

 **2023** *International Conference for
Financial Engineering Association of Taiwan*
台灣財務工程學會年會暨國際學術研討會

Contents

歡迎蒞臨台灣財務工程學會年會暨國際學術研討會

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2023 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國立中央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議題，扮演舉足輕重的角色。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，發揮了極具關鍵的影響力。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 50 餘篇學術論文會在年會當中發表，主題涵括數位貨幣、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 Robert A. Jarrow 教授與陳仁逸教授擔任大會專題主講人，講述在大數據時代之下，現今財務工程領域重要的研究主題。對於入選本次研討會之文稿，本會也邀請證券市場發展季刊與管理評論籌辦特刊，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黃泓人教授，議程委員林丙輝教授、江彌修教授、張森林教授、楊曉文教授、蔡蒔銓教授、林士貴教授、葉錦徽教授、周賓鳳教授、黃瑞卿教授、戴天時教授、葉宗穎教授、蔡維哲教授、蕭育仁教授、何柏欣教授、賴弘能副教授、謝沛霖副教授、以及彭淑卿助理教授。此外，也要感謝國立中央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鼎力支持，才能使今年年會舉辦的如此成功。

最後，敬祝各位與貴賓身體健康、萬事如意。

台灣財務工程學會理事長

張傳壽 敬上

大會主席歡迎詞

各位學術與實務界同仁與先進，

『2023 年臺灣財務工程學會年會暨國際研討會』於 2023 年 6 月 16 日，於國立中央大學管理學院舉行。在此，僅代表主辦單位臺灣財務工程學會與國立中央大學管理學院財務金融學系，向與會的各位先進與貴賓表示誠摯歡迎之意。

本次的國際研討會，也搭上永續議題發展的熱度，將國際研討會的主題訂為『大數據時代金融工程與永續發展』，議程內容包括兩場學術專題演講，一場場實務講座，以及 11 場的學術論文發表。本次大會特別邀請美國康乃爾大學 Robert Jarrow 教授與美國 Fordham 大學陳仁遠教授分別擔任主講者，進行專題演講。Robert Jarrow 教授的專長為資產定價與衍生性商品訂價的理論與實證，文章發表於財金領域的頂尖期刊，且引述率極高，是衍生性商品領域開創性的大師級學者。陳仁遠教授的專長為衍生性商品訂價、財務工程、與應用人工智慧於金融市場，陳教授除了學術成果卓越，數篇文章發表於財金領域的頂尖期刊之外，實務經驗也很豐富，曾在華爾街投資銀行擔任顧問。另外，我們也舉辦了一場實務論壇，針對投信產業面臨的相關議題與資產管理趨勢，邀請了學術以及實務界人士進行交流與分享。

研討會能夠順利舉行，感謝許多人的支持與贊助。首先，要感謝學會張傳章理事長、和周冠男秘書長以及理監事支持我們舉辦年會。其次，感謝議程委員會委員的用心投入與指導。特別要感謝的是，這半年以來，學會副秘書長柯冠成與盧建霖教授的大力協助，以及本系同仁的支持與賴弘能、何柏欣、謝沛霖、彭淑卿等教授的投入。也感謝系辦同仁徐培慈、許心怡、以及碩博士班同學的籌備團隊，謝謝大家的全力的付出與辛勞，在此致上我萬分的謝意。也謝謝系上同仁的支持，以及各場次的主持人、發表人與評論人，有大家的貢獻，才能成就此次研討會。

值得一提的是，感謝合辦單位科技部，以及贊助的臺灣證券交易所、臺灣期貨交易所、臺灣集中保管結算所、證券櫃檯買賣中心以及其他所有的贊助單位在經費上的支持。

再次感謝所有貴賓熱情支持以及指教，希望所有貴賓在研討會期間能夠滿載而歸，留下美好的回憶。崙此，順頌

時祺

國立中央大學財務金融學系 教授兼系主任 黃泓人敬上



2023 FeAT
KEYNOTE SPEAKER 1

Prof. Robert A. Jarrow

Current Academic Position

Professor of Samuel Curtis Johnson
Graduate School of Management
Cornell University

Education

- ♦ MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Cambridge, MA. Ph.D. in Finance. Minor field in Economics. (1976-1979)
- ♦ AMOS TUCK SCHOOL OF BUSINESS, Dartmouth College, N.H. M.B.A. with specialization in Finance. Graduated with Highest Distinction. (1974-1976)
- ♦ DUKE UNIVERSITY, Durham, N.C. B.A. with double majors in Mathematics and Management Science. Graduate magna cum laude. (1970-1974)

Biography

Professor Robert Jarrow is Ronald P. & Susan E. Lynch Professor of Investment Management and professor of finance at the Johnson Graduate School of Management. His teaching and research interests involve the study of mathematical finance. He is interested in derivatives, risk management, investments, and asset pricing theory. Jarrow is currently engaged in research relating to asset pricing, liquidity risk, price bubbles, and risk management. He is a graduate faculty representative at the Johnson Graduate School of Management in four fields: management, economics, operations research and information engineering, and applied mathematics.

Jarrow co-created the HJM model and the reduced form credit risk model, both of which are the standard models used by financial institutions and central banks around the world today. He was also the first to distinguish forward/futures prices and to study market manipulation using arbitrage-pricing theory.

Jarrow co-created the journal *Mathematical Finance*, and he is an advisory or associate editor for numerous other finance journals. His research has won numerous awards including the Graham and Dodd Scrolls Award 2001, the CBOE Pomerance Prize in 1982, and the Ross Best Paper Award in 2008. In 1997, he was named IAFE Financial Engineer of the Year in recognition of his research accomplishments. He is currently an IAFE senior fellow. He is in the Fixed Income Analysts Society Hall of Fame, *Risk Magazine's* 50 member Hall of Fame, and listed in the *Who's Who of Economics*. He received *Risk Magazine's* Lifetime Achievement Award in 2009. He also serves on various corporate board of directors and advisory boards.

Keynote Speaker 1

Professor Robert A. Jarrow, Cornell University

webex Link



Chair : 周冠男 教授(台灣財務工程學會 秘書長)

Filtration Reduction and Incomplete Markets

Abstract

This paper studies the pricing of derivatives in an arbitrage-free but incompletemarket. We provide a new theorem and an economic based approach for studying this issue using information reduction to identify a unique equivalent martingale measure for the pricing of derivatives. This new martingale measure, called the uplifted martingale measure, implies that non-hedged risks are non-priced. Our ap-proach contrasts two distinct markets - the original and a fictitious - each associated with a different filtration, and employs the first and second fundamental theorems of asset pricing in both of these markets.

09:30-10:20



2023 FeAT
KEYNOTE SPEAKER 2

Prof. Ren-Raw Chen

Current Academic Position

Professor of Finance and Business
Economics
Fordham University

Education

- ◆ Bachelors: National Taiwan University
- ◆ Masters: University of Illinois
- ◆ PhD: University of Illinois

Biography

Ren-Raw Chen specializes in modeling term structure of interest rates and credit risks, automating pricing models for trading desks and rating agencies, deriving closed-form solutions, implementing lattice and Monte Carlo simulations, and complex calibrations.

Professor Chen has published papers in major finance and professional journals. He has implemented pricing models for financial companies, including credit derivatives pricing models for Lehman Brothers, structural default models for Moody's KMV, convertible bond and fixed-income derivatives models for Grand Cathy Securities Corporation, and a two-factor HJM model for Polypaths Software.

Professor Chen received his Ph.D. in finance from the University of Illinois at Urbana-Champaign. He has taught at Rutgers, the State University of New Jersey; University of Pittsburgh; National Taiwan University; and Hong Kong University. He has worked at JP Morgan, Lehman Brothers, Grand Cathy Securities Corporation, Moody's KMV, Black Rock and Morgan Stanley.

Keynote Speaker 2

Professor Ren-Raw Chen, Fordham University

webex Link



Chair：黃泓人 教授(國立中央大學 主任)

A Graphic Model for the Term Structure of Interest Rates

Abstract

In this paper, we use graph theory to model the term structure of interest rates. In particular, we use a directed acyclic graph (DAG) to model the key swap rates. Then we calibrate the model to at-the-money (ATM) swaptions (i.e. ATM swaption volatility surface). Afterwards, the model can be used to price exotic interest rate options (e.g.callable range accruals).

Graphs are ideal to represent term structure of interest rates in that these term interest rates have a unique property that shorter term rates influence longer term rates but not vice versa, giving graphs a natural way to model the term structure. Graph-theoretical models for the term structure combine theory (Gaussian network models) with data (a specification of the DAG relies on data). This can be regarded an advantage in that the model now is data-driven, unlike any other parametric models that rely on only hypothetical (often unrealistic) assumptions.

13:10-14:00

<p style="text-align: center;">Jun 16th 10:40-12:10</p>	<p>1A-Cryptocurrency</p>
	<p>Chair：林基財(香港理工大學)</p> <p>◇ Tail Risk on Cryptocurrency Return Predictability <u>Kuang-Chieh Yen*</u>, Shun-Fa Wu, Wei-Ying Nie Discussant：國立臺北科技大學鍾建屏副教授</p> <p>◇ 預測加密貨幣和股價指數波動率—GARCH 和 LSTM 模型之比較 <u>鍾建屏*</u> Discussant：東吳大學顏廣杰副教授</p> <p>◇ 巴基斯坦銀行績效改善的決策框架:AHP-TOPSIS 和 AHP-GRA 模型分析 <u>Hussain Sabbor*</u> Discussant：國立中央大學陳函筠博士生</p> <p>◇ Characterizing Risk-Averse Investors Who Prefer Cryptocurrency Hedge Funds <u>Hannah H. Chen*</u>, Rachel J. Huang Discussant：中原大學 Hussain Sabbor 博士生</p>
	<p>*Presenter</p>

Jun 16 th , 2023(Friday)10:40-12:10	Chair：林基財(香港理工大學)
1A-Cryptocurrency	
Tail Risk on Cryptocurrency Return Predictability	
Kuang-Chieh Yen, Shun-Fa Wu, Wei-Ying Nie	
Abstract	
<p>This paper investigates whether the left- or right-tail risk can predict cryptocurrency return and the co-movements among other price- or volume-based variables. By performing portfolio-sorted analysis, we find that the left- and right-tail risk can predict negatively cryptocurrency month return, respectively. Moreover, the return predictability persists at least twelve months. Controlling for other price- or volume-based variables, most of cases reveal the negative relation between tail risk and future cryptocurrency return.</p>	

Jun 16 th , 2023(Friday)10:40-12:10	Chair：林基財(香港理工大學)
1A-Cryptocurrency	
預測加密貨幣和股價指數波動率—GARCH 和 LSTM 模型之比較	
鍾建屏	
Abstract	
<p>Volatility plays crucial roles in financial markets, such as in derivative pricing, portfolio risk management, and hedging strategies. Therefore, accurate prediction of volatility is the focus of this study. This paper aims to compare the pros and cons of different models in their ability to forecast volatility. In this paper, LSTM is used as the representative of the deep learning model, and the other is represented by the traditional time series model GARCH model. Two models are used to forecast the volatility of stock indexes and cryptocurrencies to analyze the advantages and disadvantages of different models for different assets. In terms of the research design of this paper, first of all, in order to accurately measure volatility and make deep learning models and time series models can be compared under the same benchmark, all volatility prediction models and volatility measurements in this paper are based on 5-minute intraday high-frequency data to calculate. The results show that: (1) LSTM is better than GARCH model in forecasting realized volatility; (2) LSTM has a better performance in forecasting the volatility of the cryptocurrency market; (3) LSTM has a smaller error in predicting high-volatility commodities.</p>	
摘要	
<p>波動率在金融市場扮演極為重要的角色，例如衍生性商品定價、投資組合風險管理和對沖策略。因此，準確預測波動率為本研究之重點。本文旨在比較不同</p>	

模型預測波動率能力之優劣，文中以 long short-term memory (LSTM) 為深度學習模型的代表，另外則是以傳統時間序列 GARCH 模型為代表。分別以兩種模型對股價指數和加密貨幣進行波動率之預測，藉以分析不同模型對不同資產的優劣。本文的研究設計中，主要是針對波動率進行準確的量測，使深度學習模型和時間序列模型能夠以相同的標準進行比較，因此本文所有的波動率預測模型和波動率的量測都是用 5 分鐘的日內高頻資料進行計算。研究結果發現：(1) LSTM 在預測已實現波動率上優於 GARCH 模型；(2) LSTM 在預測加密貨幣市場之波動率有更好的表現；(3) LSTM 在預測高波動率資產時誤差更小。

Jun 16 th , 2023(Friday)10:40-12:10	Chair：林基財(香港理工大學)
1A-Cryptocurrency	
巴基斯坦銀行績效改善的決策框架:AHP-TOPSIS 和 AHP-GRA 模型分析	
陳若暉	
摘要	
<p>本文使用多準決策(MCDM)技術分析巴基斯坦國有與私有銀行的績效，使用銀行年報衡量多個輸入與輸出變數。三種 MCDM 技術包括層次分析法(AHP)、相似於理想解決之階次偏好技術(TOPSIS)與灰色關聯分析(GRA)對數據進行分析。AHP-TOPSIS 和 AHP-GRA 的組合導致類似的結果。顯示巴基斯坦銀行(NBP)表現最佳，在公共部門排名第一。Habib Bank Limited (HBL)於私有部門中排名第一，而其他銀行的排名由於方法差異而略有不同。此研究比較兩種模式，以增強巴基斯坦的國有和私有銀行業。該研究提供未來應用的框架，並協助決策者尋求複雜問題的最佳解決方案。</p>	

Jun 16 th , 2023(Friday)10:40-12:10	Chair：林基財(香港理工大學)
1A-Cryptocurrency	
Characterizing Risk-Averse Investors Who Prefer Cryptocurrency Hedge Funds	
Hannah H. Chen, Rachel J. Huang	
Abstract	
<p>This paper characterizes the preferences of risk-averse investors who prefer cryptocurrency hedge funds to stocks by adopting almost stochastic dominance, a utility-based non-parametric measure. We find that all risk-averse investors with a mild degree of risk aversion and/or prudence agree that Crypto and Infrastructure hedge fund strategies outperform the U.S. stock market. Low investment weights on these funds are not efficient portfolios for them. Our results are more pronounced in the long run. The test based on abnormal returns suggests that all risk-averse investors with non-extreme preferences should choose a random Infrastructure (but not Crypto) hedge fund over the S&P 500.</p>	

<p>Jun 16th 10:40-12:10</p>	<p>1B-Derivatives (I)</p> <p>Chair：戴天時(國立陽明交通大學)</p> <p>◇ Hunting for Short-Term Bonds via Flexibility: The Call Policy from the Perspective of Debt Maturity Decision in the Corporate Bond Market <u>劉亮志*</u> Discussant：國立勤益科技大學陳俊洪助理教授</p> <p>◇ Liquidity impact on option pricing under Lévy dynamics <u>Jun-Home Chen*</u>, Yu-Min Lian, Gowtham-ReddyBonala Discussant：國立陽明交通大學戴天時教授</p> <p>◇ Feasibility Analysis of Contingent Capital Provisions: The Case of CatEPuts <u>戴天時*</u>、駱建陵、孫佑嘉 Discussant：國立雲林科技大學蕭秋銘助理教授</p> <p>◇ Pricing Call written on the Carbon Emission when the Carbon Spot Price is distributed as a Bi-modal Distribution <u>蕭秋銘*</u> Discussant：國立台北科技大學劉亮志副教授</p>
	<p>*Presenter</p>

Jun 16 th , 2023(Friday)10:40-12:10	Chair：戴天時(國立陽明交通大學)
1B-Derivatives (I)	
Hunting for Short-Term Bonds via Flexibility: The Call Policy from the Perspective of Debt Maturity Decision in the Corporate Bond Market	
劉亮志	
Abstract	
<p>We uncover the call-to-shorten strategy: issuing callable bonds with short call protection and frequently refinancing these callables with other callables right after the expiration of call protection. Rather than frequently issuing shorter-term noncallables, highly-leveraged firms prefer adopting this strategy to imitate shorter-term debt financing for alleviating agency conflicts without incurring significant refinancing risk, since callables allow postponing redemptions on first call dates. This argument is theoretically confirmed by illuminating the connection among refinancing risk, debt costs, and call policies governed by predetermined call protection. It also explains widening (diminishing) gap between effective and stated maturities (call protection lengths) found empirically.</p>	
摘要	
<p>本文揭露了一個正在被許多公司執行的策略，Call-to-Shorten Strategy：透過不斷地發行具有短贖回保護期的可贖回債券，並且在保護期一過即發動提前贖回再重新發行具有類似性質的可贖回債，然後重複執行著相同的再融資行為。比起直接使用短債，高槓桿公司更傾向使用上述的手段來複製使用短債的效果來降低股債雙邊的代理問題，而這樣做能有較低的再融資風險，因為可贖回債券保留了可在第一贖回日不發動提前贖回的彈性，所以使用可贖回債的成本有可能比直接使用短債更便宜。為了論證這個觀點，本文建構了理論模型來構築再融資風險、債務成本與受贖回保護期影響的贖回策略三者之間的關係，並解釋了實證上，債券的實際到期日 (Effective Maturity) 離發行日越來越近，離債券契約到期日 (Stated Maturity) 越來越遠的現象。</p>	

Jun 16 th , 2023(Friday)10:40-12:10	Chair：戴天時(國立陽明交通大學)
1B-Derivatives (I)	
Liquidity impact on option pricing under Lévy dynamics	
Jun-Home Chen, Yu-Min Lian, Gowtham-ReddyBonala	
Abstract	
<p>This study evaluates the European option by assuming that underlying stock returns are not normally distributed. The main reason for this research is that financial securities always have fat tails and excess kurtosis. Apart from this, there are also return volatilities and jumps in the underlying stock price which varies stochastically</p>	

over a period of time and also results in non-normal returns. The GBM model is usually used for depicting the underlying asset in option pricing. However, the GBM model cannot depict the stylized features existing in the financial asset return well. So we acquire with two time changed Lévy processes: Normal inverse Gaussian (NIG) and Variance Gamma (VG) which was proposed by Barndorff-Nielsen (1995, 1997) and Madan and Senata (1990), respectively for option pricing. Due to these two time- changed Lévy processes can takes more stylized features of the underlying asset and for pricing option , we apply the moment method to calculate the parameters for the model and apply the mean-correcting martingale method to derive the martingale process of the underlying asset. In addition, we use RDV as liquidity proxy to investigate the liquidity impact on option pricing. Finally, numerical illustrations are provided and analyzed.

摘要

由於金融資產報酬分配多呈現厚尾與高峽峰等非常態分佈的現象，因此本研究假設標的資產報酬不是常態分配來評估歐式選擇權。此外，隨機波動與跳躍的現象為造成報酬分配非常態的主要因素。因此，幾何布朗運動模型(Geometric Brownian Motion,GBM)無法刻劃上述的現象。本研究採用兩個分別由 Barndorff-Nielsen (1995, 1997)和 Madan and Senata(1990)所提出的隨時間變化的利維(Lévy)模型：NIG 與 VG 模型。由於這兩個隨時間變化的 Lévy 過程可以捕捉資產報酬隨機波動與價格跳躍現象，因此，本研究利用這兩個模型來評價歐式選擇權，並利用 RDV 來作為流動性的代理變數來，進一步探究流動性對於選擇權評價的影響。研究發現在選擇權流動性較高時，評價誤差較小；此外，兩個 Lévy 模型不論是在流動性高與低，其評價都誤差都較 GBM 模型來的好。

Jun 16 th , 2023(Friday)10:40-12:10	Chair：戴天時(國立陽明交通大學)
1B-Derivatives (I)	
<p>Feasibility Analysis of Contingent Capital Provisions: The Case of CatEPuts 戴天時、駱建陵、孫佑嘉</p>	
<p>Abstract The side effects of exercising a complex contingent claim, such as dilutions and fund injections, could change the properties of the underlying asset and make the claim valuation from the buyers’ and sellers’ perspectives different. Analyzing the impacts of provision settings on the claim’s tradability and the changes in different parties’ benefits are essential for explaining the designs of claim provisions. A catastrophe equity put (CatEPut) allows its holder, an insurer, to exchange newly issued stocks for emergent fund injections when it suffers huge catastrophic losses and its stock</p>	

price is lower than a prespecified trigger level. The potential executions of CatEPuts would change the insurer's capital structure and the default risk, and corresponding equity dilutions, fund injections, etc., make valuations of CatEPuts different from distinct perspectives. Our article evaluates the lowest (highest) acceptable value of a CatEPut from the seller's (buyer's) perspective to explore feasible scenarios (e.g., CatEPut provisions and the insurer's financial status) that make CatEPut acceptable to both parties. The advantages of fund injections and the disadvantages of purchasing costs are considered to analyze the changes in equity, debt, and the firm-levered values. Our model can explain why an American-style CatEPut that cannot be executed when its holder fails to continue its operation is more prevalent than other provisions. We also resolve the defect of the trade-off theory caused by the scenario that the catastrophic compensation costs exceed the insurer's asset value. To model the endogenous relationship between purchasing costs and CatEPut valuations, as well as the change in the insurer's capital structure, we develop a novel twin tree model with jump (TTMJ) composed of two trees to simulate its asset value dynamics. A timely fund injection into the insurer's asset value due to the CatEPut execution is modeled by transferring from one tree to the other to reflect the firm's asset value and capital structure change. Therefore, the impacts of fund injections, equity dilutions, and the change in the insurer's default risk on the values of (original) equities, debts, and CatEPuts can be evaluated as contingent claims on the value of the insurer's assets.

摘要

執行複雜的或有索取權的副作用,例如股權稀釋和資金注入,可能會影響資產的特性,使得買方與賣方對或有索取權的訂價有所差異。因此,分析破產條款的設定對或有索取權可交易性的影響,以及公司各方價值的變化是至關重要的。巨災權益賣權(CatEPut)允許保險公司在承受巨大災害損失且股價因此低於履約價時,可以用新發行的股票換取緊急資金挹注,這將改變保險公司的資本結構和違約風險,像是股權稀釋、資金注入等,使 CatEPut 的價值從不同看而有所不同。我們從 CatEPut 賣方和買方的角度,考量購買成本和未來可能的資金挹注對公司股權、債務和槓桿的影響,去計算 CatEPut 的最低和最高可接受價格,以尋找能使 CatEPut 被買賣雙方同時接受的情境,例如: 是否設定破產條款和保險公司的財務狀態。我們的模型也能夠解釋為何當保險公司無法繼續經營時,有破產條款的美式 CatEPut 比其他類型的 CatEPut 更受市場青睞。另外,我們也解決了權衡理論在巨災賠償成本超過保險公司資產價值導致破產的情況無法成立的狀況。為了模擬購買成本與 CatEPut 價格之間的內生關係,以及保險公司資本結構的變化,我們開發了一種新的跳躍雙樹模型(TTMJ)。該模型使用兩棵樹狀結構來模擬保險公司資產價值的變動,從一棵樹轉移到另一棵樹用來模擬公司得

到緊急資金挹注的資產價值和資本結構變化。因此,我們的模型可以考量資金挹注、股權稀釋和保險公司違約風險的變化對(原始)股權、債務對 CatEPut 價格的影響。

Jun 16 th , 2023(Friday)10:40-12:10	Chair : 戴天時(國立陽明交通大學)
1B-Derivatives (I)	

Pricing Call written on the Carbon Emission when the Carbon Spot Price is distributed as a Bi-modal Distribution

蕭秋銘

Abstract

This study attempts to price the European call options written on carbon rights. Since the price of carbon rights has undergone changes in different policies and regimes in the past 20 years, the spot price of carbon rights may not necessarily obey a unimodal distribution. Therefore, unlike the traditional option pricing model of the Black-Scholes formula, this study will implement the bimodal distribution proposed by Hsiao (2022b) as the basis, and try to calculate the price of European call option on carbon rights. Since the normal distribution is also a special case of the bimodal distribution in Hsiao (2022b), therefore, the result of the traditional Black-Scholes formula is also including in that of this study. The results of the simulation calculation indicate that: when the price of the underlying asset is bimodal, the difference between the prices of the European call option and prices from the traditional Black-Scholes formula will increase with the distance between the modes. In addition, the higher the peak on the right, the result of this study will be closer to the result of the traditional Black-Scholes formula; otherwise, the greater the difference will be. As a result, the European call option price calculated using the Black-Scholes formula will seriously deviate from the reasonable price of the carbon option.

摘要

本研究嘗試去計算碳權的歐式期權價格。由於碳權價格在過去 20 年經歷了不同政策和制度的變化,碳權現貨價格不一定服從單峰分佈。因此,不同於 Black-Scholes 公式的傳統期權定價模型,本文將以 Hsiao (2022b)所提出的雙峰分佈為基礎,嘗試計算碳權歐式期權的價格。而由於常態分佈在 Hsiao (2022b) 中也是該雙峰分佈的退化特例,因此,傳統的 Black-Scholes 公式的結果也包含在本研究中。模擬計算結果顯示:當標的資產價格為雙峰時,歐式買權價格與傳統 Black-Scholes 公式價格之間的差異會隨著眾數距離的增加而擴大。另外,右邊的峰度越高,本研究的結果會越接近傳統的 Black-Scholes 公式的結果;否則,差異會更大。此時,運用 Black-Scholes 公式所計算之歐式買權價格將嚴重偏離該碳權買權的合理價格。

<p>Jun 16th 10:40-12:10</p>	<p>1C-ESG</p>
	<p>Chair：楊曉文(國立政治大學)</p> <p>◇ Blockholders, environmental information disclosure, and the cost of debt <u>翁胤哲</u> Discussant：國立暨南大學戴維芯副教授</p> <p>◇ 企業環境保護政策的同儕效應 <u>戴維芯*</u>、孫明琇 Discussant：國立清華大學 Jianqiang Chen 博士候選人</p> <p>◇ Mandatory Carbon Disclosures and Sustainability Innovations <u>Jianqiang Chen*</u>, Pei-Fang Hsieh, Po-Hsuan Hsu Discussant：元智大學裴典富助理教授</p> <p>◇ 探討中國大陸上市公司 ESG 表現與股價報酬之研究 紀宗利、李樑堅、<u>黃楊閔*</u> Discussant：國立東華大學翁胤哲助理教授</p>
	<p>*Presenter</p>

Jun 16 th , 2023(Friday)10:40-12:10	Chair：楊曉文(國立政治大學)
1C-ESG	
Blockholders, environmental information disclosure, and the cost of debt	
翁胤哲	
Abstract	
<p>This study investigates the mediating role of environmental information disclosure between multiple large shareholders and debt financing costs. Moreover, it explores how different characteristics of the ultimate controller mediate information disclosure. Using a sample of China's high-polluting enterprises, we find that, compared with fiduciary blockholders, beneficiary blockholders have significant effects on environmental information disclosure in reducing debt financing costs. Moreover, when ultimate controllers are private entities or have high deviations in control rights and cash flow rights, beneficiary blockholders prompt environmental information disclosure and reduce debt financing costs via their governance roles.</p>	

Jun 16 th , 2023(Friday)10:40-12:10	Chair：楊曉文(國立政治大學)
1C-ESG	
企業環境保護政策的同儕效應	
戴維芯、孫明琇	
Abstract	
<p>Using US panel data from a sample from 1996 to 2013 as a sample, this paper investigates the role of peer effects in the corporate environmental protection policies. The empirical results show that the firm's environmental protection policies are driven by their peers and peer firms play a significant role in defining corporate environmental protection policies. The peer effect of corporate environmental protection policies not only shows on the overall score, but also on the strengths and concerns and various detailed items. Our findings are robust to alternative peer proxies. Further, we find that market leaders with high market share have stronger peer effects of environmental protection policies, but larger market leaders have weaker peer effects. Finally, the peer effect of environmental protection policies is stronger in highly competitive markets and weaker for financing-constrained firms.</p>	
摘要	
<p>本研究以 1996 年至 2013 年之美國企業為樣本，探討同儕效果(peer effect)在企業環境保護政策中所扮演的角色，研究發現公司的環境保護政策顯著受同儕公司環境保護政策的影響，不僅在總體分數上有同儕效應，在強勢項目與關注項</p>	

目分數以及各細項政策上都有同儕效應，顯示同儕公司之環境保護措施在企業環境保護政策上扮演重要的角色。研究結果在不同的產業定義下都維持穩健。此外，研究發現市占率高的市場領導者的環境保護政策同儕效應更強，但規模越大的市場領導者則環境保護政策同儕效應較弱。最後，發現環境保護政策的同儕效應在高度競爭的市場中較為強烈，而在融資受限的公司上則會較弱。

Jun 16 th , 2023(Friday)10:40-12:10	Chair：楊曉文(國立政治大學)
1C-ESG	
Mandatory Carbon Disclosures and Sustainability Innovations	
Jianqiang Chen, Pei-Fang Hsieh, Po-Hsuan Hsu	
Abstract	
<p>This study explores the relationship between climate change regulation and corporate low- carbon innovation outputs. After the implementation of the Greenhouse Gas Reporting Program (GHGRP), a regulation requiring corporate greenhouse gas emissions disclosure, we observe a significant 6% increase in the count of climate patents and an 18% increase in the value of climate patents for firms with higher inefficient CO₂ emissions, demonstrating their commitment to climate change mitigation and sustainability. The adoption of climate change mitigation technologies results in a substantial reduction of estimated CO₂ emissions for these firms. The growth of corporate climate innovation is driven by external pressure, including firms with stricter environmental regulations and more climate change mitigation-oriented analyst coverage. Firms with higher inefficient CO₂ emissions are more likely to have ESG compensation policies after the regulation. Evidence suggests that firms incorporate the sustainability value when they face external pressure of social responsibility.</p>	
摘要	
<p>本研究探討氣候變遷監管與企業低碳創新產出之間的關係。在實施溫室氣體報告計劃（GHGRP）後，企業需要強制披露溫室氣體排放量，我們觀察到低效二氧化碳排放企業的氣候變遷緩解專利數量顯著增加了6%，氣候變遷緩解專利價值增加了18%，顯示它們致力於氣候變遷緩解和可持續發展。採用氣候變遷緩解技術使這些企業的估計二氧化碳排放量大幅減少。企業氣候變遷緩解創新的增長受到外部壓力的推動，包括更嚴格的环境監管和更多的注重氣候變遷的分析師關注。在該監管後，低效二氧化碳排放企業更有可能擁有環境、社會和公司治理（ESG）相關的企業薪酬政策。證據表明，企業在面臨社會責任的外部壓力時，會將可持續發展價值納入考量，它們的市場價值增加。</p>	

Jun 16 th , 2023(Friday)10:40-12:10	Chair：楊曉文(國立政治大學)
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1C-ESG	
<p>探討中國大陸上市公司 ESG 表現與股價報酬之研究 紀宗利、李樑堅、黃楊閔</p>	
<p>Abstract</p> <p>China is the second largest independent economy in the world. In recent years, ESG has become the focus of the Chinese government. The “14th Five-Year Plan” and the 2035 long-term goal outline both emphasize the concept of green development. This research examines the rate of return, annualized rate of return, average, and Standard deviation and reward-risk ratio, and discuss the performance difference analysis of “investing in different industries during the same investment period” and using the “smile curve”, and then discuss the impact of the rate of return on performance and the impact of the rate of return on risk.</p> <p>The results of Dollar-Cost Averaging, China Ping An, Poly Development, Longji Green Energy, Luxshare Precision, Yili, and Cathay Pacific Sustainable High Dividend are all stocks that are relatively better than the market. The research shows that choosing ESG The investment performance of listed companies with good performance is more likely to outperform the market. The higher the risk ratio of regular fixed reward, the better the stock. Therefore, the research results of the risk ratio of regular fixed reward show that China Ping An, China State Construction, Longji Green Energy, Rongsheng Petrochemical, Luxshare Precision, Yili Stock Both Cathay Pacific and Cathay Pacific Perpetual High Dividend are stocks that are relatively better than the broader market.</p> <p>The biggest advantage of the smile curve is to spread costs and smooth risks. Therefore, according to the research results of the annualized rate of return of the smile curve, the smile curve can obtain a better rate of return on investment. The higher the reward-risk ratio of the smiling curve, the better the stock. Therefore, the research on the reward-risk ratio of the smiling curve shows that Ping An, Conch Cement, Rongsheng Petrochemical, Great Wall Motor, Yili and Cathay Pacific have high dividends. All are better companies.</p> <p>Finally, judging from the companies selected into the top 50 ESG list in mainland China, the vast majority of companies have long-term stable performance and outperformed the market; from the perspective of the smile curve, this research has verified that its method is feasible for the return on investment, and Can avoid risks and increase profits; from the perspective of risk, you can choose companies with low risk but relatively high returns; the stock market is volatile, so the lower the entry price, increase the price on dips, and reduce the price on rallies. Selling when it is in a high price range can obtain a better return on investment.</p>	

摘要

中國大陸是除了美國以外，全球第二大獨立經濟體，最近幾年 ESG 已成為中國大陸政府關注的焦點，“十四五”規劃和 2035 年遠景目標綱要皆強調綠色發展理念。本研究檢驗「2022 福布斯中國 ESG50 強榜單」以定期定額及微笑曲線投資中國大陸上市股票、成分股指數，與指數股票型基金在不同投資期間下之報酬率、年化報酬率、平均數、標準差及報酬風險比率，並探討績效「在相同投資期間投資不同產業」與使用「微笑曲線」之差異分析，再討論報酬率對績效之影響及報酬率對風險之影響。

藉由定期定額年化報酬率之研究結果顯示，中國平安、保利發展、隆基綠能、立訊精密、伊利股份與國泰永續高股息皆是相對優於大盤之股票，由研究顯示，挑選 ESG 表現優良的上市公司之投資績效較有機會勝過大盤。而定期定額報酬風險比率越高，則表示該檔股票越佳，故藉由定期定額報酬風險比之研究結果顯示，中國平安、中國建築、隆基綠能、榮盛石化、立訊精密、伊利股份與國泰永續高股息皆是相對優於大盤之股票。

微笑曲線最大的優勢就是攤平成本、平滑風險，因此根據微笑曲線年化報酬率之研究結果顯示，微笑曲線能取得較佳的投資報酬率。而微笑曲線報酬風險比率越高，則表示該檔股票越佳，故藉由微笑曲線報酬風險比之研究顯示，中國平安、海螺水泥、榮盛石化、長城汽車、伊利股份與國泰永續高股息皆是較佳企業。

彙整研究結果，以入選中國大陸 ESG50 強榜單的企業來看，絕大多數企業之表現長期穩定優大於盤；以微笑曲線來看，本研究驗證了其方法於投資報酬率是可行的，並且可以規避風險增加獲利的；而以風險面來看，可以挑選風險小但報酬率相對高的企業；股票市場是波動的，故入場價格越低，逢低加碼，逢高減碼，並在價格位於高價區間時賣出，能獲得較佳的投資報酬率。

<p style="text-align: center;">Jun 16th 10:40-12:10</p>	<p>1D-Corporate Finance (I)</p>
	<p>Chair：何柏欣(國立中央大學)</p> <p>✧ CEO Short-Term Performance Goal and Pay-for-Performancet Ko-Chia Yu, <u>Chia-Ying Chan*</u>, Nguyen Viet Dan Discussant：國立中央大學楊正博士生</p> <p>✧ Cyber Risk and Dividend Policy <u>Yang Zheng*</u>, Huang Hong-Ren Discussant：國立雲林科技大學許景嶼副教授</p> <p>✧ Winners in the Spotlight: The Impact of Superstar CEOs on Stakeholder Trust Sheng-Syan Chen, <u>Ching-Yu Hsu*</u>, and Chia-Wei Huang Discussant：元智大學 Nguyen Thi Dieu Hang 博士候選人</p> <p>✧ The choice of financial advisors in M&As: does the counterparty's earnings management matter? Hsiangping Tsai, <u>Hang Thi Dieu Nguyen*</u>, I-Ju Chen Discussant：國立台北大學詹佳縈教授</p>
	<p>*Presenter</p>

Jun 16 th , 2023(Friday)10:40-12:10	Chair：何柏欣(國立中央大學)
1D-Corporate Finance (I)	
CEO Short-Term Performance Goal and Pay-for-Performance	
Ko-Chia Yu, Chia-Ying Chan, Nguyen Viet Dan	
Abstract	
<p>The study examines the extent to which short-term performance incentive pay for CEOs affect actual performance. We find that firms with CEOs who meet their goals tend to have better accounting performance, specifically for the performance metrics that are specified in their compensation contracts. We find evidence showing that CEOs might attempt to game the system by setting their own goals. For one thing, powerful CEOs are more likely to meet the compensation goals and set easier goals for themselves. Additionally, CEOs meet their goals by engaging in earnings management behaviors. To make matters worse, real earnings management behaviors are exacerbated in those firms when their compensation goals are directly linked with earnings goals. Overall, short-term incentives might boost short-term performance but do not perform in aligning management with long-term goals.</p>	

Jun 16 th , 2023(Friday)10:40-12:10	Chair：何柏欣(國立中央大學)
1D-Corporate Finance (I)	
Cyber Risk and Dividend Policy	
Yang Zheng, Huang Hong-Ren	
Abstract	
<p>We examine the impact of cyber-attacks on corporate dividend policy by using a firm-level cyber-risk index from 2004 to 2021. Our evidence suggests that dividend payout are lower for firms that have experienced a cyber-attack, and this impact is more significant for listed parent companies. Further, we find that this negative impact remains, regardless of the firm's cash level or its life cycle. However, cyber-attack doesn't have significant impact on the dividend policy of firms with better managerial ability and corporate governance. Moreover, IT capital expenditure can mitigate the negative impact of cyber-attacks on dividend policies. We use the cyber-attacks events for difference-in-difference analysis and propensity score matching, the results are also robust. We conclude that cyber-attacks significantly reduce firm's dividend payouts.</p>	

Jun 16 th , 2023(Friday)10:40-12:10	Chair：何柏欣(國立中央大學)
1D-Corporate Finance (I)	
Winners in the Spotlight: The Impact of Superstar CEOs on Stakeholder Trust	
Sheng-Syan Chen, Ching-Yu Hsu, and Chia-Wei Huang	

Abstract

This paper empirically examines how superstar CEOs can influence on stakeholder trust. This paper uses award-winning CEOs through major media sources to measure superstar CEOs. We show that the increase in firms' stakeholder commitments is significantly associated with the effect of superstar CEOs, included four possible channels: employees, suppliers, customers, and strategic partners commitments through difference-in-differences analysis and robustness tests. The evidence also indicates that achieving CEO awards in the firms in more trusting regions or with higher level of complexity experience a larger increase in stakeholder trust than other firms.

摘要

本文探討超級巨星執行長如何影響利害關係人的信任，本文利用執行長獲得媒體頒發的獎項視為成為超級巨星執行長的管道。我們發現執行長獲獎成為超級巨星執行長後，能顯著的增加利害關係人的信任，包含四種利害關係人：員工、供應商、客戶與策略夥伴。在高信任程度的地區以及高度複雜程度的公司，這樣的現象更為顯著。

Jun 16 th , 2023(Friday)10:40-12:10	Chair：何柏欣(國立中央大學)
1D-Corporate Finance (I)	
The choice of financial advisors in M&As: does the counterparty's earnings management matter?	
Hsiangping Tsai, Hang Thi Dieu Nguyen, I-Ju Chen	
Abstract <p>This study explores the role of financial advisors in merger and acquisition deals when a firm is concerned about earnings manipulation in its merger counterparty. We show that the likelihood of a firm hiring advisors increases as the merger counterparty engages in a higher level of earnings management. This association is strongly supported in the analyses on the acquirer's advisor choice but is weak for the target's advisor choice. Furthermore, acquirers prefer hiring informed advisors who are the target's relationship banks, especially when the concern of target's earnings manipulation is heightened. Moreover, acquirers hiring informed-advisors pay lower premiums to targets.</p>	

<p style="text-align: center;">Jun 16th 10:40-12:10</p>	<p>1E-Econometrics</p>
	<p>Chair：葉錦徽(國立中央大學)</p> <p>◇ Collective effects of life insurance liabilities: A random matrix approach <u>陳哲斌*</u> Discussant：國立中央大學葉錦徽教授</p> <p>◇ 解構國內通貨膨脹的來源及其預測 - 降維模型之比較與應用 <u>葉錦徽*</u> Discussant：國立中山大學蔡秉真助理教授</p> <p>◇ Correcting for Negative Values in Range-based Spread Estimator–A Conditional Auto-Regressive Range (CARR) Approach <u>蔡秉真*</u>、朱奎翰 Discussant：淡江大學吳安琪助理教授</p> <p>◇ 基於混合模型建立企業財務風險評估方法台灣電子產業之驗證 <u>董律里</u>、<u>周雨田</u>、<u>吳安琪*</u> Discussant：國立政治大學陳哲斌博士候選人</p>
	<p>*Presenter</p>

Jun 16 th , 2023(Friday)10:40-12:10	Chair：葉錦徽(國立中央大學)
1E-Econometrics	
Collective effects of life insurance liabilities: A random matrix approach	
陳哲斌	
Abstract	
<p>Identifying the collective information of insurance demand is challenging but crucial for budget planning and capital allocation. This study identifies the interactions of changes in reserves across lines of business. Eigenvalue and eigenvector analyses are employed to distinguish the temporary random effects containing no information from the long-term collective effects containing information. We apply random matrix theory (RMT) to the percentage changes in reserves of nine product lines for life insurance companies with business from 2000 to 2021. The implementation of RMT enables the construction of a non-noisy correlation matrix by identifying and filtering out the random effects in the matrices. Finally, we minimize variances to determine the information-based weights across product lines for each company. The results of this study indicate that random effects in mutual insurers are stronger than those in stock insurers, which implies variations in managerial discretion across organizational forms. We then calculate the optimal weights of collective information, and insurers can employ the calculated information-based weights to implement optimal budget planning and capital allocation.</p>	

Jun 16 th , 2023(Friday)10:40-12:10	Chair：葉錦徽(國立中央大學)
1E-Econometrics	
解構國內通貨膨脹的來源及其預測 - 降維模型之比較與應用	
葉錦徽	
Abstract	
<p>有鑑於全球經濟普遍受通膨所苦，衡諸國內外有關於通膨預警之文獻，多著重於使用特定變數進行預測。然而特定變數多半源於傳統經濟理論認定與通膨相關，侷限了研究者發現其他重要變數的可能性。目前國內鮮有文獻探討高維度資料於理解通膨的來源與預測應用，因此本文參照 Forni et al. (2005); Giannone et al. (2004); Stock and Watson (2002a, 2002b, 2012b)，嘗試由上而下 (top-down)，利用過擴散指數預測法解構並預測台灣通膨。透過蒐集 2000 年至 2021 年間近 100 個對於台灣通膨具潛在有影響力變數，我們探討不同降維方法所萃取之潛在因子對通膨預測的影響，發現使用監督式的降維方法有助於了解、並提升整體對通膨或通縮的預測能力。如採納 Stock and Watson (2002b) 之建議，事先將變數分為 11 大類後再進行預測，發現分類後模型之預測力將更進一步提升。文中針對通膨預測過程中的關鍵變數，第一次揭露不同的時空背景下，這 11 類臺灣通膨影響構面之相對重要性消長，並據之以建構一個創新的通膨</p>	

(縮) 預警模型，以便未來做為央行因應調適通膨情勢、制定貨幣政策時的參考依據。

Jun 16 th , 2023(Friday)10:40-12:10	Chair：葉錦徽(國立中央大學)
1E-Econometrics	
Correcting for Negative Values in Range-based Spread Estimator–A Conditional Auto-Regressive Range (CARR) Approach 蔡秉真、朱奎翰	
Abstract In this paper, four different markets (KOSPI200, NIKKEI225, FTSE100, ESTX50) were used with high-frequency data of 30-minute intervals to estimate the price spread and compared the result with daily data. Two methods were used to calculate the price spread: Corwin and Schultz’s estimation method (CS) and Li, Lambe, and Adegbite’s Basic High and Low (BHL) estimation method. In addition to the original data’s price spread, the Weibull CARR model published by Chou in 2005 was also used to obtain an optimized range of the price spread, improving the spread estimation compared to the unprocessed version. We further considered yesterday’s return, so we added an indicator function into the WCARR model and try to improve its performance.	
摘要 如何從交易價格資料推估價差為財務文獻之一重要研究主題。本文探討基於全距之價差估計模型，使用兩種方式計算價差，分別為 Cowin and Schultz (2012) 估計法(CS)與 Li, Lambe and Adegbite (2018)的 Basic High and Low (BHL)估計法，使用四種不同市場(KOSPI200、NIKKEI225、FTSE100、ESTX50) 30 分鐘的日內資料並與日資料結果進行對照。我們發現無論是日資料或 30 分鐘資料，兩種價差計算方式皆容易產生價差為負的情形，而負價差之比例介於 30-50%。為改進此問題，我們使用了 Chou(2005)的條件自我回歸全距模型(Conditional Autoregressive Range, CARR)，將原本價差使用 CARR 模型求得條件期待值後代入計算公式，我們發現此修正做法能有效減少負價差出現頻率。我們也進一步在 CARR 模型中考慮波動度之槓桿效果，亦即加入昨日報酬為負之指標函數，以提升對價差計算結果的表現。	

Jun 16 th , 2023(Friday)10:40-12:10	Chair：葉錦徽(國立中央大學)
1E-Econometrics	
基於混合模型建立企業財務風險評估方法台灣電子產業之驗證 董律里、周雨田、吳安琪	
Abstract	

Financial distress is a situation in which a business's cash flow is unable to repay its debts, which can occur before bankruptcy or liquidation. The possibility of financial distress is a critical indicator for the company and its financial lending or investment departments. This study employs a hybrid model framework, utilizing Random Forest (RF) and Neural Network (NN), to construct a predictive model for financial distress. The model can detect future financial risks in advance, providing companies with the opportunity to act ahead of schedule. We analyze listed companies in Taiwan's electronics industry from 2000 to 2018, using financial information from annual reports and macroeconomic data to characterize the model. The data set is built through pre-processing and feature engineering. Due to the low probability of financial distress, the recall rate, F1 score, and AUC were chosen to assess the categorical imbalance of the model's performance. Empirical results show that the hybrid model outperforms both the Random Forest and Neural Network models alone. The study identifies profitability and operating performance as relevant factors for identifying corporate financial crises in the electronics industry.

摘要

財務危機發生的可能性對於公司本身在經營管理良窳或銀行金融進行企業放款投資與否而言，是一項重要判斷指標。因此如何提升相關指標作為辨識與診斷企業在營運中潛在的財務風險能力，成為能否因應全球化競爭環境以達成永續經營之重要議題。相對過去企業風險評估方式，多以建立風險因子作為衡量發生危機的可能性，本研究嘗試應用能著重資料特性進行模型建立的機器學習（Machine Learning）技術，結合隨機森林（RF）與類神經網路（NN）等所形成之混合模型（Hybrid Model）架構，建立企業財務危機預測模型，作為協助預測企業當發生營運失敗前，所導致重組、倒閉或破產的相關徵兆，以提前偵測企業未來之財務風險。本研究主要以台灣地區電子業上市上櫃公司各期年報財務資訊以及總體經濟資料作為模型特徵選擇，透過資料前處理以及特徵工程建立資料集分析標的。另就財務危機事件發生機率有相對稀少之特性，在模型評比標準上，選用精準度（Accuracy）與查全率（Recall），以及綜合兩項所計算之調和均值所形成之評價指標分數（F1-Score），作為模型預測性能度之衡量，另運用 ROC 曲線與 AUC（Area Under Curve）曲線下面積衡量模型因應類別不平衡的狀況能力。實證結果說明，不論以隨機森林作為最終分類器，或以類神經網路為分類器的混合模型，其模型表現皆優於單一模型；而在變數選擇性解釋力上，本研究獲得獲利能力以及經營表現的相關資訊，在判別電子產業類別的企業財務危機，相對具有有效性。

<p style="text-align: center;">Jun 16th 14:10-15:40</p>	<p>2A-Derivatives (II)</p>
	<p>Chair：鍾惠民(國立陽明交通大學)</p> <p>◇ Intraday Herd Trading Behaviors in the Index Futures Market: Prevalence, Impact on Volatility, and the Role of Investor Sentiment Ming-Hung Wu, Wan-Ting Hu, <u>Pei-Shih Weng*</u> Discussant：東吳大學湯美玲副教授</p> <p>◇ 生命周期性投資之退休金最適規劃 <u>湯美玲*</u>、吳庭斌 Discussant：南臺科技大學黃保憲助理教授</p> <p>◇ 期貨市場之快速交易與價格之極端變化：台灣期貨交易所之實證研究 <u>高櫻芬*</u>、余杰鋼 Discussant：東吳大學鄭宏文副教授</p> <p>◇ Option Price with Good Jump Intensity, Bad Jump Intensity, and Heavy-Tailed Jump Size <u>陳采妍*</u>、鄭宏文 Discussant：國立中山大學翁培師副教授</p>
	<p>*Presenter</p>

Jun 16 th , 2023(Friday) 14:10-15:40	Chair：鍾惠民(國立陽明交通大學)
2A-Derivatives (II)	
Intraday Herd Trading Behaviors in the Index Futures Market: Prevalence, Impact on Volatility, and the Role of Investor Sentiment	
Ming-Hung Wu, Wan-Ting Hu, Pei-Shih Weng	
Abstract	
<p>This study analyzes market index futures data on the Taiwan Futures Exchange (TAIFEX) to explore intraday herd trading behaviors and their impact on the market. The study finds that herd behaviors are prevalent in all trading directions and that investor sentiment is a more direct explanation than information chasing. The tendency of herding becomes more pronounced during recession periods and financial crises. Herding in intraday trading increases market volatility on the same day but decreases it on the following day. Additional tests show that overnight trading has a weaker herding tendency and a less noticeable market correction on the following day, which can be attributed in part to the lower participation of retail traders in overnight sessions. The analysis using overnight trading reinforces the relevance of retail trading in explaining herd trading. Overall, the study offers new evidence and insights into herd behaviors in the derivatives market dominated by retail investors.</p>	

Jun 16 th , 2023(Friday) 14:10-15:40	Chair：鍾惠民(國立陽明交通大學)
2A-Derivatives (II)	
生命周期性投資之退休金最適規劃	
湯美玲、吳庭斌	
Abstract	
<p>This research discusses the setting of random retirement time and the variation in the representative's terminal retirement wealth with respect to the changes in the optimal retirement time caused by the random environment. Based on the life cycle model framework of Farhi and Panageas (2007), this research extends to allow stochastic interest rate and the discretionary stopping time in the dynamic programming process. The optimal consumption and portfolio choices relative the changes of optimal stopping time help explicitly guide the representative about his/her investment-consumption decisions for matching his/her lifestyling preference and terminal financial objectives. The numerical experiment exhibits that the stochastic stopping time derived by the first hitting time in the barrier option pricing theorem occurs earlier than that based on the life-cycle model in Farhi and Panageas (2007). Moreover, the barrier option framework provides more abundant information in</p>	

dynamic optimization for pension funds because it enables not only to estimate the exact hitting time of the retirement wealth thresholds, but also gives both of the corresponding cumulative and marginal probabilities of the referable stopping point.

摘要

本研究探討隨機退休時間的設定與推導，並對應調整代表性個人生命週期之「投資－消費」決策之最適選擇與規劃。引用 Farhi and Panageas (2007)的生命週期模型架構，並額外於模型引進隨機利率之設定，且延伸引用評價障礙選擇權時所採用的初次觸及時間架構，可望能更周全反映所處之隨機環境改變而導致的退休財富準備之變動、最適退休時點的改變。本研究的數值分析結果發現，基於障礙選擇權的觸及時間條件所估算的隨機停止時間的發生時點，會比原始的 Farhi and Panageas (2007)的生命週期架構稍微提早。但值得一提的是，相較於生命週期架構僅反映出觸及退休門檻財富的時間點，基於障礙選擇權所估算的隨機停止時間能夠額外提供觸及時間下的邊際機率與累積機率，可謂提供更為豐富的最適規劃訊息。

Jun 16 th , 2023(Friday) 14:10-15:40	Chair：鍾惠民(國立陽明交通大學)
2A-Derivatives (II)	

期貨市場之快速交易與價格之極端變化：台灣期貨交易所之實證研究
高櫻芬、余杰鋼

Abstract

We assess the evolution of the high-frequency activities in the futures market, specifically at times when prices are extremely volatile, and study the impact of high-frequency traders' trades on the market liquidity, using the unique data of intraday trading data by traders from Taiwan Futures Exchange. After identifying fast traders who have similarity to high-frequency traders in the TFX market, according to investors' trading volumes, order-to-trade ratio, and end-of-day inventory ratio, we study the trading behavior of fast traders by trader type. The results show that, in average, fast traders tend to shift from the role of liquidity supplier to the role of liquidity demander at times of extreme price movements. Regarding the asymmetry of information and the consistency of trading strategies, we find institutional investors tend to remain the same way even under changing market conditions. However, retail investors have changed form liquidity demanders to suppliers at times of extreme price movements. Estimation results of the logistic regression show that trading activities of institutional investors are more likely to cause extreme price movements than those of retail investors.

摘要

本文使用台灣期貨交易所提供的逐筆委託與成交資料,研究高頻交易活動對於市場流動性之供給與需求的影響,並分析高頻交易活動與價格的極端波動之關聯性。我們區分不同身份別的快速交易者,並根據個人的交易量、委託成交比與日留倉佔成交比篩選出台灣指數期貨市場中與高頻交易者特徵相似的快速交易者。研究結果顯示,在台灣期貨市場中,快速交易者在極端價格時期由原先的流動性供給者轉變為流動性需求者。若區分交易者身份別,則會發現機構投資者因為資訊的不對稱與交易動機的一致性,並不會因市場行情的變動而改變流動性供給者與需求者的角色,而散戶在極端價格波動時期則會由流動性需求者轉變為流動性供給者。最後,羅吉斯迴歸 (Logistic regression) 結果顯示,機構投資者的交易活動相較於散戶,更容易觸發極端價格波動的發生。

Jun 16 th , 2023(Friday) 14:10-15:40	Chair : 鍾惠民(國立陽明交通大學)
2A-Derivatives (II)	
<p>Option Price with Good Jump Intensity, Bad Jump Intensity, and Heavy-Tailed Jump Size</p>	
<p>陳采妍、鄭宏文</p>	
<p>Abstract</p>	
<p>This study demonstrates the framework of using the GRACH-jump model to decompose the jump component into two components: upward and downward jumps, to capture the upward and downward uncertainty risks. As for the setting of the good jump and bad jump models, we refer to the framework of the limited activity jump Merton Jump (MJ) model. The dynamic jump follows a compound Poisson process. Furthermore, to improve the defect that the jump size in the Merton Jump (MJ) model follows a normal distribution and cannot exhibit the difference in upward and downward jump amplitudes, this study attempts to derive the theoretical derivation by changing the jump size to follow a gamma distribution, which can observe the asymmetry in the upward and downward jump amplitudes. Then using the innovative pricing model established above, we can obtain the Radon-Nikodym derivative through the pricing kernel to calculate the asset dynamic process under risk-neutral. Finally, using the first-order moment generating function, we derive the closed-form solution of the European call option price of this new model.</p>	
<p>摘要</p>	
<p>本研究將展示利用 GRACH-jump 模型的框架,將跳躍項分解成向上跳躍及向下跳躍兩個分量來捕捉上行及下行不確定性的風險,而針對向上及向下跳躍模型的設定,我們參考有限活動跳躍 Merton Jump (MJ) 的架構,動態跳躍服從複合卜瓦松過程,再者,為了改善 Merton Jump (MJ) 模型中服從常態分佈的跳躍大小無法展現上行與下行跳躍幅度之差距的缺陷,本研究嘗試將跳躍大小</p>	

改成服從 gamma 分佈來做理論推導，由此能夠觀察到上行與下行跳躍幅度之不對稱性。最終，利用以上建立出的創新評價模型，我們可以通過定價核心得出 Radon-Nikodym derivative，進而計算出風險中立下的資產動態過程，最後利用一階動差生成函數求解，推導出這新型模型之歐式買權價格的封閉解公式。

<p>Jun 16th 14:10-15:40</p>	2B-AI/Machine learning
	<p>Chair：謝沛霖(國立中央大學)</p> <p>◇ Momentum in machine learning: Evidence from the Taiwan stock market Dien Giau Bui, De-Rong Kong, <u>林智勇*</u> Discussant：國立高雄科技大學黃信嘉助理教授</p> <p>◇ 以深度 Q 學習多重代理人機制提升加密貨幣市場之投資報酬率 <u>黃信嘉*</u> Discussant：中央經濟研究院蘇俊華助理研究員</p> <p>◇ Utility-Maximizing Binary Prediction via the Nearest Neighbor Method and Its Application to Credit Scoring <u>蘇俊華*</u> Discussant：國立中央大學謝沛霖副教授</p> <p>◇ 機器學習與死亡率預測的準確度分析：Elastic Net 模型的應用與跨國分析 <u>陳芬英、賴司敏*</u> Discussant：國立陽明交通大學林智勇教授</p>
	*Presenter

Jun 16 th , 2023(Friday) 14:10-15:40	<p>Chair：謝沛霖(國立中央大學)</p>
2B-AI/Machine learning	
<p>Momentum in machine learning: Evidence from the Taiwan stock market Dien Giau Bui, De-Rong Kong, 林智勇</p>	
<p>Abstract We revisit 86 asset pricing anomalies in the Taiwan stock market and find that long-short portfolio strategies based on machine-learning methods bring substantial</p>	

benefits. For example, neural networks and partial least squares generate long-short returns ranging from 1.20% to 1.50% per month. More importantly, we find that five of the top 20 influential return predictors are momentum-related variables. This result provides novel evidence to the momentum literature given that the Taiwan stock market is known for being an exception to momentum. In contrast with this conventional view, we show that momentum contributes to stock return predictability when adopting machine-learning models.

Jun 16 th , 2023(Friday) 14:10-15:40	Chair：謝沛霖(國立中央大學)
2B-AI/Machine learning	
<p>以深度 Q 學習多重代理人機制提升加密貨幣市場之投資報酬率 黃信嘉</p>	
<p>Abstract</p> <p>As of December 2021, there are more than 5,700 cryptocurrencies, 23,000 online exchanges, and funds with a total market capitalization of more than \$270 billion flowing in the entire cryptocurrency market. In recent years, reinforcement learning (RL) has become one of the methods to achieve optimal trading strategies. However, this study found that most of the optimal trading strategies applied to the cryptocurrency market are focused on trading a single cryptocurrency. Traders in the cryptocurrency market usually hold multiple different cryptocurrencies. This study proposes a method using Deep Q-Learning (DQL) to construct an optimal trading strategy for multiple cryptocurrencies. This method uses various agents to perform multiple pieces of training on different training data. Each agent will learn from each other agents with different learning experiences, strengthen the ability to predict future trends and decide the best action (long, short, and hold). The empirical results show that in the upward trend, the annualized return rate of ETH within the 1-hour time interval is 725.48%, while in the consolidation trend, the annualized return rate of VET within the 1-hour time interval is -14.95%. In a downtrend, XRP has an annualized return of -3.70% on the 1-hour timeframe. Compared with the buy-and-hold strategy (B&H), this study finds that cryptocurrencies’ annualized rate of return will be higher than the buy-and-hold strategy (B&H) annualized rate of return even better.</p> <p>摘要</p> <p>截至 2021 年 12 月，整個加密貨幣市場上總共有超過 5700 種加密貨幣、23000 家線上交易所及總市值超過 2700 億美元的資金在這個市場上流動。近年來，強化式學習(Reinforcement learning, RL)已成為實現最佳化交易策略的方法之一。然而，本研究發現應用於加密貨幣市場上之最佳化交易策略，大部分都是</p>	

集中在單一種加密貨幣的交易上，不過在加密貨幣市場上的交易者通常都會持有多種不同的加密貨幣。有鑑於此，本研究提出一種使用深度 Q 學習(Deep Q-Learning, DQL)來建構多種加密貨幣之最佳化交易策略，這個方法會使用多個代理人針對不同的訓練數據進行多次訓練，每個代理人都會與不同學習經驗的代理人互相學習，強化預測未來走勢的能力並決定最佳的動作(做多、做空和觀望)。實證結果顯示，在上漲趨勢中，ETH 在 1 小時的時間區間內的年化報酬率為 725.48%，而在盤整趨勢中，VET 在 1 小時的時間區間內的年化報酬率為-14.95%，在下跌趨勢中，XRP 在 1 小時的時間區間內的年化報酬率為-3.70%。若與買入並持有策略(B&H)比較，本研究發現不管是上漲、盤整或下跌趨勢，在 1 小時的時間區間內，加密貨幣的年化報酬率都會比買入並持有策略(B&H)的年化報酬率還要更好。

Jun 16 th , 2023(Friday) 14:10-15:40	Chair：謝沛霖(國立中央大學)
2B-AI/Machine learning	
Utility-Maximizing Binary Prediction via the Nearest Neighbor Method and Its Application to Credit Scoring	
蘇俊華	
Abstract	
We propose nonparametric k-nearest neighbor prediction rules under the framework of utility-maximizing binary prediction with possibly many predictors. One of these prediction rules, with an attempt to ‘break’ the curse of dimensionality, is constructed based on the predictors selected by variable selection methods. We establish that these prediction rules, allowing for the data-dependent selection of parameter k, are utility consistent under regularity assumptions. Such utility consistency is confirmed by the simulation results. We illustrate these prediction rules with an application to credit scoring in peer-to-peer lending and find that common predictors of the business cycle yield limited improvement in profitability.	

Jun 16 th , 2023(Friday) 14:10-15:40	Chair：謝沛霖(國立中央大學)
2B-AI/Machine learning	
機器學習與死亡率預測的準確度分析：Elastic Net 模型的應用與跨國分析	
陳芬英、賴司敏	
Abstract	
In recent years, machine learning has been widely used. For machine learning, a huge sample is needed to improve the error. But for the mortality data, there is no large amount of data to use machine learning to forecast. Therefore, this paper adopts Elastic Net model for mortality forecasting, which is different from previous literatures. In addition, we use the mortality rates aged from 1 year old to 85 years	

old in Italy, France, Switzerland, the United Kingdom, and the United States as samples, and compare the forecasting accuracy of Elastic Net model, the Autoregressive integrated-moving average model (ARIMA), and the regression tree. Accuracy of five models, including Regression Tree (RT), Random Forest (RF), and Back Propagation Neural Network (BPNN). We find that the mortality prediction accuracy of the Elastic Net model is better than that of the other four models in general.

摘要

近年來,機器學習被廣為應用。對於機器學習而言,需要有巨大樣本才能提供模型經由不斷學習而改善誤差,但是對於死亡率的資料卻無法有大量資料提供機器學習。因此,本文有別於其他的文獻,首次將可以使用小樣本的機器學習模型-Elastic Net 模型,應用於死亡率的預測。並以義大利、法國、瑞士、英國、美國等五國 1 歲到 85 歲的死亡率為樣本,比較 Elastic Net 模型、自我迴歸移動平均整合模型(Autoregressive integrated-moving average models, ARIMA)、迴歸樹(Regression Tree,RT)、隨機森林(Random Forest, RF)、倒傳遞類神經網路(Back Propagation NeuralNetwork, BPNN)等五個模型的精確度。我們發現,Elastic Net 模型在五國的死亡率預測精準度是普遍優於其他四個模型。

<p style="text-align: center;">Jun 16th 14:10-15:40</p>	<p>2C-Corporate Finance (II)</p>
	<p>Chair：江彌修(國立政治大學)</p> <p>◇ Modern pandemic crisis and R&D investment Hung-Yi Huang, and <u>Yun-Chi Lee*</u> Discussant：國立雲林科技大學蕭秋銘助理教授</p> <p>◇ The Cross Effects of Volatility, Dividend Yield and Dilution on Employee Stock Options <u>蕭秋銘*</u> Discussant：國立台北醫學大學蕭育仁教授</p> <p>◇ Saving is More Than a Virtue: Correlations between Personal Saving Behavior and the Financial Impact of the COVID-19 Pandemic Chin-Yao Chen, <u>Yu-Jen Hsiao*</u>, Tom M. Y. Lin, Edward S. Hsieh Discussant：東吳大學李芸綺副教授</p>
	<p>*Presenter</p>

Jun 16 th , 2023(Friday) 14:10-15:40	Chair：江彌修(國立政治大學)
2C-Corporate Finance (II)	
Modern pandemic crisis and R&D investment	
Hung-Yi Huang, and Yun-Chi Lee	
Abstract	
<p>This study investigates the impact of crises caused by pandemics on firms' R&D investments. We explore these associations by utilizing a comprehensive cross-country sample of 261,959 firm-year observations collected from 39 countries during five modern health crises (SARS in 2003, H1N1 in 2009, MERS in 2012, Ebola in 2012, and Zika in 2016). The results indicate that pandemics have a positive and significant impact on R&D investment. Furthermore, we show that private firms in civil-law countries were more likely to adopt conservative financial policies than those in common-law countries. We conclude that the difference between the legal origins of private firms influences the impact on R& D investment. Moreover, it promotes conservative policies to reduce private firms' R& D investment in countries with civil law.</p>	

Jun 16 th , 2023(Friday) 14:10-15:40	Chair：江彌修(國立政治大學)
2C-Corporate Finance (II)	
The Cross Effects of Volatility, Dividend Yield and Dilution on Employee Stock Options	
蕭秋銘	
Abstract	
<p>This study investigates whether the equity incentive plan for employees has a dilution effect on the stock price of the underlying stock or not. The corporate equity incentive plan for employees is an incentive method that companies often use to enhance competitiveness and attract talents. Generally, there are three types, namely (1) employee stock option (ESO), (2) employee stock purchase plan (ESPP), and (3) restricted stock unit (RSU). However, these three approaches have different effects on stock prices, so they may not necessarily have a so-called dilution effect. Under the specification in this study and some mathematical derivation, the dilution effect has impact on the both stock spot price and stock option price, whether the company decide to issue an amount of shares for the employee incentive plan, or not. Moreover, the higher the stock's volatility, the more the ESO's dilution effect, and vice versa.</p>	
摘要	

本研究探討員工股權激勵計劃是否對標的股票價格具有稀釋效應。企業員工股權激勵計劃是企業為增強競爭力、吸引人才常用的一種激勵方式。一般員工股權激勵計劃可分為三種,即(1)員工股票選擇權(ESO)、(2)員工股票購買計劃(ESPP),以及(3)限制性股票單位(RSU)。但是,這三種方式對股價的影響不同,不一定具有所謂的稀釋效應。在本研究的設定,以及數學推導下,稀釋效應對股票現貨價格和股票期權價格都有影響,然而公司是否決定為員工激勵計劃發行一定數量的股票則否。另外,當股票的波動度愈高時,則員工股票選擇權對股票的稀釋效應就愈強;反之,則愈弱。

Jun 16 th , 2023(Friday) 14:10-15:40	Chair : 江彌修(國立政治大學)
2C-Corporate Finance (II)	
<p>Saving is More Than a Virtue: Correlations between Personal Saving Behavior and the Financial Impact of the COVID-19 Pandemic</p>	
<p>Chin-Yao Chen, Yu-Jen Hsiao, Tom M. Y. Lin, Edward S. Hsieh</p>	
<p>Abstract</p> <p>This study explores the effect of saving behavior on the financial impact of the COVID-19 pandemic. We find individuals' excess saving behavior has a significant and negative effect on the financial impact of the COVID-19 pandemic, indicating that individuals with excess saving behaviors are more resilient to the financial risks of the pandemic. In addition, this study indicates that women are less affected by the financial impact of the pandemic than men. Finally, after controlling for self-control behavior, financial status, and income unaffected by the pandemic, this study further verifies the robustness of the empirical results obtained.</p>	

<p>Jun 16th 14:10-15:40</p>	<p>2D-Asset Pricing (I)</p> <p>Chair：賴弘能(國立中央大學)</p> <p>◇ 因子訂價模型有效性之比較： 台灣股市實證 王芯儀、徐政義、陳姿伶、賴弘能*</p> <p>Discussant：國立臺灣大學張碧娟研究助理</p> <p>◇ Investigating the disposition effect by the zero inflated ordered probit model <u>Bi-Juan Chang*</u>, Chuang-Chang Chang Discussant：元智大學曾翊恆副教授</p> <p>◇ 逐筆交易新制與投資人下單行為- 台股實施概況 <u>曾翊恆*</u> Discussant：國立中央大學賴弘能副教授</p>
	<p>*Presenter</p>

<p>Jun 16th, 2023(Friday) 14:10-15:40</p>	<p>Chair：賴弘能(國立中央大學)</p>
<p>2D-Asset Pricing (I)</p>	
<p>因子訂價模型有效性之比較： 台灣股市實證 王芯儀、徐政義、陳姿伶、賴弘能</p>	
<p>Abstract</p> <p>This paper investigates to what extent seven asset pricing models explain stock returns of listed firms in Taiwan. The six-factor model proposed by Fama and French</p>	

(2018) explains a lot of returns from the portfolios provided by Taiwan Economic Journal, returns from the portfolios grouped by the variables employed by Fama and French (2015) to construct factors, and industry index returns. The q5 model proposed by Hou, Mo, Xue and Zhang (2020, HMXZ) performs slightly worse than the six-factor model in the aforementioned portfolio and index returns but better in explaining the portfolio returns grouped by the variables to construct their factors. Portfolio returns created by HMXZ variables vary substantially and are difficult to be explained by any asset pricing models examined in this paper.

摘要

本文探討七種因子訂價模型解釋台灣上市櫃公司股票報酬率的有效性。Fama and French (2018) 提出的六因子模型，可以解釋相當多的台灣經濟新報建構的投資組合，以 Fama and French (2015) 建構因子的變數分組的投資組合，以及產業指數。Hou, Mo, Xue and Zhang (2020, HMXZ)所提出的 q5 模型在以上三類投組與指數的表現略為遜色，但是在解釋其建構因子的變數投組的表現優於六因子模型。HMXZ 所使用的變數分組可創造出報酬率差異極大的投資組合，難以被任何因子模型解釋。

Jun 16 th , 2023(Friday) 14:10-15:40	Chair：賴弘能(國立中央大學)
2D-Asset Pricing (I)	
Investigating the disposition effect by the zero inflated ordered probit model	
Bi-Juan Chang, Chuang-Chang Chang	
Abstract	
The paper investigates the disposition effect by the zero-inflated ordered probit (ZIOP) model. The model distinguishes the no investment data from the inflated zeros and reveals the true disposition effect. Results indicate that financial literacy can facilitate investment participation, enhance the no disposition situation or mitigate the high disposition effect. People with self-control ability can also reduce the tendency of the effect. But consulting experience exacerbates it, and information besides the financial consultants also enhances the phenomenon slightly. Therefore, the importance of financial literacy and personal self-control trait for investment cannot be over-emphasized.	

Jun 16 th , 2023(Friday) 14:10-15:40	Chair：賴弘能(國立中央大學)
2D-Asset Pricing (I)	
逐筆交易新制與投資人下單行為- 台股實施概況	
曾翊恆	
Abstract	

The Taiwan Stock Exchange (TWSE) implements the regime switch from 5-second periodical call auctions to continuous trading during regular trading hours, on 23 March 2020. Using the intraday order and transaction book data sequences, along with controlling the disturbances attributing to the daily changes of market condition influenced by major global events, such as the epidemic of COVID-19, this paper investigates the reactions of investors regarding to the reform. Our results show that, the reform may inspire the ‘data flow effect’, resulting in the increases of institutional investors’ order submissions and revisions, as well as the order splitting. We don’t evidence both of the ‘time pressure effect’ and ‘hesitation effect’, observing that individual investors having no decreases in their number of order submissions along with the order aggressiveness, therefore the proportion of trades initiated by institutional investors has no significant increase during our sample period. In comparison, individual investors may care about the risk of ‘winner’s curse’. Once the bid-ask spread or price volatility are higher, individual investors tend to place order revisions with more conservative prices, meanwhile more likely to submit ‘Rest of Day (ROD)’ new orders.

摘要

國內集中市場於 2020 年 3 月 23 日實施盤中逐筆交易，取代運作已久的 5 秒鐘分盤競價機制。本文使用變遷前後各 30 天日內資料，再設法控制 COVID-19 疫情衝擊等市況干擾下，初步觀察投資人委託相應調整。結果指出，改制或許引發「資訊流量倍增」效應，機構投資人委託申報與修訂變多，拆單意願也疑有增強；「時間壓迫」、「觀望」效應則不甚明顯，自然人似無減少出手與出價積極度遞減現象，致機構投資人交易占比未見上升。相較之下，自然人反倒略顯顧慮「贏家詛咒」風險，一旦買賣價差或股價波動度提高，調整價位者傾向多申報防禦改價，且委託存續條件減少設定為 ROD 型態。

<p>Jun 16th 14:10-15:40</p>	<p>2E-實務講座</p> <p>Chair：張傳章(國立中央大學)</p> <p>◇ 主題：財金計量分析於證券投資操作之應用探討</p> <p>◇ 與會人：</p> <p>鄭立誠 國泰投信副總</p> <p>林浩詳 第一金投信經理人</p> <p>林忠義 兆豐投信投資長</p>
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<p>Jun 16th 16:00-17:30</p>	<p>3A-Derivatives (III)</p> <p>Chair：許和鈞(銘傳大學)</p> <p>◇ Option-Implied Preference Parameter in Almost Stochastic Dominance Tzu-Ying Chen, Rachel J. Huang, <u>Yo-Lan Lin*</u>, Larry Y. Tzeng Discussant：國立中央大學謝沛霖副教授</p> <p>◇ Explaining Moment Risk Premia: A New Argument based on Intermediary Options Pricing Model <u>謝沛霖*</u> Discussant：南臺科技大學黃保憲助理教授</p> <p>◇ 考量違約風險下的可轉債評價樹模型 Pricing Convertible Bonds with Default Risk <u>黃保憲*</u> Discussant：淡江大學陳姿穎助理教授</p>
	<p>*Presenter</p>

Jun 16 th , 2023(Friday) 16:00-17:30	Chair：許和鈞(銘傳大學)
3A-Derivatives (III)	
Option-Implied Preference Parameter in Almost Stochastic Dominance	
Tzu-Ying Chen, Rachel J. Huang, Yo-Lan Lin, Larry Y. Tzeng	
Abstract	
<p>Understanding the preference parameter in almost stochastic dominance is crucial to determine whether one distribution is preferred to another one for most decision makers. To estimate the preference parameter in the almost first-degree stochastic dominance rule (AFSD), we first propose a new notion of stochastic dominance rule referred as AFSDR and demonstrate how to use a linear programming to examine this relation. We then adopt the AFSDR rule to empirically estimate the preference parameter by using the S&P 500 index call option data from 2004 to 2021.</p>	

Jun 16 th , 2023(Friday) 16:00-17:30	Chair：許和鈞(銘傳大學)
3A-Derivatives (III)	
Explaining Moment Risk Premia: A New Argument based on Intermediary Options Pricing Model	
謝沛霖	
Abstract	
<p>This study provides a supply-side model of options markets to illustrate how options pricing uncertainty affects moment risk premia. The model is based on a microstructure such that a representative market maker dynamically replicates option prices and seeks the minimum-variance in duplicating errors. Unlike previous studies applying the underlying asset's pricing kernel, our model starts with options' hedging uncertainty, the pricing kernel distinguishing options from ordinary equities, and can explain more than 45% of the variation in market risk-neutral moments. We also provide insights into the effects of market friction and nonnormality on moment risk premia and implied volatility curves.</p>	

Jun 16 th , 2023(Friday) 16:00-17:30	Chair：許和鈞(銘傳大學)
3A-Derivatives (III)	
考量違約風險下的可轉債評價樹模型 Pricing Convertible Bonds with Default Risk	
黃保憲	
摘要	
<p>本文主要目的是建立一考量違約風險下的可轉債評價樹模型，該模型股價服從 Cox-Ross-Rubinstein (1979) 股價二項樹模型；隨機無風險利率由 Hull-White</p>	

(1990,HW) 利率三項樹模型描述；違約風險則採用 Jarrow and Turnbull (1995)，其中股價與利率間具有相關性。不同於 Hung and Wang (2002) 與 Chambers and Lu (2007) 採用 Black-Derman-Toy(1990)利率模型，本文採用的 HW 利率模型具有均數回歸特性，更符合實際利率變動的特性，HW 利率模型具有參數校準與利率風險管理的優勢，使本文評價模型的實務應用價值更高。最後，本文將提供參數校準的實際範例，並提供實際商品案例以呈現可轉債評價樹模型的評價過程。

Abstract

The main purpose of this study is to develop the pricing model for pricing the convertible bond with credit risk. In this model, we assume that the stock price follows Cox-Ross-Rubinstein (1979) binomial tree model, and the stochastic interest rate follows Hull and White (1994) trinomial tree model, in which there is a correlation between stock prices and interest rates. The default risk is described by the model proposed by Jarrow and Turnbull (1995). Unlike the Black-Derman-Toy (1990) interest rate model adopted by Hung and Wang (2002) and Chambers and Lu (2007), the HW interest rate model used in this study has mean reversion property, which is more in line with the property of market interest rate. HW interest rate takes advantage of parameter calibration and interest rate risk management, making this pricing model more valuable for market practitioners. Finally, this study provides a practical example of model calibration and the evaluation process for the convertible bond pricing tree model.

<p style="text-align: center;">Jun 16th 16:00-17:30</p>	<p>3B-Corporate Finance (III)</p> <hr/> <p>Chair：林智勇(國立陽明交通大學)</p> <p>◇ CEO Personality Traits and Structure of Compensation <u>盧建霖*</u> Discussant：國立陽明交通大學唐寧博士生</p> <p>◇ Overconfident Customers and Supplier Firm Value <u>Ning Tang*</u>, Yiwei Fang, Iftekhar Hasan, Chih-Yung Lin Discussant：國立暨南大學葉家維助理教授</p> <p>◇ CEO extraversion and corporate innovation <u>葉家維*</u> Discussant：國立暨南大學蘇昱翔助理教授</p> <p>◇ Differential Interpretations and Volume Reactions to Earnings Announcements—A Natural Experiment Yen-Cheng Chang, Bokyung Park, <u>Yu-Siang Su*</u>, Kevin Tseng Discussant：國立宜蘭大學盧建霖助理教授</p>
	<p>*Presenter</p>

Jun 16 th , 2023(Friday) 16:00-17:30	Chair：林智勇(國立陽明交通大學)
3B-Corporate Finance (III)	
CEO Personality Traits and Structure of Compensation	
盧建霖	
Abstract	
<p>We examine the effects of the big five personalities of CEOs (openness, conscientiousness, extroversion, agreeableness, and neuroticism) on their compensation. We hand-collect the tweets of S&P 1500 CEOs and use IBM’s Watson Personality Insights to measure their personalities. CEOs with high ratings of agreeableness and conscientiousness get more compensation. We further find that the firms with these CEOs outperform their peers. Overall, their personality is a valid predictor of CEOs’ compensation after considering CEO managerial ability and corporate culture. Firms are willing to pay higher compensation for talent, especially for firms with better performance, facing higher competition in the product market, or located in states with higher labor unionization.</p>	

Jun 16 th , 2023(Friday) 16:00-17:30	Chair：林智勇(國立陽明交通大學)
3B-Corporate Finance (III)	
Overconfident Customers and Supplier Firm Value	
Ning Tang, Yiwei Fang, Iftekhar Hasan, Chih-Yung Lin	
Abstract	
<p>This paper examines whether the overconfidence of a downstream customer firm’s CEO affects the value of its upstream supplier firm(s). We find that CEO overconfidence positively influences investor opinion regarding upstream supplier firm value. Further examination of potential mechanisms shows the likelihood of higher valuation when customer firms with overconfident CEOs invest more and are highly innovative. This value-enhancing effect spills over to investors more easily when the supplier has a more transparent information environment. We show that this positive relation is causal and robust using various exogenous shocks from death, illness, or retirement of the firm’s CEO and from an economic crisis shock. Overall, our findings suggest that serving overconfident customer firms benefits shareholders by improving investor recognition and gaining a positive spillover effect from these firms’ aggressive search for growth opportunities.</p>	

Jun 16 th , 2023(Friday) 16:00-17:30	Chair：林智勇(國立陽明交通大學)
3B-Corporate Finance (III)	

CEO extraversion and corporate innovation

葉家維

Abstract

Over the past decades, studies in corporate finance and management have documented that the personality of executive managers can have a significant influence on corporate policies and firm performance. Extraversion is an important yet understudied personality, which is positively related to leadership style, and may help explain corporate decisions and corporate performance. In this paper, we explore whether extraverted CEOs are more likely to engage in and perform well in corporate innovation. Using a linguistic technique to measure personality traits from the tweet data of the CEOs' Twitter accounts, we are able to identify the extroversion level of the CEOs and conduct empirical analyses on such intriguing issue about the role of extraverted CEOs in corporate innovation. Our findings show that firms with extraverted CEOs are more likely to engage in R&D activities, and the innovation performance tend to be better for firms with extraverted CEOs. The positive effect of CEO extraversion on R&D intensity and innovation performance is especially pronounced for firms in less competitive industries. The results are robust after we account for the potential sample selection bias and reverse causality problem.

摘要

在過去數十年間，公司財務與管理學等相關領域的研究中，發現高階管理者的個人特質對於公司決策和公司績效具有重大的影響。外向性是相當重要但仍較少被探討人格特質，因為外向性和領導風格高度相關，是能夠用來解釋公司決策與公司表現的重要因素。本研究計畫將探討具有外向特質的專業經理人，是否較傾向推動公司進行研發創新，並領導公司在研發創新取得良好表現。本研究計畫透過語文探索的方法分析專業經理人在推特(Twitter)上的推文，藉此衡量專業經理人的人格特質，並使用上述資料針對此一有趣的議題進行完整的實證分析。研究結果顯示，由外向的高階管理者所管理的公司更傾向參與研發活動，而且有較好的研發創新方面的表現。此外，高階管理者外向性對研發創新表現的正向效果在較不競爭的產業尤其明顯。在使用合適的計量方法處理潛在的樣本選擇偏誤和反向因果問題後，實證結果仍是穩健的。

Jun 16th, 2023(Friday) 16:00-17:30

3B-Corporate Finance (III)

Chair：林智勇(國立陽明交通大學)

Differential Interpretations and Volume Reactions to Earnings Announcements—A Natural Experiment

Yen-Cheng Chang, Bokyung Park, Yu-Siang Su, Kevin Tseng

Abstract

We provide plausibly causal evidence for the role of differential interpretations in volume reactions to earnings announcements. Our identification strategy exploits the staggered implementation of EDGAR, which provide low-cost and timely access to mandatory filings that constrains investors' scope of differential interpretations of news. Consistent with models of differential interpretations, EDGAR inclusion leads to lower abnormal volume and lower number of trades around periodic corporate earnings announcements. The effect is robust to alternative volume and event window specifications. The volume effect is primarily driven by trades from small investors and concentrated among firms that are harder to value and with lower disclosure quality.

摘要

我們為異質解釋在盈餘宣告之股票交易量中所扮演的角色提供了因果證據。我們的認定方法利用了推行 EDGAR 之政策，提供了低成本且即時之公司強制揭露資訊，而限制了投資人對於盈餘宣告的異質解釋。我們發現公司加入 EDGAR 後導致盈餘宣告前後的異常交易量及交易次數減少。這個效果並不受交易量的衡量方式或如何定義盈餘宣告期間而有所不同。我們進一步發現這樣的交易量效果主要是由小型投資者的交易所驅動的，且此效果在難以估值和報表質量較低的公司中較為明顯。

<p style="text-align: center;">Jun 16th 16:00-17:30</p>	<p>3C-Corporate Finance (IV)</p>
	<p>Chair：柯冠成(國立暨南大學)</p> <p>◇ 公司治理與可轉債發行：2017年市場新制的影響 林秉淵、<u>翁培師*</u>、黃泓嘉 Discussant：中央研究院蔡明宏副研究員</p> <p>◇ 資安攻擊與財報可比性之關聯性研究 戴易宸, <u>何曉緯*</u>, 黃泓人, Anh-Tuan Le Discussant：國立中山大學翁培師副教授</p> <p>◇ 獨立董事之價值：分心事件的影響分析 <u>蔡明宏*</u>、翁培師、陳穎萱、蔡秉玠 Discussant：國立海洋大學何曉緯助理教授</p>
	<p>*Presenter</p>

Jun 16 th , 2023(Friday) 16:00-17:30	Chair：柯冠成(國立暨南大學)
3C-Corporate Finance (IV)	
公司治理與可轉債發行：2017 年市場新制的影響 林秉彥、翁培師、黃泓嘉	
<p>Abstract</p> <p>In 2017, Taiwan's convertible bond market introduced a new issuance system aimed at reducing market malpractices. This study seizes this opportunity to first investigate the announcement effects of convertible bond issuance and how corporate governance quality influences a company's propensity to issue convertible bonds. It then examines whether the 2017 market system has altered these effects. The research findings reveal a negative abnormal return in the announcement effect of issuing convertible bonds, with companies exhibiting weaker corporate governance being more likely to issue such bonds. Following the enhancement of the new issuance regulations, this tendency significantly weakens, and the announcement effect of convertible bond issuance is markedly better than prior to 2017. These results suggest a substitution relationship between the influence of internal corporate governance and external market mechanisms on convertible bond issuance. Further analysis demonstrates that the pricing efficiency and secondary market liquidity of convertible bonds have substantially improved since the change in the convertible bond issuance system. Additionally, the conversion premium rate has notably increased, which reduces opportunities for arbitrage by inducing convertible bond conversion through stock price manipulation. In summary, the Financial Supervisory Commission's reinforced supervision and system reform of the convertible bond market in 2017 have considerably enhanced Taiwan's convertible bond market, particularly in providing better protection for investors in stocks with poor corporate governance.</p> <p>摘要</p> <p>台灣的可轉債市場在 2017 年的推動了新的發行制度以減少市場弊端。本研究以此為研究契機，先探討可轉債發行的宣告效果，以及公司治理品質如何影響公司發行可轉債的傾向，接著再探討 2017 的市場新制是否改變此影響。研究結果發現，公司發行可轉債的宣告效果存在負異常報酬，且公司治理較差的公司更傾向發行可轉債。可轉債發行制度改善後，該傾向顯著減弱，並且可轉債發行之宣告效果也顯著優於 2017 年前。這些發現隱含內部公司治理與外部市場機制對於可轉債發行的影響存在替代關係。進一步的分析顯示，可轉債的訂價效率與次級市場流動性都在可轉債發行制度的變革後顯著變佳，同時轉換溢價率也顯著提升，減少了藉由炒作股價誘使可轉債轉換來進行套利的機會。綜</p>	

上所述，金管會於 2017 年對可轉債市場的加強監理及制度改革顯著改善了台灣的可轉債市場，尤其更能保護公司治理差的股票投資人。

Jun 16 th , 2023(Friday) 16:00-17:30	Chair：柯冠成(國立暨南大學)
3C-Corporate Finance (IV)	
資安攻擊與財報可比性之關聯性研究 戴易宸, 何曉緯, 黃泓人, Anh-Tuan Le	
Abstract Previous studies have shown that cyberattacks tend to affect firms' corporate governance and cash flow volatility, both of which are also found to be highly associated with financial statement comparability. Thus, in the paper we aim to prove the direct relations between cyberattacks and financial statement comparability and further verify its underlying mechanism. Using the samples of cyberattack events in the United States during the period from 2005 to 2018, we investigate the relations between cyberattacks and financial statement comparability. Proxy variables for financial statement comparability, indicator variables for cyberattacks, and related control variables are used in empirical analysis. The results reveals that there's positive relation between cyberattacks and financial statement comparability. Furthermore, this relation is more pronounced for firms with lower institutional ownership, lower analysts forecast dispersion, and higher media attention.	
摘要 過去文獻指出資安攻擊事件(cyberattacks)會影響公司的公司治理以及現金流量的波動度；而上述兩者亦在先前相關研究中被證實與公司財報可比性(financial statement comparability)有顯著的相關性。因此本研究即針對資安攻擊與財報可比性兩者之間的關聯性進行探討分析，並檢視兩者間的傳導機制。本文利用 2005 年至 2018 年美國資安攻擊事件之資料，進行資安攻擊與財務報表可比性之關聯性探討。我們採用財報可比性的代理變數與資安事件的指標變數進行分析，並考慮相關控制變數對財報可比性的影響。實證結果顯示，資安攻擊與財報可比性的存在顯著的正向關聯，支持公司傾向透過公司治理的改善來加強財報可比性的假說。此外，兩者之間的關聯性在機構投資人持股比率較低、分析師盈餘預測離散度較低、以及媒體曝光度較高的公司中將表現更為強烈。	

Jun 16 th , 2023(Friday) 16:00-17:30	Chair：柯冠成(國立暨南大學)
3C-Corporate Finance (IV)	
獨立董事之價值：分心事件的影響分析 蔡明宏、翁培師、陳穎萱、蔡秉玠	
摘要	

本文以 2010 年至 2019 年間台灣上市公司作為研究對象，從不同面向探討分心的獨立董事對公司之影響。與過往台灣文獻不同，本文以獨立董事受到外部干擾事件數（如：其他任職公司是否發生重大事件）來識別其忙碌程度，並界定其是否為分心獨立董事。實證結果顯示若分心獨立董事比例較高，則公司伴隨有較差的財務績效、較低的公司價值與下滑的經營效率，但對會計品質並無一致顯著影響，整體支持忙碌董事假說。此外，針對不同公司型態的分析中發現，大型集團與非家族企業的分心獨立董事比例較高時，對公司價值有較顯著的負面效果。而在財務績效與經營效率方面，分心獨立董事的影響在不同公司型態中皆存在。本研究進一步的分析並未發現獨立董事的分心狀態會影響其出席董事會的頻率；據此，推論分心獨立董事對公司的負向影響較可能是來自於其決策品質下降而非其監督頻率的減少。

<p>Jun 16th 16:00-17:30</p>	<p>3D-Asset Pricing (II)</p>
	<p>Chair：李修全(銘傳大學)</p> <p>◇ How One Country’s Policy Rate Changes are Induced by Another: A Hawkes Process Approach <u>蔡秉真*</u> Discussant：國立臺北科技大學陳煒朋教授</p> <p>◇ Stock market reaction to national elections: The international evidence <u>周郁翔、陳煒朋*</u> Discussant：銘傳大學李修全教授</p> <p>◇ The timing of a prolonged tug of war <u>李修全*</u> Discussant：國立中山大學蔡秉真助理教授</p>
	<p>*Presenter</p>

Jun 16 th , 2023(Friday) 16:00-17:30	Chair：李修全(銘傳大學)
3D-Asset Pricing (II)	
How One Country's Policy Rate Changes are Induced by Another: A Hawkes Process Approach	
蔡秉真	
Abstract	
<p>We provide the first direct application of linear Hawkes process to modelling policy rate changes in a home-foreign country setting. As a result, we focus on changes in the policy rate differential, denoted by $\Delta IRDs$, which occur when one country raises or lowers its policy rate whereas the other holds constant, or when both countries change their policy rates with different magnitudes. Using daily data of policy rates from BIS, we first report summary statistics which indicate the changes in policy rate differentials display clustering; we then estimate several versions of linear Hawkes process and confirm the degree of clustering in these events. The result suggests that changes in policy rate in US could trigger changes in policy rate in UK, and vice versa. Using the Stochastic De-clustering technique, we show the recent $\Delta IRDs$ in 2022 are more likely to be endogenous.</p>	
摘要	
<p>本文提出以 Hawkes 過程描述兩個國家之間政策利率調整是否存在依存關係。因此我們聚焦在兩國發生利率差異之事件，即其中一國調升或調降利率而另一國利率維持不變，或是兩國皆調整利率但幅度不同。我們使用 BIS 的歷史政策利率日資料，首先呈現許多國家間的政策利率利差具有群聚發生之特性，進一步使用 Hawkes 過程估計出利差事件發生的群聚程度。</p>	

Jun 16 th , 2023(Friday) 16:00-17:30	Chair：李修全(銘傳大學)
3D-Asset Pricing (II)	
Stock market reaction to national elections: The international evidence	
周郁翔、陳煒朋	
Abstract	
<p>This study investigates the relationship between national elections and the stock market responses, discussing whether the higher abnormal returns in the countries with the presidential system than the parliamentary system. By examining the behavior of the stock market indices across 61 countries during the sample period 2000–2022 around national election dates, the empirical results show that positive cumulative abnormal returns (CARs) exist in the election event periods. More importantly, we show a significantly higher abnormal return in countries with</p>	

presidential systems than parliamentary systems, further exploring the positive moderating effect of press freedom in the relationship between the CARs and presidential systems. Religious divergence is negatively related to CARs in the pre-election period but positively associated with CARs in the post-election period. Overall, we infer that countries with a presidential system induce a higher political uncertainty than that with a parliamentary system, suggesting an important implication for international investors considering investing in countries with a residential or parliamentary system in their global asset allocation.

摘要

本研究探討各國股市對其國家選舉的反應，進而分析選舉事件的異常報酬之影響因素。藉由分析 2000 年至 2022 年間 61 個國家的選舉，以選舉日前後 30 日作為事件期，實證結果發現，選舉事件期會產生正的累積異常報酬，其中總統制國家的累積異常報酬會顯著高於內閣制國家，而新聞自由度則扮演調節效果的角色；此外，宗教分散度與選舉日前(後)的累積異常報酬呈現反向(正向)關係。綜合言之，本研究結果隱含總統制國家具有較高的政治不確定性，建議國際投資人在建構全球組合時，可能需要考慮國家憲政體制的因素。

Jun 16 th , 2023(Friday) 16:00-17:30	Chair：李修全(銘傳大學)
3D-Asset Pricing (II)	
<p>The timing of a prolonged tug of war 李修全</p>	
<p>Abstract</p> <p>This paper proposes a new tug of war strategy based on the timing of positive overnight returns followed by negative daytime reversals. Our empirical results show that our measure dominates the measure suggested by Akbas et al. (2022) in predicting subsequent cross-section of stock returns. The results further show that the long-short strategy based on the new tug of war measure subsumes the measure by Akbas et al. (2022), but not vice versa. In addition, the evidence presents that the stocks with attention-induced mispricing amplify the effect of a new tug of war strategy in predicting subsequent cross-section of stock returns. Finally, our results are robust after controlling the effect of information uncertainty indicted by Akbas et al. (2022).</p>	

<p>Jun 16th 16:00-17:30</p>	<p>3E-Banking/Financial Institutions</p> <p>Chair：黃瑞卿(國立中央大學)</p> <p>◇ CEO Physical Attractive and Bank Loan Contracting <u>Yao Du*</u>, Po-Hsin Ho, Chih-Yung Lin, Ju-Fang Yen Discussant：國立中央大學許至廷博士生</p> <p>◇ Income Inequality and Bank Risk: International Evidence <u>Zhi-Ting Xu*</u>, Chih-Wei Wang Discussant：國立聯合大學黃盈甄助理教授</p> <p>◇ Foreign Branch and Credit Quality: In the View of Bank Loans <u>Ying-Chen Huang*</u>, Chih-Yung Lin Discussant：國立陽明交通大學杜瑤博士生</p>
	<p>*Presenter</p>

Jun 16 th , 2023(Friday) 16:00-17:30	Chair：黃瑞卿(國立中央大學)
3E-Banking/Financial Institutions	
CEO Physical Attractive and Bank Loan Contracting	
Yao Du, Po-Hsin Ho, Chih-Yung Lin, Ju-Fang Yen	
Abstract	
<p>Facial information is a major source of information for other people, but little is known about whether facial traits influence financial decisions in the capital market. In this paper, we examine the effect of CEO attractiveness on bank loan spreads. Our theoretical model and empirical results support that firms with highly attractive CEOs have lower loan spreads. We adopt CEO turnover as the event to implement a difference-in-difference analysis to reduce the endogeneity concerns, and the results are still robust. This result is consistent with CEO attractiveness and can increase firm analyst coverage, thus reducing information asymmetry.</p>	

Jun 16 th , 2023(Friday) 16:00-17:30	Chair：黃瑞卿(國立中央大學)
3E-Banking/Financial Institutions	
Income Inequality and Bank Risk: International Evidence	
Zhi-Ting Xu, Chih-Wei Wang	
Abstract	
<p>In this paper, we examine the effect of income inequality on bank risk. Since previous literature documents income inequality could trigger credit boom, we hypothesis this credit boom may affect bank risk in two different ways. The first channel is increasing bank risk by scale up the leverage of existing borrower. The second channel is decreasing bank risk by incorporating new borrowers to banks. Our empirical result is more consistent with latter one. Using a sample of 62 countries covered Europe and Asia area from 2004-2020, we found income inequality is negative associated with bank risk. Further, we indicated that the effect of income inequality on bank risk is more pronounced when countries with more economic or political uncertainty. Our results are consistent in subsample partitioned by continent and development level.</p>	
摘要	
<p>本研究探討貧富不均程度對於銀行風險的影響。過去文獻曾紀錄貧富不均是導致信用擴張的可能因素之一，因此本研究假設由貧富不均造成的信用擴張對於銀行的風險影響可能有兩個路徑，第一個路徑是透過提高現有客戶的財務槓桿使得銀行風險提高，第二個路徑是透過吸引更多貸款客戶使得銀行風險更為分散從而降低風險。結果顯示，貧富不均對於銀行風險的影響較符合第二個路徑的假設。根據樣本期間為 2004 年至 2020 年涵蓋 62 個歐亞國家的資料顯示，</p>	

貧富不均程度越高會導致銀行風險降低。進一步分析，此效果在政治與經濟不確定性較高的國家會更明顯。在區分歐亞國家與經濟發展程度的子樣本中，貧富不均對銀行風險的影響有一致的結果。

Jun 16 th , 2023(Friday) 16:00-17:30	Chair：黃瑞卿(國立中央大學)
3E-Banking/Financial Institutions	
Foreign Branch and Credit Quality: In the View of Bank Loans	
Ying-Chen Huang, Chih-Yung Lin	
<p>Abstract</p> <p>The paper investigates how the presence of foreign branches affects the bank loan market. Our study shows that a foreign bank with a greater number of branches in the borrower’s county has a higher chance of attending syndication loans, serving as a lead arranger, and earning upfront fees. However, foreign lenders with more branches in the borrower’s country tend to charge higher spread, offer smaller loan sizes, and require more financial and total covenants and collateral. Our findings suggest that foreign banks with more branches are more likely to extend credit to borrowers with higher credit risk, with foreign branches serving as a useful proxy for assessing the extent to which a lender collects soft information. Specifically, we find empirical evidence that foreign banks with more branches are more likely to extend credit to borrowers with higher ex-post credit quality, particularly those with higher leverage ratios before loan origination. Overall, our study contributes to the understanding of how foreign branches affect the bank loan market and sheds light on the role of soft information in credit decisions.</p>	

Name	職稱	機構	Chair/Discussion/Presenter
周冠男	教授	國立政治大學財管系	Chair-KEYNOTE SPEAKER-1
Robert A. Jarrow	Professor	Cornell University	KEYNOTE SPEAKER-1
黃泓人	教授	國立中央大學財金系	Chair-KEYNOTE SPEAKER-2
Ren-RAW Chen	Professor	Fordham University	KEYNOTE SPEAKER-2
林基財	教授	香港理工大學	Chair1A
陳函筠	博士生	國立中央大學財金系	Presenter 1A/Discussant 1A
顏廣杰	副教授	東吳大學經濟系	Presenter 1A/Discussant 1A
鍾建屏	副教授	國立臺北科技大學資財系	Presenter 1A/Discussant 1A
陳若暉	教授	中原大學企管系	
Sabbor, Hussain	博士生	中原大學	Presenter 1A/Discussant 1A
戴天時	教授	國立陽明交通大學資財系	Chair 1B/Presenter 1B/Discussant 1B
劉亮志	助理教授	國立臺北科技大學資財系	Presenter 1B/Discussant 1B
連育民	副教授	輔仁大學企管系	
陳俊洪	助理教授	國立勤益科技大學企管系助理教授	Presenter 1B/Discussant 1B
蕭秋銘	助理教授	國立雲林科技大學財金系	Presenter 1B/Discussant 1B
楊曉文	教授	國立政治大學金融系	Chair 1C
Yin-Che Weng翁胤哲	助理教授	國立東華大學管理科學與財金國際學士學位學程	Presenter 1C/Discussant 1C
戴維芯	副教授	國立暨南大學財金系	Presenter 1C/Discussant 1C
Jianqiang Chen	博士生	國立清華大學	Presenter 1C/Discussant 1C
黃揚閔	碩士生	義守大學	Presenter 1C
裴典富	助理教授	元智大學管理學院	Discussant 1C
何柏欣	教授	國立中央大學財金系	Chair 1D
Chia-Ying Chan 詹佳榮	教授	國立台北大學企管系	Presenter 1D/Discussant 1D
楊正	博士生	國立中央大學財金系	Presenter 1D/Discussant 1D
許景嶠	副教授	國立雲林科技大學財金系	Presenter 1D/Discussant 1D
Nguyen Thi Dieu Hang	博士候選人	元智大學	Presenter 1D/Discussant 1D
葉錦徽	教授	國立中央大學財金系	Chair 1E/Presenter 1E/Discussant 1E
陳哲斌	博士候選人	國立政治大學風險管理與保險系	Presenter 1E/Discussant 1E
吳安琪	助理教授	淡江大學國企系	Presenter 1E/Discussant 1E
鍾惠民	教授	國立陽明交通大學資財系	Chair 2A
Pei-Shih Weng (翁培師)	副教授	國立中山大學財管系	Presenter 2A/Discussant 2A
湯美玲	副教授	東吳大學財工與精算數學系	Presenter 2A/Discussant 2A
高櫻芬	教授	國立中央大學財金系	Presenter 2A
陳采妍	大學生	東吳大學財工與精算數學系	Presenter 2A
鄭宏文	副教授	東吳大學財工與精算數學系	Discussant 2A
謝沛霖	副教授	國立中央大學財金系	Chair 2B
林智勇	教授	國立陽明交通大學資財系	Chair 3B/Presenter 2B/Discussant 2B
黃信嘉	助理教授	國立高雄科技大學金融系	Presenter 2B/Discussant 2B
蘇俊華	助理研究員	中央研究院經研所	Presenter 2B/Discussant 2B
陳芬英	教授	世新大學財金系	Discussant 2B
賴司敏	學生	世新大學財金系	Presenter 2B
江彌修	教授	國立政治大學金融系	Chair 2C
李芸綺	副教授	東吳大學企管系	Presenter 2C/Discussant 2C
蕭秋銘	助理教授	國立雲林科技大學財金系	Presenter 2C/Discussant 2C
蕭育仁	教授	臺北醫學大學生物科技高階管理碩士在職專班	Presenter 2C/Discussant 2C
賴弘能	副教授	國立中央大學財金系	Chair 2D/Presenter 2D/Discussant 2D
張碧娟	研究助理	國立臺灣大學醫學教育暨生醫倫理學科暨研究所	Presenter 2D/Discussant 2D
曾翊恆	副教授	元智大學管理學院	Presenter 2D/Discussant 2D
張傳章	教授	國立中央大學財金系	Chair 2E
鄭立誠	副總	國泰投信	Discussant 2E
林浩詳	經理人	第一金投信	Discussant 2E
林忠義	投資長	兆豐投信	Discussant 2E
許和鈞	教授	銘傳大學財金系	Chair 3A
陳姿穎	助理教授	淡江大學風險管理與保險學系	Discussant 3A
林友嵐	博士生	淡江大學風險管理與保險學系	Presenter 3A
謝沛霖	副教授	國立中央大學財金系	Presenter 3A/Discussant 3A
黃保憲	助理教授	南臺科技大學財金系	Presenter 3A/Discussant 3A
盧建霖	助理教授	國立宜蘭大學應用經濟與管理系	Presenter 3B/Discussant 3B
唐寧	博士生	國立陽明交通大學資財系	Presenter 3B/Discussant 3B
葉家維	助理教授	國立暨南大學財金系	Presenter 3B/Discussant 3B
Yu-Siang Su	助理教授	國立暨南大學財金系	Presenter 3B/Discussant 3B
柯冠成	教授	國立暨南大學財金系	Chair 3C
翁培師	教授	國立中山大學財管系	Presenter 3C/Discussant 3C
何曉緯	助理教授	國立臺灣海洋大學海洋經營管理學程	Presenter 3C/Discussant 3C
蔡明宏	副研究員	中央研究院人社中心	Presenter 3C/Discussant 3C
李修全	教授	銘傳大學財金系	Chair 3D/Presenter 3D/Discussant 3D
蔡秉真	助理教授	國立中山大學財管系	Presenter 3D/Discussant 3D
陳煒朋	教授	國立臺北科技大學資財系	Presenter 3D/Discussant 3D
黃瑞卿	教授	國立中央大學財金系	Chair 3E
杜瑤	博士生	國立陽明交通大學資財系	Presenter 3E/Discussant 3E
許至廷	博士生	國立中央大學財金系	Presenter 3E/Discussant 3E
黃盈甄	助理教授	國立聯合大學財金系	Presenter 3E/Discussant 3E

提出讓碩士生賴司敏評論

2023 台灣財務工程學會年會暨國際研討會工作人員

姓名	單位	職稱
張傳章	國立中央大學財金系 特聘教授	理事長、議程委員會委員
周冠男	國立政治大學財管系 教授	秘書長、議程委員會委員
柯冠成	國立暨南大學財金學系 教授	副秘書長
盧建霖	國立宜蘭大學應用經濟與管理學系 助理教授	副秘書長
鍾惠民	國立陽明交通大學財金系 教授	常務理事
周筱玲	元大期貨 副董事長	常務理事
陳思寬	永豐金控 董事長	常務理事
吳中書	台灣金融研訓院 董事長	常務理事
林建甫	中信金融管理學院 講座教授	常務理事
張森林	國立臺灣大學財金系 教授	常務理事
邱文昌	國立師範大學 教授級專業技術人員	理事
楊曉文	國立政治大學金融學系 教授	理事
蔡蒔銓	國立師範大學管理研究所 教授	理事
余士迪	國立清華大學計財系 教授	理事
翁禮祺	鉅資科技 總經理	理事
郭政弘	勤業眾信會計師事務所 董事長	理事
林士貴	國立政治大學金融學系 教授	理事
莫鳳圓	中央銀行外匯局稽核科 科長	理事
邱建良	淡江大學財金系 教授	理事
盧陽正	銘傳大學財務金融學系 教授	理事
岳夢蘭	國立政治大學財務管理學系 教授	理事
葉錦徽	國立中央大學財金系 教授	理事
戴天時	國立陽明交通大學資管與財金系 教授	理事
黃瑞卿	國立中央大學財金系 教授	理事
江彌修	國立政治大學金融系 教授	理事

姓名	單位	職稱
張眾卓	國立暨南國際大學財金系 教授	理事
葉宗穎	國立中興大學財金系 教授	理事
林姿婷	國立台灣大學財金系 副教授	理事
何瑞鎮	靜宜大學財金系 副教授	理事
許和鈞	銘傳大學財金系講座教授	監事主席
胡星陽	國立台灣大學財金系 教授	常務監事
楊聲勇	國立中興大學財金系 教授	常務監事
林卓民	靜宜大學財金系 教授	監事
蔡維哲	國立中山大學財管系 教授	監事
謝文良	國立陽明交通大學資財系 教授	監事
黃泓人	國立中央大學財金系教授	監事、大會主席
蕭育仁	台北醫學大學生物科技高階管理碩士在職專班 教授	監事
李修全	銘傳大學財金系教授兼系主任	監事
何柏欣	國立中央大學財金系 教授	議程委員會委員
賴弘能	國立中央大學財金系 副教授	議程委員會委員
謝沛霖	國立中央大學財金系 副教授	議程委員會委員
彭淑卿	國立中央大學財金系 助理教授	議程委員會委員
周賓凰	國立中央大學財金學系 教授	主辦單位
高櫻芬	國立中央大學財金學系 教授	主辦單位
吳庭斌	國立中央大學財金系 教授	主辦單位
李丹	國立中央大學財金系 教授	主辦單位
李韋憲	國立中央大學財金系 副教授	主辦單位
王志瑋	國立中央大學財金系 副教授	主辦單位
徐培慈	國立中央大學財金系 系辦助理	主辦單位
許心怡	國立中央大學財金系 系辦助理	主辦單位

姓名	單位	職稱
曾文琦	國立中央大學財金系大四學生	主辦單位
郭詠琦	國立中央大學財金系大四學生	主辦單位
洪珮瑄	國立中央大學財金系大四學生	主辦單位
劉方翎	國立中央大學財金系大四學生	主辦單位
許晉嘉	國立中央大學財金系大四學生	主辦單位
蘇楷晴	國立中央大學財金系大三學生	主辦單位
邱邦維	國立中央大學企管系大三學生	主辦單位
邵靖皓	國立中央大學財金系大三學生	主辦單位
張禎麟	國立中央大學財金系大三學生	主辦單位
林軒如	國立中央大學財金系大三學生	主辦單位
王柏崴	國立中央大學財金系大三學生	主辦單位
謝立佳	國立中央大學財金系碩一學生	主辦單位
鍾佳妤	國立中央大學財金系碩二學生	主辦單位
王俊皓	國立中央大學財金系碩一學生	主辦單位
沈仕晉	國立中央大學財金系碩一學生	主辦單位
謝宜程	國立中央大學財金系碩一學生	主辦單位
蔡承哲	國立中央大學財金系碩一學生	主辦單位
朱鎧翊	國立中央大學財金系碩一學生	主辦單位
陳昶毓	國立中央大學財金系碩一學生	主辦單位
吳宛蓉	國立中央大學財金系碩一學生	主辦單位
呂靜蓓	國立中央大學財金系碩一學生	主辦單位
廖致珽	國立中央大學財金系碩一學生	主辦單位
徐萱	國立中央大學財金系碩一學生	主辦單位
廖家慧	國立中央大學財金系碩一學生	主辦單位

姓名	單位	職稱
張嫦凌	國立中央大學財金系碩一學生	主辦單位
張優傑	國立中央大學財金系碩一學生	主辦單位
蔡宜哲	國立中央大學財金系碩一學生	主辦單位
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林瀚雲	國立中央大學財金系碩一學生	主辦單位
賴彥霖	國立中央大學財金系碩一學生	主辦單位
湯凱羽	國立中央大學財金系碩一學生	主辦單位
阮子杰	國立中央大學財金系碩一學生	主辦單位
黃子芮	國立中央大學財金系碩一學生	主辦單位
徐聖庭	國立中央大學財金系碩一學生	主辦單位
廖武靖	國立中央大學財金系碩一學生	主辦單位
游宜恆	國立中央大學財金系碩一學生	主辦單位
林心慧	國立中央大學財金系碩一學生	主辦單位
杜淳薇	國立中央大學財金系碩一學生	主辦單位
陳威霖	國立中央大學財金系碩一學生	主辦單位
侯柏瑜	國立中央大學財金系大四學生	主辦單位
高嘉佑	國立中央大學財金系碩二學生	主辦單位
林孟韻	國立中央大學財金系碩二學生	主辦單位
李啟正	國立中央大學財金系碩二學生	主辦單位
黃思婷	國立中央大學財金系碩二學生	主辦單位
林婕儒	國立中央大學財金系碩二學生	主辦單位
喻甯	國立中央大學財金系碩二學生	主辦單位
蔡欣穎	國立中央大學財金系碩二學生	主辦單位
宋明澤	國立中央大學財金系碩二學生	主辦單位
陳彥廷	國立中央大學財金系碩二學生	主辦單位
姜仁匡	國立中央大學財金系碩二學生	主辦單位

姓名	單位	職稱
康巧萱	國立中央大學財金系碩二學生	主辦單位
謝馨誼	國立中央大學財金系碩二學生	主辦單位
張紘齊	國立中央大學財金系碩二學生	主辦單位
吳旻容	國立中央大學財金系碩二學生	主辦單位
曾姿穎	國立中央大學財金系碩二學生	主辦單位
賴詠瑜	國立中央大學財金系碩二學生	主辦單位
黃柏翔	國立中央大學財金系碩二學生	主辦單位
鍾佳妤	國立中央大學財金系碩二學生	主辦單位
林韋錚	國立中央大學財金系碩二學生	主辦單位
劉瑤	國立中央大學財金系碩二學生	主辦單位