenty years fixed income and credit derivative pricing experience. He is one of the most respected researchers on the Wall Street and the global capital market in the areas of fixed income and credit derivatives. The term structure models he developed in the 1990s and the credit risk models in the 2000s have been widely used by many investment banks. Dr. Chen has worked and is actively involved in both academics and industry. His experience covers the range of model development, validation, automation, and application. Dr. Chen has published numerous articles in top finance journals and several analytical books. The clients he has served include Morgan Stanley, Lehman Brothers, Moody's, BlackRock, etc. Dr. Chen received his Ph.D. in finance from the University of Illinois at Urbana-Champaign.

## Dunmu Ji

President, Hedge Systems

### BIOGRAPHY

Dr. Dunmu Ji has over twenty years experience in the financial industry. His expertise includes building financial systems, model validation, and risk management and asset allocation in Insurance Company, mutual fund, bank and security firms. He is experienced in the product design, database, network and communication for front, middle, and back office systems. As a mathematician, he worked with Dr. Vasicek in developing and automating many fixed income pricing and Value at Risk models while working at Gilford Fong Inc. The system he built has been applied by many leading investment and commercial banks, including Goldman Sachs, Bear Sterns, Mizuho, Daiwa, etc. Dr. Ji received his Ph.D. in applied mathematics from the Brown University.

# **Cameron Miller**

Associate Director of Global Fixed Income Research Standard and Poors

BIOGRAPHY

Cameron Miller is Associate Director of S&P's Global Fixed Income Research group. GFIR is responsible for global analysis of financial market and credit trends, including high yield, distressed debt, default, and recovery research. Prior to his current role, he was a Senior Analyst in the Research and Analytic Development department at The Modeling Group, a market research consulting firm, where he was responsible for the development of new statistical models used in the consulting practice. Cameron holds a bachelor's degree from Duquesne University and a master's degree in economics from University at Albany, State University of New York.

# Lida Chen

Director, Barclays Group

#### BIOGRAPHY

Lida Chen, CFA, has over ten years experience in the global financial industry and has been involved in the fixed income trading, equity trading, and commodity trading business since 1998. He has worked as a senior risk manager and new product development across various asset classes for four years prior to moving to trading groups. Currently he is a Director at Barclays Capital, where he is involved in developing their credit derivative trading businesses from its inception. Lida has also worked in quantitative equity algorithm trading, interest rate derivatives, emerging markets and global fixed income. He spend 3 years in Equity Derivatives, 2 years in Precious Metal Derivatives, 4 years in global fixed income and Credit Derivatives, and 3 years in Structured Funds/Investments to trade, price, structure and model derivative transactions for major wall street firms including Goldman Sachs, Lehman Brothers, Salomon Brothers/Citigroup, and HSBC.