

2017 DERIVATIVE MARKETS CONFERENCE

AUT



AUCKLAND CENTRE FOR FINANCIAL RESEARCH

Auckland University of Technology | City Campus
WA Building | WA224A&B

10TH - 11TH AUGUST 2017



2017 PROGRAMME

KIA ORA and WELCOME

Welcome to the Conference on Derivative Markets, which is hosted by the Auckland Centre for Financial Research. The conference is a small-scale conference that focuses primarily on derivative markets. The conference this year received around 40 submissions and accepted 18 for inclusion in the programme. The strict selection reflects the strong quality of the papers that are included in the programme. With the conference being small in scale we hope you will make the most of interacting with other academics both during the academic and the social parts of the conference. The conference dinner in the Sky Tower on the 11th surely should not be missed.

This is the fourth year that we host the derivative markets conference, which we run in conjunction with the New Zealand Capital Market Symposium (NZCMS), the annual event that the Auckland Centre for Financial Research hosts to encourage and stimulate debate between industry and academia in New Zealand. The topic of the NZCMS is on Challenges and Opportunities in the local market and will host several academic and industry speakers, and we encourage all conference attendees to join us as well.

We would like to thank all participants of this conference for their contributions through paper presentations, paper discussions and session chairs. We would also like to thank Westpac for sponsoring the best paper award and their involvement during the NZCMS. We further would like to thank our keynote speaker, Prof. Robert I. Webb for his valuable contributions to this event through delivering a keynote speech and for dedicating a special issue of the Journal of Futures Markets to papers presented at this conference. Finally, we would like to thank Ms Tracy Skolmen for her superb assistance with the administrative and logistic side of things.

We hope that you will have a productive time here at the Conference and hope you will have a memorable time in Auckland, the City of Sails.

On behalf of the Organising Committee,

Bart Frijns

*Professor of Finance, Auckland University of Technology
Director of the Auckland Centre for Financial Research*

PARTICIPANTS

Tim Baker, Independent Consultant
Anirban Banerjee, Indian Institute of Management Calcutta
Bruce Benet, Central Michigan University & Fred Arditti Center for Risk Management
Sheng-Hung Chen, National Kaohsiung University of Applied Sciences
Ro (Victor) Cho, Massey University
K. Victor Chow, West Virginia University
José Da Fonseca, Auckland University of Technology
Jared DeLisle, Utah State University
Adrian Fernandez-Perez, Auckland University of Technology
Bart Frijns, Auckland University of Technology
Michael Garcia, University of Wollongong
Erwin Hansen, University of Chile
Zhuo Huang, Peking University
WanJun Jiang, Peking University
Jeong-Hoon Kim, Yonsei University
Mercy Kiremu, University of Waikato
Man Lu, Central University of Finance and Economics
Daniel (Phong Minh) Nguyen, La Trobe University
Lars Norden, Stockholm Business School
Tai-Yong Roh, Auckland University of Technology
Milena Tieves, University of Hagen
Alireza Tourani-Rad, Auckland University of Technology
Yiuman Tse, University of Missouri - St Louis
Robert Webb, University of Virginia

INVITED SPEAKERS

Phillip Ballie, NZX
Susanna Lee, Harbour Asset Management
Charles Hyde, NZ Superannuation Fund
Ayesha Scott, Auckland University of Technology

KEYNOTE SPEAKER

Professor Robert I Webb, University of Virginia, Charlottesville, USA

ORGANIZERS

Dr. Adrian Fernandez-Perez, ACFR, Auckland University of Technology, New Zealand
Professor Bart Frijns, Director of ACFR, Auckland University of Technology, New Zealand
Professor Alireza Tourani-Rad, Auckland University of Technology, New Zealand
Professor Robert I. Webb, University of Virginia, US

KEYNOTE SPEAKER

Prof. Robert I. Webb, University of Virginia, Charlottesville, USA



Bob Webb is the Paul Tudor Jones II Research Professor at the McIntire School of Commerce at the University of Virginia in Charlottesville, USA. Bob also held a joint appointment at the Korea Advanced Institute of Science and Technology business school for three years.

Bob serves as the Editor of the Journal of Futures Markets—a leading finance journal that specializes in academic articles on futures, options, and other derivative securities. His experience includes: trading fixed income securities for the Investment Department of the World Bank (Consultant); trading financial futures and options on the floor of the Chicago Mercantile Exchange (Member); designing new financial futures and option contracts for the Chicago Mercantile Exchange (Senior Financial Economist); analysing the effects of deregulating the financial services industry, among others, at the Executive Office of the President, Office of Management and Budget; (Senior Financial Economist) examining issues related to international futures markets at the U.S. Commodity Futures Trading Commission (Senior Financial Economist). Bob has also consulted on risk management issues for the Asian Development Bank in Manila. He formerly taught at the Graduate School of Business at the University of Southern California.

Bob earned his M.B.A. and Ph.D., degrees in finance from the University of Chicago and his B.B.A., degree from the University of Wisconsin at Eau Claire. Bob has published his research in a number of academic journals including the Journal of Econometrics, the Journal of Business and Economic Statistics, the Journal of Futures Markets, and the Southern Economic Journal among others. He has also published commentary on contemporary issues in the financial press including: The Wall Street Journal; Investor's Business Daily; the Nihon Keizai Shimbun; MK Economic Newspaper; and the Nikkei Weekly. He is the author or co-author of the books, Shock Markets: Trading Lessons for Volatile Times (FT [Financial Times] Press 2013); Trading Catalysts: How Events Move Markets and Create Trading Opportunities (FT Press 2007); and Macroeconomic Information and Financial Trading (Blackwell 1994).

BEST PAPER AWARD

Best Paper Award

\$1,500

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VENUE INFORMATION

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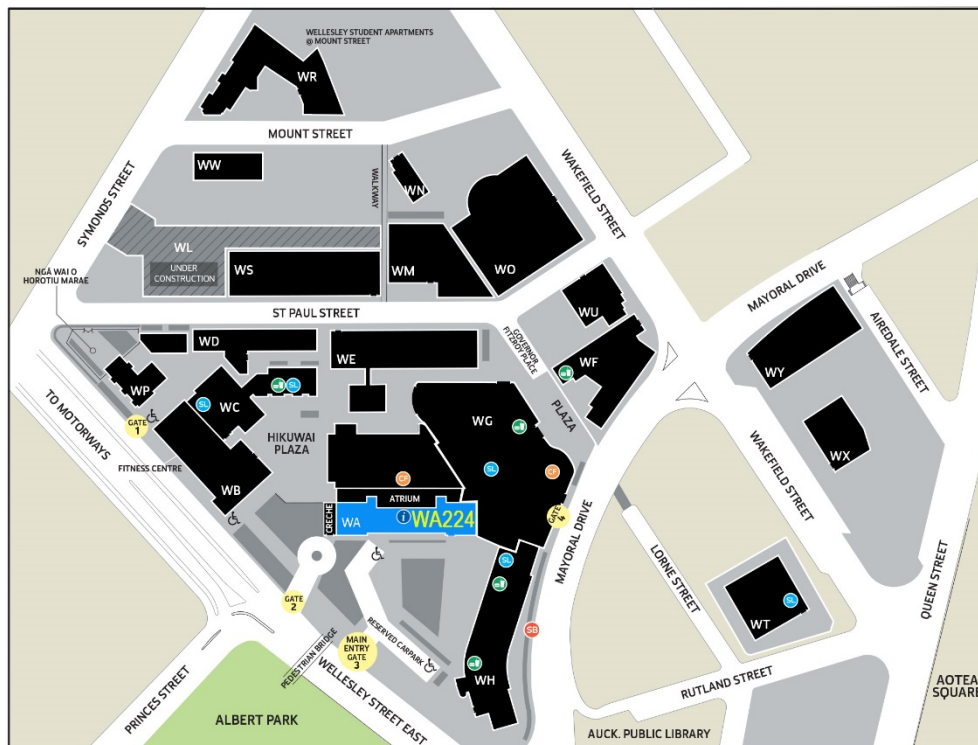
Day 1: WA Conference Facility, WA224

Day 2: WA Conference Facility, WA224

AUT

AUT CITY CAMPUS

55 Wellesley Street East, Auckland 1010



SCHOOLS

Applied Sciences – Level 5, WS building
Art & Design – Level 3, WE building
Business – Level 1, WF building
Communication Studies – Level 12, WG building
Engineering, Computer & Mathematical Sciences – Level 1, WT building (reception in Level 3, WS building)
Hospitality & Tourism – Level 3, WH building
Language & Culture – Level 8, WT building
Law – Level 6, WY building
Social Sciences – Level 14, WT building
Te Ara Poutama – Level 3, WB building

STUDENT HUB

Level 2, WA building

Phone: 0800 AUT UNI (0800 288 864)







Web: www.aut.ac.nz

SERVICES AND FACILITIES




Student Hub – Level 2, WA building
Learning Lab – Level 3, WA building
Library – Level 4, WA building
Early Childhood Centre – Level 2, WA building via Gate 2
AUT International Centre – Ground Floor, WY building
AuSM – Level 2, WC building
Safety & Security – Corner St Paul & Wakefield St, WO building
Health, Counselling & Wellbeing – WB219, Level 2, WB building
Printsprint customer service branch – Level 3, WA building
University Bookshop – WC122, WC building

JOIN A CAMPUS TOUR

Wednesdays and Fridays at 2pm
 Student Hub

-  Student Hub
-  Student lounge
-  Cafés
-  Conference facility
-  Intercampus shuttle bus stop
-  Mobility parks

PROGRAMME OVERVIEW

DAY ONE:	Thursday 10th August 2017 – WA Conference Facility, WA224
12.00-12.45	Lunch and Registration
12.45-13.00	Welcome to the 6th New Zealand Capital Market Symposium Paul Mowbray, Head of Financial Markets New Zealand, Westpac Prof. Alireza Tourani-Rad, Deputy Dean, Faculty of Business, Economics and Law, Auckland University of Technology
13.15-13.45	Ayesha Scott, Auckland University of Technology Short and sweet, or just short? The readability of KiwiSaver product disclosure statements In an effort to improve investor's access to information, the Financial Markets Conduct Act moved away from traditional prospectuses and investment statements towards simplified product disclosure, using plain English language. While the documents have certainly gotten smaller, the question remains: are they now easier to read? Using long-tested metrics to measure the readability of KiwiSaver documents, we explore whether disclosures are now short and sweet, or just short. 
13.45-14.15	Phillip Baillie, NZX NZX Market Surveillance This presentation will focus on the role of the surveillance function at NZX. This includes processes followed, technology and people, and NZX's own regulatory obligations.
14.15-14.45	Susanna Lee, Harbour Asset Management The Future. What will happen, what could happen and what to invest in? Future changes in NZ economic growth and investment returns from; changing demographics (certain), changes ageing investor asset lifecycles (expected), and an expected tech revolution (likely/extent unknown). Relate that to market risk premia, value/yield/growth/low volume, etc. what works and when it works. 
14:45-15.15	Break
15.15-15.45	Charles Hyde, New Zealand Superannuation Fund Private Equity The New Zealand Superannuation Fund's perspective on the features of the New Zealand private equity market that make it an attractive investment opportunity, as well as the principles that guide how we obtain exposure to this asset class. 

15.45-16.15

Bart Frijns, Auckland University of Technology



Patterns in daily NZ equity returns

We explore patterns in daily returns of NZX50 companies. We document that returns, on average are positive over the last days of the calendar month, and explore various explanations for this pattern.

16.15-17.00

Panel Discussion and Concluding Remarks

Phillip Ballie, NZX

Charles Hyde, NZ Superannuation Fund

Helena Lewis, FMA

Paul Mowbray, Westpac

Alireza Tourani-Rad – Chairperson

Hors d'oeuvres
Sponsored by Westpac

17:00-18:00



ACADEMIC PROGRAMME OVERVIEW

DAY TWO: Friday 11th August 2017 – WA Conference Facility, WA224
Session 1: 9:00 to 10:30

Stream 1 Chair: Michael Garcia, University of Wollongong

Presenter:	Daniel (Phong Minh) Nguyen, La Trobe University
Paper:	Estimation of Hedge Ratio: A Wild Bootstrap Approach
Discussant:	Bruce Benet, Central Michigan University and Fred Arditti Center for Risk Management
Presenter:	Bruce Benet, Central Michigan University and Fred Arditti Center for Risk Management
Paper:	Error-Correction-Model (ECM) Based Hedge Ratio Adjustment and Out-of-Sample Futures Hedging Effectiveness
Discussant:	Michael Garcia, University of Wollongong
Presenter:	Michael Garcia, University of Wollongong
Paper:	Should Macro-Economic Information Be Released During Trading Breaks in Futures Markets?
Discussant:	Daniel (Phong Minh) Nguyen, La Trobe University

Stream 2 Chair: Robert Webb, University of Virginia

Presenter:	Sheng-Hung Chen, National Kaohsiung University of Applied Sciences
Paper:	Oil News Sentiment and Volatility in Energy Market
Discussant:	Man Lu, Central University of Finance and Economics
Presenter:	Man Lu, Central University of Finance and Economics
Paper:	From News to Fact: the Impact of NVIX on Stock VIX
Discussant:	Bart Frijns, Auckland University of Technology
Presenter:	Bart Frijns, Auckland University of Technology
Paper:	Surprise and Dispersion: Informational Impact of USDA Announcements
Discussant:	Sheng-Hung Chen, National Kaohsiung University of Applied Sciences

Coffee/Tea Break: 10:30 to 11:00

Session 2: 11:00 to 12:30

Stream 1 Chair: Lars Norden, Stockholm Business School

Presenter:	Ro (Victor) Cho, Massey University
Paper:	Round Number Effects in WTI Crude Oil Futures Market
Discussant:	Anirban Banerjee, Indian Institute of Management Calcutta
Presenter:	Anirban Banerjee, Indian Institute of Management Calcutta
Paper:	Does Trade Size Restriction Affect Trading Behavior? - Evidence from Indian Single Stock Futures Market
Discussant:	Lars Norden, Stockholm Business School
Presenter:	Lars Norden, Stockholm Business School
Paper:	VIX Futures Calendar Spreads
Discussant:	Ro (Victor) Cho, Massey University

Stream 2 Chair: Bart Frijns, Auckland University of Technology

Presenter:	Yiuman Tse, University of Missouri - St Louis
Paper:	Return Predictability and Contrarian Profits of International Index Futures
Discussant:	Jared DeLisle, Utah State University
Presenter:	Jared DeLisle, Utah State University
Paper:	Bank Risk, Financial Stress, and Bank Derivative Use
Discussant:	Adrian Fernandez-Perez, Auckland University of Technology
Presenter:	Adrian Fernandez-Perez, Auckland University of Technology
Paper:	Harvesting Commodity Styles: An Integrated Framework
Discussant:	Yiuman Tse, University of Missouri - St Louis

Lunch Break: 12:30 to 14:00

Session 3: 14:00 to 15:30

Stream 1 Chair: José Da Fonseca, Auckland University of Technology

Presenter:	K. Victor Chow, West Virginia University
Paper:	VIX Decomposition, the Price of Fear and Stock Return Predictability
Discussant:	José Da Fonseca, Auckland University of Technology
Presenter:	Zhuo Huang, Peking University
Paper:	Pricing the CBOE VIX Term Structure and VIX Futures with Realized Volatility
Discussant:	K. Victor Chow, West Virginia University
Presenter:	José Da Fonseca, Auckland University of Technology
Paper:	Semivariance Risk Premiums in Currency Markets
Discussant:	Zhuo Huang, Peking University

Stream 2 Chair: Alireza Tourani-Rad, Auckland University of Technology

Presenter:	Tai-Yong Roh, Auckland University of Technology
Paper:	A comprehensive look at the return predictability of Variance Risk premium
Discussant:	Milena Tieves, Fern University in Hagen
Presenter:	Milena Tieves, Fern University in Hagen
Paper:	Volatility Discovery and Volatility Quoting on Markets for Options and Warrants
Discussant:	Erwin Hansen, University of Chile
Presenter:	Erwin Hansen, University of Chile
Paper:	Economic Links and the Cross-section of Option Returns
Discussant:	Tai-Yong Roh, Auckland University of Technology

Coffee/Tea Break: 15:30 to 16:00

Keynote: 16:00 to 17:00

Prof. Robert I. Webb, University of Virginia, Charlottesville, USA

Trading Edges and Trade Profitability

With the possible exception of arbitrage, having an advantage or “edge” is central to the expected profitability of most trading strategies. The rapid rise of high-frequency and other forms of algorithmic trading has changed the feasible set of trading opportunities for many market participants by eliminating both speed and the complex analysis of large data sets (to identify exploitable patterns in prices) as potential trading edges. This presentation discusses some of the recent academic literature on fast and slow markets and the profitability of high frequency trading and assesses the implications for non-algo traders in the current market environment.

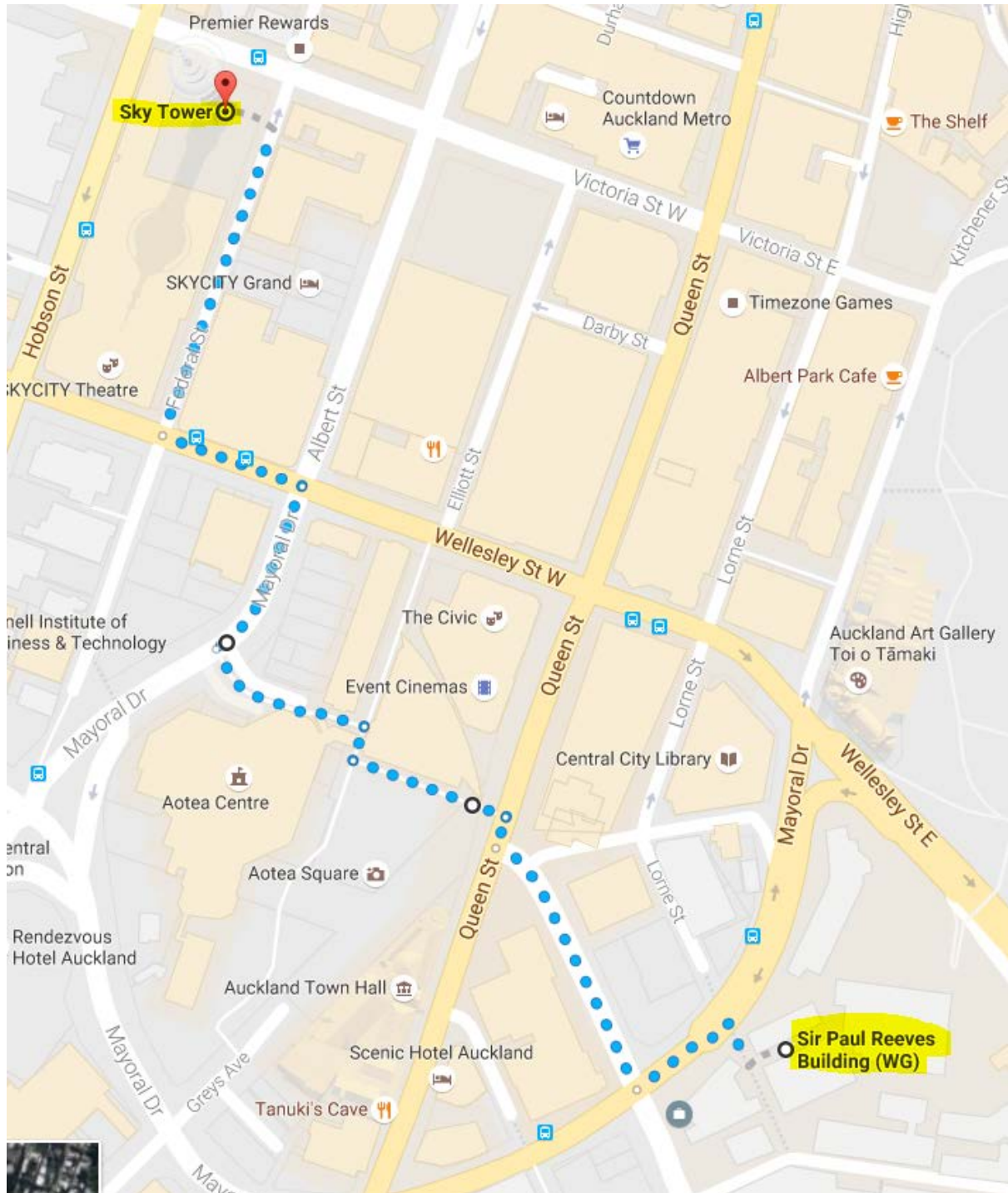
Dinner at Sky Café: 18h00 to 21h00

Please meet near the escalators that go down to the Sky Tower Entrance at about 17h50
We will go up as a group at 18h00 promptly.

WALK MAP TO SKY TOWER, SKY CITY

From AUT: Sir Paul Reeves Building (WG), Governor Fitzroy Place, Auckland

To Sky Café: Sky Tower, Victoria St W & Federal St, Auckland



Estimation of Hedge Ratio: A Wild Bootstrap Approach

Phong Minh Nguyen, La Trobe University

Jae H. Kim, La Trobe University

Darren Henry, La Trobe University

Abstract

We propose a new approach to estimating the minimum variance hedge ratio (MVHR) based on the wild bootstrap. The method provides a range of alternative hedging strategies based on the percentiles of the MVHR's bootstrap distribution, from conservative to aggressive ones. This can be far more informative and safer than the conventional method of producing a hedging strategy relying solely on a point estimate. The percentile-based strategies are robust to influential outliers, non-normality, and unknown forms of heteroscedasticity. The effectiveness of the bootstrap percentile-based hedging strategies is compared with the conventional static and dynamic strategies such as the naïve hedge and DCC-GARCH model for a range of financial assets. We find that the percentiles-based hedging strategies are more effective than those conventionally used in risk management. In particular, we find that those based on the 50th and 75th percentiles outperform the conventional ones, in terms of hedging effectiveness, downside risk, and the hedged return fluctuation.

Error-Correction Model-Based Hedge Ratio Adjustment and Futures Out-Of-Sample Hedging Effectiveness

Bruce A. Benet, Central Michigan University

Abstract

This study investigates the *ex ante* performance of futures direct and cross hedges, where hedge ratios are adjusted to incorporate estimation period forecast error residuals. We examine the empirical question as to whether spot and futures price cointegration (adapting models of Davidson, Hendry, Serba and Yeo [7] and Engle and Granger [11]) merits hedging model adjustment-correction. ECM-based hedge ratio estimates offer potential improvements in econometric efficiency and hedge ratio stability, which may contribute to improved out-of-sample performance when compared to OLS or widely-accepted unitary hedge ratio strategies. Using daily data from a 66-month (2006-2011) sample period, tested direct hedges experience lower out-of-sample performance variability; while ECM-adjusted cross hedge effectiveness increases 7%-14% when compared to OLS approaches. Gains in *ex ante* hedging performance are even greater (18% to 46%) when compared to alternate strategies.

Should Macro-Economic Information Be Released During Trading Breaks in Futures Markets?

Michael Garcia, University of Wollongong

Alex Frino, University of Wollongong

Abstract

This study examines the impact of releasing macro-economic information during trading breaks vis-à-vis continuous trading in futures markets. In 2012 and 2013, the Chicago Mercantile Exchange (CME) changed the trading hours of its grain and oilseed derivatives contracts while in 2013 the US Department of Agriculture changed the time it released its World Agricultural Supply and Demand Estimates (WASDE) report – which previous research demonstrates moves the prices of grain and oilseed futures. These changes provide a natural experiment for assessing the impact of releasing price sensitive information during a break in trading as opposed to continuous trading. We examine price volatility, bid-ask spreads and market depth of trading following WASDE report releases for soybean and corn futures contracts traded on CME. Consistent with previous research, we find that information released both during a trading break or during continuous trading results in an increase in price volatility and bid-ask spreads, and a fall in market depth. We also find that price volatility and bid-ask spreads are abnormally elevated and market depth abnormally low for a longer period of time during continuous trading following WASDE report releases. In contrast to findings for equity markets, we conclude that releasing macroeconomic information during a trading break in future markets has a beneficial effect on market quality.

Oil News Sentiment and Volatility in Energy Market

Song-Zan Chiou-Wei, National Kaohsiung University of Applied Sciences

Sheng-Hung Chen, National Kaohsiung University of Applied Sciences

Zhen Zhu, University of Central Oklahoma

Abstract

This paper examines the effects of oil news sentiment on both of spot and future returns in energy commodity (crude oil, heating oil, gasoline, and natural gas) using weekly data from September 2006 to August 2016. Specifically, the asymmetric effects of sentiment (pessimism versus optimism) on volatility of spot and future returns in energy commodity are empirically investigated by GARCH (1,1) and DCC-MGARCH, respectively. Our empirical results indicate that based on the univariate GARCH (1,1) model, optimistic sentiment (positive sentiment change) significantly enhances both of spot and futures returns while showing the robustness as the alternative measure of percentage change in oil news sentiment index. Moreover, the results of multivariate GARCH model using DCC-MGARCH indicates the similar finding that optimistic sentiment economically proliferates both of spot and futures returns. Besides, optimistic sentiment change significantly mitigates the volatility for spot returns while pessimistic sentiment change only increases the volatility risk of crude oil. Moreover, optimistic sentiment change significantly decreases the volatility for futures return as pessimistic sentiment change conversely increases the volatility risk into crude oil and gasoline.

From News to Fact : the Impact of NVIX on Stock VIX

Zhi Su, Central University of Finance and Economics

Man Lu, Central University of Finance and Economics

Libo Yin, Central University of Finance and Economics

Abstract

Although ample researches focus on VIX related to economic fundamentals as a measure of uncertainty and market fear, few literatures pay attention to the impact of volatility related to information. Under the framework of Markov-switching regression model, using News-implied volatility (NVIX) as a measure of news-based volatility, we investigate what impact the uncertainty based on information will play on the VIX which is closely related to 18 real stock markets. Combining with the LR statistics, we find NVIX does impact on stock VIX in direct and indirect ways, and the structure changes are vital for us to analyze the impact as there are different and often greater impact during high volatility than low volatility. The impact is not short-lived, and the spillover effect of NVIX will at least last for three or four months for most markets. Besides, the impact is still significant when considering the time-varying characteristic of NVIX. Comprehensively, we find that the impact of NVIX on stock VIX is more evident in the markets in Europe than that in Asia-Pacific region and that belonging to the emerging markets economics.

Surprises, Dispersion and the Informational Impact of USDA Reports

Adrian Fernandez-Perez, Auckland University of Technology

Bart Frijns, Auckland University of Technology

Ivan Indriawan, Auckland University of Technology

Alireza Tourani-Rad, Auckland University of Technology

Abstract

We examine the role of information asymmetry on the changes in bid-ask spreads during major United States Department of Agriculture (USDA) announcements. Our analyses using corn, wheat and soybean futures indicate that information asymmetry is significantly higher during the USDA announcement days than on non-announcement days. Increased information asymmetry prior to the news announcements is driven by the divergence in private information possessed by market participants (dispersion in analyst forecast). Once the news is released, both forecast dispersion and news surprises (the difference between actuals and market expectations) contribute to increased information asymmetry and wider bid-ask spreads.

Round number effects in WTI Crude Oil Futures Market

Victor (Ro) Cho, Massey University

Abstract

Round number effects predict excess buying just below a round number (\$X.99) and excess selling just above a round number (\$X.01). Using 148 million trade observations for West Texas (WTI) crude oil futures market for the period from January 01, 1996 to October 31, 2015, we find excess buying just below a round number and excess selling just above a round number in both pre- and post-electronic periods, confirming the existence of round number effects in WTI crude oil futures market. Further, this paper provides evidence that hedgers, who are less informed traders, influence round number effects. Earlier research into round number effects focuses on US stock markets only and does not address what type of traders influences round number effects. We also examine 24-hour trade return based on round number effects. Previous literature documents evidence that round number effects is a major determinant of 24-hour positive trade return in US stock markets. By contrast, we find round number effects is not a determinant of 24-hour positive trade return in WTI crude oil futures market and the average 24-hour trade return based on round number effects is negative 0.0014 percent. Additionally, we document evidence that the impact of the net position held by hedgers is greater than that of speculators on market liquidity and volatility in WTI crude oil futures market. We find negative relation between excess selling by hedgers and market liquidity and positive relation between excess buying by hedgers and market liquidity. We also find positive relation between excess selling by hedgers and market volatility but we find no evidence that trading activity of speculators affect market volatility.

Does Trade Size Restriction Affect Trading Behavior? - Evidence from Indian Single Stock Futures Market

Anirban Banerjee, Indian Institute of Management Calcutta

Ashok Banerjee, Indian Institute of Management Calcutta

Abstract

Algorithmic (algo) traders use their advantage of speed to execute a large number of small-sized trades in a very short time. In the presence of minimum trading unit (MTU) restriction, we find that they are forced to trade at the smallest possible sizes – the MTU. Using a novel dataset of single stock futures market obtained from National Stock Exchange (NSE) of India, we show that MTU restriction effectively dictates trade sizes of more than two-thirds of the trades, where at least one of the parties is an algo trader. We also inspect the impact of an upward revision in minimum contract size on trading behavior in the Indian market during 2015. We find that algo traders still continue to trade at the minimum possible sizes, but the difference in trade sizes between algo and non-algo trades reduce due to the revision. Overall traded volume seems to be largely unaffected by the contract size revision. However, we do observe a significant negative shock on due to the announcement of contract size revision on traded volume.

VIX Futures Calendar Spreads

Ai Jun Hou, Stockholm University

Lars L. Nordén, Stockholm University

Abstract

A VIX futures calendar spread involves buying a futures contract maturing in one month and selling another one maturing in a different month. VIX futures calendar spreads represent a daily turnover above 500 million dollars, or roughly 20% of the total VIX futures trading volume. A calendar spread trade is a bet on the change in the slope of the volatility term structure. We find that speculation, rather than information about changes in the slope of the volatility term structure, is driving calendar spread trades. On average, a calendar spread costs a little less than \$100 (about 15 basis points). If settled at the end of the trading day, 43% of the calendar spreads are profitable.

Return Predictability and Contrarian Profits of International Index Futures

Yiuman Tse, University of Missouri

Abstract

Using futures markets, we find significant lead-lag relationships among 11 industrialized countries. Lagged monthly returns for several countries have return predictability comparable to those in the United States for the 1988-2016 period, complementing the results of Rapach, Strauss, and Zhou (2013). The international futures markets are more correlated in market downturns, while the lead-lag relationships are more significant in market upturns. Consistent with these asymmetric relationships, a contrarian strategy offers significant profits in an up market (in particular, by buying the losers) but not in a down market. The contrarian profits are negatively correlated with the momentum profits and are not captured by a factor model using global equity factors and momentum profits.

Bank Risk, Financial Stress, and Bank Derivative Use

Barbara A. Bliss, University of San Diego

Jeffrey A. Clark, Florida State University

R. Jared DeLisle, Utah State University

Abstract

This paper distinguishes hedging from speculative derivative usage by U.S. bank holding companies (BHCs), and the apparent purpose of the derivative position has implications for future bank holding company stock returns. This is accomplished by implementing a multi-step procedure that relates the implied volatility from traded options on these banks, broad components of the Cleveland Fed Financial Stress Index, and off-balance sheet derivatives. Our results indicate that BHCs with positive risk exposure to various financial stresses generally use interest rate, foreign exchange, equity, commodity, and credit derivatives to reduce their risk exposure to these financial stresses. Additionally, positively exposed BHCs that use credit and equity derivatives to reduce interbank stress risk have stock performance that bests that of BHCs which do not use such derivatives.

Harvesting Commodity Styles: An Integrated Framework

Adrian Fernandez-Perez, Auckland University of Technology

Ana-Maria Fuertes, City University, London

Joëlle Miffre, EDHEC Business School

Abstract

This paper develops a portfolio allocation framework to study the benefits of style integration and the effectiveness of alternative integration methods in commodity markets. The framework is flexible enough to be applicable to any other asset class for either long-short, long- or short-only portfolios. We study the naïve equal-weighted integration and sophisticated integrations where the style exposures are determined by utility maximization, style rotation, volatility-timing, cross-sectional pricing or principal components analysis. Considering the “universe” of eleven long-short commodity styles, we document that the naïve integration enhances each of the individual styles in terms of their reward-to-risk trade-off and crash risk profile. Sophisticated integrations do not challenge the naïve integration and the rationale is that, while also achieving multiple-style exposures, the equal-weighting approach circumvents estimation risk and perfect-foresight bias. The findings remain unchallenged in additional robustness tests that include trading costs, economic sub-period analysis and data snooping tests inter alia.

VIX Decomposition, the Price of Fear and Stock Return Predictability

K. Victor Chow, West Virginia University

WanJun Jiang, Peking University

Jingrui Li, West Virginia University

Abstract

The VIX is not just a volatility index but a fear gauge. We formalize this market perception with a linear decomposition of the VIX that consists with four fundamentally different elements: the realized variance (RV), the variance risk premium (VRP), the realized tail (RT), and the tail risk premium (TRP), respectively. The VRP compensates the anticipated (normal) market volatility, and the TRP prices the fear of potentially (unusual) large market movements. Empirically, approximate one-third of the VIX's formation is attributed to the TRP. In addition to VRP, RT and TRP are crucial components for predicting future returns on equity portfolios.

Pricing the CBOE VIX Term Structure and VIX Futures with Realized Volatility

Zhuo Huang, Peking University,

Tong Chen, Peking University,

Tianyi Wang, University of International Business and Economics

Abstract

Using an extended LHARG model proposed by Majewskia et al. (2015), we derive the closed-form pricing formulas for both the CBOE VIX term structure and VIX futures with different maturity. Our empirical results suggest that the quarterly and yearly components of lagged realized volatility should be added into the model to capture long-term volatility dynamics. With the realized volatility based on high frequency data, the proposed model provides superior pricing performance compared to the classic Heston-Nandi GARCH model, both in-sample and out-of-sample. The improvement is more pronounced during high volatility periods.

Semivariance Risk Premiums in Currency Markets

José Da Fonseca, Auckland University of Technology

Edem Dawui, Université Paris

Abstract

Using the model-free methodology proposed in the literature, a variance risk premium is extracted from currency options for several foreign exchange rates. Moreover, the variance risk premium can be decomposed into semivariance risk premiums and is shown to have higher explanatory power for foreign exchange risk premium. These semivariances enable the definition of a variance-skew risk premium that also possesses some explanatory power but is less informative than the semivariance risk premiums. The importance of semivariance risk premiums compared to the usual variance risk premium lies on the stochastic skewness nature of the smile in the currency market that is specific to this market. Also, results show that crash risk extracted from currency options is short lived suggesting that foreign exchange long term views are better captured by second order related moments.

A Comprehensive Look at the Return Predictability of Variance Risk Premia

Suk-Joon Byun, Korea Advanced Institute of Science and Technology

Tai-Yong Roh, Auckland University of Technology

Abstract

The discrepancy between the in-sample and out-of-sample predictability of common return predictors for equity premiums has been widely discussed in the literature. There is also a growing amount of evidence that the variance risk premium predicts the excess returns of various assets in-sample. We examine the out-of-sample predictability of variance risk premiums (VRP) and the economic significance of the gains obtainable from using that predictability in market timing. We find strong evidence that VRP significantly predicts equity premiums out-of-sample and a simple market-timing strategy produces a certainty equivalent return (CER) of 1.89% per year. We also show that the VRP-based predictability model for international equity returns outperform the no-predictability benchmark in economic terms. We extensively examine out-of-sample predictability of VRP for other asset class such as equity portfolios, bonds, currencies and commodity indices. We find strong out-of-sample forecasting ability of VRP and its economic significance for equity portfolios and currency markets, but not for bond and commodity markets.

Volatility Discovery and Volatility Quoting on Markets for Options and Warrants

Milena Tieves, Fern University in Hagen

Abstract

In several European and Asian countries, classical options markets coexist with markets for bank-issued options, also termed warrants. It is an open question if bank issuers adopt options markets information or if they contribute to volatility discovery by their own. We compare volatility discovery on this bivariate market system-options markets represented by the EUREX and warrants markets depicted by the EUWAX-given each of them a part of information share. The warrants market hardly makes a contribution in the process of volatility discovery, consequently the options market options market is in a clear informational leadership with an information share highly significant above 0.5 presenting the warrants as relatively uninformed market. Considering the volatility quoting behaviour of issuers, we find that warrants market volatility decrease (in average) over day time, whereas options markets has a small upward trend. This leads to a possible strategy of warrants issuers exploiting intraday investors.

Economic Links and the Cross-Section of Option Returns

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Abstract

In this paper, we investigate how economic linkages - proxied by customer-supplier sales relationships among firms help to explain the cross-section variation of expected stock option (delta hedged) returns. Our main hypothesis is that customer's volatility shocks spill over on supplier firm's volatility through (real sales-based) network's links, and as consequence, a priced risk factor emerges for options issued by these firms. We empirically document that these economic links are statistically and economically significant for a representative sample of US firms. The results are not explained neither by other risk factors identified in the literature idiosyncratic volatility and volatility risk premium nor by firm characteristics. Finally, the results are also robust to control for industry variation.



AUCKLAND CENTRE FOR
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The Auckland Centre for Financial Research at the Faculty of Business and Law, Auckland University of Technology is hosting its 7th Auckland Finance Meeting on 18-20 December 2017.

This year's conference will be held in beautiful Queenstown. The conference will be held at the [Crowne Plaza Queenstown](#).

The Auckland Finance Meeting is a general finance conference, and we consider all papers related to finance topics.

KEYNOTE SPEAKER:

Professor Darrell Duffie, Dean Witter Distinguished Professor of Finance, Stanford University

SPECIAL ISSUE:

A special issue of the Pacific-Basin Finance Journal based on papers presented at the 2017 Auckland Finance Meeting will be dedicated to this conference.

PAPER SUBMISSION:

To submit your paper, please go to the conference website: www.acfr.aut.ac.nz/2017afm/. The deadline for paper submissions is 11 August 2017. Authors will be informed of the outcome of their submission by 31 August 2017 and registration will open shortly thereafter.

DOCTORAL SYMPOSIUM:

A doctoral symposium will be hosted on 18 December leading in to the conference. Doctoral students are invited to submit either a chapter or paper based on a chapter to this symposium. Please submit your chapter/paper via email to afm@aut.ac.nz with subject line "Doctoral Symposium Submission". The deadline for submissions to the doctoral symposium is 11 August 2017.

MEETING ORGANIZER

Bart Frijns, Auckland University of Technology