The 3rd KAFE-JAFEE
International Conference on
Financial Engineering

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The 3rd KAFE-JAFEE International Conference on Financial Engineering

Date_
July 17~18, 2019

Venue_
Busan International Finance Center (BIFC),
Busan, Korea

한국금융공학회 The Korean Association of Financial Engineering
JAFEE
KRX KOREA EXCHANGE
금융투자협회
NPS 국민연금연구원
BNK 부산은행
REFINITIV
IBK투자증권
BNK 자산운용
FUTURES MARKETS
Investment Analysis Journal
Asia-Pacific Financial Markets

Welcoming Message

It is our privilege and honor to hold the 3rd International Conference on Financial Engineering under the joint auspices of the Japanese Association of Financial Econometrics and Engineering (JAFEE) and the Korean Association of Financial Engineering (KAFE). We have the excellent opportunity to invite prominent scholars here, the Busan International Finance Center (BIFC), at the heart of the financial market in Korea. As the President of the KAFE and the Program Chair of the current conference respectively, we would like to welcome you all the participant to the world-renowned city Busan. Since the inaugural gathering started at Busan 2017, our conference has made substantial progress and matured enough to leap into the next stage. The 2nd conference held in Tokyo turned out to be a truly international conference under the joint auspices of National University of Singapore (NUS) and Columbia University in the City of New York. We would like to express our profound gratitude to Jiro Akahori (Ritsumeikan University), Takaki Hayashi (Keio University), Tadashi Ono (University of Tsukuba), Seisho Sato (University of Tokyo), and Hiroshi Tsuda (Doshisha University) for organizing the last conference.

The main topic of this 3rd conference is "The Innovation and Future of Financial Engineering" and high-quality research papers in the field of finance will be presented in each academic session. The selected papers will be published in the *Journal of Futures Markets* (SSCI), the *Investment Analysts Journal* (SSCI) or the *Asia-Pacific Financial Markets* (Scopus).

Our keynote speakers are Professors *Robert I. Webb* (University of Virginia), *Yuta Koike* (University of Tokyo), *Hideatsu Tsukahara* (Seijo University), and *Hyeng Keun Koo* (Ajou University), all of whom are world-class scholars in the field of financial engineering.

We acknowledge cosponsors' support and contribution to the conference. Among others, Korea Exchange (KRX), Korea Financial Investment Association, Busan Bank, Refinitiv Korea, IBK Securities, and BNK Asset Management, to make this conference possible. We also appreciate the participation of the National Pension Research Institute and its research fellows. We also sincerely appreciate the steadfast support and relentless participation from our KAFE members. Without their support, the KAFE would not reach the current status, albeit several setbacks hitherto. Thank you all.

Warm regards,

July, 2019

Chung-Hyun Chung, President of the KAFE
Doojin Ryu, Program & Review Chair

Program of the Conference

Wednesday, July 17

8:30 ~ 9:00	**Registration**
9:00 ~ 11:20	**Opening Remarks and Keynote Speeches**
11:30 ~ 12:50	**Conference Lunch (AVANI Central Busan Hotel)**
1:00 ~ 2:50	**Academic Sessions 1 and 2 (BIFC 52F 부산국제금융연수원)**
3:00 ~ 4:50	**Academic Sessions 3 and 4 (BIFC 52F 부산국제금융연수원)**
5:00 ~ 6:30	**Academic Sessions 5 and 6 (BIFC 52F 부산국제금융연수원)**
6:40 ~ 8:30	**Conference Dinner (AVANI Central Busan Hotel)**

Registration (8:30-9:00)
Location: 51F Financial Education Room (51층 금융교육실), BIFC

Opening Remarks and Keynote Speeches (9:00-11:20)
Location: 51F Financial Education Room (51층 금융교육실), BIFC

Opening Remarks (9:00-9:10)
Chung-Hyun Chung, President, Korean Association of Financial Engineering
Hideatsu Tsukahara, President, Japanese Association of Financial Econometrics and Engineering

Congratulatory Message (9:10-9:15)
Chang-hee Jung, President & CEO of Derivatives Market Division, KRX

Keynote Speech (9:20-11:20)

Keynote Speech I	Prof. Robert I. Webb (University of Virginia). The internationalization of futures markets: Lessons from the past
Keynote Speech II	Prof. Yuta Koike (University of Tokyo). Asymptotic mixed normality of realized covariance in high-dimensions
Keynote Speech III	Hideatsu Tsukahara (Seijo University). Backtesting, prequential analysis and prediction process
Keynote Speech IV	Prof. Hyeng Keun Koo (AJou University). Consumption ratcheting, loss aversion, and long-term asset management

Academic Sessions (1:00-6:30)
Location: Busan International Finance Institutte (52층 부산국제금융연수원), 52F, BIFC

Thursday, July 18

9:00 ~ 10:30	**Academic Sessions 7 and 8** (52층 부산국제금융연수원)
10:40 ~ 12:10	**Academic Sessions 9 and 10** (52층 부산국제금융연수원)

Academic Session 1

Chair: Sooyoung Song (Chung-Ang University) (Room 2, 52F BIFC)

Title	Author
Optimal insurance with limited commitment in a finite horizon	Junkee Jeon (Kyung Hee University) Hyeng Keun Koo (Ajou University) Kyunghyun Park* (Seoul National University)
Leading the way? External lead managers and the performance of institutional equity funds	Hyoung-Goo Kang (Hanyang University) Min Yeon Han (Hanyang University) Sang-Gyung Jun* (Hanyang University) Ji Yeol Jimmy Oh (Hanyang University)
Equity network topology and dynamic volatility connectedness: An analysis of ASX sector indices	Sang Hoon Kang* (Pusan National University) Ron P. McIver (University of South Australia) Salvatore Ferraro (Evidente) Lei Xu (University of South Australia)
Finite mixture model approximation for the SABR distribution	Jaehyuk Choi* (Peking University HSBC Business School) Byoung Ki Seo (UNIST)
Anchoring bias of 52 week high price, idiosyncratic volatility and the cross-section of stock returns	Jungshik Hur* (Louisiana Tech University) Cedric Tresor Mbanga (Missouri State University)
Local volatility surface construction using Arrow-Debreu price with numerical quadrature	Hyuncheul Lim* (Chonnam National University) Hyeong-Ohk Bae (Ajou University)

Academic Session 2

Chair: Jangwoo Lee (Pusan National University) (Room 3, 52F BIFC)

Title	Author
Are disposition effect and skew preference correlated? Evidence from account-level ELW transactions	Youngsoo Choi* (Hankuk University of Foreign Studies) Woojin Kim (Seoul National University) Eunji Kwon (Hankuk University of Foreign Studies)
Valuing multi-step barrier options with icicles	Hangsuck Lee* (Sungkyunkwan University) Seongjoo Song (Korea University)
Weather and volatility: Evidence from the Korean stock markets	Taekyung Kim (Chung-Ang University) Shiyong Yoo* (Chung-Ang University)
Optimal execution strategy with generalized price impact in a discrete-time setting	Masaaki Fukasawa (Osaka University) Masamitsu Ohnishi (Osaka University) Makoto Shimoshimizu* (Osaka University)
Forecasting corporate default with machine learning	Hyeongjun Kim (Yeungnam University)
Insider trade clustering and large variations in stock prices: Evidence from the Korean stock market	Soon Hong Park (Chungnam National University) Hyunjung Im* (Chungnam National University) Byungkwon Lim (Korea Housing Finance Corporation)

Academic Session 3

Chair: Robert I. Webb (University of Virginia) (Room 2, 52F BIFC)

Title	Author
Spillover effects in the global copper futures markets of global copper: Asymmetric multivariate GARCH approaches	Hyun-Bock Lee (Korea Institute Geoscience & Mineral Resources) Cheol-Ho Park (Chungbuk National University
A binomial asset pricing model in a categorical setting	Takanori Adachi* (Tokyo Metropolitan University) Katsushi Nakajima (Ritsumeikan Asia Pacific University) Yoshihiro Ryu (Ritsumeikan University)
BitMEX bitcoin derivatives: Price discovery, informational efficiency and hedging effectiveness	Carol Alexander (University of Sussex Business School) Jaehyuk Choi* (Peking University HSBC Business School) Heungju Park (Sungkyunkwan University) Sungbin Sohn (Peking University HSBC Business School)
CDS implied volatility, option implied volatility, and the cross-sectional stock returns	Biao Guo* (Renmin University of China) Yukun Shi (University of Glasgow) Yaofei Xu (University of Glasgow) Cheng Yan (Essex University)
Economic regime-based dynamic allocation strategies	Dohyoung Kwon (National Pension Research Institute)
The impact of non-cash collateralization on the OTC derivatives markets	Kazuhiro Takino (NUCB Business School)

Academic Session 4

Chair: Jiro Akahori (Ritsumeikan University) (Room 3, 52F BIFC)

Title	Author
Global asset allocation strategy using a Hidden Markov model	Eunchong Kim* (Yonsei University) Nak Young Lee (Yonsei University) Hanwook Jeong (Kyungpook National University)
New evidence of competition and innovation from patent data in Korea	Pando Son (Dong-A University)
KOSPI200 option multiplier and its effect on arbitrage opportunities	Joonhyuk Song (Hankuk University of Foreign Studies)
Market runs of hedge funds during financial crisis	Sangwook Sung (SERI) Hoon Cho (KAIST) Dohyun Chun* (KAIST) Doojin Ryu (Sungkyunkwan University)
A prepayment-risk-neutral pricing model for Korean mortgage-backed securities	Seryoong Ahn* (Korea Housing Finance Co.) Wan Young Song (Korea Housing Finance Co.) Ji-Hun Yoon (Pusan National University)
Is shareholder's wealth transferred to investors on the pricing of equity carve-outs by private information in Korea?	Jong-Hyun Choi (Dankook University)

Academic Session 5

Chair: Sang-Gyung Jun (Hanyang University) (Room 2, 52F BIFC)

Title	Author
Bank risk-tanking and market discipline: Evidence from CoCo bonds in Korea	Younghwan Lee (Seoul National University) Alex Haerang Park* (Seoul National University)
The determinants of bank profitability: Evidence from Mongolia	Khishigdelger Tsetsegdelger* (Hankyong National University) Yong Jae Shin (Hankyong National University) Yeong Suk Cho (Mokpo National University)
Effective separation lapse for the internet only banking and commerce: Shareholding limit with the credit exposure control	Sooyoung Song (Chung-Ang University)
Wrong-way risk: Definition and pricing	Lixin Wu* (Hong Kong University of Science and Technology) Dawei Zhang (Goldman Sachs, Hong Kong)
Company stock in defined contribution plans and stock return	Heejin Park* (Pusan National University) Kyojik "Roy" Song (Sungkyunkwan University)

Academic Session 6

Chair:Youngsoo Choi (Hankuk University of Foreign Studies) (Room 3, 52F BIFC)

Title	Author
Do fund investors consider asset returns? Substitute relation among investment funds in Korea	Young-Min Kim (Kangwon National University)
Pension choice and firm leverage: An analysis of Korean firms	Hyejin Park (Korea Capital Market Institute)
The fundamental drives of house price fluctuations: Using disaggregated Korean house price indexes	Jieun Lee* (The Bank of Korea) Hosung Jung (The Bank of Korea)
Economic effects of social insurance for the elderly	Se Yung Bae* (Ajou University) Junkee Jeon (Seoul National University) Hyeng Keun Koo (Ajou University) Kyunghyun Park (Seoul National University)
The geography of international mutual funds	Young K. Park* (Sungkyunkwan University) Inwook Song (Korea Fund Ratings Co.)

Academic Session 7 (in Korean)

Chair: Yeong Suk Cho (Mokpo National University)
Discussants: Jung-Hee Noh (National Pension Research Institute), Hyon Sok Lee (Sungshin Women's University)
(Room 2, 52F BIFC)

Title	Author
Complex ownership and pecking order theory	Min Geu Jung* (Gyeongnam National University of Science and Technology) Byoung Gon Kim (Changwon National University) Dong Wook Kim (Busan Economic Promotion Agency)
Idiosyncratic risk and foreign investors: Empirical evidence from Korean stock market	Junho Hwang* (National Pension Research Institute)
The impact of corporate marginal tax rate on weighted average cost of capital and capital structures	Hyon Sok Lee (Sungshin Women's University) Mi Hwa Chung* (Sungshin Women's University)

Academic Session 8 (in Korean)

Chair: Pando Son (Dong-A University)
Discussants: Hankyung Lee (Gyengsang National University), Sang Goo Lee (Catholic University of Pusan)
(Room 3, 52F BIFC)

Title	Author
An empirical study on the influence of bitcoin price change and KOSPI 200 futures market	Byung Jin Yim* (Yeungnam University) Tae-Sun Im (Seoul Cyber University)
A study on the systematic effects of foreign investors on domestic stock market	Woohyun Kim* (Pusan National University) Youngtae Byun (Kyungsung University) Soo-Kyung Kim (Tongmyong University)
Effect of stock market on equity investment funds by investor	Young-Min Kim (Kangwon National University)
Announcement effects of mezzanine securities with refixing and call option provisions	Yongsik Kim (Korea Exchange)

Academic Session 9 (in Korean)

Chair: Intae Jeon (The Catholic University of Korea)
Discussants: SeongJu Moon (Gyengsang National University), Mookwon Jung (Kookmin University)

(Room 2, 52F BIFC)

Title	Author
The effect mortgage prepayment charges on the MBS prepayment risks	Chun-Kyu Kim* (Chungnam National University) Byungkwon Lim (Housing Finance Research Institute)
A study on the spillover effects of the Korean sector indices using volatility Index	DaesungJung*(Busan National University) Jonghae Park (Gyeongnam National University of Science and Technology)
Practical method of constructing implied and local volatility surfaces	Hyuncheul Lim (Chonnam National University)
The Relationship between technology innovation and wage inequality	Pando Son (Dong-A University)

Academic Session 10 (in Korean)

Chair: Hong Bae Kim (Dongseo University)
Discussants: Kihwan Lee (Korea Maritime & Ocean University)

(Room 3, 52F BIFC)

Title	Author
A study on market reaction by KSIC around quarterly earnings announcements	Hankyung Lee* (Gyeongsang National University) Jinsu Kim (Gyeongsang NationalUniversity)
Investors' response according to establishment authorization related to the Korean internet banks	Gwang Yong Kim* (Gyeongsang National University) Jinsu Kim (Gyeongsang National University)
The necessity and the effect on the latent Greeks	Minjae Kim (NH Investment & Securities)
How to manage underfunded portfolio using dynamic stochastic programming	Junhwa Ban (independent) Taeyong Kim* (KB Securities co.)

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- Robert I. Webb (University of Virginia)

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