SingRu(Celine) Hoe

East Texas A&M University
Department of Accounting, Finance, Economics and Business Law
Email: Celine.Hoe@etamu.edu

Education

Ph D, University of Texas at Arlington.
Major: Finance, Minor: Economics
2006

MBA, George Washington University.
Major: Finance

Professional Positions

Academic

East Texas A&M University, Commerce: Professor (Fall 2025 – Present)

East Texas A&M University, Commerce (Formerly Texas A&M University-Commerce): Associate Professor

East Texas A&M University, Commerce (Formerly Texas A&M University-Commerce): Assistant Professor

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

University of Texas at Arlington, Arlington: Faculty Research Associate

RESEARCH

Refereed Journal Articles

Hoe, C., Liu, L., & Hsiao, D. (2024). Facility Compliance and Natural Disaster Events: Evidence from the U.S. Clean Air Act, *Journal of Applied Business and Economics*, 26 (5), 139–152.

Hsiao, D., Hoe, C., & Hsieh, C. (2024). An Analysis of Financial Risk in a Multi-Layer Management Fraud Scheme, *Journal of Academy of Business and Economics*, 24 (4), 35–45.

Lin, J., Li, X., Hoe, C., & Yan, Z. (2023). A Generalized Finite Difference Method for Solving Hamilton–Jacobi– Bellman Equations in Optimal Investment. *Mathematics*, 11 (10).

Bensoussan, A., Hoe, C., Kim, J., & Yan, Z. (2022). A Risk Extended Version of Merton's Optimal Consumption and Portfolio Selection, *Operations Research* (**A***), 70 (2), 815–829. ****Lead author; authors listed in alphabetic order; "All authors contributed equally to this study" is declared in the acknowledgement**.

Bensoussan, A., Hoe, C., Kim, J., & Yan, Z. (2021). Mean Field Verification Theorem. *Communications in Information and Systems*, 21, Number 2, 253–267. * **Authors listed in alphabetic order**

Bensoussan, A., Hoe, C., & Yan, Z. (2020) Capital Accumulation with Constraint: A Mean Field Type Control Framework. *Markov Processes and Related Field, 26, 553–566*. ***Authors listed in alphabetic order**

Bensoussan, A., Hoe, C., & Yan, Z. (2019). A Mean-Variance Approach to Capital Investment Optimization. *SIAM Journal on Financial Mathematics* (**A***), 10 (1), 156-180. ***Authors listed in alphabetic order**

Hoe, C., Yan, Z., Bensoussan, A. (2018) Technical Note: The Impact of Competitive Advantage on the Investment Timing in the Stackelberg Leader-Follower Game. *Engineering Economist*, 63 (3), 236-249.

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

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*, 17(6), 109-116.

Hoe, C., Nippani, S, Diltz, J. D. (2017) Should CAMELS Ratings be publicly disclosed? *Economics Bulletin*, 37(3), 1567-1572.

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

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*, 5, 129-138. ***Authors listed in alphabetic order**

Hoe, C., Diltz, J. D. (2012) A Contingent Claims Approach to Valuing Licensing Agreements. *Quarterly Review of Economics and Finance* (**A**)*, 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 (***A***), 1*, 666-728. ***Authors listed in alphabetic order**

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, Stochsatic 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.

Working Papers

Hoe, C. & Yan, Z. (2023). "Solving a Mean Field Control Problem on Capital Investment Optimization by Generalized Finite Difference Method," 1st revise and resubmit *to Journal of Computational Finance*

Bensoussan, A., Hoe, C. (2022) Real Options Games - Stackelberg vs.Preemption in Complete and Incomplete Capital Markets, submitted, *Finance and Stochastics* (**A***)

Bensousssan, A., Hoe, C., Kim, J., & Yan, Z. (2022) Inventory Management in Over-The-Counter Markets, submitted, *Operations Research* (**A*)**

Bensoussan, A., Cakanyildirim, M., Hoe, C., Li, M., Sethi, S. P., Mean and Mean-Variance Based Policies for an Inventory Model with Incomplete Information, submitted, *Operations Research* (**A*)**

Hoe, C. (2023). "A Mean-Variance Approach to Capital Investment Optimization with Disaster Risk," targeted for *Management Science*

Hsiao, D., Chen, C. & Hoe, C. (2023). "Market Reactions to Supreme Court Rulings on Clean Air Act," targeted for *Environmental and Resource Economics*

Hoe, C. (2022) The Impact of Contagion Control over COVID-19 on the Economy," targeted for *Optimal Control Applications and Methods*

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). 2020 INFORMS Annual Meeting. “Inventory Management in Over-The-Counter Markets”. (October, 2020).

Hoe, C. (Author Only). 2018 Mean-field games, energy and environment workshop held by Alan Turing Institute. “A Risk Extended Version of Merton's Optimal Consumption and Portfolio Selection”. (February, 2018).

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 Satckelberg Game." (January 2010).

Hoe, C. (Author Only), Applied Math Seminar, "Real Options in Complete and Incomplete

Markets with Several Decision Makers," Standford 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)

TEACHING

Teaching Experience

East Texas A&M University, Commerce (Formerly Texas A&M University-Commerce)
Course Taught: FIN304, FIN404, FIN410, FIN440, FIN471, FIN501, FIN504, FIN571, FIN540, FIN550

SERVICE

General Service - Academic Committees and Service

<u>College</u>

Tenure and Promotion Committee (2018 – Present)

- **Co-Chair:** 2022 – Present

Assurance of Learning Committee (2020 – Present)

Engagement Committee (2018 – 2019).

Student and Alumni Committee (2017 – 2018)

Faculty Committee (2014 – 2017)

Assessment Committee (2013 – 2014)

Teaching Excellence Committee (2012 – 2013)

Department

IE Plan **Owner/Author** for MS Finance Program (2014 – 2016); (2020 – Present)

IE Plan **Owner/Author** for BBA Finance Program (2020 – Present)

Author/Owner for the Program Refresh Project for MS Finance Program (2023)

MS in Finance Program Committee (to Present)

Department Scholarship Committee: **Chair** (2014 – 2017**);** Member (2020 – 2022)

Excel Certificate Initiative/Task Force: Member (2017– 2020)

Academic Search Committee for Assistant Professor of Finance: Member (Summer 2022)

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)

Thesis Assignments

Thesis Committee Member of an Honors College Student (2019 – 2020**)**

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", “ESAIM: Control, Optimisation and Calculus of Variations (International)”.

Referee for the following conferences:

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

Professional Activities

Members: AFA (American Finance Association), INFORMS (Institute for Operations Research and the Management Sciences)

Affiliates: ICDRiA (International Center for Decision and Risk Analysis), UTD