CENTRE FOR RISK ANALYTICS Macquarie Business School



# 4th Australasian Commodity Markets Conference

PROGRAM

7-8 April 2022

MACQUARIE UNIVERSITY CITY CAMPUS LEVEL 24/123 PITT STREET, SYDNEY, NSW



4TH AUSTRALASIAN COMMODITY MARKETS CONFERENCE PROGRAM

DAY ONE Thursday, 7 April 2022

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9.00 am	Registration		
9.20 am	Welcome		
9.30 - 10.15 am	<b>Keynote speech: Political connections and the transition to low-carbon sources in</b> <b>China: Evidence from a quasi-natural experiment</b> Tom Smith (Macquarie University)		
10.15 - 11.00 am	<b>Keynote speech: The transition of the National Electricity Market (NEM)</b> Sal Tringali (Snowy Hydro)		
11.00 - 11.30 am	Morning tea		
	Session 1: Commodity Futures Markets Chair: Stefan Trueck	Session 2: Seasonality, Comovement and Contagion Chair: Ken Siu	
11.30 - 12.15 pm	<b>Speaker:</b> Thanh Vu <b>Title:</b> Hidden in the spotlight: Media emo- tion intensity and commodity futures pricing <b>Discussant:</b> John Fan	<b>Speaker:</b> Chi Truong <b>Title:</b> Pricing Renewable Energy Investment in Pres- ence of Trend, Seasonality, Mean Reversion and Price Spikes <b>Discussant:</b> Ken Siu	
12.15 - 13.00 pm	<b>Speaker:</b> Christina Nikitopoulos <b>Title:</b> Liquidity provision channels and oil price volatility <b>Discussant:</b> Stefan Trueck	<b>Speaker:</b> Rangga Handika <b>Title:</b> Comovement and Contagion in Commodity Markets <b>Discussant:</b> Neda Todorova	
13.00 - 14.00 pm	Lunch		
	Session 3: Electricity Markets I Chair: Lin Han	Session 4: Carbon Pricing and CO2 Emissions from the Transport Sector Chair: Hamid Yahyaei	
14.00 - 14.45 pm	<b>Speaker:</b> Muthe Mwampashi <b>Title:</b> Large-scale and rooftop solar gener- ation in the NEM: A tale of two renewables strategies <b>Discussant:</b> Lin Han	<b>Speaker:</b> Marjan Nazifi <b>Title:</b> Carbon pricing co-benefits for countries <b>Discussant:</b> John Inekwe	
14.45 - 15.30 pm	<b>Speaker:</b> Rohan Best <b>Title:</b> The impact of income on household solar panel uptake: exploring diverse results using Australian data <b>Discussant:</b> Muthe Mwampashi	<b>Speaker:</b> John Inekwe <b>Title:</b> Transport infrastructure, CO2 emissions, mortali- ty, and life expectancy in the Global South <b>Discussant:</b> Hamid Yahyaei	
15.30 - 16.00 pm	Afternoon tea		
	Session 5: Quantitative Finance in Commodity Markets Chair: Pavel Shevchenko	Session 6: High-Frequency Analysis of Commodity Markets Chair: Chi Truong	
16.00 - 16.30 pm	<b>Speaker:</b> Peilun He <b>Title:</b> Multi-Factor Polynomial Diffusion Models and Inter-Temporal Futures Dynamics in Energy Markets	<b>Speaker:</b> Katja Ignatieva <b>Title:</b> Modelling High Frequency Crude Oil Dynamics using Affine and Non-Affine Jump-Diffusion Models	
16.30 - 17.00 pm	<b>Speaker:</b> Jun Han <b>Title:</b> Modelling of Logarithmic Returns of Futures Prices via Schwartz-Smith Model with Correlated Measurement Errors	<b>Speaker:</b> Nikolay Gudkov <b>Title:</b> Non-parametric Estimation of High-Frequency Commodity Dynamics	
19.00 - 21.30 pm	Conference dinner, Little Snail Restaurant,	3/50 Murray St, Pyrmont NSW 2009	

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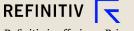
### DAY TWO Friday, 8 April 2022

9.00 - 11.00 am	Plenary session		
9.00 - 9.40 am	<b>Speaker:</b> Vladimir Strezow (Macquarie University) <b>Title:</b> Energy from Biomass for a Sustainable Future		
9.40 - 10.20 am	<b>Speaker:</b> Daniel Hynes (Australia and New Zealand Banking Group) <b>Title:</b> Emerging Dislocations in Energy Markets		
10.20 - 11.00 am	<b>Speaker:</b> Dirk Baur (University of Western Australia) <b>Title:</b> Gold and Bitcoin		
11.00 - 11.30 am	Morning tea		
	Session 7: Econometric Analysis Chair: Christina Nikitopoulos	Session 8: Global Commodity Markets Chair: Rohan Best	
11.30 - 12.15 pm	<b>Speaker:</b> Anastasios Panagiotelis <b>Title:</b> Detecting anomalies in smart meter data via manifold learning <b>Discussant:</b> Zhuo Jin	<b>Speaker:</b> Raymond Li <b>Title:</b> Price responsiveness of residential demand for natural gas in the US <b>Discussant:</b> Natalia Ponomareva	
12.15 - 13.00 pm	<b>Speaker:</b> Lin Han <b>Title:</b> Average Dispatch Prices and Earn- ings-at-Risk for Renewable and Fossil-Fuel Generators in Australia <b>Discussant:</b> Christina Nikitopoulos	<b>Speaker:</b> Natalia Ponomareva <b>Title:</b> Energy and metal price uncertainties and the global economy <b>Discussant:</b> Rabindra Nepal	
13.00 - 14.00 pm	Lunch		
	Session 9: Electric Markets II Chair: Stefan Trueck	Session 10: Climate Change and Commodity Markets Chair: Lurion De Mello	
14.00 - 14.30 pm	<b>Speaker:</b> Santosh Sapkota <b>Title:</b> Price-Setting Generation Technologies in the Australian National Electricity Market	<b>Speaker:</b> Hamid Yahyaei <b>Title:</b> The Impacts of the El Niño–Southern Oscillation on Global Food Security – An Implied Volatility Approach	
14.30 - 15.00 pm	<b>Speaker:</b> Ming Wei <b>Title:</b> The Financial Analysis of Power Systems: Plug-in Hybrid Vehicle, Thermal Generation Expansion and Wind Power	<b>Speaker:</b> Pavel Shevchenko <b>Title:</b> Impact of COVID-19 type events on the economy and climate under the stochastic DICE model	

**Closing remarks** 

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### **Risk Analytics Lab**

The Risk Analytics Lab at Macquarie University is a cross-disciplinary research team collaborating with academia and industry on innovative risk analytics solutions across several domains: demography, economics, energy, environmental finance, finance, insurance and su-perannuation. It was established by the Department of Applied Finance and Actuarial Studies at Macquarie University in 2016 with the following objectives:

· Develop and apply innovative risk analytics solutions through fundamental research and industry-linked projects

Facilitate knowledge exchange between academia, industry and policymakers

• Strengthen and promote the connection between fundamental research and industry practice

### OUR MAIN RESEARCH AREAS

- · Energy and commodity markets
- Financial derivatives
  Mortality modelling
- Portfolio optimisation
- Retirement income products

For more information, visit the Risk Analytics Lab website

mq.edu.au/research/risk-lab If you are interested in joining the lab or in collaboration opportunities on industry or research projects, contact Lab Director

Professor Pavel Shevchenko, email: pavel.shevchenko@mq.edu.au

## **Centre for Risk Analytics**

The Centre for Risk Analytics investigates uncertainty in capital markets. Our researchers examine the spectrum of financial risks faced at all levels of the economy

We collaborate with industry, regulators, governments and leading universities overseas to ensure research outcomes are robust, realistic and relevant. We offer optimal value to our research partners through our pragmatic, commercially aware and creative approach. The nature and management of financial risks are investigated by a team of leading inter-disciplinary researchers with expertise in financial economics, econometrics and innovative modelling approaches.

- the exchange of ideas
- pioneering research

• a comprehensive program of workshops, seminars and masterclasses. Professor Jeffrey Sheen, Professor Pavel Shevchenko and Professor Stefan Trück are co-direc-tors of the Centre for Risk Analytics.

#### OUR RESEARCH FOCUS

- · Banking, finance and asset pricing
- Behavioural economics and financial literacy 
   Climatic change and catastrophic risks
- Complex industry and corporate issues
- Energy and utility markets
  Insurance and risk analysis
  International and domestic issues
- Regulation and government policy
- Superannuation

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