



## From the FSRM Director

Welcome to the second issue of the FSRM newsletter. In this issue we report the success of the mini-conference on 'The Use of Statistics in Hedge Fund Industry' and the advisory committee meeting, both were held on 11/18/2011. Mr. Shengbei Guo, Founder of GSB Podium Advisors, and Mr. Matthew Li, Founder of Fore Research and Management, gave excellent talks at the mini-conference. Brad Kepper, one of the FSRM students, wrote a more detailed report of the conference (see below). Here we also include the profile of the speakers. After the conference, some of the advisory committee members met with students in an informal mixer. The advisors were impressed by the students and their questions. After the mixer, the advisory committee held its first meeting. See a detailed report below. In this issue, we continue our introduction of our students with two more student profiles -- Ran Zhang and Yu Xia.

We hope you enjoy this newsletter. Many other activities have happened and we will include them in the next Newsletter. We welcome any news, comments, or suggestions that you may have. Finally, I would like to wish you and your family a joyful season and a very happy new year ahead.



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## 'The Use of Statistics in Hedge Fund Industry' conference

By Brad Knepper

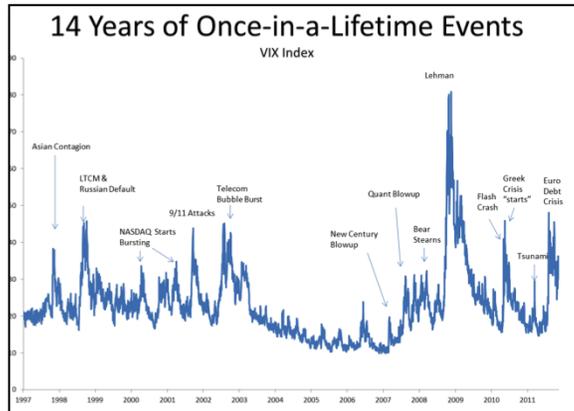
On November 18, 2011, the FSRM advisory committee held a mini conference on 'The Use of Statistics in Hedge Fund Industry', featuring two prominent hedge fund managers, Shengbei Guo and Matthew Li as the speakers. More than 40 students and faculty members attended the conference.

Mr. Guo is founder and Chief Executive Officer of GSB Podium Advisors, a hedge fund specializing in statistical arbitrage. He used his personal experience and career development to illustrate the important tools needed to be successful in financial industry. He emphasized three areas: the ability to analyze data and evaluate risk, program skills and knowledge of macroeconomics, with examples such as how he applied his technical knowledge



*Dr. Chen introduced speakers during the conference*

to develop short term trading strategies for statistical arbitrage involving products such as futures, equities, and fixed income, how he effectively managed risk by keeping in mind extreme market events can occur despite smooth and stable historical data, and how his learning and understanding of macroeconomics helped him to make sense of the market as well as global economy, which made him a better hedge fund manager. To underscore the importance of risk management in today's environment, Mr. Guo finished by saying "all traders use risk management."



Mr. Li, who is founder and CEO of Fore Research and Management, a multi-strategy hedge fund, discussed the importance of having a solid foundation of knowledge in Statistics. He further explained that Statistics is important to understanding Finance on a deeper level. One example of Statistics in Finance is its application for "dealing with noise and controlling it", said Dr. Li. To highlight this point, he showed several charts. One of them is a chart of market volatility of the last 14 years, specifically labeled with major events such as the collapse of Long Term Capital Management and Lehman Brothers. He pointed out that these events are considered "once in a life time events" by standard statistical calculation under 'standard' assumptions, but they occur many times in the mere 14 years span shown in the charts.

Dr. Li closed by saying that when we develop statistical models, it is essential to understand the theory and assumptions behind them, and to keep in mind that market changes and assumptions often break down.

The FSRM students were deeply impressed as well as excited by the talks. "I thought the mini-conference was very insightful. I liked Dr. Li's comments about the importance of statistics in understanding economic events. Though it sounds simple, it came from years of experiences and it is something we may not learn in classroom and may not appreciate until some year later" said Jie Gao, a FSRM student. Another student, Chris Riley, said that "The talk by Dr. Guo was very interesting. He believes in the value of his education that has provided in his career development. It's important to have technical knowledge in a field such as statistics to be successful in finance. His remarks on the three important areas are very useful to serve as guidance to the students and I will definitely pay more attention to these areas." A third students, Ran Zhang, said that from the presentations we have a deeper understanding about the importance of the statistical analysis in finance and we know better now what aspects we need to prepare well before we get to the industry. Dr. Chen said that two of three areas Mr. Guo mentioned, statistical analysis and risk management and programming skills are the focus of our program. Although macroeconomics is an elective course, FSRM will consider putting more emphasis on it. He also said that Dr. Li's talk reminded him the saying that 'Statistics is like a light pole. One should use it for illumination, not for support'.

## Advisory Committee Member Profile

**Matthew Li** is Founder and CEO, Fore Research and Management, a Multi-Strategy fund founded in 2003, with several billion dollars under management. Before that, he ran a proprietary convertible arbitrage desk at Toronto Dominion from 1996 to 2003 where he assembled a team of traders and analysts that generated almost \$1 billion in trading profits. In 2003 the group left with him when he founded Fore Research and Management. From 1991 to 1996 he worked in Merrill Lynch and Credit Suisse Boston as analyst then trader. Mr. Li received his B.S. in Mathematics from Chinese University of Science and Technology and M.B.A. from University of Chicago. In 2009 he was named Distinguished Alumni Award by The University of Chicago Booth School of Business.





**Shengbei Guo** is the founder and CEO of GSB Podium Advisors, LLC, an investment management firm specializing in quantitative research and trading. From 2008 to 2009, he was a Managing Director and Chief Investment Officer of Galleon Quantitative Management Group. From 2006 to 2007, he was a Managing Director of Broadstreet Capital Partners, where he managed most of the assets for Deutsche Bank Noetic Funds and other clients. From 1997 to 2006, he was a Managing Director of Deutsche Bank, where he developed multiple proprietary trading programs, including Equity Statistical Arbitrage, CTA, Emerging Market Currency, High Frequency Trading and other trading approaches. He continued to manage most of these strategies for Deutsche Bank clients until 2009. From 1992 to 1997, he was a Vice President of Morgan Stanley, where he was a system architect and primary designer of multiple major enterprise systems. He also developed multiple futures and equity based trading models for proprietary trading.

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## FSRM Advisory Committee Meeting Report

By Rong Chen

On November 18, 2011, FSRM advisory committee met at the Hill Center of Rutgers University's Busch Campus. Nine advisory committee members attended the meeting, along with several faculty members of the FSRM program. After a brief introduction of the members, Professor Regina Liu, Chair of the Department of Statistics and Biostatistics which hosts the FSRM program, welcomed the members and expressed sincere gratitude of the FSRM program, its faculty and students, for the time and effort given by the advisory members and their support throughout the establishment of the program. Professor Rong Chen, director of FSRM program, reported the current status of the program, reviewed the program curriculum and sought advices from the members, especially on curriculum design, internship and placement and reputation enhancement. The members engaged in lively discussion for two hours, and provided many useful advices and offered support through various venues.

On curriculum development, the members praised the current layout, but stressed the importance of making connection between course material and industrial practice. They recommended enhance the practitioner's seminar series and increase the number of guest lecturers in the advanced courses, so that the students are able to recognize the relevance of the course material and are able to apply them immediately once they start with career in the financial industry. Given the limited time and courses, it is important to strike a balance between the depth of the material taught and broadness of the applications. Drawn from their personal experiences, it was advised to include some accounting and macroeconomics material in the curriculum, as they are important foundations for a successful career in the financial industry.

The members also stressed the importance of differentiate the program from the more traditional quantitative programs in the country, and use it as selling points to promote the program to potential employers of the program graduates. Career development training should be an important component of the training and industrial relationship should be developed and maintained. The members offered help for the program to develop the relationships as well as promoting the students for internship positions.

The members pointed out that the reputation of the program depends heavily on the placement of the graduates and the ability to attract the best students to apply, though web, social network and mediums.

At the end, Professor Chen thanked the committee for their insightful and constructive suggestions and promise to implement them as soon as possible. He also thanked the members for their support and willingness to help. After the meeting adjourned, some committee members and faculty members continued their discussion at a dinner hosted by Professor Liu.

## Student Profiles

**Yu Xia** received his Ph.D. of Civil and Environmental Engineering from the University of Louisville in 2010. Years of hard work for a PhD has gained him a solid base of math, statistics, programming, and more valuably, an angle from which he looks into practical issues as an Engineer. After graduation Yu Xia worked as a Research Associate at the Center for Transportation Innovations in Louisville, where he led the project Kentucky Inland Waterway Transportation Planning jointly sponsored by Kentucky Transportation Cabinet and Kentucky Transportation Center, University of Kentucky. He was the team leader of the project Critical Issues of Air Pollution Control for Urban Transportation, which also contributed to his PhD research. In 2009, Yu Xia worked as a Regional Planner for a joint research on urban land use and transportation economics development at the Southern California Association of Governments, where he was working on quantitative modeling and predictive analysis of trip generation, trip distribution, mode split, and traffic assignment.



Having a PhD of engineering, Yu always wonders that how his knowledge and experience in engineering and planning can be best beneficial, or more statistically, optimal. He has always had strong interests in finance and marketing such as infrastructure investment strategies, transportation economies, emerging markets risk management, etc. He said,

*Diversification in early stage of my career may be a good idea, although it is, like any other options, kind of risky. After all, I enjoy analyzing, modeling, raising questions and finding solutions; and this is what I am doing now from a “financial and risk management point of view” at FSRM. Being an engineer, I think that we don’t find a question to ask; we find a question to answer. In FSRM, we are finding a lot of practical questions in finance and risk management, and we are working for the answers. The course work here is very intense, but also a lot of fun. The idea is clear and straightforward: Equip students with the statistical knowledge and skills needed in financial risk management and you are good to go.*



**Ran Zhang** earned her Bachelor degree in Finance at The Central University of Finance and Economics, Beijing, China. While in college, she took many courses related to finance and economics, and had some research and internship experiences in the financial industry of China, which provided her a solid finance background.

In 2008, she teamed up with her fellow students to apply for the Beijing municipal funding project, “In search for the Great Bull”, which was approved and received CNY-5,000 and a qualified certificate. In the project, they studied some of the blue-chip stocks in China’s stock market, and the factors contributing to their success. Using econometric methods, they studied the effects of certain events on the stock prices in China. She is an easygoing person and friendly to others. Meanwhile, when working and studying, she is detailed, conscientious and has teamwork spirit! Her aspiration in career includes risk management and control, and financial analysis.

*During the undergraduate study, I had some research experience, when I found “data” really interesting. Sometimes data can “speak”, and “let data speak” is more convincing than modeling. So I want to know more about how to deal with data and further know more about the financial industry. I heard FSRM was a new-launched program but really promising, and there is excellent network between FSRM and industries, which is a convenience for me to find internships. I found that it is about data analysis in financial sector and risk management field, which is what I really want to do. I knew this is where I would love to be and I applied it right away!*