

**SingRu(Celine) Hoe**  
Texas A&M University-Commerce  
Department of Economics & Finance  
(903)-886-5680  
Email: Celine.Hoe@tamuc.edu

2017

## Education

Ph D, University of Texas at Arlington.  
Major: Finance  
Dissertation Title: Strategic Exercise of Options on Non-Traded Assets and Stochastic Volatility in an Incomplete Market: Indifference Pricing and Entropy Methods

MBA, George Washington University.  
Major: Finance

BA, Fu-Jen Catholic University.  
Major: International Trade/Business

## Professional Positions

### Academic

Assistant Professor, Texas A&M University - Commerce.

Post-doctoral Research Associate, University of Texas at Dallas.

Faculty Research Associate, University of Texas at Arlington.

## TEACHING

## Teaching Experience

### Texas A&M University-Commerce

FIN 501, Finance for Decision Makers  
FIN 504, Financial Management  
FIN 550, Portfolio Management in Excel  
FIN 571, International Business Finance  
FIN 312, Money, Banking and Financial Markets  
FIN 404, Advanced Financial Management  
FIN 410, Analysis of Financial Derivatives  
FIN 450, Financial Modeling in Excel  
FIN 471, International Business Finance

## RESEARCH

## Published Intellectual Contributions

### Book Chapters

Bensoussan, A., Hoe, C. (2013). *Real Options with Competition and Incomplete Markets*, in *Inspired by Finance: The Musiela Festschrift*. Yuri Kabanov, Marek Rutkowski, and Thaleia Zariphopoulou, eds., Springer (2013).

Bensoussan, A., Hoe, C., Diltz, J. D. (2011) *Real Options and Competition*, in Stochastic Analysis, Stochastic Systems, and Applications to Finance. A. Tsoi, D. Nualart and G. Yin, eds., World Scientific, Singapore (2011), 63-100.

Bensoussan, A., Hoe, C., Koo, H. K. (2011). *Real Options and Variational Inequality*, in Advances in Financial Engineering, Hyeng Kuen Koo and Jaeyoung Sung, eds., IOS Press.

### Refereed Journal Articles

Bensoussan, A., Hoe, C., Yan, Z., Yin, G. (2017) Real Options with Competition and Regime Switching. *Mathematical Finance* ("A" in ABDC List), 27(1), 224-250.

Hoe, C., Liu, L., Diltz, J. D., Ogunc, A. K. (2017) Sinners and Saints: An Alternative Approach to Evaluating the Investment Performance of Sin Funds versus Sinless Fund. *Journal of Accounting and Finance* ("B" in ABDC List), Forthcoming.

Hoe, C., Nippani, S. (2017) 2016 U.S. Presidential Election and Stock Market in China, *International Journal of Economics and Finance* (In ABDC List), 9(7), 32-38.

Hoe, C., Nippani, S., Diltz, J. D. (2017) Should CAMELS Ratings be publicly disclosed? *Economics Bulletin* (In ABDC List; "B" in TAMUC 2017-2018 List)), 37(3), 1567-1572.

Hoe, C., Yan, Z., Bensoussan, A. (2017) Technical Note: The Impact of Competitive Advantage on the Investment Timing in the Stackelberg Leader-Follower Game. *Engineering Economist* (In ABDC List; "B" in TAMUC 2017-2018 List), Forthcoming.

Bensoussan, A., Hoe, C., Kantarcioglu, M. A (2014) Trust-Score-Based Access Control in Assured Information Sharing Systems: An Application of Financial Credit Risk Score Models. *Risk and Decision Analysis* ("B" ABDC List), 5, 129-138.

Hoe, C., Diltz, J. D. (2012) A Contingent Claims Approach to Valuing Licensing Agreements. *Quarterly Review of Economics and Finance* ("B" in ABDC List), 52(3), 322-332.

Bensoussan, A., Hoe, C., Diltz, J. D. (2010). Real Options Games in Complete and Incomplete Markets with Several Decision Makers. *SIAM Journal on Financial Mathematics* ("B" in ABDC List), 1, 666-728.

### Revise and Resubmit Refereed Journal Articles

Bensoussan, A., Cakanyildirim, M., Hoe, C., Li, M., Sethi, S. P., Mean and Mean-Variance Based Policies for an Inventory Model with Incomplete Information, *Operations Research* ("A+" in ABDC List) **3rd-Round Revise and Resubmit.**

Bensoussan, A., Hoe, C. Real Options Games - Stackelberg vs. Preemption in Complete and Incomplete Capital Markets, *Finance and Stochastics* ("A" in ABDC List) **Revise and Resubmit.**

Bensoussan, A., Hoe, C., Yan, Z. Mean-Variance Approach to Capital Investment Optimization, *SIAM Journal on Financial Mathematics*, ("B" in ABDC List) **Revise and Resubmit.**

### Submitted Refereed Journal Articles

Bensoussan, A., Hoe, C., Yan, Z. Pre-Commitment and Time Consistent Solutions to A Fixed Desired Level if Capital Accumulation.

Hoe, C. How Does First Mover Advantage and Second Mover Advantage Affect Stackelberg

## Leader's Entry Threshold Hold Under Uncertainty?

### Refereed/Peer-reviewed Conference Proceedings

- Bensoussan, A., Hoe, C., Kantarcioglu, M., Bensoussan, A. (2012). *A Game Theoretical Analysis of Lemonizing Cybercriminal Black Markets*. Decision and Game Theory for Security: Third International Conference, LNCS, Vol. 7638, 60-77.
- Hoe, C., Kantarioglu, M., Bensoussan, A. (2012). *Studying Dynamic Equilibrium of Cloud Computing Adoption with Application of Mean Field Game*. Communication, Control, and Computing (Allerton), 2012 50th Annual Allerton Conferenc, 220-224, October 2012.
- Kantarcioglu, M., Bensoussan, A., Hoe, C. (2011). *Investment in Privacy-Preserving Technologies under Uncertainty*. Decision and Game Theory for Security: Second International Conference, LNCS, Vol. 7037, 219-238.
- Kantarcioglu, M., Bensoussan, A., Hoe, C. (2011). *Impact of Security Risks on Cloud Computing Adoption*. "Impact of security risks on cloud computing adoption," Communication, Control, and Computing (Allerton), 2011 49th Annual Allerton Conference, 670-674, Sept. 2011.
- Bensoussan, A., Kantarcioglu, M., Hoe, C. (2010). *A Game-Theoretical Approach for Finding Optimal Strategies in a Botnet Defense Model*. Decision and Game Theory for Security: First International Conference, LNCS, Vol. 6442, 135-148.
- Kantarcioglu, M., Bensoussan, A., Hoe, C. (2010). *When Do Firms Invest in Privacy-Preserving Technologies?*. Decision and Game Theory for Security: First International Conference, LNCS, Vol. 6442, 72-86.
- Bensoussan, A., Diltz, J. D., Hoe, C. (2008). *Utility-Based Pricing of Portfolio Credit Derivatives: Dynamic Copula and Top Down Approaches with Information Asymmetries*. Proceedings of Bachelier Finance Society 5th World Congress.
- Hoe, C., Diltz, J. D. (2007). *Real Options, Competition, and the Valuation of Pharmaceutical Licensing Agreements*. Proceedings of 11th Annual Real Options Conference.

### Technical Report

- A Game-Theoretical Approach for Finding Optimal Strategies in a Botnet Defense Model, with Alain Bensoussan and Murat Kantarcioglu, Technical Report, UTDCS-14-10, <http://cs.utdallas.edu/research/technical-reports-10>.

### Presentations Given

- Hoe, C. (Author Only), 2012 Conference on Decision and Game Theory for Security, "A Game Theoretical Analysis of Lemonizing Cybercriminal Black Markets," Budapest, Hungary. (November 5, 2012).
- Hoe, C. (Presenter & Author), Allerton Conference on Communication, Control and Computing, "Studying Dynamic Equilibrium of Cloud Computing Adoption with Application of Mean Field Game," University of Illinois at Urbana-Champaign. (October 2, 2012).
- Hoe, C. (Presenter & Author), Second International Conference, GameSec 2011, "Investment in Privacy-Preserving Technologies under Uncertainty." (November 15, 2011).
- Hoe, C. (Presenter & Author), FMA Annual Meeting, 2011, "Media Content and REIT Returns." (October 2011).

- Hoe, C. (Author Only), Forty-Ninth Annual Allerton Conference on Communication, Control, and Computing, 2011, "Impact of Security Risks on Cloud Computing Adoption." (September 2011).
- Hoe, C. (Author Only), Annual Conference and 2011 Meeting of the Academy of Economics and Finance, "Media Content and REIT Returns." (March 2011).
- Hoe, C. (Author Only), 2010 Conference on Decision and Game Theory for Security, "A Game-Theoretical Approach for Finding Optimal Strategies in a Botnet Defense Model." (November 2010).
- Hoe, C. (Author Only), 2010 Conference on Decision and Game Theory for Security, "When Do Firms Invest in Privacy-Preserving Technologies?." (November 2010).
- Hoe, C. (Author Only), 2010 MENARES Annual Conference, "Media Content and REIT Returns." (October 2010).
- Hoe, C. (Presenter & Author), Society for Design and Process Science, "Real Options in a Competitive Environment." (June 2010).
- Hoe, C. (Author Only), New Directions in Financial Mathematics, Institute of Pure and Applied Mathematics (an NSF Math Institute at UCLA), "Real Options in a Satchkelberg Game." (January 2010).
- Hoe, C. (Author Only), Applied Math Seminar, "Real Options in Complete and Incomplete Markets with Several Decision Makers," Stanford University. (December 2009).
- Hoe, C. (Author Only), Bachelier Finance Society 5th World Congress. (July 2008).
- Hoe, C. (Presenter & Author), Annual Real Options Conference, 2007, "Real Options, Competition, and the Valuation of Pharmaceutical Licensing Agreements." (2007).
- Hoe, C. (Presenter & Author), Annual Real Options Conference, 2006, "Early-Stage Partnering Agreements with Application in Pharmaceuticals." (2006).
- Hoe, C. (Presenter & Author), FMA Annual Meeting, "Contingent Claims Valuation of Early-Stage Partnering Agreements." (2006).
- Hoe, C. (Presenter & Author), FMA Annual Meeting, "Long-term versus Short-term Stock Repurchase." (October 2003).

## **Contracts, Grants and Sponsored Research**

### **Grant Proposal Proposed**

- Hoe, C. (Co-Principal), "Cyber Security (SC) Collaborative Research Alliance (CRA)," Sponsored by U.S. Army Research Laboratory, Federal, \$200,000.00, 10/01/2013 - 09/31/2018. (Proposed)

## **Working Papers**

- Bensoussan, A., Hoe, C., Yan, Z. Optimal Investment Timing Under Mean-Variance Strategy.

## **Research in Progress**

"Mean Field Games and Optimal Capacity Choice under Uncertainty"

"Mean Field Games and Life-time Portfolio Choice"

"Mean Field Games and Renewable Energy"

"Investment Timing, Costly Information and Incomplete Markets"

"Structure Strategic Alliance in Real Options"

"Utility-Based Pricing of Portfolio Credit Derivatives: Dynamic Copula and Top Down Approaches with Information Asymmetries" (On-Going)

"Valuing Real Options under Stochastic Volatility by q-Optimal Measures versus Indifference Prices"

## **SERVICE**

### **General Service - Academic Committees and Service**

#### **College**

College of Business - Engagement Committee: Member **(August 2017 - )**.

College of Business - Faculty Committee: Member **(August 2014 – 2017)**.

College of Business and Entrepreneurship - Assessment Committee: Member **(September 2013 – August 2014)**.

College of Business and Entrepreneurship - Teaching Excellence Committee. **(August 2012 - August 2013)**.

#### **Department**

Department Scholarship Committee: Chair **(2014 to Present)**.

Excel Certificate Initiative: Member **(August 2017 - )**.

IE Plan **Owner** for MS Finance Program **(January 2014 to Spring 2016)**.

MS in Finance Program Committee: Member **(to Present)**.

Academic Search Committee for Assistant Professor of Finance: Member **(Spring 2016)**.

Academic Search Committee for Assistant Professor of Finance: Member **(Spring 2015)**.

QEP Department Mentor **(Spring 2013 to August 2014)**.

Academic Search Committee for Assistant Professor of Finance: Chair **(Spring 2013)**.

Academic Search Committee for Assistant Professor of Finance/Economics: Member **(Spring 2013)**.

Academic Search Committee for Assistant Professor of Finance/Economics: Member **(Spring 2012)**

## **Editorial and Review Activities**

Referee for the following journals:

"International Review of Economics and Finance", "International Journal of Strategic Property Management", "Computer Standards & Interfaces", "Applied Mathematics & Optimization"

Referee for the following conferences:

2012 and 2013 Conferences on Decision and Game Theory for Security.