

# 2024

## 台灣財務工程學會年會暨國際學術研討會

International Conference for Financial Engineering Association of Taiwan

# 人工智慧、綠色金融與投資決策

Artificial Intelligence, Green Finance, and Investment Decision



📅 2024/5/3

📍 銘傳大學基河校區

主辦單位：



## 2024 台灣財務工程學會年會暨國際學術研討會

研討會主題：人工智慧、綠色金融與投資決策

### 2024 FeAT International Conference

## on Artificial Intelligence, Green Finance, and Investments

#### Organized by

Financial Engineering Association of Taiwan

#### Co-organized by

Ming Chuan University  
Department of Finance

#### Sponsored by

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(依首字筆畫排序)

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# 2024 年台灣財務工程學會年會暨國際學術研討會

## 理事長歡迎詞

本次年會暨國際學術研討會由台灣財務工程學會與銘傳大學財務金融學系共同舉辦。台灣財務工程學會成立於 2003 年，創立以來持續以最新財務工程脈絡訊息之傳遞、搭建具影響力之財務工程與金融市場交流平台、以及培育國內財務工程與金融創新相關領域人才為宗旨。每年一度的年會暨國際學術研討會除了為本會的年度盛會外，研討會所產出的學術成果也對促進國內金融產品開發以及交易與結算制度改革等主題扮演重要的角色。此外，本會也因應重大財金議題，以實務論壇為橋樑建立起國內外產官學界的交流平台，與會產官學者的參與付出促使本會得以在提昇國內財務工程之學術發展與實務應用方面逐步發揮關鍵的影響力。本人謹代表主辦單位，向與會的所有貴賓表達最誠摯的謝意與敬意。

本會今年的論文投稿相當踴躍，共計有 70 篇學術論文會在年會當中發表，主題涵括數位貨幣、綠色金融、機器學習、衍生性金融商品、ESG 等多項前瞻的研究議題，以及資產訂價、公司理財、計量經濟學、以及銀行學等奠基當代財務金融發展的重要課題。在本次年會中，本會特別邀請國際知名學者 University of Hawaii 的 Prof. Ghon Rhee 以及 University of Texas 的 Prof. Donald Lien 擔任大會專題主講人，講述現今財務工程領域前沿的研究主題。對於入選本次研討會之文稿，本會也邀請 Pacific-Basin Finance Journal 及中山管理評論籌辦特刊，盼能透過學術先進的共襄盛舉一同推動國內財務工程領域之學術發展。

本次年會得以順利舉行，得力於許多人全心全力的協助。首先，要特別感謝大會主席李修全教授，議程委員林丙輝教授、張倉耀教授、張森林教授、許和鈞教授、曾郁仁教授、蔡蒔銓教授、盧陽正教授、李昀寰教授、張書濂教授、許智翔教授、楊重任教授、廖子翔教授、以及朱民芮教授。此外，也要感謝銘傳大學財務金融學系所有師生與工作人員、甄選論文與規劃講座的專家學者、所有場次的主持人、學術論文發表人與評論人，以及實務講座主講人。我們更要感謝各位與會者的熱心參與及對學會的支持；您們是研討會得以舉辦成功、學會得以持續茁壯的關鍵。

也特別感謝合辦單位國家科學及技術委員會，贊助單位臺灣證券交易所股份有限公司、財團法人中華民國證券櫃檯買賣中心、臺灣期貨交易所股份有限公司、以及臺灣集中保管結算所股份有限公司。有這些單位在財務上無私的支持，才能使今年年會舉辦的如此成功。

最後，敬祝各位先進與貴賓身體健康、萬事如意。

張傳章 敬上

台灣財務工程學會理事長

# 2024 台灣財務工程學會年會暨國際學術研討會

## 校長歡迎詞


各位與會學術界與實務界同仁與先進，我非常榮幸代表台灣財務工程學會與銘傳大學，熱烈歡迎大家蒞臨於 2024 年 5 月 3 日在銘傳大學基河校區舉行的 2024 台灣財務工程學會年會暨國際學術研討會。

當今世界正經歷前所未有的變革，其中人工智能已經成為推動科技、經濟及社會進步的關鍵力量。這場數字化革命正在重塑我們的生活方式與工作模式，引領我們步入一個智能化的未來。同時，面對全球氣候變化的挑戰，綠色金融和可持續投資策略已經成為全球矚目的焦點。這些變革不僅是技術的進步，更是我們價值觀念和社會責任感的體現。

本次會議以「人工智慧、綠色金融與投資決策」為主題，旨在探討這些領域內的最新發展與未來趨勢。會議將包含專題學術講座、實務應用討論，以及 22 場學術論文精彩發表。特別值得一提的是，我們非常榮幸邀請到夏威夷大學的 S. Ghon Rhee 教授，他現任國立中央大學特聘教授及《Pacific-Basin Finance Journal》的主編，為我們進行專題演講，並分享他對於市場動態及金融創新的獨到見解。此外，我們也邀請到富邦投信舉辦實務論壇，主題為「永續與 AI 金融浪潮中的前瞻投資」，由富邦公司治理 ETF 基金經理人與富邦全委與私募基金投資經理人進行主講，與與會學者及實務界人士交流分享。

我們能夠順利舉辦本次研討會，首先感謝所有專家學者和參會代表的蒞臨，您的參與與貢獻為會議增添了豐富的內容與深度。再次感謝台灣財務工程學會的領導，包括張傳章理事長與周冠男秘書長以及所有理監事的支持。也要感謝國家科學及技術委員會、台灣證券交易所、台灣期貨交易所、台灣集保結算所、證券櫃檯買賣中心、逢甲大學以及其他所有贊助單位與個人對本次會議的經費支持。特別感謝台灣財務工程學會副秘書長柯冠成教授與盧建霖教授的辛勤工作，以及銘傳大學財務金融學系主任李修全教授和系上同仁組成的籌備團隊。

最後，我期望這次研討會不僅是一場學術與實務的盛會，更是一個思想與創新交流的平台。願我們共同努力，於本次會議中探索和開拓知識的新領域，推動人工智慧與綠色金融的發展前景。再次感謝各位的參與，祝大家在會議中獲得豐富的收穫，並攜手共創美好未來。

 敬上

銘傳大學 校長

## Committee Members

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Yang-Cheng Lu	Ming Chuan University
Hsiu-Chuan Lee	Ming Chuan University

### Organizing Committee

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Chien-Lin Lu	National Taipei University
Yun-Huan Lee	Ming Chuan University
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Chung-Jen Yang	Ming Chuan University
Tzu Hsiang Liao	Ming Chuan University
Min-Rui Choo	Ming Chuan University

### Program Chair

Robin K. Chou	National Chengchi University
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### Program Committee

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Wei-Che Tsai	National Sun Yat-sen University
Yu-Jen Hsiao	Taipei Medical University
Yun-Huan Lee	Ming Chuan University



## Introduction of Ming Chuan University



### **Vision**

Ming Chuan University (MCU) strives to connect with its community and engage globally as a top university in Asia and beyond.

### **Theory-based and application-oriented education**

Our educational principle insists on theory-based, application-oriented education, which coordinates professional courses, utility courses (four years of English courses and three years of information technology courses) and general education to ensure that all of our graduates' benefit from theory-based, application-oriented education. We implement holistic education to nurture students' characters through seminars, graduation thesis, graduation project design, strict discipline, and diligent teaching. Our graduates compete well with their peers in both further education admissions and employment rate.

### **Excellent competitive ability**

Ming Chuan University has 11 Schools: Management, Communication, Law, Design, Applied Language, Information Technology, Tourism, Social Sciences, Health Technology, Financial Technology and International College. In step with the rapid developments of globalization and knowledge-based economy, our Schools not only hire faculty members with doctorate degrees, but also orient their teaching and research with the university's interdisciplinary integration, continuous development, competitiveness and societal demand. To achieve this goal, each graduate school and department must promote their own professional features and competitive edge, promote the quality

of teaching, research and service, and enhance students' competence through faculty member evaluation and regular teaching evaluations.

### **Complete e-learning environment**

In this 21st century information technology age, students must nurture the ability of searching for, analyzing, processing and integrating information. Due to the applications of network technology in the learning environment, the relevant technology is maturing. The outcome of teaching through the global information network is excellent and will be a key development for the university.

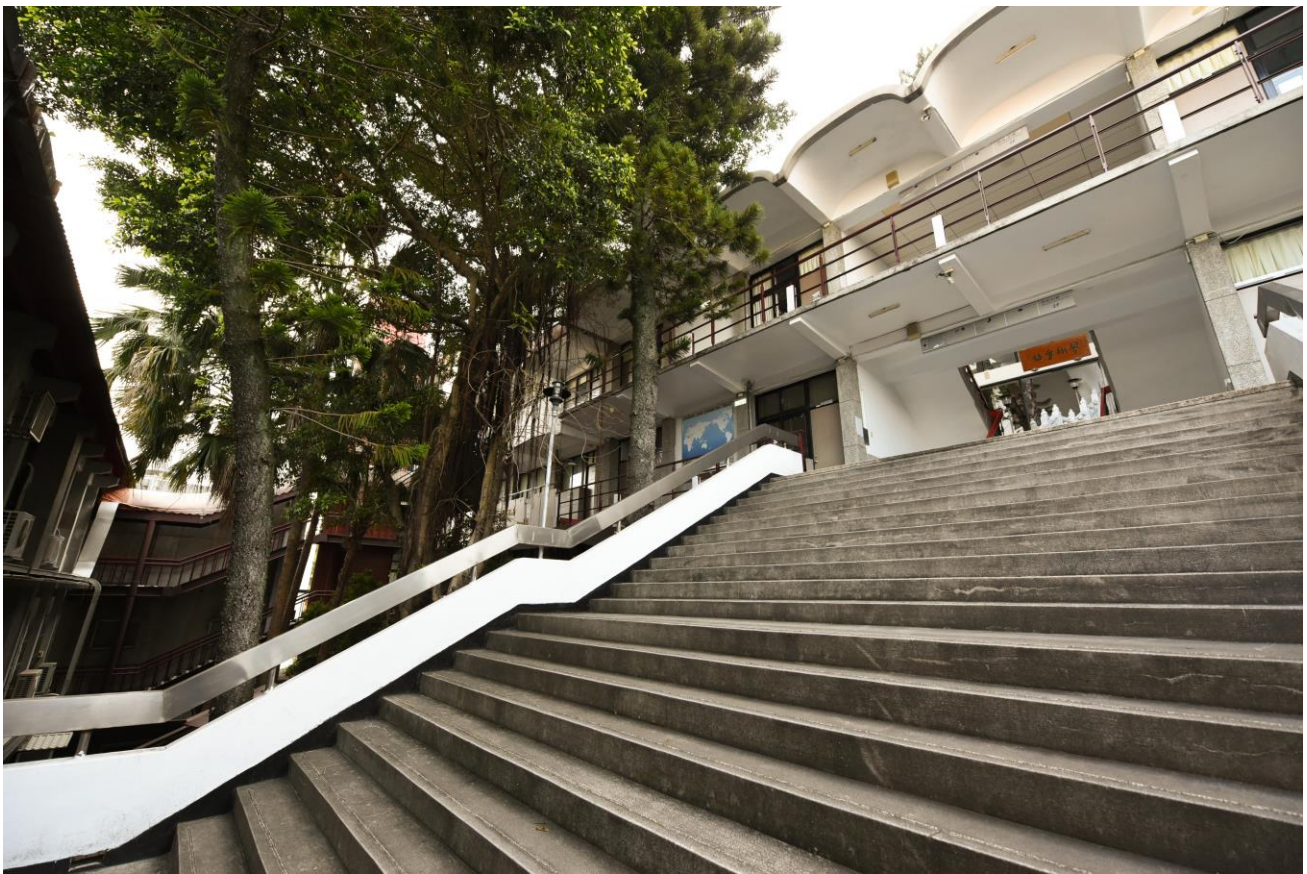
To encourage multi-faced teaching and learning, our university has established a complete e-learning environment. The expansion into Network University allows students to study without the limits of space and time. Students can repeat the teaching material online to promote their learning outcomes. Network teaching allows students to learn without requiring time- and space-constrained interaction between the faculty members and students, which is a huge challenge of the traditional teaching mode.

In support of networking and high-tech teaching, we have equipped all classrooms on both campuses to be e-classrooms. We will continue to develop more online courses for students to promote the quality of teaching, research, service, and students' competitiveness.

### **Education internationalization**

In line with the trend toward globalized competition in higher education, Ming Chuan University established International College to provide English-taught degrees programs and promote campus internationalization and inter-university cooperation in 2001-02. We frequently hold various international academic exchanges, international guest visits and educational exhibitions to establish the channels of effective exchange and recruitment. Our students in International College not only learn professional knowledge, but also take relevant courses covering the development of the Greater China Economic Zone. Those courses are aimed to nurture students with a broad worldview, and nurture them to be competitive international talents equipped with broad worldview. This is not only the educational feature of International College, but also the MCU educational philosophy and goal for so many years.

## School of Management



In 1957, Ming Chuan College was founded to fulfill a huge demand for a competent office workforce. The college offered applied programs in Secretary Science, Commercial Design, Banking, Insurance, Accounting and Electronic Data Management.

In 1990, with approval from the Ministry of Education, Ming Chuan College was promoted to Ming Chuan College, a co-educational senior college. It began to offer bachelor's and master's degree programs in Management, Accounting, Economics, Finance, and Communication Management.

In 1997, Ming Chuan College was promoted to university status as Ming Chuan University. The name "School of Management" came into being in 1997, consisting of departments of Business Administration, International Business, Finance, Accounting, Risk Management and Insurance, Applied Statistics and Information Science, and Economics.

In Spring 2016, the Economics Department and the Applied Statistics and Information Department were transferred to the School of Social Science for better mission alignment.

The MCU School of Management was granted accreditation with the Association to Advance Collegiate Schools of Business (AACSB) in July 2017.

MCU School of Management re-accredited by AACSB in 2023, AACSB now has 1,004 accredited institutions over 60 countries and territories and 194 institutions with AACSB accreditation for accounting programs. Achieving this milestone ensures greater access to high-quality business education for learners around the world and businesses seeking top talent.

### **Mission**

The mission of the SOM is to cultivate our students to become ethical and knowledgeable management professionals with global mobility and teamwork spirit through experiential learning environment that integrates quality research, excellent teaching and service to the industries.

The mission is supported by the following strategic priorities:

- Develop and enhance students' critical thinking, communication skills, and teamwork.
- Promote and develop an understanding of effective management of ethical issues and social responsibility.
- Enhance student understanding of cultural impact in global markets.
- Continuously improve faculty intellectual capital through the production of applied research
- Collaborate with local business and community through innovative programs.

### **Value Statement**

- Determined faculty who do not give up on students.
- Excellent teaching, research, and professional service by faculty.
- Innovation in curriculum.
- Entrepreneurial spirit among students.
- Partnerships with local business and community.

## Department of Finance



The Department of Finance aims to cultivate professionals who are future leaders in banking- and security-related industries. To cultivate superior talents for this purpose, the core of our curriculum focuses on corporate finance, financial derivatives, portfolio management, behavioral finance, and financial data analysis. We also emphasize teamwork abilities, effective communication skills, and global perspective. In addition, the Department of Finance places considerable emphasis on students' practical skills by providing them with intern programs in banking, security, insurance, and finance-related companies in Taiwan, Mainland China, or other countries. To enhance students' global perspective, the Department of Finance also provides international student exchange programs such that students can learn different cultures from around the world. Well-organized course design, high-quality professors, as well as abundant international financial databases, resources, and equipment support our goals. Owing to the Department of Finance's comprehensive training program, alumni from our department, spread across all realms in Taiwan as well as abroad, have contributed much to the development of financial industries.

## **Mission**

The mission of the Department of Finance is to cultivate qualified financial professionals through emphasis on financial theories, business research and practical training so that graduates will be characterized by creative and executive abilities for the benefits of their economic communities.

## **Goals**

### **DG1: Explore international vision (Worldview)**

Increase foreign language ability in terms of professional terminology and expand global perspectives to adapt to internationalization.

### **DG2: Scientific analysis**

Familiar with analytical, integration and logical tools.

### **DG3: Financial knowledge and ethics**

Possess fundamental financial knowledge of theories for advanced learning.

### **DG4: Professional financial certifications**

Prepared to take exams for professional financial certificates.

## **Core Competencies / Abilities**

- BCP1: Financial management abilities
- BCP2: Real life financial and investment experience
- BCP3: Research and data analysis
- BCP4: Communication abilities and teamwork
- BCP5: Report writing and presentation
- BCP6: Workplace attitude and professionalism

## Conference Information

### Venue

No.130, Jihe Rd., Shihlin District, Taipei City 111, Taiwan



## Transportation Information

### By Taipei MRT

Take the Tamsui-Xinyi Line (Red Line) to Jiantan Station. Exit at Exit 1 and walk approximately 5 to 7 minutes to reach the campus.

### By Bus

#### Ming Chuan University Stop:

Routes 220, 279, 280, 109, 260, 285, 203, 267, 612, 646, 310, 606, 685, 902, Royal Bus Taipei-Yangmingshan-Jinshan line, Tamsui Bus Sanzhi-Taipei Station line

#### MRT Jiantan Station Stop:

Routes Red 3, Red 5, Red 30, 529, 303, 41, 111, 68, Mini 27, Mini 15, Mini 16, Mini 17, Mini 18, Mini 19, 620, 216 Sub, 277, Songjiang Line, Chongqing Line, Boai Bus

#### Ming Chuan Hotel Stop:

Ho-Hsin Bus, 529, 41, 620 Shuttle, Red 9, Red 30, 290, 303

### By Car

Access via the Zhongshan Highway, exit at the Chongqing North Road Interchange towards Shilin direction. Continue straight on Chengde Road via the Baileng Bridge and turn right onto Jihe Road to reach the destination.

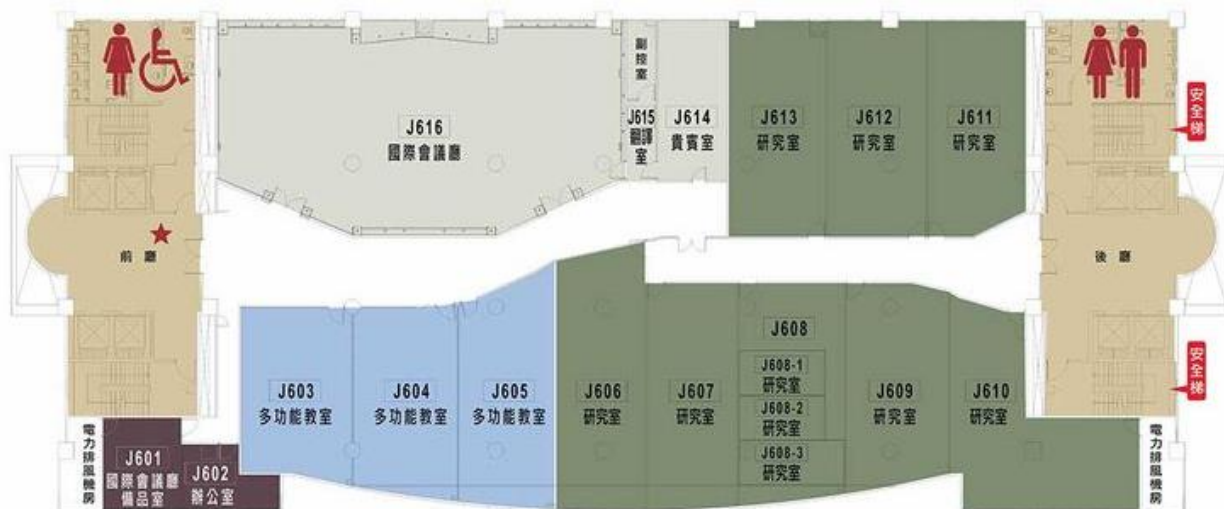
## Parking Information

Parking is available near the campus. Attendees are advised to consider public transportation options due to limited parking spaces.



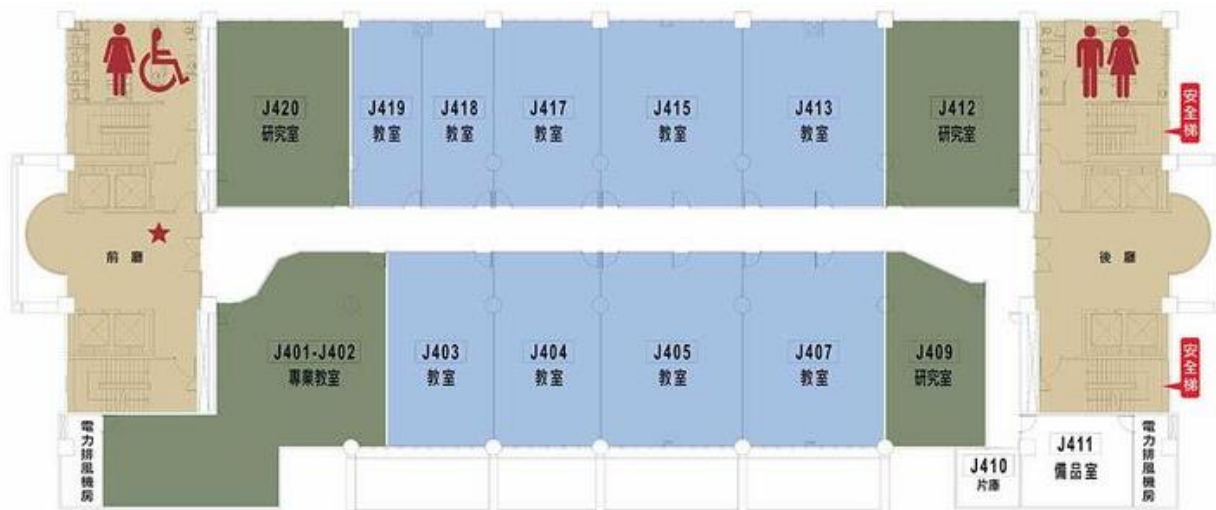
## Floor Plans

### 6<sup>th</sup> Floor:



- 公共區域(電梯/樓梯/廁所) Public Space (Elevators, Stairs, Restrooms)
- 辦公區域 Offices (產學合作處 Academia-Industry Innovation Division, 進修推廣處 University Extension Division, 校友會 Alumni Association, 基河行政組 Jihe Administration Section)
- 教室 Classrooms
- 小會議室 Small Meeting Room
- 研究室 Research Room
- 圖書室 Reading Room
- 產學合作處會議室 Academia-Industry Innovation Division Meeting Room
- ★ 目前位置 You Are Here
- i 詢問台 Information

### 4<sup>th</sup> Floor:



- 公共區域(電梯/樓梯/廁所) Public Space (Elevators, Stairs, Restrooms)
- 辦公區域 Offices (產學合作處 Academia-Industry Innovation Division, 進修推廣處 University Extension Division, 校友會 Alumni Association, 基河行政組 Jihe Administration Section)
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- 研究室 Research Room
- 圖書室 Reading Room
- 產學合作處會議室 Academia-Industry Innovation Division Meeting Room
- ★ 目前位置 You Are Here
- i 詢問台 Information

## Conference Agenda

Date: May 3rd, 2024 (Friday)

Venue: Jihe Campus, Ming Chuan University

Time	Conference Program					
08:30 – 09:00	Registration and Reception / 6th Floor					
09:00 – 09:20	<p>[Opening Ceremony]</p> <p>Opening Remarks:</p> <p>Professor Hsuan-Shih Lee 李選士 / President, Ming Chuan University</p> <p>Professor Chang Chuang-Chang 張傳章 / President, FeAT</p> <p style="text-align: right;">(Room J616)</p>					
09:20 – 10:00	<p>[Keynote Speech]</p> <p><b>Topic: Folklore Narratives and IPO Outcomes</b></p> <p>Chair: Professor Robin K. Chou 周冠男 / Secretary General, FeAT</p> <p>Speaker: Professor Ghon Rhee / University of Hawaii</p> <p style="text-align: right;">(Room J616)</p>					
10:05 – 11:05	<b>Academic Session I</b>					
	SESSION 1-1 <b>Asset Pricing and Investment I</b>	SESSION 1-2 <b>Corporate Finance I</b>	SESSION 1-3 <b>ESG and Firm Behavior I</b>	SESSION 1-4 <b>Financial Markets I</b>	SESSION 1-5 <b>ESG Stock Portfolios</b>	SESSION 1-6 <b>FinTech / Quantitative Trading</b>
	Chair: Her-Jiun Sheu 許和鈞 / MCU	Chair: Yenn-Ru Chen 陳熾如 / NCCU	Chair: Christine W. Lai 賴慧文 / NTNU	Chair: Donald Lien 連大祥 / UTSA	Chair: Chien-Ping Chung 鍾建屏 / Taipei Tech	Chair: Hsiu-Chuan Lee 李修全 / MCU
	Room J603 (6F)	Room J604 (6F)	Room J605 (6F)	Room J403 (4F)	Room J404 (4F)	Room J413 (4F)

Time	Conference Program					
11:10 – 12:10	<b>Academic Session II</b>					
	SESSION 2-1 Asset Pricing and Investment II	SESSION 2-2 Corporate Finance II	SESSION 2-3 ESG and firm behavior II	SESSION 2-4 Financial Markets II / Quantitative Trading	SESSION 2-5 ESG Information I	SESSION 2-6 Microstructure
	Chair: <b>Chih-Yung Lin</b> 林智勇 / NYCU	Chair: <b>Rachel J. Huang</b> 黃瑞卿 / NCU	Chair: <b>Li-Ching Chiu</b> 邱麗卿 / MCU	Chair: <b>Pei-Shih Weng</b> 翁培師 / NSYSU	Chair: <b>Sharon S. Yang</b> 楊曉文 / NCCU	Chair: <b>Henry H. Huang</b> 黃泓人 / NCU
	Room J603 (6F)	Room J604 (6F)	Room J605 (6F)	Room J403 (4F)	Room J404 (4F)	Room J413 (4F)
12:10 – 13:10	<b>Luncheon / Room J603, J604</b>			<b>FeAT Annual Meeting / Room J616</b>		
13:15 – 14:15	<p><b>[Practical Session]</b>  <b>Topic: 永續與 AI 金融浪潮之前瞻投資</b>  Chair: Professor Yang-Cheng Lu 盧陽正 / Ming Chuan University  Moderator:  「公司治理 ETF 與永續投資」: 富邦公司治理 ETF 基金經理人 溫芳儀  「量化投資 X FinTech 創新」: 富邦全委與私募基金投資經理人 周政義</p>					
						(Room J616)
14:20 – 15:40	<b>Academic Session III</b>					<b>[Practical Session]</b> <b>Topic: 政大永續</b> (14:25 – 15:55)
	SESSION 3-1 Asset Pricing and Investment III	SESSION 3-2 Corporate Finance III	SESSION 3-3 Asset Returns and Volatility I	SESSION 3-4* Chinese Session	SESSION 3-5 ESG Information II	
	Chair: <b>Yun-Chi Lee</b> 李芸綺 / SCU	Chair: <b>Chih-Yung Lin</b> 林智勇 / NYCU	Chair: <b>Meng-Lan Yueh</b> 岳夢蘭 / NCCU	Chair: <b>Yun-Huan Lee</b> 李昀寰 / MCU	Chair: <b>Donald Lien</b> 連大祥 / UTSA	
	Room J603 (6F)	Room J604 (6F)	Room J605 (6F)	Room J403 (4F)	Room J404 (4F)	Room J616 (6F)
15:40 – 16:00	<b>Coffee Break / Room J616</b>					

Time	Conference Program					
16:00 – 17:20	<b>Academic Session IV</b>					<b>FeAT Board Meeting</b> (16:30 ~ )
	SESSION 4-1 <b>Environment Risks</b>	SESSION 4-2 <b>Cryptocurrency / Machine Learning</b>	SESSION 4-3 <b>Asset Returns and Volatility II</b>	SESSION 4-4 <b>Carbon Emission / Climate Risk</b>	SESSION 4-5 <b>Derivative Market</b>	
	Chair: <b>Chi-Lu Peng</b> 彭琪祿 / NKUST	Chair: <b>Chih-Hsiang Hsu</b> 許智翔 / MCU	Chair: <b>Yen-Hsien Lee</b> 李彥賢 / CYCU	Chair: <b>Tsangyao Chang</b> 張倉耀 / FCU	Chair: <b>Chung-Jen Yang</b> 楊重任 / MCU	
	Room J603 (6F)	Room J604 (6F)	Room J605 (6F)	Room J403 (4F)	Room J404 (4F)	
18:00 ~	<b>Conference Dinner</b> Regent Taipei / Emporio Room (B3 Floor) (No. 3, Lane 39, Section 2, Zhongshan N Rd, Zhongshan District, Taipei City, 104)					

Notes: 1. “\*” indicates sessions conducted in Chinese (conference schedule subject to change based on actual circumstances). 2. Each paper presentation is allocated 15 minutes, followed by 5 minutes for discussion per paper.

## Keynote Speech

Topic : **Folklore Narratives and IPO Outcomes**

Keynote Speaker : Professor Ghon Rhee (University of Hawaii)

Dr. Rhee received his BA from Seoul National University Law School, MBA from Rutgers University, and Ph.D. from The Ohio State University. He is holding the K. J. Luke Distinguished Professor of International Banking and Finance. He served as the managing editor of the Pacific-Basin Finance Journal from 1993-2017, a premier academic journal focusing on Asia-Pacific capital markets and financial systems. He is currently holding a Chair Professorship at the National Central University of Taiwan and he served as adjunct professor at Monash University (Australia) in 2011-2017.



His research has been published in numerous academic journals, including: Journal of Finance, Review of Financial Studies, Journal of Financial and Quantitative Analysis, Journal of Banking and Finance, Journal of International Money and Finance, Journal of Financial Markets, Journal of Accounting and Economics, Journal of Risk and Insurance, Journal of Empirical Finance, Journal of Financial Services Research, Journal of International Business Studies, Decision Sciences, Financial Management, etc.

# Folklore Narratives and IPO Outcomes

Huu Nhan Duong, Monash University  
Abhinav Goyal, University of Birmingham  
S. Ghon Rhee, University of Hawai'i

May 2024

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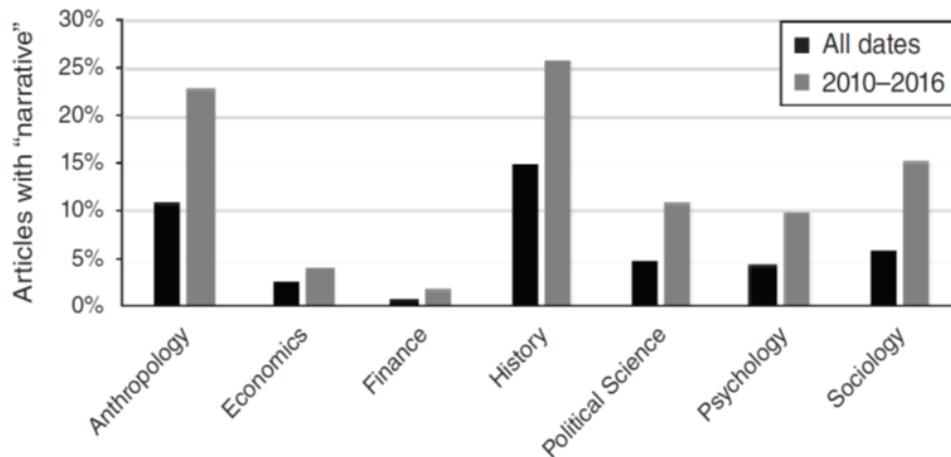
## Narrative Economics

Shiller (AER, 2017): 2017 AEA Presidential Address  
The human brain has always been highly  
tuned toward “narratives” to justify ongoing  
(**economic**) actions.

Akerlof and Snower (JEBO, 2016): Mainstream  
economic analysis leaves no role for  
narratives to play in shaping people's  
objectives and constraints

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## JSTOR Counts (2010-2016)



Source: Shiller (AER, 2017)

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## A Catalog of Folklores

### Michalopoulos and Xue (JPE, 2021):

- **Narratives are central building blocks of our societies**
- **Created a catalog of folklores spanning over 1,000 societies following Anthropologist, Yuri Berezkin (2015)**
- **Folklore is the collection of traditional beliefs, customs, and stories of a community passed through the generations by word of mouth**

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## Folklore Measures

- Berezkin's database of unique mythology and folklore for 958 groups around the world
  - Sources for the database: 6,239 books and journal articles from 4,041 authors, edited by 4,932 publishing houses in 32 different languages
- Groups in Berezkin's Catalog



## Folklore Measures

- Oral traditions are classified into 2,564 motifs
- Identify 284 Motifs that are tagged with the concepts 'cheat', 'deceive', and 'trick'
- Classify Motifs into 4 possible categories
  1. Not antisocial
  2. Antisocial and successful
  3. Antisocial and unsuccessful/punished
  4. Antisocial but outcome is not described



# Formula

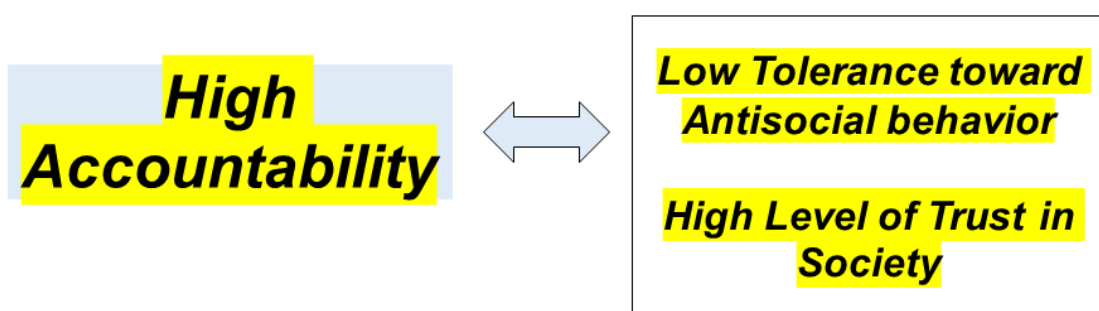
**Antisocial Behavior Not Punished**  
**Antisocial Behavior Punished**

## **Accountability Measure**

A high value of *Accountability* → An environment of low tolerance toward antisocial behavior and A higher level of trust in society

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## Main Measure of Folklore Narratives: Accountability



Accountability: Mean (0.2709), Median (0.1154), 10% percentile (-0.1250); 90% percentile (0.7848)  
High Accountability: Pakistan (0.1853); Netherlands (0.1214); Denmark (0.1110)  
Lowest Accountability: Nigeria (-0.5428); Portugal (-0.4075); Philippines (-0.3744)

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## Main Findings (I)

1

**Accountability is negatively associated with IPO Underpricing.**

2

**The Relation between Accountability and IPO Underpricing is weaker**

- With better quality of financial reporting system
- With major regulatory reforms protecting minority shareholders

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## Main Findings (II)

3

**IPO firms in countries with higher value of Accountability are more likely**

- Certified by high-quality auditors
- More transparent about IPO proceed uses
- Lower valuation uncertainty and free cash flow
- Utilize corporate resources more efficiently

4

**Folklore narratives on punishment for antisocial behavior are related to**

- Superior long-term market performance
- Larger IPO proceeds and float
- Increased IPO market participation

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## Main Purpose

Do **FOLKLORE NARRATIVES** play an important role in financial markets?

### Research Focus

How the **FOLKLORE NARRATIVES** are associated with the **INITIAL PUBLIC OFFERING (IPO)** pricing and outcomes



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## Why IPOs?

- IPO firms are typically young, immature, and informationally opaque (Ljungqvist, 2007; Handbook of Corporate Finance: Empirical Corporate Finance)
- Investments in IPOs expose investors to:
  - Information asymmetry problems (Rock, 1986, JFE)
  - Agency-related issues between management and investors (Brennan and Franks, 1997, JFE; Ljungqvist and Wilhelm, 2003, JOF; Leuz, Triantis, and Wang, 2008, JAE)
- **IPOs are underpriced to compensate for the high level of risk when investing in IPOs**

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## Three Anomalies in IPOs

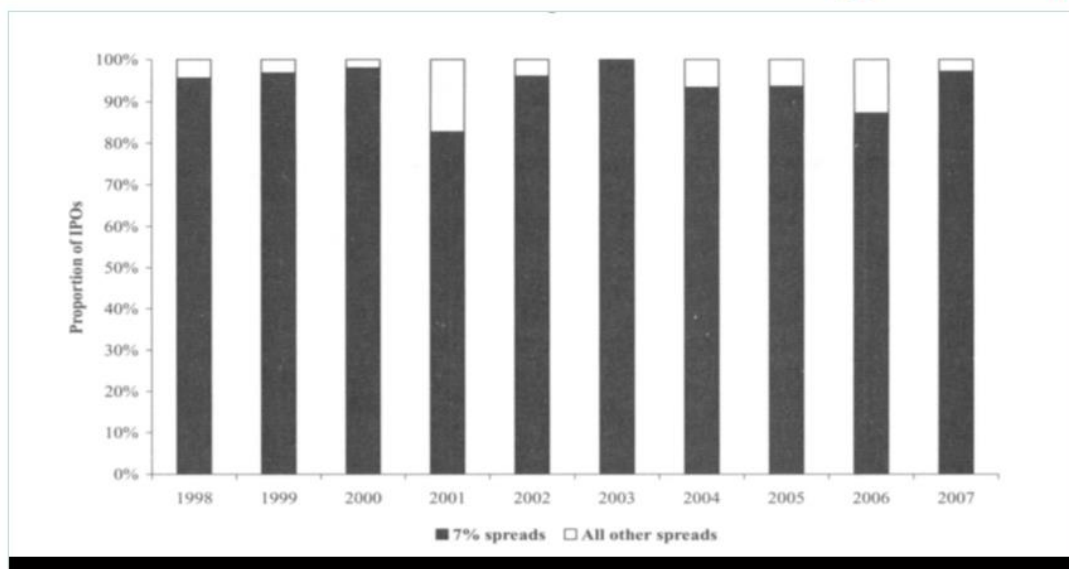
- **Underwriting Fee**
- **First Trading Day Underpricing**
- **Long-Term Underperformance**

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## US IPO Underwriting Fee



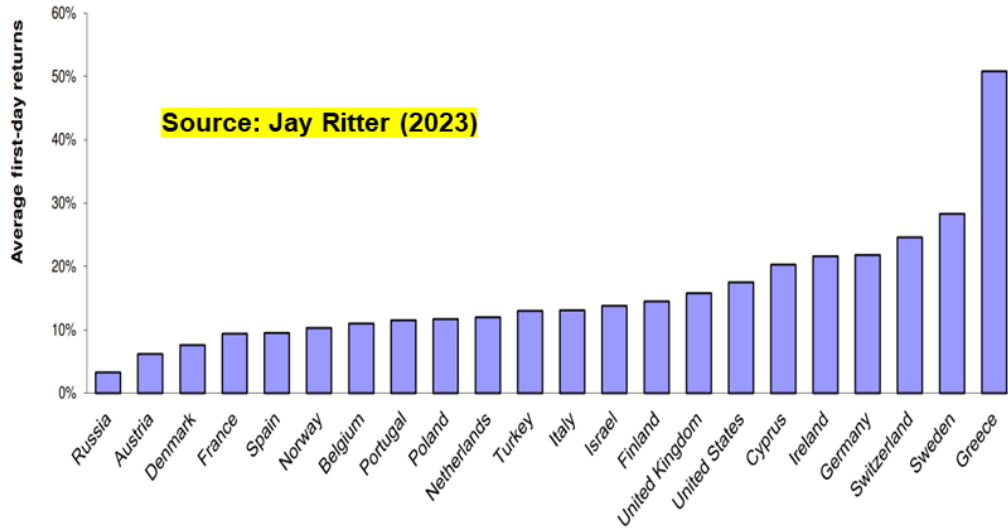
Source: ABRAHAMSON, JENKINSON, JONES (JOF, 2011)

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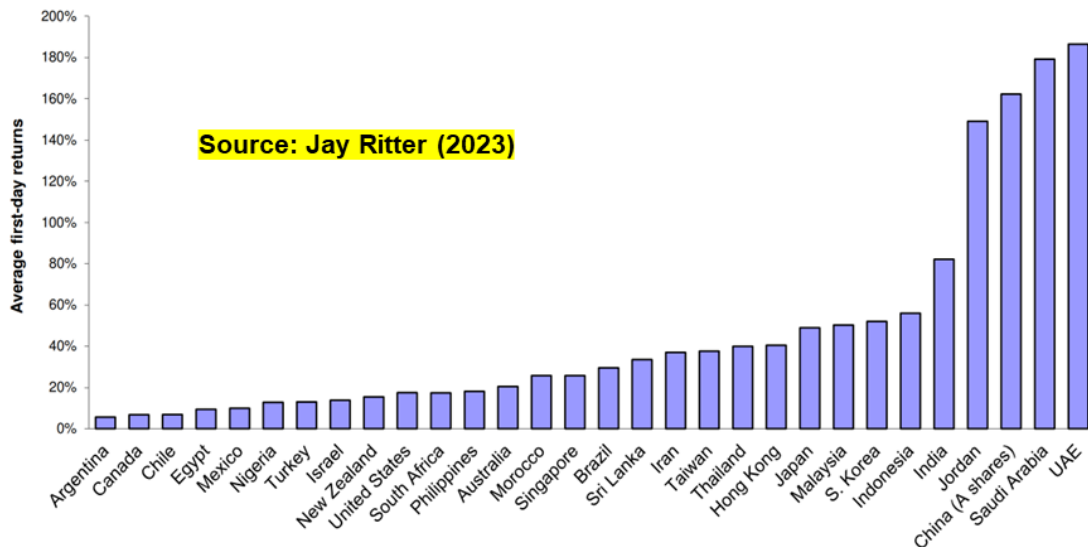
14

## IPO Underpricing: European IPOs



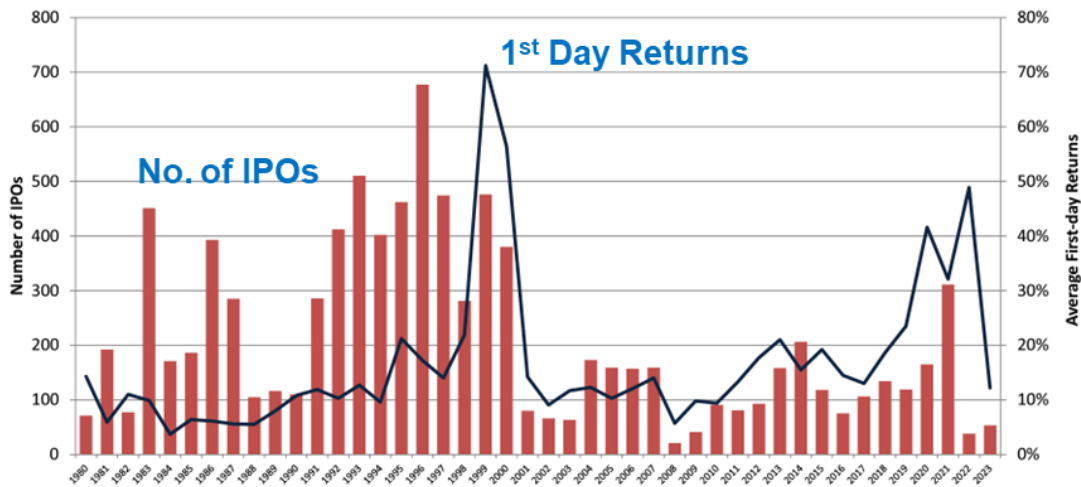
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## IPO Underpricing: Non-European IPOs



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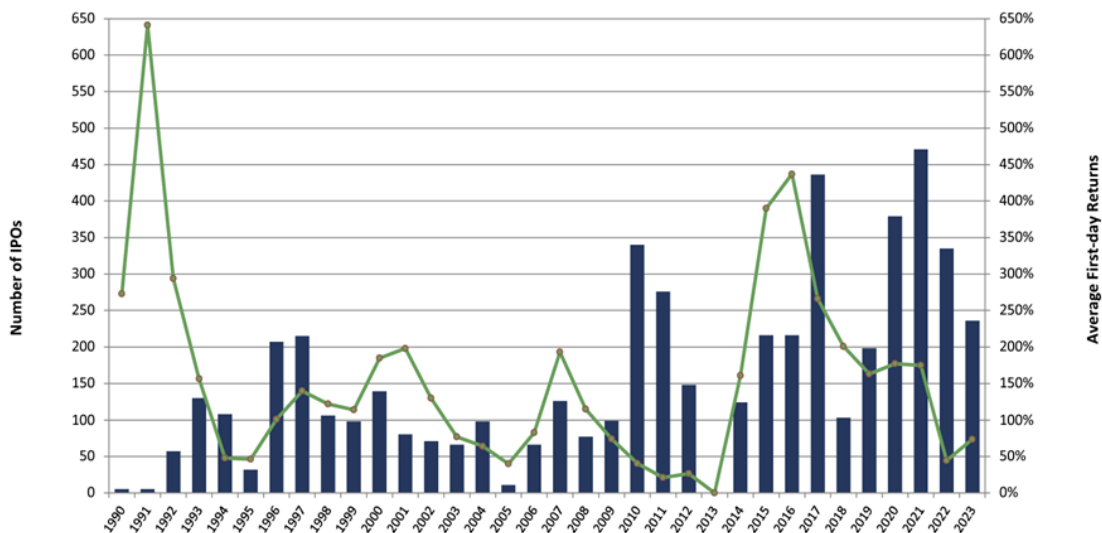
# IPO Underpricing: US



Number of Offerings (bars) and Average First-day Returns (line) on US IPOs, 1980-2023

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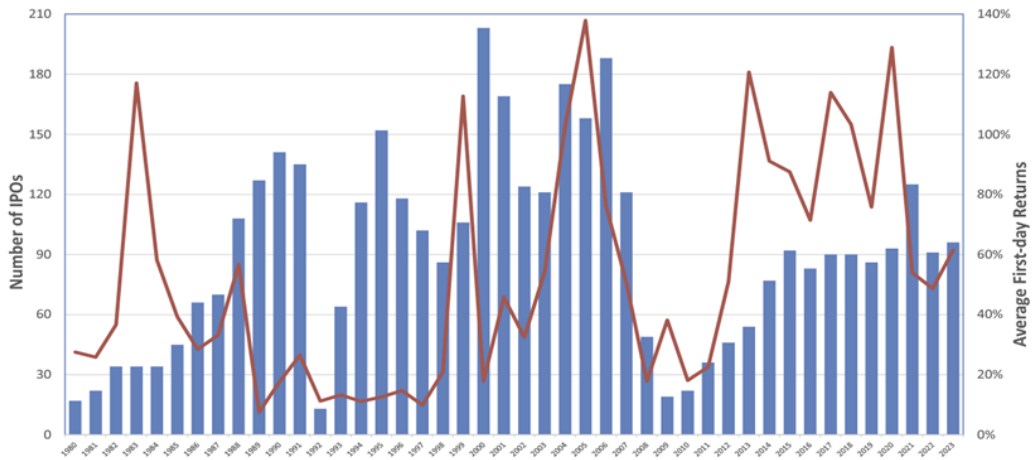
# IPO Underpricing: China



Source: Qian, Ritter, and Shao "Initial Public Offerings Chinese Style" (JFQA 2024) and Dealogic. There were no IPOs in 2013, due to a CSRC moratorium.

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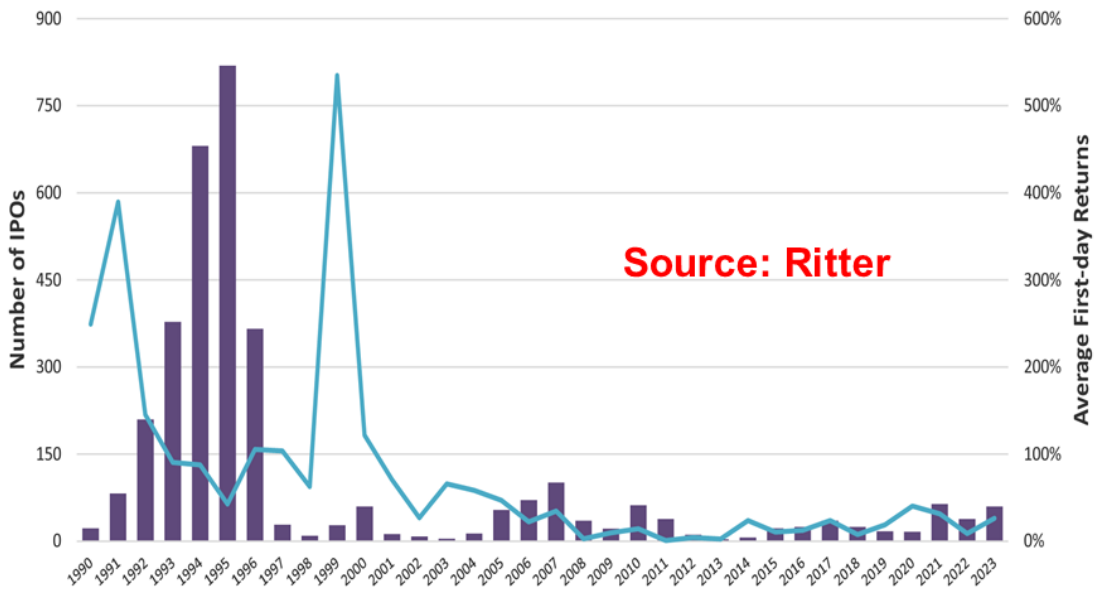
# IPO Underpricing: Japan



Source of data: Takashi Kaneko, Takato Hiraki, and others. The average equally weighted (EW) first-day return for 2001-2023 is 75.4%, but the proceeds-weighted return is 16.5%.

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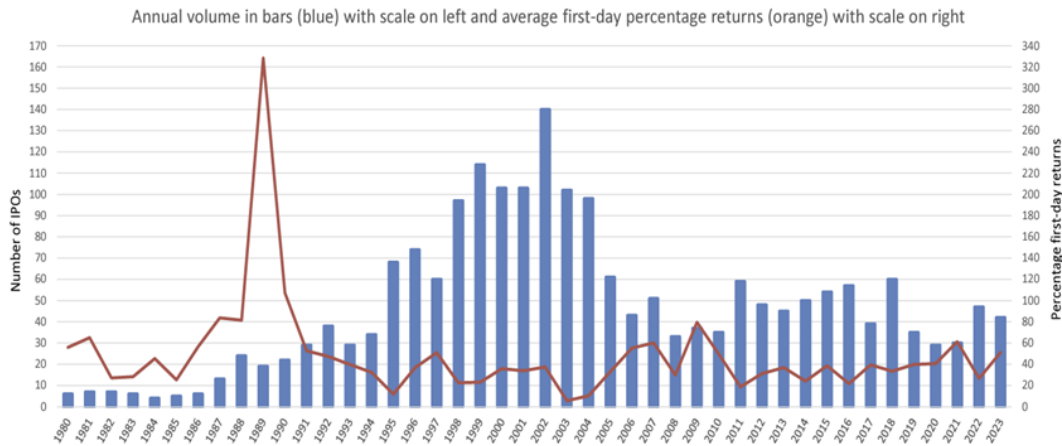
# IPO Underpricing: India



Source: Ritter

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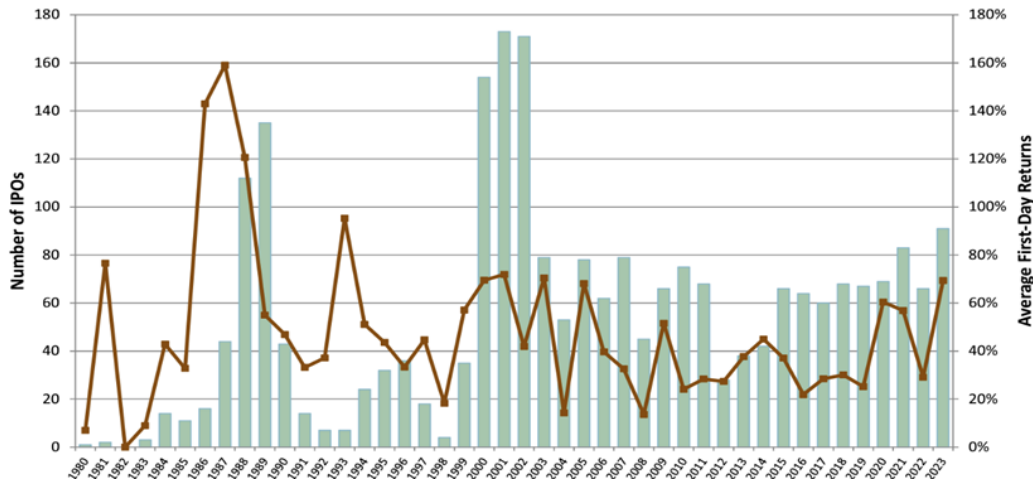
# IPO Underpricing: Taiwan



Source: Jay Ritter, University of Florida with data provided by Hsuan-Chi Chen of the U of New Mexico and Yao-Min Chiang of National Taiwan University. IPOs include Taiwan Stock Exchange and Gre Tai operating company initial public offerings.

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# IPO Underpricing: Korea



Sources: Byung Kyun Ihm, Sung-II Cho, Sung Wook Joh, Seokhoon Lee, the Korea Exchange, and Dealogic. In periods where daily price limits artificially limit the first-day return, a 1-week return is used or 1-week returns are used for only those IPOs subject to price limits. Minmo Gahng and Seung Doo Choi have assisted in comparing Korea Exchange and Dealogic data.

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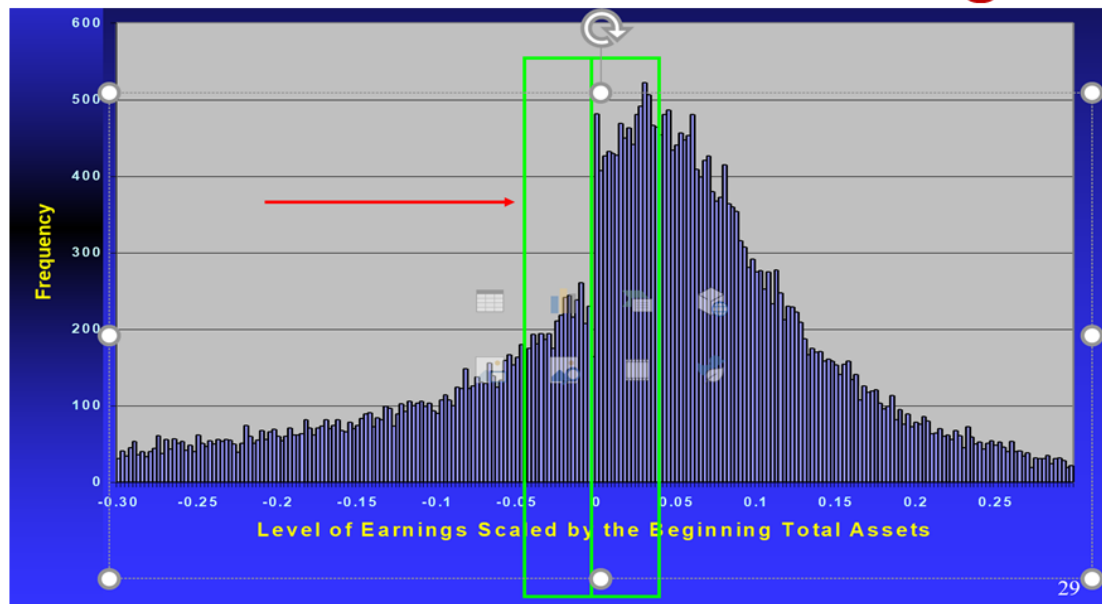


## What Explains Long-Term Underperformance?

- IPO and SEO firms exhibit unusually large and significant gains in operating performance one year prior to the offer date
  - SEO firms exhibit superb stock performance in the year prior to the offering
- >>>>> Earnings Management  
which mislead investors to be over optimistic about the issuer's prospects

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## Distribution of Scaled Earnings



Source: Rhee (2022)

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# Country Classification by Earnings Opacity Measures

**Rank 5 (Most Opaque):** India, Indonesia, Japan, Korea, Greece

**Rank 4:** Malaysia, Pakistan, Singapore, Taiwan, Turkey, S. Africa

**Rank 3:**

Hong Kong, Thailand, Austria, Finland, Germany, Ireland, Netherlands

**Rank 2:**

Australia, Denmark, France, Sweden, Switzerland, United Kingdom

**Rank 1 (Least Opaque):**

Belgium, Canada, Norway, Portugal, United States

**Source:** Bhattacharya, Daouk, and Welker (2003, TAR)

## Data

- Securities Data Company (SDC) Platinum New Issue Database: IPO data: **21,773 IPOs from 43 countries, 1990-2020**
- Datastream and Worldscope: Financial information and stock return data
- Michalopoulos and Xue (2021): Folklore Narratives data: 958 world-wide groups; 32 languages; 2,564 motifs
- Country-level institutional, economic, financial, and regulatory data from the sources listed in [Appendix](#)

# IPOs and Accountability

## IPO Underpricing

- United States has the largest number of IPOs (5,468), followed by China (2,259), Japan (2,222), and India (1,446)
- China has the highest average IPO Underpricing (0.5343), followed by Japan (0.4929), while Belgium (0.0826) and then Mexico (0.1046) has the smallest

## Accountability

- Worldwide Mean (Median) value of -0.1812 (-0.1654)
- Highest Scores: Pakistan (0.1853), followed by the Netherlands (0.1214), and Denmark (0.1110)
- Lowest Scores: Nigeria (-0.5428), Portugal (-0.4075), and the Philippines (-0.3744)

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# Baseline Regression

$$\begin{aligned} IPO\ Underpricing_{i,j,t} = & \alpha + \beta_1 Accountability_j + \beta_2 Offer\ size_{i,j,t} + \beta_3 Profitability_{i,j,t} + \beta_4 Leverage_{i,j,t} \\ & + \beta_5 MTB_{i,j,t} + \beta_6 Bookbuilding_{i,j,t} + \beta_7 Equity\ carve-out_{i,j,t} + \beta_8 Underwriter_{i,j,t} \\ & + \beta_9 Shareholder\ rights_j + \beta_{10} IPO\ Activity_{j,t} + \beta_{11} Democracy_{j,t} + \beta_{12} Market\ return_{j,t} \\ & + \beta_{13} GDP\ growth_{j,t} + \beta_{14} Market\ turnover_{j,t} + \sum FE + \varepsilon_{i,j,t} \end{aligned} \quad (1)$$

- **IPO Underpricing**: the difference between the offer price and the secondary market closing price on the first day, scaled by the offer price.
- ***i, j, and t*** denote IPO firm *i*, listed in country *j* in year *t*, respectively.
- **$\sum FE$**  denotes continent, industry, and year of issue fixed effect.
- **$\varepsilon$**  represents the error term.

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## Baseline Regression Results

Dependent variable →	IPO Underpricing					
	Model 1		Model 2		Model 3	
	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat
Accountability	-0.3804	-2.88	-0.3058	-2.37	-0.5108	-4.20
Offer size	-0.0707	-8.73	-0.0560	-6.92	-0.0634	-8.15
Profitability	0.0941	4.34	0.0299	1.78	0.0145	0.93
Shareholder rights					-0.0434	-3.52
IPO activity					-0.4376	-2.51
Democracy					-0.0086	-2.03
Market return					0.4565	3.15
GDP growth					0.1334	0.20
Market turnover					0.0344	2.42
Continent FE	No		Yes		Yes	
Industry FE	Yes		Yes		Yes	
Year FE	Yes		Yes		Yes	
Observations	21,773		21,773		21,773	
Adjusted R Sq.	0.1010		0.1204		0.1395	

A one standard deviation increase in the *Accountability* score (0.0882) is associated with a decline in the first-day return of  $0.0882 \times 0.5108 = 0.0451$ . Given that the average first-day return is 0.2709 in our sample, this translates into a 16.65% decrease compared to the average IPO listing-day return.

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## Robustness Tests (I)

- **Social Trust World Value Survey: La Porta et al. (1996, WP)**
- **Cultural Dimension of Geert Hofstede (1980) ...IDV, UAI, PDI, LSO**
- **Global Preference Survey (Falk, Beeker, Dohmen, Enke, Huffman, and Sundae (2018, QJE)**

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## Robustness Tests (I)

<b>Panel A: Additional control variables</b>		
<b>(1) Control for Social Trust WVS, and Hofstede Culture Factors (obs. = 21,773)</b>		
Accountability	<b>-0.3211</b>	<b>-3.68</b>
Social trust WVS	-0.1309	-2.94
IDV	-0.2285	-2.24
PDI	0.1909	2.19
UAI	-0.1791	-2.99
LSO	0.0640	1.03
<b>(2) Control for Global Preference Survey (obs. = 19,153)</b>		
Accountability	<b>-0.3501</b>	<b>-3.66</b>
Risk taking	-0.0955	-1.53
Social trust GPS	-0.2349	-2.47
Patience	0.2176	4.21
Altruism	-0.1814	-2.81
Negative reciprocity	-0.0060	-0.14
Positive reciprocity	0.4227	4.69

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## What Do We Learn?

**Our findings are independent of the potential effects of contemporary indicators of trust (La Porta et al. 1996), culture (Hofstede, 1980), or social preferences (Falk et al., 2018)**

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## Robustness Tests (II)

### Panel B: Alternative model specification

(1) Exclude China, Japan, and the US (obs. = 11,824)		
Accountability	-0.1066	-2.65
(2) Control for Regional fixed effects (obs. = 21,773)		
Accountability	-0.2881	-2.34
(3) Country-year level regressions (obs. = 994)		
Accountability	-0.1319	-1.71

### Panel C: Alternative measure of IPO Underpricing

Dependent variable is one-week underpricing (obs. = 21,185)		
Accountability	-0.2879	-1.85

### Alternate measures of IPO underpricing:

- Using IPO returns measured over one-week following the day of listing (*Ellul and Pagano 2006; Chen et al. 2020a*)

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## Robustness Tests (IV)

	Co-eff	t-stat	Observations
<b>Panel E: Across industries</b>			
Accountability across Fama-French 12 Industry classification based on the primary SIC code of the IPO firm			
Consumer Non-Durable	-0.2023	-2.05	1,424
Consumer Durables	-0.3519	-2.03	625
Manufacturing	-0.3154	-2.77	2,393
Energy	-0.3126	-2.50	607
Chemicals	-0.5885	-2.49	679
Business Equipment	-1.2419	-8.92	4,222
Telecom	0.1726	0.72	428
Utilities	0.0287	0.10	301
Wholesale	-0.5144	-2.44	1,900
Healthcare	-0.8916	-3.86	1,963
Money / Finance	-0.3715	-4.40	3,439
Other	-0.5410	-5.15	3,792

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# Robustness Tests (V)

## Panel F: Across continents

Accountability across six continents based on the country where the IPO firm is listed

Africa	-0.5711	-1.68	102
Asia	-0.9118	-14.60	10,666
Australasia	0.9891	0.85	1,176
Europe	-0.1973	-2.06	3,221
North America	-2.1854	-2.75	6,430
South America	-1.1617	-2.36	178

Australasia is the only continent where *Accountability* is insignificant.

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# Cross-Sectional Analysis

## Moderating Effect of the Quality of Financial Reporting System

Dependent variable →	IPO Underpricing					
	Model 1		Model 2		Model 3	
	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat
Accountability	-0.6021	-3.86	-1.1351	-4.29	-5.4700	-6.05
Accountability x Acc. conservatism	1.2303	2.08				
Acc. conservatism	-0.4070	-3.11				
Accountability x Disclosure index			0.6560	2.14		
Disclosure index			-0.3191	-3.84		
Accountability x Earning opacity					-1.0498	-6.08
Earning opacity					0.1678	5.79

- The effect is weaker for IPOs listed in countries that adopt conservative accounting practices and comply with better disclosure standards.
- The negative effect of *Accountability* on IPO underpricing is amplified in countries with high earnings opacity.

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# Cross-Sectional Analysis

## Moderating Effect of The Regulatory Reforms

Dependent variable →	IPO Underpricing					
	Model 1		Model 2		Model 3	
	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat
Accountability	-0.9604	-4.47	-0.7434	-4.22	-0.6013	-4.34
Accountability x Boardroom reform	1.0806	4.28				
Boardroom reform	-0.2169	-2.92				
Accountability x IFRS adoption			0.7933	3.34		
IFRS adoption			-0.0745	-1.87		
Accountability x Takeover law					0.8940	4.76
Takeover law					0.0436	1.31

- **The effect is weaker for the IPOs listed in countries that have introduced and successfully adopted a major market disciplinary reform to mitigate minority shareholder expropriation, and managerial opportunism with better reporting standards.**

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# IPO Long-Term Market Performance

Dependent variable →	6-Month BHAR		12-Month BHAR		24-Month BHAR		36-Month BHAR	
	Model 1		Model 2		Model 3		Model 4	
	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat
Accountability	0.4092	4.52	0.4634	4.57	0.5954	4.76	0.4316	4.10
Offer size	-0.0078	-1.48	-0.0029	-0.49	0.0153	2.19	0.0227	3.86
Profitability	0.0771	7.23	0.1187	8.95	0.1400	8.50	0.1409	8.60
Leverage	-0.0236	-1.73	-0.0256	-1.70	-0.0225	-1.38	-0.0010	-0.06
MTB	0.0074	6.97	0.0071	5.66	0.0029	2.21	0.0009	0.78
Bookbuilding	0.0193	1.48	0.0193	1.32	0.0300	1.61	0.0355	1.88

- **IPOs launched in trustworthy countries tend to, on average, enjoy higher performance across various long horizons.**

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## Conclusion

**IPO underpricing is lower in countries in which folklores portray that antisocial behavior is punished (*Accountability*)**

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**Thank You for**  
**Your Attention**

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## Practical Session

### Topic: 永續與 AI 金融浪潮之前瞻投資

Chair: Professor Yang-Cheng Lu 盧陽正 / Ming Chuan University

Moderator:

「公司治理 ETF 與永續投資」: 富邦公司治理 ETF 基金經理人 溫芳儀

「量化投資 X FinTech 創新」: 富邦全委與私募基金投資經理人 周政義

講師: 周政義 Brian Chou

現任:

富邦策略一號基金

富邦策略五號基金

富邦雙息收益基金

富邦人壽月月興利月提解全權委託投資帳戶

富邦人壽富多利月提解全權委託投資帳戶

學歷: 中山大學財務管理所碩士

經歷: 富邦投信專戶管理部經理人、元大投信投資部基金經理人、元富期貨研究部、三信商業銀行財管中心、日盛期貨研究/自營部



講師: 溫芳儀 Fiona Wen

現任/基金資歷:

- 00692 富邦臺灣公司治理 100 基金  
第 24 屆傑出基金金鑽獎-股票 ETF 一般型(國內指數)
- 00639 富邦深証 100 基金
- 00634R 富邦上証 180 反向一倍基金
- 006208 富邦台灣采吉 50 基金
- 00675L 富邦加權正向兩倍基金
- 00652 富邦印度基金
- 00709 富邦歐洲基金

學歷: 淡江大學國際企業學系研究所碩士

經歷: 富邦投信指數投資部基金經理人、元大投信投資事業處、台新銀行信託投資事業處



## Academic Session Schedule

### Academic Session I

Date: May 3rd, 2024 (Friday)

Venue: Jihe Campus, Ming Chuan University

SESSION 1-1	10:05 – 11:05
<b>Empirical Issue Related to Asset Pricing and Investment I</b>	<b>Room J603</b>

Session Chair: Her-Jiun Sheu 許和鈞 (Ming Chuan University)

#### **Saliency, Psychological Anchors, and Stock Return Predictability**

Presenter: Mei-Chen Lin 林美珍 (National Taipei University)

Discussant: Kuan-Cheng Ko 柯冠成 (National Chi Nan University)

#### **Geo-political Risks and Foreign Institutional Investors: Evidence from the Taiwan Stock Market**

Presenter: Hao-Wen Chang 張浩文 (National Yang Ming Chiao Tung University)

Discussant: Rachel J. Huang 黃瑞卿 (National Central University)

#### **A Performance Index Consistent with Fractional-order Stochastic Dominance**

Presenter: Rachel J. Huang 黃瑞卿 (National Central University)

Discussant: Mei-Chen Lin 林美珍 (National Taipei University)

SESSION 1-2	10:05 – 11:05
<b>Empirical Issue Related to Corporate Finance I</b>	<b>Room J604</b>

Session Chair: Yenn-Ru Chen 陳熾如 (National Chengchi University)

#### **The Role of Financial Flexibility in Corporate Cash Donations**

Presenter: Chienlin Lu 盧建霖 (National Taipei University)

Discussant: YuLin Huang 黃幼琳 (National Taichung University of Science and Technology)

#### **Board gender diversity and corporate debt decisions**

Presenter: YuLin Huang 黃幼琳 (National Taichung University of Science and Technology)

Discussant: Chung-Jen Yang 楊重任 (Ming Chuan University)

#### **Entrepreneurial Teams and Gender Roles: Evidence from Equity Crowdfunding Achievement**

Presenter: Tingting Zhu 朱婷婷 (National Tsing Hua University)

Discussant: Chienlin Lu 盧建霖 (National Taipei University)

## Academic Session I

Date: May 3rd, 2024 (Friday)

Venue: Jihe Campus, Ming Chuan University

SESSION 1-3

10:05 – 11:05

### Real Effects of ESG and Investing on Firm Behaviors I

Room J605

Session Chair: **Christine W. Lai 賴慧文** (National Taiwan Normal University)

#### ESG Public Evaluation and Credit Default Swap: Evidence from East Asian Countries

Presenter: Chih-Yung Lin 林智勇 (National Yang Ming Chiao Tung University)

Discussant: Yun-Chi Lee 李芸綺 (Soochow University)

#### The Impact of ESG Ratings on Bank Lending: Evidence from Taiwan

Presenter: Chia-I Huang 黃迦怡 (National Sun Yat-sen University)

Discussant: Yun-Chi Lee 李芸綺 (Soochow University)

#### Greening the Ties: Exploring Political Influence on Green Innovation in China

Presenter: Yun-Chi Lee 李芸綺 (Soochow University)

Discussant: Chih-Yung Lin 林智勇 (National Yang Ming Chiao Tung University)

SESSION 1-4

10:05 – 11:05

### Other Topics Related to Data Analysis in Financial Markets I

Room J403

Session Chair: **Donald Lien 連大祥** (The University of Texas at San Antonio)

#### How Do Political Preferences Shape Retail Investors' Decisions Evidence from the Taiwan Stock Market

Presenter: Weng Ian Hoi 許濛心 (National Sun Yat-sen University)

Discussant: Chia-Ling Ho 何佳玲 (Tamkang University)

#### How Private Health Insurers Decide to Investigate Claims: A Multivariate Analysis

Presenter: Chia-Ling Ho 何佳玲 (Tamkang University)

Discussant: Chun-Wei Lin 林俊偉 (Providence University)

#### Currency policy, COVID- 19, and economic output risk

Presenter: Chun-Wei Lin 林俊偉 (Providence University)

Discussant: Pei-Shih Weng 翁培師 (National Sun Yat-sen University)

## Academic Session I

Date: May 3rd, 2024 (Friday)

Venue: Jihe Campus, Ming Chuan University

### SESSION 1-5

#### **The Asset Pricing and Investment Performance of ESG Stock Portfolios**

10:05 – 11:05

Room J404

Session Chair: Chien-Ping Chung 鍾建屏 (National Taipei University of Technology)

#### **Does Low-Carbon Portfolio Matter? Evidence from Sustainable Investment in Taiwan**

Presenter: Min-Rui Choo 朱民芮 (Ming Chuan University)

Discussant: Yu-Ying Tzeng 曾毓英 (National Chengchi University)

#### **Optimal Asset Allocation of ESG Stocks: Application of Genetic Algorithms and Machine Learning Models**

Presenter: Yu-Ying Tzeng 曾毓英 (National Chengchi University)

Discussant: Min-Rui Choo 朱民芮 (Ming Chuan University)

### SESSION 1-6

10:05 – 11:05

#### **Financial Technology / Quantitative Trading and Investment**

Room J413

Session Chair: Hsiu-Chuan Lee 李修全 (Ming Chuan University)

#### **Financial and Informational Integration Through Oracle Networks ([online](#))**

Presenter: Daniel Rabetti 丹尼尔·拉贝蒂 (National University of Singapore)

Discussant: Tsangyao Chang 張倉耀 (Feng-Chia University)

#### **Does FinTech Enhance Macroeconomic Resilience? Evidence from China**

Presenter: Tsangyao Chang 張倉耀 (Feng-Chia University)

Discussant: Marty Shih-Jye Yen 顏士杰 (National Chengchi University)

#### **An Empirical Analysis of the Influence of Financial Literacy on the Adoption of Robo-Advisory Services**

Presenter: Marty Shih-Jye Yen 顏士杰 (National Chengchi University)

Discussant: Daniel Rabetti 丹尼尔·拉贝蒂 (National University of Singapore)

## Academic Session II

Date: May 3rd, 2024 (Friday)

Venue: Jihe Campus, Ming Chuan University

SESSION 2-1

11:10 – 12:10

### Empirical Issue Related to Asset Pricing and Investment II

Room J603

Session Chair: **Chih-Yung Lin 林智勇** (National Yang Ming Chiao Tung University)

#### Competence and Ambiguity Aversion of Heterogeneous Investors

Presenter: Christine W. Lai 賴慧文 (National Taiwan Normal University)

Discussant: Shu-Feng Wang 王樹鳳 (Ajou University)

#### Short-selling and Underpricing of IPO

Presenter: Shu-Feng Wang 王樹鳳 (Ajou University)

Discussant: Te-Feng Chen 陳德峰 (Hong Kong Polytechnic University)

#### Market Prices of Aligned Economic Uncertainty

Presenter: Te-Feng Chen 陳德峰 (Hong Kong Polytechnic University)

Discussant: Christine W. Lai 賴慧文 (National Taiwan Normal University)

SESSION 2-2

11:10 – 12:10

### Empirical Issue Related to Corporate Finance II

Room J604

Session Chair: **Rachel J. Huang 黃瑞卿** (National Central University)

#### The Impact of Religiosity on CEO Power: Evidence from Taiwan

Presenter: Min-Rui Choo 朱民芮 (Ming Chuan University)

Discussant: Dien Giau Bui 裴典富 (Yuan Ze University)

#### CEOs' Global Reputations and Cross-Border M&As Evidence from CEOs' Twitter Accounts

Presenter: Dien Giau Bui 裴典富 (Yuan Ze University)

Discussant: Tuan Le 黎國俊 (Yuan Ze University)

#### Cultural Trust Biases and Syndicated Loan Market

Presenter: Tuan Le 黎國俊 (Yuan Ze University)

Discussant: Min-Rui Choo 朱民芮 (Ming Chuan University)

## Academic Session II

Date: May 3rd, 2024 (Friday)

Venue: Jihe Campus, Ming Chuan University

SESSION 2-3

11:10 – 12:10

**Real Effects of ESG and Investing on Firm Behaviors II**

**Room J605**

Session Chair: Li-Ching Chiu 邱麗卿 (Ming Chuan University)

**The Impact of CSR Behavior on Financial Performance Stability-The Analysis of Family Firms and Non-Family Firms**

Presenter: Yu-Chen Wei 魏裕珍 (National Kaohsiung University of Science and Technology)

Discussant: Bai-Sian Chen 陳佰弦 (Chang Gung University)

**The Impact of ESG Ratings on Firm Risks in Taiwan's Market**

Presenter: Bai-Sian Chen 陳佰弦 (Chang Gung University)

Discussant: Yu-Chen Wei 魏裕珍 (National Kaohsiung University of Science and Technology)

SESSION 2-4

**Other topics related to data analysis in financial markets II /**

**11:10 – 12:10**

**Quantitative trading and investment**

**Room J403**

Session Chair: Pei-Shih Weng 翁培師 (National Sun Yat-sen University)

**Research on Fund Timing Ability Based on ADCC Model: Evidence from Chinese Active Open-End Funds ([online](#))**

Presenter: Leyao Ma 马乐瑶 (Harbin Institute of Technology)

Discussant: Chia-Ling Ho 何佳玲 (Tamkang University)

**Moral Hazard Problem in the Private Health Insurance Market-the Impact of the Diagnosis-Related Groups Payment System**

Presenter: Chia-Ling Ho 何佳玲 (Tamkang University)

Discussant: Chih-Hsiang Hsu 許智翔 (Ming Chuan University)

**Selling Equity in May and Buying Bonds: An ETF-Based Analysis**

Presenter: Chih-Hsiang Hsu 許智翔 (Ming Chuan University)

Discussant: Pei-Shih Weng 翁培師 (National Sun Yat-sen University)

## Academic Session II

Date: May 3rd, 2024 (Friday)

Venue: Jihe Campus, Ming Chuan University

### SESSION 2-5

**Role of ESG information on decision making of capital market  
participants I**

**11:10 – 12:10**

**Room J404**

Session Chair: **Sharon S. Yang 楊曉文 (National Chengchi University)**

### **Can Good Doers Perform Well? Novel Evidence from Corporate Innovation**

Presenter: Robin Chen 陳偉銘 (National Taipei University)

Discussant: Ying-Che Tsai 蔡英哲 (Ming Chuan University)

### **How does Mandatory Nonfinancial Disclosures affect Managers' Voluntary Disclosures? Evidence from Taiwan**

Presenter: Pang-Yu Wang 王邦瑜 (National Taiwan University)

Discussant: Yin-Che Weng 翁胤哲 (National Dong Hwa University)

### **ESG Information and Herd Behavior: Evidence from Taiwan**

Presenter: Yin-Che Weng 翁胤哲 (National Dong Hwa University)

Discussant: Robin Chen 陳偉銘 (National Taipei University)

### SESSION 2-6

**11:10 – 12:10**

**Financial market structure and microstructure**

**Room J413**

Session Chair: **Henry H. Huang 黃泓人 (National Central University)**

### **Call Protection, Financial Flexibility, and Refinancing Risk Management**

Presenter: Tian-Shyr Dai 戴天時 (National Yang Ming Chiao Tung University)

Discussant: Ya-Kai Chang 張雅凱 (Chung Yuan Christian University)

### **Corporate Disclosure and the Informational Efficiency of Stock Prices: New Evidence**

Presenter: Ya-Kai Chang 張雅凱 (Chung Yuan Christian University)

Discussant: Hong-Gia Huang 黃泓嘉 (Tunghai University)

### **Investors' Trading Behavior and Post-Earnings-Announcement Drift: Evidence from Taiwan**

Presenter: Hong-Gia Huang 黃泓嘉 (Tunghai University)

Discussant: Tian-Shyr Dai 戴天時 (National Yang Ming Chiao Tung University)



### Academic Session III

Date: May 3rd, 2024 (Friday)

Venue: Jihe Campus, Ming Chuan University

SESSION 3-1

14:20 – 15:40

**Empirical Issue Related to Asset Pricing and Investment III**

**Room J603**

Session Chair: Yun-Chi Lee 李芸綺 (Soochow University)

#### **The Impact of Investor Attention on Mispricing of Dual-Listed Shares: Evidence from Chinese A-share and H-share Markets**

Presenter: Wei-Ling Huang 黃瑋苓 (Beijing Normal University)

Discussant: Chi-Lu Peng 彭琪祿 (National Kaohsiung University of Science and Technology)

#### **Financial Reporting Quality, Trading Preference of Institutional Investors and Investment Performance**

Presenter: Chi-Lu Peng 彭琪祿 (National Kaohsiung University of Science and Technology)

Discussant: Lin-Hsiang Huang 黃麟翔 (National Chung Hsing University)

#### **Mispricing, trading strategies, and the return predictability in the high-frequency stock returns**

Presenter: Lin-Hsiang Huang 黃麟翔 (National Chung Hsing University)

Discussant: Carl Shen 沈信漢 (Macquarie University)

#### **No Conflict of Interests to Declare – a Study of Individual-controlled Funds in China ([online](#))**

Presenter: Carl Shen 沈信漢 (Macquarie University)

Discussant: Wei-Ling Huang 黃瑋苓 (Beijing Normal University)

## Academic Session III

Date: May 3rd, 2024 (Friday)

Venue: Jihe Campus, Ming Chuan University

SESSION 3-2

14:20 – 15:40

**Empirical Issue Related to Corporate Finance III**

**Room J604**

Session Chair: Chih-Yung Lin 林智勇 (National Yang Ming Chiao Tung University)

### **Risk-taking Behavior, Cash Flow, and Investment Efficiency**

Presenter: Haneen Abedalqader 安語嫣 (National Cheng Kung University)

Discussant: Guan-Ying Huang 黃冠瑛 (National Chung Cheng University)

### **The dark side of institutional investors' investment horizon: Evidence from stock price crash risk**

Presenter: Guan-Ying Huang 黃冠瑛 (National Chung Cheng University)

Discussant: Chien-Ming Huang 黃健銘 (Tamkang University)

### **Can Diversified Information Disclosures constrain Earnings Management Activities in Taiwanese SMEs**

Presenter: Wei-Ting Chen 陳暉婷 (Tamkang University)

Discussant: Chih-Yung Lin 林智勇 (National Yang Ming Chiao Tung University)

### **Central Bank's Assessments of Economic Outlook and Corporate Cash Holdings: Evidence of Strategic Motives**

Presenter: Quang-Thai (Harry) Truong 張光泰 (National Taipei University)

Discussant: Tsai-Yin Lin 林財印 (National Kaohsiung University of Science and Technology)

### Academic Session III

Date: May 3rd, 2024 (Friday)

Venue: Jihe Campus, Ming Chuan University

SESSION 3-3

14:20 – 15:40

**Modelling and forecasting asset returns and volatility I**

**Room J605**

Session Chair: Meng-Lan Yueh 岳夢蘭 (National Chengchi University)

#### **Do price jumps matter in volatility forecasts of US treasury futures?**

Presenter: Xueer Zhang 張雪兒 (Tamkang University)

Discussant: Yen-Hsien Lee 李彥賢 (Chung Yuan Christian University)

#### **Convertible Bond Issuance and Stock Returns: An Anchoring Perspective**

Presenter: Yen-Hsien Lee 李彥賢 (Chung Yuan Christian University)

Discussant: Hui-Ching Chuang 莊惠菁 (National Taipei University)

#### **Simple HAR model based on the correlated intraday return patterns**

Presenter: Hui-Ching Chuang 莊惠菁 (National Taipei University)

Discussant: Yen-Hsien Lee 李彥賢 (Chung Yuan Christian University)

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### Academic Session III

Date: May 3rd, 2024 (Friday)

Venue: Jihe Campus, Ming Chuan University

SESSION 3-4

14:20 – 15:40

Chinese Session

Room J403

Session Chair: Yun-Huan Lee 李昫寰 (Ming Chuan University)

#### **The Relationship between ESG Performance and Financial Performance: An Empirical Study of Taiwan's Listed and OTC Companies**

Presenter: Tzu-Min Kao 高慈敏 (Ming Chuan University)

Discussant: Kuei-Yuan Wang 王癸元 (Asia University)

#### **文化差異對大學生行動支付使用意圖之影響：整合科技模式應用**

Presenter: Kuei-Yuan Wang 王癸元 (Asia University)

Discussant: Min-Hung Tsay 蔡明宏 (Academia Sinica)

#### **疫情危機對公司股價波動度之影響：投資人情緒與公司治理的角色**

Presenter: Min-Hung Tsay 蔡明宏 (Academia Sinica)

Discussant: Wen-Chun Tsai 蔡汶君 (Feng Chia University)

#### **TESE 分數對企業獲利能力之影響-以汽車產業為例**

Presenter: Wen-Chun Tsai 蔡汶君 (Feng Chia University)

Discussant: Yun-Huan Lee 李昫寰 (Ming Chuan University)

#### **企業 ESG 績效是否造成投資人羊群效應**

Presenter: Yun-Huan Lee 李昫寰 (Ming Chuan University)

Discussant: Tzu-Min Kao 高慈敏 (Ming Chuan University)

### Academic Session III

Date: May 3rd, 2024 (Friday)

Venue: Jihe Campus, Ming Chuan University

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SESSION 3-5

**Role of ESG information on decision making of capital market  
participants II**

**14:20 – 15:40**

**Room J404**

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Session Chair: Donald Lien 連大祥 (The University of Texas at San Antonio)

**The Association of Investment Opportunity Set, ESG Performance, and Managerial Compensation Structure: An Empirical Study of Taiwan Listed Companies**

Presenter: Lieh-Ming Luo 羅烈明 (Fu Jen Catholic University))

Discussant: Yu-Chen Wei 魏裕珍 (National Kaohsiung University of Science and Technology)

**The Analysis of CSR Performance, Stability and Corporate Credit Risk in Taiwan**

Presenter: Guan-Yu Hou 侯冠宇 (National Kaohsiung University of Science and Technology)

Discussant: Chien-Ping Chung 鍾建屏 (National Taipei University of Technology)

**Effects of Foreign Institutional Investors Herding for Stocks with Various ESG Ratings and Such Herding on Subsequent Return Performance**

Presenter: Chien-Ping Chung 鍾建屏 (National Taipei University of Technology)

Discussant: Lieh-Ming Luo 羅烈明 (Fu Jen Catholic University)

**An Empirical Investigation of ESG dimensions and Bank Performance: Evidence from the COVID-19 Crisis**

Presenter: Yang Li 李楊 (National Taiwan College of Performing Arts)

Discussant: Lieh-Ming Luo 羅烈明 (Fu Jen Catholic University)

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## Academic Session IV

Date: May 3rd, 2024 (Friday)

Venue: Jihe Campus, Ming Chuan University

SESSION 4-1

16:00 – 17:20

**Connectedness of Environmental Risks**

**Room J603**

Session Chair: **Chi-Lu Peng 彭琪祿** (National Kaohsiung University of Science and Technology)

### **Investor Sentiment and Stock Market Crashes: A Heliobiological Perspective**

Presenter: Chia-Chen Teng 鄧家珍 (Chung Yuan Christian University)

Discussant: Hui-Ching Chuang 莊惠菁 (National Taipei University)

### **How Much Does Green Finance Reduce Carbon Emissions? Evidence from Prefecture-Level Cities in China**

Presenter: Hui-Ching Chuang 莊惠菁 (National Taipei University)

Discussant: Chi Lu Peng 彭琪祿 (National Kaohsiung University of Science and Technology)

### **Common Factor of Carbon and Oil Markets**

Presenter: Zong-Wei Yeh 葉宗瑋 (National Chengchi University)

Discussant: Cuong Nguyen (Lincoln University)

### **Corporate biodiversity risk and product market threats ([online](#))**

Presenter: Cuong Nguyen (Lincoln University)

Discussant: Chia-Chen Teng 鄧家珍 (Chung Yuan Christian University)

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## Academic Session IV

Date: May 3rd, 2024 (Friday)

Venue: Jihe Campus, Ming Chuan University

### SESSION 4-2

**Cryptocurrency and FX markets /**

**16:00 – 17:20**

**Data analysis, machine learning, and AI techniques**

**Room J604**

Session Chair: **Chih-Hsiang Hsu 許智翔 (Ming Chuan University)**

#### **Cryptocurrency market spillover in times of uncertainty**

Presenter: Withz Aimable 艾馬坡 (Yuan Ze University)

Discussant: Jing-Tung Wu 吳靖東 (Ming Chuan University)

#### **The exchange rates volatilities of major industries country-Non-linear autoregressive distributed lag (NARDL) approach**

Presenter: Jing-Tung Wu 吳靖東 (Ming Chuan University)

Discussant: Haitang Wu 吳海棠 (National Chengchi University)

#### **Cryptocurrency Risk Management Using Lévy Processes and Time-Varying Volatility**

Presenter: Haitang Wu 吳海棠 (National Chengchi University)

Discussant: Kendro Vincent 羅秉政 (National Chengchi University)

#### **Does One Pattern Fit All? Image Analysis for Different Equity Styles**

Presenter: YuChen Den 鄧昱辰 (National Chengchi University)

Discussant: Chih-Hsiang Hsu 許智翔 (Ming Chuan University)

#### **Advancing Machine Learning Predictive Accuracy for Lean Hog Futures: A Comprehensive Multi-Model and Ensemble Methodology Approach**

Presenter: Wei-Hsuan Lin 林緯軒 (CTBC Business School)

Discussant: Chih-Hsiang Hsu 許智翔 (Ming Chuan University)

## Academic Session IV

Date: May 3rd, 2024 (Friday)

Venue: Jihe Campus, Ming Chuan University

SESSION 4-3

16:00 – 17:20

**Modelling and forecasting asset returns and volatility II**

**Room J605**

Session Chair: Yen-Hsien Lee 李彥賢 (Chung Yuan Christian University)

### **Reinvestment Risk of International Bonds: The Random Neural Networks Approach**

Presenter: Wei Hsuan 宣葳 (Tamkang University)

Discussant: Yen-Hsien Lee 李彥賢 (Chung Yuan Christian University)

### **Exploring the Mediating Role of Credit Growth Thresholds in the Relationship Between Financial Development and Economic Growth: Accounting for Banking Crises and Endogeneity**

Presenter: Hao Fang 方豪 (Chung Yuan Christian University)

Discussant: Wei Hsuan 宣葳 (Tamkang University)

SESSION 4-4

**Analysis the impact of carbon emissions on investment returns /  
Financial disclosure, assessment, and management of climate risk**

16:00 – 17:20

**Room J403**

Session Chair: Tsangyao Chang 張倉耀 (Feng-Chia University)

### **Emissions Trading Scheme and Stock Price Crash Risk: Evidence from China**

Presenter: Yiwei Chuang 莊逸偉 (National Kaohsiung University of Science and Technology)

Discussant: Kun-Ben Lin 林昆本 (Macau University of Science and Technology)

### **Abnormal Attention to Global Warming Stands Out in Capturing Price Crash Risks of Energy Futures ([online](#))**

Presenter: Kun-Ben Lin 林昆本 (Macau University of Science and Technology)

Discussant: Min-Rui Choo 朱民芮 (Ming Chuan University)



## Academic Session IV

Date: May 3rd, 2024 (Friday)

Venue: Jihe Campus, Ming Chuan University

SESSION 4-5

16:00 – 17:20

**Empirical evidence on derivatives markets**

**Room J404**

Session Chair: **Chung-Jen Yang 楊重任 (Ming Chuan University)**

### **Option Writing: Using Put-Call Ratio to Improve Returns**

Presenter: Chien-Ling Lo 駱建陵 (Yuan Ze University)

Discussant: Kuo-Shing Chen 陳國興 (Ming Chuan University)

### **Pricing green financial options under the mixed fractal Brownian motions with jump diffusion environment**

Presenter: Kuo-Shing Chen 陳國興 (Ming Chuan University)

Discussant: Yiwei Chuang 莊逸偉 (National Kaohsiung University of Science and Technology)

### **Gambling Preferences and Index Option Returns: Evidence from the Taiwanese Options Market**

Presenter: Yiwei Chuang 莊逸偉 (National Kaohsiung University of Science and Technology)

Discussant: Chien-Ling Lo 駱建陵 (Yuan Ze University)

## List of Abstracts

### SESSION 1-1 Empirical Issue Related to Asset Pricing and Investment I

#### **Salience, Psychological Anchors, and Stock Return Predictability**

Prof. Mei-Chen Lin\*                  National Taipei University

#### **Abstract**

In this study, we examine whether the salience theory predicts the effect of the 52-week high on the stocks in the Taiwan stock market. The evidence supports enhanced profits for the 52-week high when excluding stocks with extremely salient payoffs. The salience-induced overvaluation mitigates investors' underreaction to good news when prices are close to the 52-week high, thus leading to a nonsignificant price continuity. These findings are not the result of either short-term return reversals or investor attention. The salient effect is stronger for stocks with higher limits to arbitrage. The overestimation of salient upsides dominates the underreaction to the 52-week high when investors have capital losses, high sentiment, and during up market states.

**Keywords:** *Salience theory, 52-week high, Return predictability, Limits to arbitrage, Capital loss overhang*

### SESSION 1-1 Empirical Issue Related to Asset Pricing and Investment I

#### **Geo-political Risks and Foreign Institutional Investors: Evidence from the Taiwan Stock Market**

Mr. Hao-Wen Chang\*                  National Yang Ming Chiao Tung University  
Prof. Ethan Chiang                  University of North Carolina at Charlotte  
Prof. Huimin Chung                  National Yang Ming Chiao Tung University  
Prof. Chih-Yung Lin                  National Yang Ming Chiao Tung University

#### **Abstract**

This study examines the impact of geo-political risks on the trading behavior of foreign institutional investors in the Taiwan stock market surrounding the Russo-Ukrainian War outbreak. Exploiting the cross-sectional analysis, our results show that the firms with higher exposure to the trading decisions of foreign institutional investor suffered more losses, -0.24%, than those with lower ones at the event date. Meanwhile, high exposure firms also have higher trading volume, stock volatility, and turnover ratio than the control firms at the event date. Additionally, this effect becomes stronger when high exposure firms have lower operation performances, higher risk factors, and higher market liquidity. Our findings thus have important implications for investors, practitioners, and academics.

**Keywords:** *Russo-Ukrainian War, Foreign Institutional Ownership, Geo-Political Risk, Stock Return, stock volatility*

### SESSION 1-1 Empirical Issue Related to Asset Pricing and Investment I

#### A Performance Index Consistent with Fractional-order Stochastic Dominance

Prof. Tzu-Ying Chen*	Tamkang University
Prof. Yi-Ting Chen	National Taiwan University
Prof. Rachel J. Huang	National Central University
Prof. Larry Y. Tzeng	National Taiwan University

#### Abstract

The literature has pointed out that many decision makers could exhibit some degree of risk lovingness. Yet, it still lacks a suitable performance index which is consistent with the preferences of all of them, i.e., the preferred project has a higher score. To fulfill this need, our paper proposes a new performance index which is consistent with fractional-order stochastic dominance and is referred to as fractional-order Omega. Furthermore, we demonstrate how to construct fractional-order Omega using forward-looking information from option prices and empirically apply it in finding a market timing strategy.

**Keywords:** *Fractional-order stochastic dominance, Performance index, Market timing, Forward-looking distributions*

### SESSION 1-2 Empirical Issue Related to Corporate Finance I

#### The Role of Financial Flexibility in Corporate Cash Donations

Prof. Chien-Lin Lu	National Taipei University
Ms. Hsuan-Hua Yang	National Chi Nan University
Prof. Chia-Wei Yeh*	National Chi Nan University

#### Abstract

Previous research has established that companies with greater financial flexibility can navigate financial crises caused by negative external impacts. This study investigates how the characteristics of financial flexibility influence a company's cash donation practices. While greater financial flexibility has a positive impact on corporate donation behavior, it does not significantly affect the donation ratio. However, when a company possesses both high financial flexibility and a high cash flow ratio, it reduces donation tendencies. Despite the common perception that corporate donations are primarily for tax deductions, this study suggests that companies facing higher income tax rates tend to be less inclined to donate. Therefore, financial flexibility emerges as a crucial determinant influencing corporate donation behavior.

**Keywords:** *Financial flexibility; Corporate donations; Corporate social responsibility*

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**SESSION 1-2 Empirical Issue Related to Corporate Finance I**

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**Board gender diversity and corporate debt decisions**

Prof. YuLin Huang\*      National Taichung University of Science and Technology

**Abstract**

This paper examines how board gender diversity affects corporate debt decisions via leverage adjustment. By using the Taiwan sample from 2013 to 2019, the empirical results show that the presence of female directors significantly impacts corporate leverage adjustment to adhere to the targeted capital structure. Specifically, a higher board gender diversity would force the management to more quickly respond to the leverage deviation. Meanwhile, such a faster response to the leverage deviation induced by the board gender diversity is more profound in over-leveraged firms. Furthermore, when firms are required by a more gender-diverse board to respond to the leverage deviation, they are more likely to re-balance their capital structure via short-term debt adjustment.

**Keywords:** *Board gender diversity, Leverage adjustment*

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**SESSION 1-2 Empirical Issue Related to Corporate Finance I**

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**Entrepreneurial Teams and Gender Roles: Evidence from Equity Crowdfunding Achievement**

Prof. Hwei-Lin Chuang      Wenzao Ursuline University of Languages

Dr. Tingting Chou\*      National Tsing Hua University

Prof. Yang Zhao      Nankai University

**Abstract**

We examine how gender affects equity crowdfunding. Using data from a Chinese equity crowdfunding platform, we find no significant funding difference between female-led and male-led entrepreneurial teams. The gender composition of entrepreneurial teams, however, does affect equity crowdfunding: mixed-gender teams outperform single-gender teams and unbalanced gender teams outperform balanced gender teams. Specifically, male-dominated teams (at least 80% male members) and female-dominated teams (at least 80% female members) achieve the best funding outcomes. This conclusion is robust after carrying out a series of robustness checks, including propensity score matching, sub-sample analyses, and alternative measures of gender diversity. The informational and social benefits derived from gender diversity, however, tend to disappear at high levels of diversity, indicating that fully understanding the impacts of gender on crowdfunding outcomes should take into account the different team gender composition.

**Keywords:** *Equity crowdfunding, Entrepreneurial teams, Gender composition*

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**SESSION 1-3 Real Effects of ESG and Investing on Firm Behaviors I**

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**ESG Public Evaluation and Credit Default Swap: Evidence from East Asian Countries**

Prof. Ning Tang	Jiangnan University
Mr. Hao-Wen Chang	National Yang Ming Chiao Tung University
Prof. Chih Yung Lin*	National Yang Ming Chiao Tung University
Prof. Chien-Lin Lu	National Taipei University

**Abstract**

This study investigates whether investor sentiment towards Environmental, Social, and Governance (ESG) factors has a negative impact on a firm's Credit default swap (CDS) spread in the East Asian countries. Utilizing the Kyoto Protocol as an exogenous shock to ESG public sentiment, we observe that this shock strengthens the influence of ESG public sentiment on CDS spreads. Furthermore, we find consistent results on the discrepancy in CDS spreads between firms and their respective countries as well as the term structure of CDS spreads. Our findings demonstrate that ESG public imagination can reduce investor's concerns about a firm's credit risk.

**Keywords:** *ESG, Credit default swap, Kyoto Protocol, Credit risk*

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**SESSION 1-3 Real Effects of ESG and Investing on Firm Behaviors I**

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**The Impact of ESG Ratings on Bank Lending: Evidence from Taiwan**

Prof. Zhi-Yuan Feng	National Sun Yat-sen University
Prof. Wei-Che Tsai	National Sun Yat-sen University
Ms. Ching-Wen Hsu	National Sun Yat-sen University
Ms. Chia-I Huang*	National Sun Yat-sen University

**Abstract**

We set out in this study to examine the relationship between ESG ratings and the lending decisions made by banks in Taiwan based upon 2009-2019 lending data on Taiwanese listed firms. We then go on to explore whether firms with high ESG scores are able to secure favorable loan terms even if they exhibit high default risks. Our findings reveal that firms with higher ESG scores can indeed receive more favorable loan terms in areas such as lower interest rates, larger loan sizes and reduced collateral requirements; that is to say, firms with high default risks can still manage to secure preferential loan terms if they have higher ESG scores. Finally, our empirical evidence continues to hold even with the inclusion of the government's policy on mandatory corporate social responsibility disclosures as an exogenous shock. We can therefore conclude that high ESG ratings can facilitate the securing of funding from banks, and indeed, can lead to lower borrowing costs.

**Keywords:** *ESG; Bank lending decisions; Mandatory CSR reports*

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**SESSION 1-3 Real Effects of ESG and Investing on Firm Behaviors I**

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**Greening the Ties: Exploring Political Influence on Green Innovation in China**

Prof. Hsiu-I Ting                      National Taipei University of Technology

Prof. Yun-Chi Lee\*                    Soochow University

**Abstract**

This study investigates the impact of Regulation 18 on green innovation within Chinese firms. Introduced in 2013 to sever political ties in corporate governance, Regulation 18 mandated the resignation of government officials from business roles. Studying Chinese listed firms from 2010 to 2016, we utilize a difference-in-differences (DiD) model to evaluate its effects. Our findings reveal a significant influence of Regulation 18 on green innovation. Non-State-Owned Enterprises (non-SOEs) in High Energy Consumption, High Pollution, or Overcapacity (HHO) industries experienced reduced green innovation post-regulation, consistent with the legitimacy theory and social perspective, indicating a positive correlation between political connections and green innovation. Conversely, SOEs in HHO industries exhibited increased green innovation, aligning with the resource curse theory and tunneling arguments, suggesting a negative correlation between political connections and green innovation. Furthermore, the analysis extends to corporate financial performance, revealing a decline for politically connected non-SOEs in HHO industries post-Regulation 18, while improvements are observed for SOEs in the same sector.

**Keywords:** *Green innovation; Political connections; Regulation 18; Difference-in-differences (DiD) analysis; Chinese firms*

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**SESSION 1-4 Other Topics Related to Data Analysis in Financial Markets I**

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**How Do Political Preferences Shape Retail Investors' Decisions Evidence from the Taiwan Stock Market**

Prof. Pei-Shih Weng                      National Sun Yat-sen University

Ms. Weng Ian Hoi\*                      National Sun Yat-sen University

**Abstract**

The theory of behavioral consistency suggests a correlation between investors' political preferences and their trading inclinations. To justify this relationship, this study utilizes detailed stock transaction data and electoral statistics from Taiwan, a vibrant democracy in a complex geopolitical landscape, to analyze whether the voting preferences of residents in different cities can explain the stock selection biases of local retail investors. We show that areas with higher vote shares for China-friendly parties exhibit a stronger tendency among retail investors to trade China concept stocks. This finding demonstrates a linkage between political preferences and financial decision-making biases, aligning with the expectations of behavioral consistency. Our analysis indicates that a propensity to trade China concept stocks leads to poorer short-term performance, suggesting that such politically driven investment decisions may be more emotionally influenced than rational. As the first study to directly link voting behavior with investment actions, our findings contribute to a deeper understanding of the driving factors behind retail trading behavior and underscore the importance of analyzing financial investment decisions through social dimensions.

**Keywords:** *Political preference; Investment performance; Retail investors; China concept stocks*

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**SESSION 1-4 Other Topics Related to Data Analysis in Financial Markets I**

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**How Private Health Insurers Decide to Investigate Claims: A Multivariate Analysis**

Prof. Chia-Ling Ho\*

Tamkang University

**Abstract**

This study delves into the factors influencing the claim investigation action in private health insurance. The results show the characteristics of the insured when the insured has high loss frequency (cumulative count of claims), high loss severity (cumulative payments of claims), the claim events occurred within two years from the insurance policy issue date, the insured suffers from the accident, riding ambulance to the hospital, the far distance between the residence of insured and the hospital for treatment, the insured suffers from congenital diseases, the insured is male, the age of the insured is below 55 years old, the insured lives in an urban area, and the insured stays at a medical center or regional hospital have a significant and positive related to the investigation, while the insured's cancer has a significant and negative related to the investigation action. In the agent characteristics, when the agent has a high school education level or above, has longer seniority, and has a pool rating, there are significant and positive factors related to the investigation. The research sheds light on critical elements that impact the decision-making process surrounding claims investigations. The findings contribute valuable insights for insurers seeking to optimize their claims management practices.

**Keywords:** *Insurance technology, Claims investigation, Insurance fraud, Policyholder services*



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**SESSION 1-4 Other Topics Related to Data Analysis in Financial Markets I**

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**Currency policy, COVID- 19, and economic output risk**

Prof. Ruey-Jenn Ho                      Providence University

Prof. Chun-Wei Lin\*                      Providence University

**Abstract**

This study is to examine the effect of currency policy and COVID-19 on the economic output risk. This study collects the data from 55 countries and sample period is taken from 1997 to 2020. Moreover, this study also extends the investigation that the effectiveness of currency policy on economic output risk when COVID-19 occurs. Lastly, another research issue related connects the effects of monetary policy and currency policy COVID-19 on economic output effect would change due to the level of economic development vary when categorizing sample country into developed and developing country groups.

With utilizing the panel data random effects model, the empirical results in full sampling show that the expansionary monetary policy decreases the economic output risk, while the COVID-19 is insignificantly associated with economic output risk. In addition, when categorizing samples into developed country and developing country groups. The estimation result finds that the effects of currency policy on economic risk has differential and opposite signs between two groups. The empirical results of all models provide largely relevant to academics, governments, investors, and policymakers who are interested in the monetary policies.

**Keywords:** *Monetary policy, Currency policy, COVID-19, Economic output risk*

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**SESSION 1-5 The Asset Pricing and Investment Performance of ESG Stock Portfolios**

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**Does Low-Carbon Portfolio Matter? Evidence from Sustainable Investment in Taiwan**

Prof. Kuo-Cheng Huang      Ming Chuan University

Prof. Min-Rui Choo\*      Ming Chuan University

Ms. Li-Ling Ma      Tung Kang Engineering & Construction Corporation

**Abstract**

Low-carbon investment has emerged as a significant global trend in ESG responsible investment. This study aims to assess the viability of an investment strategy focused on low carbon in Taiwan. This study utilizes a sample of listed companies that have publicly disclosed carbon emission information from 2018 to 2021. Empirical results indicates that the low-carbon portfolios exhibit superior carbon emission performance and reduced carbon emission risk compared to the sustainable ETFs. Furthermore, when considering investment performance and risk, the majority of indicators also demonstrate that the simulated low-carbon portfolio exhibits superior performance and lower risk. This is particularly evident in the portfolio strategy that incorporates carbon emission intensity ranking and industry carbon emission performance as the stock selection strategy. Hence, the findings of this study can be utilized in developing low-carbon financial products in the market that prioritize investment goals which emphasize both environmental sustainability and financial performance.

**Keywords:** *Low-Carbon Portfolio, Carbon Intensity, Carbon Risk, Sustainable ETFs, Portfolio Performance*

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**SESSION 1-5 The Asset Pricing and Investment Performance of ESG Stock Portfolios**

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**Optimal Asset Allocation of ESG Stocks: Application of Genetic Algorithms and Machine Learning Models**

Prof. Hong-Chih Huang      National Chengchi University

Prof. Yu-Ying Tzeng      National Chengchi University

Ms. Yi-Jie Liao      Taiwan Life Insurance Company

**Abstract**

As awareness of sustainability grows, ESG criteria have become a significant factor in investment decisions. This study utilizes stock price data, technical indicators, and ESG scores of Taiwanese listed companies from 2012 to 2021. We employ discrete wavelet transformation for noise reduction in stock prices, followed by feature selection using genetic algorithms (GA), and price prediction with Extreme Learning Machines (ELM). We construct portfolios using the tangency and equal weight methods. This study is structured around three experimental designs: First, we integrate ESG scores at the feature selection phase; second, ESG scores are incorporated during the machine learning phase; and third, the process proceeds without the inclusion of ESG scores at any stage. Our research demonstrates the effectiveness of incorporating ESG scores at various stages of the investment process, indicating that ESG factors can stabilize portfolio volatility. The study highlights the role of social responsibility in influencing stock returns in Taiwan, suggesting that ESG integration into portfolio management can yield superior risk-adjusted returns.

**Keywords:** *ESG Portfolio; Discrete Wavelet Transformation; Genetic Algorithms; Extreme Learning Machines*

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**SESSION 1-6 Financial Technology / Quantitative Trading and Investment**

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**Financial and Informational Integration Through Oracle Networks**

Dr. Daniel Rabetti\*                      National University of Singapore  
Prof. Lin William Cong                  Cornell University  
Prof. Eswar Prasad                        Cornell University

**Abstract**

Oracles are software components that enable data exchange between siloed blockchains and external environments, enhancing smart contract capabilities and platform interoperability. We find that oracle integration is positively associated with total value locked and platform/protocol valuation, triggered by positive network effects in adoption and usage. Our study reveals symbiotic gains from enhanced interoperability and network effects across protocols on a given chain and among integrated chains. Oracle integration improves risk-sharing and mitigates contagion, increasing resilience during turbulent periods in crypto markets. We draw parallels between oracle integration and international economics, offering insights for regulators, entrepreneurs, and practitioners in decentralized finance.

**Keywords:** *Blockchain, DeFi, Digital Networks, International Economics, Interoperability, Smart Contracts, Risk-sharing*

**SESSION 1-6 Financial Technology / Quantitative Trading and Investment**

**Does FinTech Enhance Macroeconomic Resilience? Evidence from China**

Prof. Liqin Hu	Wuhan University
Ms. Wanqing Shi	Wuhan University
Ms. Xinyu Long*	Wuhan University
Prof. TY Chang	Feng Chia University

**Abstract**

Given the multiple internal and external pressures faced in recent times, it is crucial to examine if financial technology can maintain the stability of China's macroeconomic resilience by improving the capacity of financial services to support the real economy. We employ provincial panel data from 2011 to 2020 to address this question. Our findings indicate that, first, FinTech can significantly boost China's macroeconomic resilience through financial inclusion and innovative mechanisms, exhibiting positive spatial spillover effects as well as lagged and long-lasting impacts over time. Second, strengthening the regulation of financial technology, reducing technological dependency, and improving credit quality are conducive to financial stability, thereby better facilitating the promotive role of FinTech. Furthermore, our study also suggests that, first, the impact of financial technology on economic resilience varies under different financial arrangements (pertaining to the maturity of traditional financial development). Second, the technological support dimension of financial technology has the most significant impact on economic resilience. Third, financial technology has a more significant effect on the dimensions of economic absorption and economic recovery within economic resilience.

**Keywords:** *Financial Technology Macroeconomic Resilience Inclusiveness Innovation Risk*

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**SESSION 1-6 Financial Technology / Quantitative Trading and Investment**

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**An Empirical Analysis of the Influence of Financial Literacy on the Adoption of Robo-Advisory Services**

Prof. Ching-Yao Chen	National Taiwan University of Science and Technology
Prof. Marty Shih-Jye Yen*	National Chengchi University
Prof. Sharon S. Yang	National Chengchi University
Prof. Wei-Che Tsai	National Sun Yat-sen University
Prof. Tom M. Y. Lin	National Taiwan University of Science and Technology

**Abstract**

Our primary aim of this study is to investigate the determinants of robo-advisory adoption. Alongside exploring the role of financial literacy, we introduce a novel measure to assess literacy specifically related to robo-advisory adoption. This research considers three different types of participants, comprising ordinary investors, existing clients, and potential clients. Based on the questionnaire survey, our findings are twofold. Firstly, robo-advisory literacy primarily drives the adoption of robo-advisors, where investors with higher robo-advisory literacy scores are more inclined to use robo-advisors. Interestingly, overconfidence also appears to enhance adoption rates. Our empirical results reveal that both subjective and objective literacies significantly influence adoption, with subjective literacy exerting a more pronounced effect. Secondly, risk attitudes and investment behaviors emerge as significant determinants. Investors who consider themselves as aggressive traders, and those engaging in diversified investments, show a higher propensity for adopting robo-advisory services.

**Keywords:** *Robo-advisor adoption; Subjective financial literacy; Objective financial literacy; Risk attitudes; Portfolio diversification*

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**SESSION 2-1 Empirical Issue Related to Asset Pricing and Investment II**

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**Competence and Ambiguity Aversion of Heterogeneous Investors**

Prof. Christine W. Lai            National Taiwan Normal University  
Prof. Donald Lien                University of Texas at San Antonio  
Prof. Shih-Chuan Tsai\*        National Taiwan Normal University

**Abstract**

A unique intraday dataset from Taiwan is employed to investigate the effects of ambiguity aversion on trading dynamics and portfolio choice considering different competencies across investors. We find investors reduce trading propensities when market-level uncertainty is high but the trading volume does not reduce to zero. Less-competent investors, more ambiguity averse to market uncertainty than to firm uncertainty, exhibit portfolio under-diversification. Domestic institutional investors are equally (less) ambiguity averse to high market (firm) uncertainty than foreign counterparts, showing the home bias. High dividend yields offer certification of a "floor" payoff and are preferred by retail investors.

**Keywords:** *Competence; Ambiguity aversion; Heterogeneous investors; Portfolio choice, Trading propensity*

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**SESSION 2-1 Empirical Issue Related to Asset Pricing and Investment II**

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**Short-selling and Underpricing of IPO**

Prof. Shu-Feng Wang\*        Ajou University

**Abstract**

According to Miller (1977), constraints on short sales may lead to underpricing of IPO stocks. This paper examines whether this argument holds in the Korean stock market, investigating the relationship between short-selling and the underpricing of IPO stocks. Contrary to common perceptions, short sales are not constrained in the IPO market. During our sample period, 62% of total IPO firms experienced short-selling activity on the first day of their IPO in the KOSPI market. We find that high first-day returns lead to short-sale trade in the first month after IPO. Furthermore, contrary to previous literature, we observe that domestic institutional investors are active participants in IPO stocks, especially in those stocks that exhibit high first-day returns.

**Keywords:** *Short selling, Initial Public Offering, Investor type, Korean stock market*

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**SESSION 2-1 Empirical Issue Related to Asset Pricing and Investment II**

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**Market Prices of Aligned Economic Uncertainty**

Dr. Te-Feng Chen\*

Hong Kong Polytechnic University

**Abstract**

Using the partial least square method (PLS), we propose an aligned economic uncertainty index that is proxy for expected volatility-of-volatility (VOV) for the purpose of predicting market returns. By utilizing the variations in uncertainty contained in categorial policy uncertainty measures and the ex-ante and timely instrumental information contained in VOV, we find that the aligned economic uncertainty index significantly predicts market returns both in- and out-of-sample, with much greater predictive power than existing policy uncertainty indices or an aligned economic uncertainty index without using information conditioned from VOV. The findings suggest that the variations in economic uncertainties can capture the driving force of the return predictability afforded by VOV. The significance of return predictability holds in several tradable indexes of different asset classes.

**Keywords:** *Economic uncertainty aligned; Volatility-of-volatility; Return predictability*

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**SESSION 2-2 Empirical Issue Related to Corporate Finance II**

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**The Impact of Religiosity on CEO Power: Evidence from Taiwan**

Ms. Shu-Hsuan Chen

Ming Chuan University

Prof. Min-Rui Choo\*

Ming Chuan University

**Abstract**

This paper discusses the impact of county-level religiosity on CEO power in Taiwan. We find that firms headquartered in counties with higher levels of religiosity exhibit lower levels of CEO power. In further analysis, the remuneration committee is established to improve corporate governance and reduce the impact of religiosity by ensuring the appropriate exercise of power. Finally, it is emphasizing the significance of corporate governance structures in managing power within an organization.

**Keywords:** *Religiosity, CEO power, Corporate governance, Social norms*



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**SESSION 2-2 Empirical Issue Related to Corporate Finance II**

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**CEOs' Global Reputations and Cross-Border M&As Evidence from CEOs' Twitter Accounts**

Dr. Dien Giau Bui*	Yuan Ze University
Dr. Yehning Chen	National Taiwan University
Dr. Iftekhhar Hasan	Fordham University
Dr. Chih-Yung Lin	National Yang Ming Chiao Tung University

**Abstract**

In this study, we examine the effects of CEOs' global reputations on the performances of cross-border M&As. Based on the CEOs' Twitter accounts, we have hand-collected information on their followers to measure their global reputation. Overall, we find that CEOs with better global reputations improve the performances of cross-border M&A. We further propose several economic channels for this improvement. Specifically, we find that the effect is likely to be stronger for CEOs who give more insightful information in their tweets and who are more skillful, and whose firms have more offshore operations.

**Keywords:** *CEO Twitter, CEOs' Global Reputation, Cross-Border M&A, Cumulative Abnormal Return, Information Asymmetry*

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**SESSION 2-2 Empirical Issue Related to Corporate Finance II**

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**Cultural Trust Biases and Syndicated Loan Market**

Dr. Tuan Le*	Yuan Ze University
Prof. Konan Chan	National Cheng Chi University
Prof. Chih-Yung Lin	National Yang Ming Chiao Tung University
Prof. Tse-chun Lin	The University of Hong Kong

**Abstract**

We examine whether cultural trust biases exist in international syndicated loans and find that the more positive the perception of trustworthiness that the lender's country has for the borrower's country, the lower loan spreads the lender will charge the borrower even after controlling for lender and borrower fixed effects. We use several short-term shocks to the perception of trustworthiness to address potential endogeneity concerns, including (i) North-South European biases during the European debt crisis, (ii) British bias towards the French during the Iraq war in 2003, and (iii) voting for Brexit in the UK. Moreover, cultural trust bias is also positively related to loan amount and negatively related to the requirement for collateral assets. Consistent with our trust bias interpretation, the results are stronger for the borrowing firms that bear their country's names and for the top quartile of borrowers from countries that are perceived to be the most trustworthy.

**Keywords:** *Cultural trust biases, Bilateral trust, Syndicated loan market, European debt crisis, Brexit*

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**SESSION 2-3 Real Effects of ESG and Investing on Firm Behaviors II**

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**The Impact of CSR Behavior on Financial Performance Stability-The Analysis of Family Firms and Non-Family Firms**

Dr. Yu-Chen Wei	National Kaohsiung University of Science and Technology
Mr. Yi Hung Lee*	National Kaohsiung University of Science and Technology
Ms. Pai-Wen Cheng	National Kaohsiung University of Science and Technology
Ms. Yu-Ting Feng	National Kaohsiung University of Science and Technology

**Abstract**

This study examines the impact of corporate social responsibility (CSR) behavior on financial performance stability and further analyzes the moderating effect of family or non-family companies on this impact. The research samples are the listed companies in the Taiwan Stock Exchange and this study classifies them into family and non-family companies for the period from 2010 to 2021. The empirical results show that non-family firms outperform family firms in terms of CSR performance, while the stability of ROA and Tobin's Q is better for family firms than for non-family firms. The results are in line with Mork and Yeung's (2004) findings that family firms are more concerned with maintaining their family interests and lack the cause to regulate the relationship between the firm and stakeholders. This study further incorporates the dummy variables for family control and considers the interaction effects between family firms and CSR. CSR performance leads to a more stable ROA for family firms but not as significantly as for non-family firms. Regardless of whether it is a family or non-family business, the overall CSR performance of the company will make the ROE and EPS more stable. The empirical results show that during Covid-19, the overall performance of CSR has no difference in the stability of total ROA, ROE, and EPS depending on whether the company is a family control or not. Overall, regardless of whether the systemic impact of Covid-19 occurs, when family control performs better in CSR, the company's value is more stable.

**Keywords:** *Financial Performance Stability, Corporate Social Responsibility, CSR, Family Firms, Covid-19*

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**SESSION 2-3 Real Effects of ESG and Investing on Firm Behaviors II**

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**The Impact of ESG Ratings on Firm Risks in Taiwan's Market**

Prof. Bai-Sian Chen\*            Chang Gung University  
Prof. Hong-Yi Chen            National Chengchi University  
Dr. Shun-Fen Chang            National Chengchi University

**Abstract**

This study evaluates a firm's ESG score on firm risks. Empirical evidence shows a negative association between the ESG score and firm risks (such as financial risk, stock price crash risk and financial constraint). Furthermore, the effect of the ESG score on risk reduction remains pronounced during the COVID-19 crisis. We attribute the findings to the efficient allocation of resources toward ESG activities.

**Keywords:** *CSR; ESG Disclosure Score; Financial Performance; Financial Risk; Material Issues*

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**SESSION 2-4 Other topics related to data analysis in financial markets II / Quantitative trading and investment**

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**Research on Fund Timing Ability Based on ADCC Model: Evidence from Chinese Active Open-End Funds**

Prof. Meng Li                    Harbin Institute of Technology  
Ms. Leyao Ma                   Harbin Institute of Technology  
Dr. Jing Ding\*                   Tongji University

**Abstract**

Since market timing is based on the relationship between systemic risk and market returns, the prediction of fund timing ability is sensitive to the estimation of beta. Consider the market beta time-varying characteristics, we propose an improved estimation of timing ability by integrating the ADCC method, daily estimation, and two-stage procedure based on Busse, Ding, Jiang, and Wu (2023), and test the timing ability of the Chinese public fund market. Our method improves both the asymmetry of asset returns and the bias in estimation due to the time-varying nature of the covariance between fund and market excess returns. Unlike the traditional approach, our results indicate that actively managed Chinese equity funds have negative timing ability. The timing estimation is positively correlated with fund performance, and the timing ability is persistent. This provides further evidence that market timing is a true skill, and that the method we proposed is valid for measuring this capability.

**Keywords:** *Timing Ability; Market Beta; Time-Varying Beta; Asymmetry*

**SESSION 2-4 Other topics related to data analysis in financial markets II / Quantitative trading and investment**

**Moral Hazard Problem in the Private Health Insurance Market-the Impact of the Diagnosis-Related Groups Payment System**

Prof. Chia-Ling Ho\* Tamkang University

Prof. C. Kili Wang Tamkang University

**Abstract**

This study investigated the variations in claimed hospitalization days before and after the implementation of the diagnosis-related group (DRG)-based payment system. After Taiwan's Ministry of Health and Welfare declared that the DRG system effectively curbed hospitalization days within the National Health Insurance system, the expenditure was found to have shifted to the private sector and non-DRG-listed diseases instead. The existence of moral hazard was identified in private health insurance pushed for by hospitals with clear profit motives: non-DRG-listed diseases hospitalization days in corporate and private hospitals, especially for those insured under high-coverage policies, significantly increased after the DRG system was implemented. Essentially, the implementation of Taiwan's DRG system seemed to induce an adverse spillover effect - a solution for the public sector created a problem for the private sector.

**Keywords:** *DRG, Moral Hazard, Provider-Induced Moral Hazard, Hospital, Spillover Effect, Health Insurance*

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**SESSION 2-4 Other topics related to data analysis in financial markets II / Quantitative trading and investment**

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**Selling Equity in May and Buying Bonds: An ETF-Based Analysis**

Dr. Chih-Hsiang Hsu\*           Ming Chuan University  
Prof. Donald Lien             University of Texas, San Antonio

**Abstract**

This research examines the Halloween Effect in Asia's equity markets using exchange-traded funds (ETFs) as the research vehicle. The main findings are threefold. First, we confirm the presence of the Halloween Effect in Asian equity ETFs over two decades, revealing stronger returns during the winter months. Second, our study diversifies into liquid treasury bond ETFs, finding no significant seasonal effect and suggesting alternative summer investment targets. Third, a sell-in-May strategy that combines equity and bond ETFs is backtested, demonstrating outperformance against buy-and-hold strategies in terms of returns and risk over past two decades. Notably, long-term bond ETFs exhibit higher returns during the summer period, while short-term bond ETFs are comparatively safer. These findings contribute to a deeper understanding of seasonal investing strategies, providing valuable insights for investors navigating the complexities of market seasonality.

**Keywords:** *Sell-in-May; Halloween effect; Seasonality; ETFs*

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**SESSION 2-5 Role of ESG information on decision making of capital market participants I**

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**Can Good Doers Perform Well? Novel Evidence from Corporate Innovation**

Dr. Quang Thai Truong       National Taipei University  
Dr. Quynh-Nhu Tran         National Taiwan University  
Prof. Chia-Ying Chan         National Taipei University  
Dr. Robin Chen               National Taipei University

**Abstract**

This research investigates the link between corporate social responsibilities (CSR) and the innovation performance across firms with different characteristics. Existing literature has documented that firms' choices on engaging in CSR may be beneficial to their market value and operating performance. The "doing well by doing good" thought has provoked long-standing debates in current literature. Thus, this research attempts to find further evidence and provide a better understanding of the effect of CSR on corporate innovation. Surprisingly, the findings show a detrimental effect of CSR on corporate innovation. Moreover, through the agency problems worsen the effect of CSR on corporate innovation.

**Keywords:** *Corporate Social Responsibility, Corporate Innovation, Financial Distress, Corporate Governance*

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**SESSION 2-5 Role of ESG information on decision making of capital market participants I**

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**How does Mandatory Nonfinancial Disclosures affect Managers' Voluntary Disclosures?**

**Evidence from Taiwan**

Prof. Mao-Wei Hung                      National Taiwan University

Mr. Pang-Yu Wang\*                      National Taiwan University

Prof. Ju-Fang Yen                         National Taipei University

**Abstract**

In examining the interplay between the regulation on mandatory CSR disclosures in Taiwan and voluntary financial disclosures, this study uncovers how mandated nonfinancial disclosures influence managerial behavior in financial reporting. Utilizing the 2014 CSR reporting mandate as a quasi-experiment, I find a significant uptick in managers' propensity to issue earnings forecasts, particularly under high analysts' scrutiny. The results suggest that managers are not concerned about the risk of proprietary costs. They also suggest that managers provide voluntary disclosures to reduce the agency concern rather than ease the adverse selection problem. This research not only sheds light on the complementary dynamics between mandatory nonfinancial and voluntary financial disclosures but also underscores the critical role of regulatory frameworks in shaping corporate disclosure practices. By highlighting the strategic adjustments in voluntary disclosures in response to mandatory CSR reporting, the study contributes to the understanding of the broader implications of regulation on corporate transparency and market efficiency.

**Keywords:** *Nonfinancial Disclosures; Voluntary Disclosures; ESG; Agency Problem; Information Asymmetry*

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**SESSION 2-5 Role of ESG information on decision making of capital market participants I**

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**ESG Information and Herd Behavior: Evidence from Taiwan**

Ms. Yi-Ching Lee

DBS Bank

Dr. Yin-Che Weng\*

National Dong Hwa University

**Abstract**

In emerging markets, investors often exhibit herd behavior due to information ambiguity. With the active promotion of the United Nations' 17 SDGs, there has been an increase in public interest in ESG, which has gradually become a future trend pursued by various enterprises. However, ESG is still in its developmental stage, and there is a need for more transparent and credible reference data, resulting in a certain degree of vagueness. Therefore, enhancing comprehensive information disclosure becomes crucial to reducing herd behavior in the market.

Research findings reveal that ESG information effectively decreases herd behavior in the market, enabling investors to better understand a company's fundamental aspects. Furthermore, the study indicates that investors are more concerned about environmental information than social and governance-related information. Adequate disclosure of ESG-related information can significantly reduce herd behavior during bear markets. Additionally, investors tend to focus more on news media and ESG-related environmental information during COVID-19 and use it as an investment basis.

We show that both ESG disclosure methods effectively ease herd behavior in the market, allowing investors to better understand a company's fundamentals, make investment decisions more independently, and avoid blind conformity and market-driven decisions.

**Keywords:** *Herding; ESG; Covid-19; Information Disclosure; CSAD Modeling*

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**SESSION 2-6 Financial market structure and microstructure**

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**Call Protection, Financial Flexibility, and Refinancing Risk Management**

Prof. Liang-Chih Liu*	National Taipei University of Technology
Dr. Lei Zhou	National University of Singapore
Prof. Tian-Shyr Dai	National Yang Ming Chiao Tung University
Prof. Kevin Tseng	The Chinese University of Hong Kong

**Abstract**

This paper investigates refinancing risk management using callable bonds with call protection. In a novel theoretical framework featuring the flexibility to adjust debt refinancing timing within stated call periods, the choice of call protection length is linked to the trade-off between the benefits of increased timing flexibility against the heightened costs of call risk required by bondholders. We show that firms vulnerable to refinancing risk tend to shorten call protection length. The enhanced creditworthiness, in turn, encourages earlier calls near the earlier ends of call periods, making call protection length a better proxy for real debt maturity. Evidence accords well with the dynamics.

**Keywords:** *Callable Bond, Call Protection, Debt Maturity, Refinancing Risk*

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**SESSION 2-6 Financial market structure and microstructure**

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**Corporate Disclosure and the Informational Efficiency of Stock Prices: New Evidence**

Dr. Ya-Kai Chang*	Chung Yuan Christian University
Prof. Hsuan-Chi Chen	University of New Mexico

**Abstract**

This study examines the impact of corporate disclosure on price efficiency by using a comprehensive ranking system that evaluates over 100 measures across five categories of information disclosure for all publicly listed firms in Taiwan. By addressing sample selection bias, we find that firms exceeding a specific disclosure threshold exhibit enhanced stock price efficiency. Furthermore, path analysis reveals that domestic institutions play a more pronounced role than foreign institutions in this relationship. These findings have noteworthy policy implications, emphasizing the importance for policymakers to consider the level of corporate disclosure to enhance market quality.

**Keywords:** *Corporate Disclosure; Price Efficiency; Institutional Trading*



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SESSION 2-6 Financial market structure and microstructure

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**Investors' Trading Behavior and Post-Earnings-Announcement Drift: Evidence from Taiwan**

Prof. Hong-Gia Huang\*      Tunghai University  
Prof. Wei-Che Tsai          National Sun Yat-sen University  
Prof. Hsin-Hui Chiu        California State University Northridge

**Abstract**

This research analyzes the trading activities of three types of investors including foreign institutional, domestic institutional and individual investors around earnings announcements, taking advantage of a tick-by-tick transaction dataset from the Taiwan Stock Exchange. Our empirical results indicate that all investors' trading activities around such announcements generally overreact to their private information and underreact to public information, thus likely driving the well-documented post-earnings-announcement drift (PEAD) anomaly. Moreover, individual investors' overconfident trading volume and duration of overconfident trading surpass those of institutions, and they are also fond of trading in margin and have poor information processing ability, therefore driving more PEAD. Lastly, we find that foreign institutional investors have a greater information advantage than other types of investors.

**Keywords:** *Earnings Announcements; Post-Earnings-Announcement Drift; Trading Behavior; Individual Investors; Institutional Investors*

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**SESSION 3-1 Empirical Issue Related to Asset Pricing and Investment III**

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**The Impact of Investor Attention on Mispricing of Dual-Listed Shares: Evidence from Chinese A-share and H-share Markets**

Prof. Wei-Ling Huang      Beijing Normal University

Prof. I-Hsuan Ethan Chiang      University of North Carolina at Charlotte

Prof. Ming-Hung Wu\*      Beijing Normal University

**Abstract**

This paper examines the relation between investor attention and A-H share price disparity in the Mainland China (that lists “A shares”) and Hong Kong stock markets (that lists “H shares” of the same company), using the Baidu Search Index as a proxy for retail investor attention. Our findings indicate that a one-standard-deviation rise in Abnormal Baidu Search Index (ABSI) corresponds to a significant increase of 1.90% in the next-day premium between A-H share prices, implying that more attention from retail investors causes overpricing, resulting in a higher A-H share premium. Notably, we observe that mobile searches have a more substantial impact on price premium than PC searches. The ABSI-driven mispricing lasts 60 trading days and prices converge afterwards. We also find that greater institutional investor ownership reduces ABSI-driven mispricing. Finally, the influence of investor attention on the A-H share premium diminishes following the implementation of the 2014 Shanghai/Hong Kong Stock Connect Policy that allows global investors to invest in both Shanghai and Hong Kong markets. In summary, our study adds to the existing literature by highlighting novel factors affecting the A-H share premium, including the influence of investor attention and institutional investor activity.

**Keywords:** *A-H Share Price Disparity; Investor Attention; Baidu Search Index; Institutional Investors*

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**SESSION 3-1 Empirical Issue Related to Asset Pricing and Investment III**

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**Financial Reporting Quality, Trading Preference of Institutional Investors and Investment Performance**

Prof. Chi-Lu Peng	National Kaohsiung University of Science and Technology
Prof. Wei-Che Tsai*	National Sun Yat-sen University
Prof. An-Pin Wei	National Taichung University of Science and Technology
Mr. Pin-Rong Chen	National Sun Yat-sen University

**Abstract**

Financial statements are important for fund providers and investors because they provide critical information about the financial health and performance of a company. Institutional investors perform a crucial function in external monitoring, and their investment patterns guide the direction of the capital market. Prior literature shows that market participants, particularly institutional investors, utilize financial reports and other pertinent information to make investment decisions in the capital market. This study investigates the potential impact of variations in financial reporting quality (FRQ) on the perceptions of the three major types of institutional investors regarding the credibility of financial reporting by Taiwanese companies and its effect on investment performance. Our findings reveal that institutional investors in Taiwan exhibit significant variations in their investment behaviors in response to the level of FRQ. QFIIs opt to reduce their shareholdings in a company whose FRQ declines. Conversely, domestic institutional investors increase their holdings in a company after its FRQ deteriorates. This study reveals that although the effects of FRQ on the investment decisions and perceptions of QFIIs and domestic investors differ, the results indicate that both groups may potentially earn positive accumulated abnormal returns in the following quarter. The existence of information asymmetry between domestic investors and QFIIs is plausible. We posit that investors in Taiwan may benefit from monitoring the changes in shareholdings of the three major types of institutional investors as a reference for future investments.

**Keywords:** *The Jones-CFO Model, Financial Reporting Quality (FRQ), Discretionary Accruals, Institutional Investor Trading Preference*

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**SESSION 3-1 Empirical Issue Related to Asset Pricing and Investment III**

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**Mispricing, trading strategies, and the return predictability in the high-frequency stock returns**

Prof. Anchor Lin                      National Chung Hsing University

Mr. Lin-Hsiang Huang\*              National Chung Hsing University

**Abstract**

We hypothesize that mispricing affects investors' trading strategies and causes a predictable pattern in the high-frequency stock returns. We examine whether the attention grabbing and overreaction hypotheses can affect investors' long positions in stocks and drive the variations in stock returns. Stocks whose prices sharply plummet after a big market boom can grab investors' attention to be gradually bought. The stock returns in the next few days increase and are significantly positive, especially for overpriced stocks. Stocks whose prices sharply plummet after a big market crash are inclined to be overreacted. The stock returns in the next few days may reverse to be significantly positive, especially for underpriced stocks.

**Keywords:** *Investor Attention; Overreaction, Mispricing*

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**SESSION 3-1 Empirical Issue Related to Asset Pricing and Investment III**

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**No Conflict of Interests to Declare – a Study of Individual-controlled Funds in China**

Dr. Carl Shen\*                      Macquarie University

**Abstract**

Recent financial deregulation in China witnessed the rise of independent mutual fund management companies. We study a group of mutual funds issued by these independent companies and controlled by individuals, so-called "individual-controlled funds (ICF)". Unlike funds affiliated with other organizations, ICF managers are arguably free of the influence of potential conflicts of interest and should see the pursuit of performance as their sole objective. Consistent with this notion, we find ICF managers outperform their peers by exhibiting superior skills in stock selection and undertaking lower risk. In addition, we document the learning behavior of non-ICF peer funds whereby other funds mimic ICF trading strategies. This is evidence of the positive externality produced by ICFs for the entire mutual fund industry. In sum, we find direct evidence of how the absence of conflicts of interest would benefit fund performance and the financial market.

**Keywords:** *Mutual Funds, Fund Performance, Manager Skill, Chinese Market*

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**SESSION 3-2 Empirical Issue Related to Corporate Finance III**

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**Risk-taking Behavior, Cash Flow, and Investment Efficiency**

Prof. Tsai-Yin Lin\*                      National Kaohsiung University of Science and Technology  
Prof. Min-Hsien Chiang                National Cheng Kung University  
Dr. Haneen Abedalqader                National Cheng Kung University

**Abstract**

Previous research focused mostly on capital investment and its efficiency, as well as understanding the effects of investment efficiency-related aspects. Labor investment received relatively little attention either from managers or academics, even though the human factor is regarded as one of the most crucial factors for a company's performance, particularly in terms of making effective investment decisions. The study demonstrated how information asymmetry and agency difficulties affect investment efficiency when a manager decides to refrain from an investment opportunity to pursue their interests or when hiring or firing employees. We took into account both corporate investment and labor investment efficiency to determine the extent to which they are affected by the risk-taking behavior that the company may bear when making the investment decision, in addition to knowing the impact of free cash flow and cash flow growth on investment efficiency. We have found that corporate and labor investment efficiency is indeed affected by managers' decisions associated with information asymmetry and agency problems, whether over or under-investment.

**Keywords:** *Risk-Taking Behavior; Cash Flow Growth; Free Cash Flow; Corporate Investment; Efficiency Labor Investment Efficiency*

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**SESSION 3-2 Empirical Issue Related to Corporate Finance III**

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**The dark side of institutional investors' investment horizon: Evidence from stock price crash risk**

Prof. Guan-Ying Huang*	National Chung Cheng University
Prof. Wei-Che Tsai	National Sun Yat-sen University
Prof. Pei-Shih Weng	National Sun Yat-sen University
Dr. Chi Yin	National Sun Yat-sen University

**Abstract**

This study investigates the impact of the investment horizon of institutional shareholders on stock price crash risk, leveraging unique account-level trading data to develop a measure based on round-trip holding periods. Our analysis reveals that companies with longer institutional investment horizons exhibit increased stock price crash risk, suggesting that extended investment durations may correspond with harmful relational investing practices, highlighting potential information inefficiencies. Notably, this association persists even after addressing potential endogeneity concerns. Further analysis uncovers that the elevated risk associated with longer investment horizons is moderated in firms characterized by greater board diversity, the presence of foreign institutional investors, and superior reporting quality. These findings underscore the unexplored role of institutional investment horizons in influencing stock price stability, contributing to the broader discourse on institutional investors and market efficiency.

**Keywords:** *Institutional Investors; Holding Horizon; Stock Price Crash Risk; Liquidity; Information Environment; Internal Governance*

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SESSION 3-2 Empirical Issue Related to Corporate Finance III

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**Can Diversified Information Disclosures constrain Earnings Management Activities in Taiwanese SMEs**

Prof. Chien-Ming Huang      Tamkang University

Dr. Wei-Ting Chen\*          Tamkang University

**Abstract**

The study analyzes the changes in sector strategy allocation and operational performance of over-the-counter (OTC) companies in Taiwan covers thirteen-years, from January 2010 to December 2022. It observes the content of public information disclosure and the degree of change in earnings management practices, examining the implications of diversified information disclosure and earnings management behaviors on companies. Assuming financial report disclosure is based on fair standards, the results indicate that diversified business models in Taiwanese small and medium-sized enterprises can effectively reduce earnings management behaviors, with a recent trend of shifting from specialized production to diversified management styles to enhance international competitiveness. The degree of performance manipulation under different management models is not significant, where specialized companies with the better performance indicate a lower likelihood of earnings management manipulation. This suggests that specialized companies focusing on their core business cannot adjust their information disclosure through outputs from other departments, thereby more accurately presenting the actual earnings situation of the company.

**Keywords:** *Earnings Management, Diversified Information Disclosure, Small and Medium Enterprises*

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**SESSION 3-2 Empirical Issue Related to Corporate Finance III**

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**Central Bank's Assessments of Economic Outlook and Corporate Cash Holdings: Evidence of Strategic Motives**

Dr. Quang-Thai Truong	National Taipei University
Prof. Chih-Yung Lin	National Yang Ming Chiao Tung University
Dr. Chien-Lin Lu*	National Taipei University
Prof. Alex YiHou Huang	National Yang Ming Chiao Tung University

**Abstract**

In this study, we examine the relationship between the central bank's assessments of the economic outlook and corporate cash holdings. When the central bank has a relatively optimistic view of the economy, we find that firms tend to increase cash holdings through equity and debt issuances, increased capital and R&D expenses, and experience better financial outcomes and innovations. Firms with higher competition and sales growth are more sensitive to central bank information (CBI), while financial constraints do not drive the results. Overall, the results indicate that there are the strategic motives for cash holdings; firms tend to raise cash for an innovation race when the assessments of the future economy are bright.

**Keywords:** *Cash Holding, Central Bank Assessments, Federal Policy Shock, Strategic Motives, Innovation Race*

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**SESSION 3-3 Modelling and forecasting asset returns and volatility I**

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**Do price jumps matter in volatility forecasts of US treasury futures?**

Prof. Chien-Liang Chiu*	Tamkang University
Prof. Jui-Cheng Hung	Chinese Culture University
Ms. Xueer Zhang	Tamkang University

**Abstract**

This study investigates volatility forecasts in the US Treasury futures market and emphasizes the importance of price jumps across various maturities under moderate and sharp interest rate rising scenarios. We assess out-of-sample forecasting performance not only with statistical method but economic method based on a volatility timing strategy. Our findings indicate that models including price jumps specifications exhibit substantial enhancements in both evaluation methods over the entire out-of-sample period, particular for the period of sharp interest rate rising. Our results are robust to nonparametric jump tests used in this study, transaction costs, and portfolio rebalancing method.

**Keywords:** *Treasury Futures; Price Jumps; Volatility Timing; Nonparametric Jump Tests; Portfolio Rebalancing*



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**SESSION 3-3 Modelling and forecasting asset returns and volatility I**

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**Convertible Bond Issuance and Stock Returns: An Anchoring Perspective**

Dr. Chih-Yu Chin	Chung Yuan Christian University
Mr. Yu-Kai Yu	Chung Yuan Christian University
Dr. J. Jimmy Yang	Oregon State University
Prof. Yen-Hsien Lee*	Chung Yuan Christian University

**Abstract**

This study is the first to use the perspective of 52-week high and low to analyze the relation between the issuance of convertible corporate bonds and post-issuance stock performance. The empirical results show a negative (positive) correlation between the 52-week high (low) and post-issuance stock returns. Moreover, the increase of 52-week high low range intensifies the negative (positive) return at the 52-week high (low). Finally, this study employs machine learning models for estimation and prediction, and the results demonstrate that 52-week high, 52-week low and 52-week high low range effectively capture the majority of post-issuance stock returns.

**Keywords:** *Convertible Bond, 52-Week High, 52-Week Low, High Low Range, Machine Learning*

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**SESSION 3-3 Modelling and forecasting asset returns and volatility I**

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**Simple HAR model based on the correlated intraday return patterns**

Dr. Hui-Ching Chuang*	National Taipei University
Dr. O-Chia Chuang	Wuhan University
Dr. Jin Xu	Wenhua College
Ms. Ye Yang	Wuhan University

**Abstract**

This study introduces a simple yet highly effective modification to the standard Heterogeneous Autoregressive (HAR) model, incorporating correlated intraday return patterns. To achieve this, we apply a thresholding technique to estimate the high-dimensional covariance matrix of half-hour returns over consecutive trading days. This approach allows us to identify and quantify the most impactful elements, emphasizing their statistical and economic relevance. Our results demonstrate that the HAR model, enriched with these identified correlated intraday return patterns, substantially improves its out-of-sample forecasting performance compared to the original HAR model.

**Keywords:** *High-Frequency; Realized Volatility; Autocorrelation; Shrinkage Regression*

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SESSION 3-4 Chinese Session

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**The Relationship between ESG Performance and Financial Performance: An Empirical Study of Taiwan's Listed and OTC Companies**

Ms. Tzu-Min Kao\*                      Ming Chuan University

**Abstract**

Under the trend of Principles for Responsible Investment (PRI), corporate social responsibility (CSR) has evolved from the level of ethical self-discipline to external norms in the capital market. This study aims to explore the relationship between environmental, social and governance performance (ESGP) and corporate financial performance (CFP) under the norm of socially responsible investment. In order to avoid the endogenous problem caused by corporate characteristics influencing ESG decision-making or ESG-CFP bilateral causality, this study uses the two stage least squares (2SLS) method to estimate the simultaneous equation model, and takes all listed and OTC companies in Taiwan from 2016 to 2023 as the research samples. Firstly, instrumental variables are used to estimate the endogenous variables in the first stage, and then the estimated variables are used to replace the endogenous variables in the structural equation to estimate the structural coefficients. Empirical results show that ESG and CFP are mutually causal, and corporate CFP will have a positive and significant impact on ESGP, but ESGP does not significantly affect CFP, and has a significant negative relationship with Tobin's Q.

**Keywords:** *PRI, ESG, Sustainable Development, CSR, 2SLS, Financial Performance*

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SESSION 3-4 Chinese Session

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**文化差異對大學生行動支付使用意圖之影響：整合科技模式應用**

Dr. 王癸元\*                      亞洲大學  
Ms. 林曉鴻                      福建華南女子職業學院  
Ms. 蔡依妮                      宏全國際股份有限公司  
Ms. 王柏茵                      吳美瑤建築師事務所

**Abstract**

本研究透過網路問卷，探討兩岸大學生文化差異對使用行動支付意圖的影響指出：一、文化差異會顯著正向影響績效期望；二、文化差異會顯著正向影響付出期望；三、文化差異會顯著正向影響社群影響；四、文化差異會顯著正向影響促進條件；五、在控制性別下，績效期望會顯著正向影響行為意圖；六、在控制性別及經驗下，付出期望會顯著正向影響行為意圖；七、在控制性別、經驗及自願性下，社群影響會顯著正向影響行為意圖。

**Keywords:** *金融科技、整合性科技接受模式、文化差異、行動支付*

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SESSION 3-4 Chinese Session

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**疫情危機對公司股價波動度之影響：投資人情緒與公司治理的角色**

Prof. Min-Hung Tsay*	Academia Sinica
Prof. Pei-Shih Weng	National Sun Yat-sen University
Prof. Chia-Ching Lin	Ling Tung University
Mr. Zhi-Wei Wang	National Central University

**Abstract**

本文探討 COVID-19 疫情危機、公司治理水準以及投資人情緒與臺灣上市櫃公司股價波動度之關聯性。本文取用樣本期間 2013 至 2022 年，並利用 Component GARCH 模型將股價報酬率之條件變異數進一步分解為永久性和暫時性波動成分，藉以分析 Covid-19 疫情發生和嚴重程度對於股價波動度之影響的長短期效果，並衡量在 Covid-19 疫情下，公司治理和投資人情緒對股價波動度的進一步影響。實證結果顯示，COVID-19 疫情的發生和嚴重程度皆會對股價波動度產生顯著地正向影響，且此效果主要來自於對長期波動性成份的影響。然而，公司的機構投資人持股與公司員工周轉率能夠減輕上述正向影響效果，但家族董事占比則會使得效果加劇。另一方面，當市場中散戶的負面情緒越高，亦即越看空市場行情時，則 COVID-19 疫情及其嚴重程度皆對於股價波動度產生更進一步的正面影響，此效果不論對長期或短期波動性成份皆存在。在法人情緒方面，我們發現外資的負面情緒與自營商的正面情緒將加劇 COVID-19 疫情及其嚴重程度對於股價波動度的正向影響。據此，本文認為在面對疫情危機時，具有良好的公司治理與正向的市場情緒，有助於降緩股價波動性。

**Keywords:** Covid-19、公司治理、投資人情緒、股價波動度

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SESSION 3-4 Chinese Session

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**TESG 分數對企業獲利能力之影響-以汽車產業為例**

Dr. Wen-Chun Tsai                      Feng Chia University

**Abstract**

企業社會責任與財務績效之間的關係一直受到廣泛討論。本研究以 2015 至 2022 年間台灣汽車相關產業上市公司為樣本，共計 30 家公司，總計獲得了 8 年 875 組觀察值的資料。以回歸分析結果顯示，當期總體汽車產業的 TESG 分數、環境保護、社會責任和公司治理對資產報酬率和股東權益報酬率均有正向影響。對於電動車產業而言，當期公司治理的品質對資產報酬率有顯著影響，然而對非電動車產業則影響有限。這些研究結果對企業管理具有重要意涵，特別是在電動車產業中，應特別關注和加強公司治理的品質以提升當期的獲利能力。

**Keywords:** TESG 分數、企業社會責任、資產報酬率、股東權益報酬率、財務績效

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SESSION 3-4 Chinese Session

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**企業 ESG 績效是否造成投資人羊群效應**

Prof. Yun-Huan Lee                      Ming Chuan University

Prof. Shu-Lien Chang\*                  Ming Chuan University

**Abstract**

本研究探討財務績效指標(市值、股價淨值比、風險值 $\beta$ )與 ESG(環境、社會和公司治理)評分與其股票報酬表現的關連性。研究樣本取自臺灣從事 ESG 活動之上市公司，期間自 2015 年至 2023 年。實證結果顯示，風險值 $\beta$ 與股價淨值比會影響股票投資報酬，而市值則不會影響股票報酬。此外，研究結果顯示當投資者在購買實施良好 ESG 實踐的臺灣上市公司時會犧牲股票回報，意味著，臺灣投資者具有社會責任感，並進一步透過元大台灣 0050 (0050)指數對臺灣市場進行穩定性檢測。最後，本研究確認臺灣市場存在 ESG 評分促使市場上投資人呈現羊群效應行為，但在 Covid-19 期間，檢測不出 ESG 羊群效應。

**Keywords:** 財務績效、ESG、羊群效應

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**SESSION 3-5 Role of ESG information on decision making of capital market participants II**

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**The Association of Investment Opportunity Set, ESG Performance, and Managerial Compensation Structure: An Empirical Study of Taiwan Listed Companies**

Dr. Lieh-Ming Luo\*                      Fu Jen Catholic University

Dr. Hui-Tzu Lee                              Feng Chia University

Dr. Chia-Chou Chiu                      Fu Jen Catholic University

**Abstract**

This study contends that investment opportunity set and ESG (environmental, social, and corporate governance) performance are crucial indicators for the long-term growth and sustainability of enterprises. Consequently, we argue that the levels and structure of managerial compensation should positively correlate with these two variables, while also considering the indirect impact of ESG performance. Taiwan's industry has secured a significant position in the global supply chain, with both governmental and industrial sectors committed to enhancing corporate ESG performance. Results indicate significant positive associations between investment opportunity set and ESG performance with the compensation levels and structures of senior executives. The ESG performance of firms strengthens the relationship between investment opportunity set and managerial compensation levels. Overall, empirical findings from listed companies in Taiwan strongly support the hypotheses of this study. These results imply that the managerial compensation levels and structures in Taiwanese companies are determined not only by financial performance and company size but also reflect their contributions and dedication to the growth and sustainability of the enterprise.

**Keywords:** *Managerial Compensation, Investment Opportunity Set, ESG Performance, Growth and Sustainability*



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**SESSION 3-5 Role of ESG information on decision making of capital market participants II**

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**The Analysis of CSR Performance, Stability and Corporate Credit Risk in Taiwan**

Dr. Yu-Chen Wei\*      National Kaohsiung University of Science and Technology  
Mr. Xin-Yue Wang      National Kaohsiung University of Science and Technology  
Mr. Guan-Yu Hou      National Kaohsiung University of Science and Technology

**Abstract**

Industry properties is also considered. Analyzing data from 2010 to 2021, including listed and OTC companies on the Taiwan Stock Exchange and the Taiwan Corporate Credit Risk Index (TCRI) is applied to measure the default risk. The empirical results show that overall CSR performance help reduce default risk, with greater effects observed for companies those CSR performance performing below the industry average in CSR performance. The interaction effect of improved and stable CSR performance further reduces default risk, but this effect is significant only for companies performing better CSR above the industry average. The study suggests that companies should focus on overall CSR performance which may effectively mitigate default risk and not only focus on specific CSR areas. The recommendations provided in the study include that first, enhancing CSR performance in each dimension for companies below the industry CSR average. Second, if CSR volatility increases but CSR performance is better than the previous year, it will help reduce TCRI, but it should still be compared with individual industries to better demonstrate the effectiveness of CSR performance.

**Keywords:** *Corporate Social Responsibility, Industry, Default Risk, Taiwan Corporate Credit Risk Index*

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**SESSION 3-5 Role of ESG information on decision making of capital market participants II**

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**Effects of Foreign Institutional Investors Herding for Stocks with Various ESG Ratings and Such Herding on Subsequent Return Performance**

Prof. Hao Fang                      Chung Yuan Christian University

Prof. Chien-Ping Chung\*        National Taipei University of Technology

Prof. Chung-Hua Shen          Shih Chien University

Prof. Yen-Hsien Lee              Chung Yuan Christian University

**Abstract**

There are almost no studies clearly examining whether institutional investors herd to trade what kinds of specific environmental, social, and governance (ESG) portfolios and how the subsequent stock performance of these specific ESG portfolios herded by institutional investors is. Since institutional investors are regarded as informed traders and other investors tend to follow their herding portfolios, it is worth investigating the related issues. Specifically, this study fills the gaps in the literature on sustainable development, institutional herding behavior, and stock performance in the following viewpoints. First, the study analyzes how the firms with better and worse ESG ratings simultaneously affect their subsequent stock returns and return volatilities. Second, this study explores buying and selling herding of foreign institutional investors (i.e., FIIs) for individual stocks of firms with various ESG ratings to identify that FIIs herd to buy and sell what kinds of stock compositions of ESG ratings. Third, this study analyzes the difference and persistence in subsequent performance of individual stocks from FIIs buying and selling herding for firms with better and worse ESG tendencies.

The raw data about firms' monthly ESG scores come from the database which is made up of the London stock exchange group. Powered by AI-based natural language processing engines, the data application is more precise and innovative since the database is extracted from millions of daily articles in a large number of news and social media and continually updates ESG performance. The empirical results precisely provide financial authorities with references regarding whether and how FIIs herd to buy and sell individual stocks with various ESG ratings and how the difference and persistence in subsequent return performance of these stocks exhibit.

**Keywords:** *ESG, Herding Behavior, Institutional Investor, Stock market, Return Impact*

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**SESSION 3-5 Role of ESG information on decision making of capital market participants II**

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**An Empirical Investigation of ESG dimensions and Bank Performance: Evidence from the COVID-19 Crisis**

Prof. An-Chi Liu

Fujian Business University

Prof. Yang Li\*

National Taiwan College of Performing Arts

**Abstract**

The Paris Agreement, agreed at the end of 2015, aims to align financial flows with a path to low greenhouse gas emissions and climate-resilient development, guiding financial markets to directly participate in sustainable development such as environmental, social, and governance (ESG) activities. As COVID-19 provides an excellent opportunity to study how exogenous shocks affect the functioning of the economic system, this study therefore extended the double bootstrap truncated regression model proposed by Simar and Wilson (2007) by incorporating undesirable outputs to analyze how COVID-19 affects the relationship between ESG dimensions and commercial bank performance.

The data set is taken from the 2018-2022 annual reports and “Sustainability Report” of Taiwanese commercial banks, including 30 commercial banks with a total of 120 observations. The empirical results show that ESG activities are not positively related to commercial bank performance, while the contribution of all ESG sustainability indices is higher during COVID-19 than before COVID-19. We can therefore conclude that for Taiwanese commercial banks, although the benefits of ESG activities have not fully compensated for the corresponding costs, ESG activities can indeed alleviate external shocks. Furthermore, the mean value of the governance sustainability index is the highest, followed by the social sustainability index, and then the environmental sustainability index.

**Keywords:** *ESG, Commercial Banks, COVID-19, Bootstrapped Truncated Regression Model, Bod Model*



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**SESSION 4-1 Connectedness of Environmental Risks**

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**Investor Sentiment and Stock Market Crashes: A Heliobiological Perspective**

Prof. Chia-Chen Teng\*      Chung Yuan Christian University  
Prof. Wei-Shao Wu          National Taipei University of Business  
Prof. J. Jimmy Yang        Oregon State University

**Abstract**

We propose that solar activities are related to investor sentiment and stock market crashes. We find that the number of sunspots is significantly and negatively associated with the frequency and severity of market crashes. Adopting structural equation modeling and using traditional sentiment indices as mediator variables, we find that the number of sunspots has significant direct effects on the intensity and density of market crashes. The relation between sunspots and market crashes applies to the U.S. stock market and other developed and emerging stock markets.

**Keywords:** *Investor Sentiment; Market Crashes; Sunspots; SEM*

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**SESSION 4-1 Connectedness of Environmental Risks**

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**How Much Does Green Finance Reduce Carbon Emissions? Evidence from Prefecture-Level Cities in China**

Dr. O-Chia Chuang\*      Wuhan University  
Mr. Haodong Lan          Wuhan University  
Dr. Jin Xu                  Wenhua College  
Dr. Li Du                    Huazhong University of Science and Technology  
Dr. Hui-Ching Chuang    National Taipei University

**Abstract**

Green finance is an important policy tool to promote carbon neutrality. We use panel data from 330 prefecture-level cities in China to investigate the effect of green finance on urban carbon emissions and remove the endogeneity of green finance using the Bartik instrumental variable. We find that the effect of green finance on carbon emission reduction is at least three times higher after eliminating the endogeneity. We also analyze the heterogeneous effect by urban region and city size, determining that the effect of green finance on carbon emission reduction is larger in the central and western regions and smaller cities.

**Keywords:** *Green Finance; CO2 Emission; Bartik Instrumental Variable*

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**SESSION 4-1 Connectedness of Environmental Risks**

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**Common Factor of Carbon and Oil Markets**

Prof. I-Hsuan Ethan Chiang	University of North Carolina
Prof. Shih-Kuei Lin	National Chengchi University
Mr. Zong-Wei Yeh*	National Chengchi University

**Abstract**

In this study, we introduce a specification for an affine term structure model that incorporates both a common factor and market-specific factors for the carbon and oil markets. Our empirical results, which show a high goodness of fit with futures prices in these markets, indicate that the common factor effectively captures the variability of carbon policy changes. Moreover, this common factor can be interpreted as a reflection of term structure factors, which significantly reflects a wealth of information on term structures in both markets. Our analysis provides critical insights into understanding the complex interplay between carbon policy and market dynamics. Moreover, by decomposing the effects of policy changes, our model offers a novel perspective on how regulatory interventions in the carbon market affect both short- and long-term price behavior in the energy sector, thus enriching the discourse on sustainable economic policy.

**Keywords:** *Emission Trading Scheme, EUA Futures, Brent Oil Futures, Carbon Policy, Affine Term Structure Model*

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**SESSION 4-1 Connectedness of Environmental Risks**

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**Corporate biodiversity risk and product market threats**

Prof. Cuong Nguyen*	Lincoln University
Dr. Khanh Hoang	Lincoln University
Prof. Viet Dung Tran	Banking Academy, Vietnam
Dr. Nhat Minh Nguyen	Banking Academy, Vietnam

**Abstract**

This paper investigates the impact of corporate biodiversity risk on product market threats using data from 10-K reports of public firms in the United States during 2001–2021. We find that corporate biodiversity risk increases product market threats, thus putting more market pressure on firms in the transition to an era of lower ecological footprints. The finding holds well after extensively controlling for firm-level characteristics, market concentration, corporate exposure to regulation pipelines, the degree of vertical integration, and a wide range of sensitivity tests, including an instrumental variable approach, entropy balancing, propensity score matching, and different regression specifications. Two channels of effect are identified for this newfound impact. First, corporate innovation, measured by R&D expenditure intensity and the degree of product innovation, plays a crucial role in alleviating product market threats under increasing biodiversity risk. Second, our firm scope channel indicates that the impact of biodiversity risk on product market threats is more pronounced for firms operating in multiple industries. More interestingly, the effect is weakened when the firm decides to reallocate its assets to exit the market at the end of the product life cycle (i.e., reducing firm scope).

**Keywords:** *10-K; Biodiversity Risk; Corporate Innovation; Firm Scope; Product Market*

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**SESSION 4-2 Cryptocurrency and FX markets / Data analysis, machine learning, and AI techniques**

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**Cryptocurrency market spillover in times of uncertainty**

Prof. Chih-Chiang Wu	Yuan Ze University
Prof. Wei-Peng Chen	National Taipei University of Technology
Mr. Withz Aimable*	Yuan Ze University

**Abstract**

The cryptocurrency market has attracted much attention as an alternative investment option, but it faces uncertainties such as regulatory concerns and cryptocurrency volatility. This study examines the spillover effects in the cryptocurrency market during times of uncertainty. The empirical results show that Litecoin is the dominant transmitter of return spillovers, while Bitcoin is the giant transmitter of volatility and liquidity spillovers. We also find that uncertainty variables such as exchange rate, gold, and SKEW significantly influence the connectedness among cryptocurrencies. Our results show that uncertainty variables significantly impact Bitcoin during crises such as Brexit, the US-China trade war, and the Covid-19 pandemic. These findings are relevant for investors and regulators to manage risks and uncertainties in the cryptocurrency market.

**Keywords:** *Cryptocurrency, Liquidity Connectedness, Spillovers, Bitcoin, Financial Technology (FinTech)*

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SESSION 4-2 Cryptocurrency and FX markets / Data analysis, machine learning, and AI techniques

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**The exchange rates volatilities of major industries country-Non-linear autoregressive distributed lag (NARDL) approach**

Prof. Jing-Tung Wu\*                      Ming Chuan University

**Abstract**

This article uses non-linear autoregressive distributed lag (NARDL) model to explore the exchange rate volatilities. The research objects are the exchange rates of the major industrial countries. Covering six countries including Australia dollar (AUD), Canada dollar (CAD), China RMB (CNY), Europe dollar (EURO), British pound (GBP) and Japanese yen (JPY). It was found that four of the six exchange rates volatilities were closely related to each other. Asian currencies, the CNY and JPY, have low correlations with other currencies, and CNY and JPY are not closely related to each other. Fluctuations in the lag period have an impact on the current period, and many phenomena are shown in the results. The sum of the positive and negative parts of exchange rate volatilities also has a large impact.

**Keywords:** *Exchange Rate, Industrial Countries, Non-Linear Autoregressive Distributed Lag Model (NARDL)*

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SESSION 4-2 Cryptocurrency and FX markets / Data analysis, machine learning, and AI techniques

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**Cryptocurrency Risk Management Using Lévy Processes and Time-Varying Volatility**

Dr. Hai-Tang Wu                      National Chengchi University  
Prof. Meng-Lan Yueh\*                National Chengchi University

**Abstract**

This paper applies the Lévy-GJR-GARCH model to explore the empirical dynamics of Bitcoin, Ethereum, and Ripple. It highlights volatility clustering, pronounced skewness, and high kurtosis in cryptocurrency markets. The study finds that models integrating innovation distributions more accurately capture and explain the volatility processes and tail risks in these assets. Advanced models, especially those accounting for extreme tail-end and asymmetric jump effects, are better suited for adapting to market changes and providing precise risk indicators, effectively identifying potential losses.

**Keywords:** *Cryptocurrency; Lévy-GJR-GARCH; Quasi Maximum Likelihood Estimation; Value-At-Risk; Average Value-At-Risk*

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**SESSION 4-2 Cryptocurrency and FX markets / Data analysis, machine learning, and AI techniques**

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**Does One Pattern Fit All? Image Analysis for Different Equity Styles**

Mr. YuChen Den\*                      National Chengchi University

Prof. Kendro Vincent                National Chengchi University

**Abstract**

This paper investigates the predictability of stock returns using Convolutional Neural Networks (CNNs) applied to images generated from stock prices and volumes. We employ multi-class classification models to predict stock returns which outperform binary classification models. Additionally, our study examines the predictability of different stock styles, revealing that small-capital stocks generally exhibit higher annual Sharpe ratios and more pronounced monthly excess returns compared to large-capital stocks. Our findings under-score the importance of considering cross-sectional effects and stock style heterogeneity in stock return predictions, providing valuable insights for investors and researchers alike.

**Keywords:** *Convolutional Neural Network, Stock Chart Pattern, Cross-Sectional Return Predictability, Technical Analysis*

**SESSION 4-2 Cryptocurrency and FX markets / Data analysis, machine learning, and AI techniques**

**Advancing Machine Learning Predictive Accuracy for Lean Hog Futures: A Comprehensive Multi-Model and Ensemble Methodology Approach**

Prof. Kuang-Hsu Shih           CTBC Business School

Mr. Wei-Hsuan Lin\*           CTBC Business School

Mr. Fu-Ming Lai               CTBC Business School

**Abstract**

The rapidly evolving field of financial market forecasting, especially within agricultural commodities like lean hog futures, demands advanced machine learning techniques to address the complex and dynamic nature of these markets. Traditional models often struggle to capture the intricacies of market dynamics, leading to the development of a novel two-layer machine learning ensemble framework. This research introduces a comprehensive ensemble method that integrates multiple base models with a second-layer Random Forest approach, significantly improving predictive accuracy by selecting the optimal prediction model based on current market conditions. Here we show that our ensemble framework markedly enhances prediction precision over single-model approaches, contributing a nuanced forecasting methodology that acknowledges the unpredictable nature of financial markets. This advancement not only offers a more accurate predictive tool for commodity trading and risk management but also paves the way for applying sophisticated machine learning techniques to a wider range of financial instruments. Our research underscores the potential of ensemble methods in financial forecasting, providing a significant contribution to the field by facilitating informed decision-making and offering a robust framework adaptable to dynamic market scenarios.

**Keywords:** *Machine Learning, Ensemble Framework, Lean Hog Futures, Financial Market Prediction, Agricultural Commodities*

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**SESSION 4-3 Modelling and forecasting asset returns and volatility II**

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**Reinvestment Risk of International Bonds: The Random Neural Networks Approach**

Prof. Wei Hsuan                      Tamkang University

Prof. Chang-Ye Tu\*                Soochow University

**Abstract**

International bonds are defined as foreign currency-denominated bonds with redemption conditions or coupon bonds traded on the Taiwan Stock Exchange. The reinvestment risk of international bonds is connected to the maximum expected loss based on the stochastic model of the internal rate of return and possible call scenarios, and the computation of reinvestment risk can be transformed into the valuation of a Bermudan option with an exotic payoff function. The method of random neural networks which combines the Monte-Carlo simulation and random basis functions is employed to solve this optimal stopping problem. The empirical and computational results show that the reinvestment risk of international bonds is about 110 to 180 bps, given the initial internal rate of return between 3% and 5%.

**Keywords:** *International Bond, Reinvestment Risk, Optimal Stopping Problem, Random Neural Networks*



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**SESSION 4-3 Modelling and forecasting asset returns and volatility II**

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**Exploring the Mediating Role of Credit Growth Thresholds in the Relationship Between Financial Development and Economic Growth: Accounting for Banking Crises and Endogeneity**

Prof. Hao Fang                                      Chung Yuan Christian University

Prof. Chien-Ping Chung                        National Taipei University of Technology

Prof. Chung-Hua Shen                         Shih Chien University

Prof. Yen-Hsien Lee\*                         Chung Yuan Christian University

**Abstract**

Using the dynamic panel threshold regression that allows both a threshold variable and regressors to be endogenous, this study precisely analyzes the mediating effects of the threshold in a credit market for the relationship between financial development and economic growth under the consideration of a banking crisis. Our sample includes data from 54 countries in the period of 1996-2017. We find that, when there is no banking crisis, the effect of finance on growth under lower credit growth is significantly positive, but the effect under higher credit growth turns significantly negative. However, when a banking crisis occurs, the net effect of the finance-growth relationship in higher credit growth becomes even greater negative. Our findings imply that the effect of financial development on economic growth more intuitively depends on the growth of private credit rather than only the level of the credit market.

**Keywords:** *Financial Development, Economic Growth, Dynamic Panel Threshold, Banking Crisis, Credit Growth*

**SESSION 4-4 Analysis the impact of carbon emissions on investment returns / Financial disclosure, assessment, and management of climate risk**

**Emissions Trading Scheme and Stock Price Crash Risk: Evidence from China**

Dr. Ming-Hung Wu	Beijing Normal University
Dr. Chi Yin	National Sun Yat-sen University
Dr. Min-Rui Choo	Ming Chuan University
Dr. Yiwei Chuang*	National Kaohsiung University of Science and Technology

**Abstract**

This paper examines the effect of emissions trading participation on stock price crash risk. Our findings support the management obfuscation hypothesis. Firms that participate in emissions trading tend to experience higher probability of stock price crash risk. Such effect is attenuated in state-owned enterprises, firms with high board independence, and efficiency. Our findings are useful for policy makers and investors who aim to manage tail risk and invest in emerging markets with weak corporate governance and agency problems.

**Keywords:** *Emissions Trading; Stock Price Crash Risk; State-Owned Enterprises; Board Independence; Board Efficiency*

**SESSION 4-4 Analysis the impact of carbon emissions on investment returns / Financial disclosure, assessment, and management of climate risk**

**Abnormal Attention to Global Warming Stands Out in Capturing Price Crash Risks of Energy Futures**

Prof. Hung-Wen Lin*	National Chung Hsing University
Prof. Mao-Wei Hung	National Taiwan University
Mr. Kun-Ben Lin	Macau University of Science and Technology

**Abstract**

This paper unfolds the entrapment of price crash risks in the energy futures market. We first verify whether each potential variable connects to energy futures returns. The negative skewness and down-to-up volatility of returns are implemented to measure crash risks. In addition, we screen out the key variables in describing crash risks using LASSO regressions from artificial intelligence, stepwise regressions, and quantile regressions. Under the background of climate change, we involve abnormal attention to global warming into this paper. The tournament between it and extant vital variables also takes shape. The competitors comprise greed, fear, the average and standard deviation of past returns, as well as the macroeconomic variables influencing futures markets. Leaning on LASSO and stepwise regressions, we demonstrate that abnormal attention to global warming is dominant in narrating negative skewness and down-to-up volatility. Such a finding documents that abnormal attention originating from the artificial hype of the information on global warming is the major booster of crash risks. Furthermore, we assert that abnormal attention to global warming captures boom and bust states with the device of quantile regressions. However, it is noteworthy that macroeconomic variables cannot prevalently explain crash risks since they are phased out by LASSO and stepwise regressions in the tournament.

**Keywords:** *Abnormal Attention to Global Warming, Price Crash Risks, Energy Futures, Boom State, Bust State*

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**SESSION 4-5 Empirical evidence on derivatives markets**

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**Option Writing: Using Put-Call Ratio to Improve Returns**

Prof. Wen-Rang Liu                      National Yunlin University of Science and Technology  
Prof. Chien-Ling Lo\*                    Yuan Ze University  
Ms. Yi-Qiu Zhu                            Yuan Ze University

**Abstract**

This study proposes a conditional strategy to enhance option writing performance in the Taiwan market. Unlike the traditional buy-write strategy, we sell options to generate income only when the put-call ratio (PCR) is low and fully invest in the market during high PCR periods. This conditional strategy greatly reduces trade frequency, making option positions more efficient. Importantly, it consistently outperforms both the market index and VIX-conditioned strategies suggested in existing literature. Our findings maintain robustness across various PCR definitions and alternative writing strategies such as put-write or covered combo.

**Keywords:** *Option Writing, Put Call Ratio, Open Interest, Buy-Write, VIX*

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SESSION 4-5 Empirical evidence on derivatives markets

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**Pricing green financial options under the mixed fractal Brownian motions with jump diffusion environment**

Dr. Kung-Chi Chen                      Ming Chuan University

Dr. Kuo-Shing Chen\*                      Ming Chuan University

**Abstract**

To cope with severe climate change, traditional emission reduction and environmental protection measures must be supported by financial instruments. The paper is an investigation on green financial options, measured by the green cryptocurrency (Solana) and carbon emissions allowances, under fractal Brownian motions with jump detection. To this purpose, after observing the dynamic prices correlations between all the variables. We introduce a geometric mixed fractional Brownian motion model for the two types of green financial assets with possible jumps superimposed by an independent Poisson process. Then, pricing European green crypto options and carbon options in a generalized mixed fractional Brownian Motion with jumps detection. This research aims to investigate the strategy of European contingent claims written on the underlying asset of green financial assets. When the value of green financial option follows the mixed fractional Brownian motion with jumps and the European call and put green financial options are presented. It has certain reference significance to avoiding green investment risk. More generally, it could be benefit for responsible investment and risk management in green financial markets under green financial regulations to protect investor and public interests.

**Keywords:** *Blockchain, Green Financial Options, Fractal Brownian Motions, FinTech*

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**SESSION 4-5 Empirical evidence on derivatives markets**

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**Gambling Preferences and Index Option Returns: Evidence from the Taiwanese Options Market**

Dr. Ming-Hung Wu      Beijing Normal University  
Prof. Wei-Che Tsai      National Sun Yat-sen University  
Mr. Chang-Wen Liu      National Sun Yat-sen University  
Dr. Yiwei Chuang\*      National Kaohsiung University of Science and Technology

**Abstract**

We use Taiwan Weighted Stock Index options to explore the relationship between investors' lottery preferences and option returns. Driven primarily by retail investors, the Taiwan options market, in contrast to the U.S., provides a unique context. Our study, based on the introduction of index options in 2001, reveals a consistently negative relationship between gambling preferences and delta-hedge option returns in the TAIFX index, regardless of the moneyness. This suggests that retail investors' speculative behavior influences the options market, leading to pricier options with diminished delta-hedge returns. We also find a positive association between gambling preferences and individual investor option trading volume, indicating increased activity among those with pronounced gambling tendencies. Additionally, our paper introduces trading strategies aligned with gambling preferences, demonstrating superior alphas for investors short on index options. This study contributes by validating the impact of gambling preferences on option prices, offering insights into demand-based arguments, and enriching our understanding of such preferences.

**Keywords:** *Index options, Gambling preferences, Lottery effect, Investors behavior, Skewness*

## Special Conference Issue

### *Pacific-Basin Finance Journal*



The Special Issue accepts research using data on the Asia Pacific region and presenting the conference.

#### **Guest editors:**

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#### **Special issue information:**

With the emergence of the net zero era, the Financial Engineering Association of Taiwan (FeAT) is pleased to announce the “2024 FeAT International Conference on Artificial Intelligence, Green Finance, and Investments”, co-organized by Department of Finance, Ming Chuan University on May 3rd, 2024.

We welcome all submissions from the following areas, but not restricted and limited to: Asset pricing, Behavioral finance, Big-data analysis, Risk management, Corporate finance, Derivatives, Financial institutions, Financial intelligence, Fintech, High-frequency trading, Innovation and risk management, and Investments.

We especially encourage authors focusing on the following topics to submit their papers:

- Financial disclosure, assessment, and management of climate risk
- Connectedness of environmental risks
- Impact of Ecological investment in green R&D on firm performance
- Analysis the impact of carbon emissions on investment returns
- The asset pricing and investment performance of ESG stock portfolios
- Role of ESG information on decision making of capital market participants
- Real effects of ESG and investing on firm behaviors
- Data analysis, machine learning, and AI techniques
- Modelling and forecasting asset return and volatility
- Quantitative trading and investment

- Financial market structure and microstructure
- Empirical evidence on derivatives markets
- Cryptocurrency and FX markets.
- Financial technology (FinTech)
- Other topics related to data analysis in financial markets

Conference participants who are interested in publishing in the special issue of Pacific-Basin Finance Journal are welcome to submit their papers in English and deliver your presentation in English as well. Only papers using data on the Asia Pacific region will be considered for publication in this special issue.

### **Manuscript submission information:**

The [Pacific-Basin Finance Journal](#)'s submission system will be open for submissions to our Special Issue from 10/05/2024. When submitting your manuscript to [Editorial Manager®](#), please select the article type “VSI: FeAT 2024”. Please submit your manuscript before 31/08/2024.

Each submission must be accompanied by a submission fee. Submissions will only be considered after payment of the submission fee during the submission process. For more information please see the Journal's Guide for Authors: [Guide for authors - Pacific-Basin Finance Journal - ISSN 0927-538X | ScienceDirect.com by Elsevier](#)

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### **Keywords:**

Artificial intelligence, ESG, Financial technology, Green finance, Investments



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Wei-Ling Huang	黃瑋苓	Beijing Normal University	3-1	

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Chien-Ling Lo	駱建陵	Yuan Ze University	4-5	
Tian-Shyr Dai	戴天時	National Yang Ming Chiao Tung University	2-6	
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Huimin Chung	鍾惠民	National Yang Ming Chiao Tung University		
Marty Shih-Jye Yen	顏士杰	National Chengchi University	1-6	
Yu-Chen Wei	魏裕珍	National Kaohsiung University of Science and Technology	2-3/3-5	
Kendro Vincent	羅秉政	National Chengchi University	4-2	
Lieh-Ming Luo	羅烈明	Fu Jen Catholic University	3-5	



# 集結誠信之力 茁壯投資未來



## 富邦臺灣公司治理100基金(ETF)

股票簡稱  
**富邦公司治理**

股票代號  
**00692**

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