

# SEUNG YOUN CHA

## **CAMPUS ADDRESS**

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## **EDUCATION**

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<b>Ph.D in Management Science</b>	ILLINOIS INSTITUTE OF TECHNOLOGY, Chicago, IL	Dec 2021
<b>Ph.D in Finance</b>	SEOUL NATIONAL UNIVERSITY, Seoul, Korea	Aug 2014
<b>M.S in Financial Mathematics</b>	THE UNIVERSITY OF CHICAGO, Chicago, IL	June 2011
<b>M.B.A</b>	YONSEI UNIVERSITY, Seoul, Korea	Feb 2002
<b>B.B.A &amp; B.A</b>	YONSEI UNIVERSITY, Seoul, Korea	Feb 1999

## **PUBLICATION & RESEARCH EXPERIENCE**

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**“Required Growth Rate and Contrarian Strategy”** (with Bong Jun Kim, Gyeongsang National University and Jeongmin Park, Hanbat National University) **The Korean Journal of Financial Management**, Nov 2021 vol 38, no 4.

- This study estimates the required growth rate that justifies the current stock price using absolute valuation models. The paper evaluates the performance of contrarian investment strategy based on the estimated required growth rate.

**“Fund Performance Evaluation by Generalized Sharp Ratio”** (with Bong Jun Kim, Gyeongsang National University and Doobae Jun, Gyeongsang National University) **Management and Economic Research**, Management and Economic Research Institute, Deajeon, Korea, Oct 2019 vol 41, no 4, pp 1-23 (23 pages).

- The study suggests generalized Sharpe ratio (GSR) considering higher order moment risk and estimated ex-post performance of zero cost investment strategies based on performance measures.

**“Nonparametric Factor Analytic Risk Measurement in Common Stocks in Korean Financial Firms: An Empirical Perspective”** (with Seungho Baek, The University of Chicago and Joseph D. Cursio, Illinois Institute of Technology), **Asia-Pacific Journal of Financial Studies**, August 2015, vol. 44, Issue 4, pp 497-536

- The purpose of the study is to measure risk in common stocks in Korean financial firms by industrial clusters applying a nonparametric methodology, which is Monte Carlo simulation, but also to identify the most critical factor explaining the volatility of stocks in financial firms and in each sector of financial firms.

**“The Effect of the Diversification in Korean Banks: The Impact on Profit and Risk”** (with Seungho Baek, City University of New York (CUNY) - Department of Finance and Namhoon Lee, Vanguard University of Southern California), **Journal of Accounting and Finance**, Jun 2015, vol.15(2).

- This study attempts to examine whether the diversification effort in Korean banks for past years positively affects to banks income structure. We find that although Korean banks have intentionally increased the share of noninterest revenue as a vehicle of banking diversification, it has also accompanied with the soaring of net noninterest income expense. Thus, we find that the key success of banking diversification does substantially depends on operating noninterest income expense.

**“An Empirical Study on Risk Management for the Growth of Non-interest Revenue Structure in Korean Banks”** (with Seungho Baek, The University of Chicago and Seungyeob Baek, Industrial Bank of Korea), **Journal of Finance and Accounting Information**, Korea Accounting Information Association, Seoul, Korea, 2013, vol.13, no.1, pp. 1-29 (29 pages)

- The research suggests a new risk management method for Korean banking industry considering risk and return characteristics by deriving optimal weights for interest and non-interest income.

**“A Study on Common Risk Factors in Korean Bank Stocks”** (with Seungho Baek, The University of Chicago and Seungyeob Baek, Industrial Bank of Korea), **The Korean Journal of Financial Management**, Korean Financial Management Association, Seoul, Korea, Oct 2011.

- The paper investigates common risk factors in Korean bank stocks in the framework of factor models using financial statements and stock price data of banking companies listed on the Korean Exchange from the period of 2000 to 2010.

**“How Is the Market Efficient? Information Efficiency and the Effect of High-Frequency Trading in the US Futures Markets”**, **Phd Deissertation**, Illinois Institute of Technology, Chicago, US, May 2021.

- This paper gives an empirical analysis with US futures market data on how high-frequency trading can improve the information efficiency of the asset price. Various volatility and quoted price analysis were conducted to determine the degree of efficiency of information in futures high-frequency trading. This paper tries to explain the effect of high-frequency trading on the efficiency of the market in various ways and tries to propose stepping stones for developing a new market analysis measure.

**“Pricing Derivatives with Optimized Gaussian Mixture”**, **Phd Deissertation**, Seoul National University, Seoul Korea, Aug 2014.

- The paper develops and simulates a new kernel density, derived from an optimized Gaussian mixture, to ameliorate the performance of the classic option pricing theory.

**“Trading Rule Optimization by Nonlinear Pattern Analysis on Fractal Brownian Time Series”**, **Master’s Degree Thesis**, Yonsei University, Seoul, Korea, Feb 2002.

- The study applied Hurst’s rescaled range analysis to the Korean Composite Stock Index time series to indicate Korean stock market has chaotic behavior. The paper suggested a genetic algorithm to find the optimized trading rules.

**“Asset Prices and Investors’ Behavior with Sequential Information Acquisition”** (with Kyoosung Jo, Hallym University), **Working Paper**

- Propose a rational expectations model of momentum and reversal based on sequential information acquisition. In the model, early-informed traders partially reverse their trades after public information events and appear to follow a momentum strategy. The paper shows that, during financial crises, early-informed traders may escape from the markets and the price system becomes extremely uninformative.

**“Book Building and IPO Pricing”** (with Kyoosung Jo, Hallym University), **Working Paper**

- Model the initial offering price with book-building theory and find empirical implications. The paper introduces closed form solution for the initial offering price and the bidding price of institutions with Gaussian distribution.

**“A New Approach to Growth Rate”** (with Joon Chae, Seoul National University), **Working Paper**

- The paper adopts the macroeconomic growth models to asset pricing and tries to understand the link between the asset returns and the firm-level economic changes

**“An Evaluation of FX Knock-in Knock-out Options”**, **Research Project**, Federation of Small Business, Seoul, Korea, Dec 2008 – Aug 2010

- Evaluated the price of FX knock-in knock-out options. Built up a parallel architecture and applied the Heston Model. Priced options under various assumptions.

**“Risk Modeling in the Assessment of Cost of Capital”**, **Research Project**, Korea Telecom, Seoul, Korea, Nov 2006

- The project was organized to suggest a new method to assess cost of capital. Together with any rates proposal, Korea Telecom submitted the research to the regulatory authority. Involved as a senior researcher.

## TEACHING EXPERIENCE

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- Industry Assistant Professor** ILLINOIS INSTITUTE of TECHNOLOGY, Chicago, US Aug 2022 – present
- Theory of Finance – PhD course
  - Principals of Economics - undergraduate course
- Full-Time Instructor** NORTHEASTERN ILLINOIS UNIVERSITY, Chicago, US Aug 2021 –present
- Investment Strategies – graduate course
  - Management of Financial Institutions – graduate course
  - Financial Institutions and Markets – undergraduate course
  - Intermediate Financial Management – undergraduate course
  - Personal Financial Planning – undergraduate course
- Teaching Assistant Professor** KOREA NATIONAL OPEN UNIVERSITY, Seoul, Korea Sep 2020 – Dec 2020
- Risk Management – graduate course
- Teaching Assistant Professor** KOREA NATIONAL OPEN UNIVERSITY, Seoul, Korea Sep 2019 – Dec 2019
- Risk Management – graduate course
- Part-Time Instructor** SEOUL NATIONAL UNIVERSITY, Seoul, Korea Mar 2019 – Aug 2019
- Research Methods in Financial Management – graduate course
- Teaching Assistant Professor** KOREA NATIONAL OPEN UNIVERSITY, Seoul, Korea Sep 2018 – Dec 2018
- Risk Management – graduate course
- Part-Time Instructor** SEOUL NATIONAL UNIVERSITY, Seoul, Korea Mar 2018 – Aug 2018
- Research Methods in Financial Management – graduate course
- Teaching Assistant Professor** KOREA NATIONAL OPEN UNIVERSITY, Seoul, Korea Sep 2017 – Dec 2017
- Risk Management – graduate course
- Part-Time Instructor** SEOUL NATIONAL UNIVERSITY, Seoul, Korea Mar 2017 – Aug 2017
- Research Methods in Financial Management – graduate course
- Part-Time Instructor** SEOUL NATIONAL UNIVERSITY, Seoul, Korea Mar 2016 – Aug 2016
- Research Methods in Financial Management – graduate course
- Part-Time Instructor** SEOUL NATIONAL UNIVERSITY, Seoul, Korea Sep 2009 – Feb 2010
- Financial Management – undergraduate course
- Part-Time Instructor** YONSEI UNIVERSITY, Seoul, Korea Sep 2008 – Aug 2009
- Mathematics in Modern Society - undergraduate course
- Part-Time Instructor** SEOUL NATIONAL UNIVERSITY, Seoul, Korea Sep 2008 – Feb 2009
- Studies in Financial Management – graduate course
- Part-Time Instructor** THE UNIVERSITY OF SEOUL, Seoul, Korea Mar 2008 – Aug 2008
- Financial Management – undergraduate core class
  - Investments – M.B.A. elective

## **PRESENTATIONS**

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**Financial Management Association 2019 Annual meeting**, New Orleans LA, US, Oct 2019

**Financial Management Association 2014 Annual meeting**, Chicago IL, US, Oct 2014

**The 2012 Korea Academic Society of Business Administration meeting**, Gyungju, Korea, Aug 2012

**The Seoul National University Finance Seminar**, Seoul, Korea, Nov 2011

**The 2009 Korea Academic Society of Business Administration meeting**, Gangwon, Korea, Aug 2009

**The Seoul National University Finance Workshop**, Seoul, Korea, Dec 2007

## **LANGUAGES & SKILLS**

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**Languages** Native Korean, fluent English, beginning French, Spanish and Japanese

**Computer skills** C/C++, SAS, STATA, R, Python, Matlab, Eviews, Gauss, Microsoft Office

## **OTHERS**

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**Visiting Researcher** Institute of Finance and Banking SNU Business School, Seoul Korea Sep 2014-present

- Research on various asset pricing models and financial issues

**Analyst** UR TECHNOLOGY, Sungnam, Korea & Chicago, US Sep 2009-Aug 2012

- Work as an analyst in the asset management group. Monitor asset holding, financial state, and liquidity concerns

**English Translator** SAMSUNG ELECTRONICS, Seoul, Korea, Apr 2001-Feb 2004

- Supported English based operations

**Research Assistant** SAMSUNG LIFE INSURANCE Co., Yongin, Korea Dec 1998 – Jan 1999

- Researched Korean financial market

## **PROFESSIONAL AFFILIATIONS**

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**American Finance Association**

**Korean Securities Association**