Name	Yung-Tsung Lee	
Contact	TEL: 05-2732954 Email: engtsong@mail.ncyu.edu.tw	
Education	Ph.D., Department of Risk Management and Insurance, NCCU	
Position	Professor	
Research Fields	Actuarial Science; Asset Liability Management; Pension	
Certifications	Associate of the Society of Actuaries (ASA)	
Teaching Courses	Insurance; Financial Risk Management; Annuity Insurance and Pension Planning; Seminar in Insurance Theory	
Details	Curriculum Vitae and Academic Publication	

Curriculum Vitae and Academic Publication

Associate Professor Yung-Tsung Lee

Education
Ph.D., Department of Risk Management and Insurance, National Chengchi University. (2004-2009)
MBA, Department of Risk Management and Insurance, National Chengchi University. (2002-2004)
Bachelor of Science, Mathematics, National Tsinghua University. (1995-1999)

Experience
Director of Office for Academia-Industry Collaboration and Continuing Education, National Chiayi University. (2022.08-2023.01)
Director of General Education Center, Office of Academic Affairs, National Chiayi University. (2020.08-2021.01)
Associate Professor, Department of Banking and Finance, National Chiayi University. (2015.08-2020.07)
Assistant Professor, Department of Banking and Finance, National Chiayi University. (2009.08-2015.07)
Postdoctoral Research, Department of Risk Management and Insurance, National Chengchi University. (2009.01-2009.07)

Honor & Service

Chairman, Department of Banking and Finance, National Chiayi University(2023.02～)

The Fifth Ombudsman Committee Members, Financial Ombudsman Institution(2024.01～)

Reviewer of Research Project in National Science and Technology Council

Reviewer of College Student Research Project in National Science and Technology Council

Reviewer for multiple journals

2022 Deloitte & Touche's Risk and Insurance Master Thesis Award, Taiwan Risk and Insurance Association. Valuation of Reverse Mortgages in Taiwan: Crossover Risk Insurance, Deferred Life Annuity and Spouse Annuity. Master thesis of Meng-Hsuan Tsai.

2022 Fubon Life Management Doctor and Master Thesis Award, Honorable Mention thesis and the Best Practice Application thesis (in Financial, Accounting and Risk Management Section). Valuation of Reverse Mortgages in Taiwan: Crossover Risk Insurance, Deferred Life Annuity and Spouse Annuity. Master thesis of Meng-Hsuan Tsai.

Consultant, Chiayi City Teachers Union (2016.01~2017.07)

Journal Papers

1. Hong-Chih Huang, **Yung-Tsung Lee*** and Yu-Hsuan Kuo (2022/09), Evaluation Indicators for Defined Benefit Pension Plans and an Application to Plans in Taiwan, *Journal of Management and Business Research* (TSSCI), 39(3), 357-381.
2. **Yung-Tsung Lee** and Tianxiang Shi* (2022/11), Valuation of Reverse Mortgages with Surrender: A Utility Approach, *Journal of Real Estate Finance and Economics* (**SSCI**, NSC ranking A–), 65, (4), 593-621.
3. **Yung-Tsung Lee**, I-Chien Liu* and Gang-Yi Huang (2021/06), Modeling and Valuation of Reverse Mortgages in Taiwan, *Review of Securities and Futures Markets* (TSSCI), 33(2), 153-194.
4. Tianxiang Shi and **Yung-Tsung Lee*** (2021/05), Prepayment Risk in Reverse Mortgages: An Intensity-Governed Surrender Model, Insurance: Mathematics and Economics (**SSCI**, NSC ranking A-Tier 2), 98, 68–82.
5. Hong-Chih Huang and **Yung-Tsung Lee*** (2020/07), A Study of the Differences among Representative Investment Strategies, *International Review of Economics and Finance* (**SSCI**, MOST new ranking 2020, A–), 68, 131-149.
6. **Yung-Tsung Lee**, I-Chien Liu and Ko-Lun Kung* (2019/6), Mortality Model Comparison: Using Taiwanese Data, *Journal of Population Studies* (TSSCI), 58, 1-37.
7. **Yung-Tsung Lee,** Ko-Lun Kung and I-Chien Liu* (2018/01), Profitability and Risk Profile of Reverse Mortgages: A Cross-System and Cross-Plan Comparison, Insurance: Mathematics and Economics (**SSCI**, NSC ranking A-Tier 2, IF= 1.378, 2015), 78, 255-266.
8. Linus Fang-Shu Chan, **Yung-Tsung Lee*** and Shih-Yi Chiu (2017/09), Using the Generational Accounting Method to Evaluate the Reforms of the Labor Insurance Old-Age

Pension Benefit. *Journal of Financial Studies* (**TSSCI**), 25(3), 125-156.

9. **Yung-Tsung Lee,** Ko-Lun Kung* and Chan-Chung Liu（2016/06）, The Analysis of Value and Replacement Ratio for Pension System in Taiwan, *Journal of Risk Management*, 18(1), 5-40.
10. Chou-Wen Wang, Hong-Chih Huang and **Yung-Tsung Lee*** (2016/05), On the Valuation of Reverse Mortgage Insurance, *Scandinavian Actuarial Journal* (**SSCI**, NSC ranking B+, IF=1.596, 2015), 2016(4), 293-318.
11. **Yung-Tsung Lee*,** Yu-Hao Lo (2016/6)，Structural Analysis of Reverse Mortgages, *NTU Management Review* (**TSSCI**), 26(2), 139-172.
12. I-Shiang Tzeng*, Jack C. Yue and **Yung-Tsung Lee**(2016/6), Empirical Study of Mortality Projection in Taiwan and Discussion of Related Pension Issues，*Taiwan Insurance Review*, 32(2), 1-29.
13. Hong-Chih Huang and **Yung-Tsung Lee*** (2015/10), Improvement on Mortality Predictions Using the Lee-Carter Model and Its Application to a Defined Contribution Pension Plan. *Management Review* (**TSSCI**), 34, 1-21.
14. **Yung-Tsung Lee***, Li-Ting Huang (2013/12), The Best Claiming Time for the Old-age Annuity Benefit of the Labor Insurance in Taiwan, *Journal of Risk Management*, 15(2), 149-172.
15. **Yung-Tsung Lee**, Chou-Wen Wang, Hong-Chih Huang* (2012/09), On the Valuation of Reverse Mortgages with Regular Tenure Payments, *Insurance: Mathematics and Economics* (**SSCI,** NSC ranking A-Tier 2, IF= 1.378, 2015), 51, 430-441.
16. Tzu-Yi Yu, **Yung-Tsung Lee** and Hong-Chih Huang (2012/11), On the Application of Efficient Hybrid Heuristic Algorithms – an Insurance Industry Example, *Applied Soft Computing* (**SCI,** IF= 2.857, 2015/2016), 12, 3452-3461.
17. Hong-Chih Huang* and **Yung-Tsung Lee** (2010/4), Optimal Asset Allocation for a General Portfolio of Life Insurance Policies, *Insurance: Mathematics and Economics* (**SSCI,** NSC ranking A-Tier 2, IF= 1.378, 2015), 46(2), 271-280.
18. Hong-Chih Huang* and **Yung-Tsung Lee** (2008/6), The Risk Management of Interest Rate Sensitivity Policies: Interest Rate Declaring Strategies and Investment Strategies, *Taiwan Insurance Review*, 24(1), 1-28.
19. Jennifer L. Wang*, Sharon S.W. Yang, Hong-Chih Huang and **Yung-Tsung Lee** (2007/4), Analysis of Switch Option under New Labor Pension Plan, *Journal of Financial Studies* (**TSSCI**), 15(1), 1-30.

Conference Papers

1. **Yung-Tsung Lee*,** Tianxiang Shi. Reverse Mortgage Design and Its Application: A Taiwan Case. The 26th International Congress on Insurance: Mathematics and Economics. Heriot-Watt University, Edinburgh, July 4–7, 2023.

2. **Yung-Tsung Lee***, Meng Hsuan Tsai. An Innovation of Reverse Mortgages in Taiwan: Crossover Risk Insurance, Deferred Life Annuity, and Spouse Annuity. The 25th International Congress on Insurance: Mathematics and Economic, Sun Yat-sen University, Guangzhou, July 12-15, 2022, Online.
3. **Yung-Tsung Lee**, Meng-Hsuan Tsai*. Valuation of Reverse mortgages in Taiwan: Crossover Risk Insurance, Deferred and Survivor Annuity, 2021 TRIA Annual Meeting, National Taiwan University, December 11, 2021.
4. Tianxiang Shi, **Yung-Tsung Lee**. Reverse Mortgage with Surrender Options: Application of an Intensity-Governed Model. Fifteen International Longevity Risk and Capital Markets Solutions Conference, Washington, D.C., September 12-13, 2019.
5. Hong-Chih Huang, **Yung-Tsung Lee**, Yu-Hsuan Kuo. 2019. A System to Evaluate and Compare Defined Benefit Plans and Its Application to Plans in Taiwan. The 23th International Congress on Insurance: Mathematics and Economics, Technical University of Munich, Munich, July 10-12, 2019.
6. Ko-Lun Kung, I-Chien Liu and **Yung-Tsung Lee**, Mortality Model Comparison: Using Taiwanese Data, 2018 Population Association of Taiwan Annual Conference, National Chengchi University, 2018.(also presented in the 22th International Congress on Insurance: Mathematics and Economics, the University of New South Wales, Sydney, July 15-18, 2018.)
7. **Yung-Tsung Lee*,** I-Chien Liu, Gang-Yi Huang, Modeling and Valuation of Reverse Mortgages in Taiwan, 2017 TRIA Annual Meeting, National Tsing Hua University, Hsinchu, December 10, 2017.
8. **Yung-Tsung Lee**, Tianxiang Shi*, On the Valuation of Reverse Mortgages with Surrender Options, The 21st International Congress on Insurance: Mathematics and Economics, Technische Universität Wien, Vienna, July 3-5, 2017. (Also presented in the 13th international Longevity Risk and Capital Markets Solutions Conference, National Chengchi University, Taipei, September 21-22, 2017.)
9. **Yung-Tsung, Lee***, A Study on the Duration Of Changes in the Generational Account Options, The 20th International Congress on Insurance: Mathematics and Economics, Georgia State University, Atlantic GA, July 24-27, 2016.
10. **Yung-Tsung Lee*,** Chan-Chung Liu, The Analysis of Value and Replacement Ratio for Pension System in Taiwan, 2016 Joint Meeting of the Cross-Strait Financial Education Alliance and the Central Taiwan Finance Association (CTFA), Providence University, May 22, 2016.
11. Chin-Wen Wu, I-Chien Liu and **Yung-Tsung Lee***, Valuation of Reverse Mortgage Portfolio - a Dynamic Copula Approach, The 11th international Longevity Risk and Capital Markets Solutions Conference, University Claude Bernard Lyon 1, Lyon, September 7-9, 2015.
12. **Yung-Tsung Lee**, I-Chien Liu* and Ko-Lun Kung, Profitability Analysis and Risk Profile for Reverse Annuity Mortgages, The 11th international Longevity Risk and Capital Markets Solutions Conference, University Claude Bernard Lyon 1, Lyon, September 7-9, 2015.

13. **Yung-Tsung Lee**, I-Chien Liu* and Ko-Lun Kung, Profitability Analysis and Risk Profile for Reverse Annuity Mortgages, 2014 TRIA Annual Meeting, Feng Chia University, December 13, 2014.
14. Fang-Shu Jhan and **Yung-Tsung Lee*** and Shih-Yi Chiu, 應用世代會計法於確定給付制退休金改革政策之評估, 2014 TRIA Annual Meeting, Feng Chia University, December 13, 2014.
15. **Yung-Tsung Lee*** and Shih-Yi Chiu, An Application of Generational Accounting to Defined Benefit Pension Schemes, The 18th International Congress on Insurance: Mathematics and Economics, East China Normal University, Shanghai, July 10-12, 2014.
16. Hong-Chih Huang and **Yung-Tsung Lee***, The Effect on Guaranteed Cost for Variable Annuities when there are Asset Allocation Options, The 17th International Congress on Insurance: Mathematics and Economics, University of Copenhagen, Copenhagen, July 1-3, 2013.
17. **Yung-Tsung Lee*** and Li-Ting Huang, An analysis on the relationship between the old-age benefits of labor insurance and the time to retire, 2013 TRIA Annual Meeting, National Yunlin University of Science and Technology, May 31- June 1, 2013.
18. **Yung-Tsung Lee*** and Hong-Chih Huang, Optimal Asset Allocation - A Numerical Approach of Dynamic Programming Problems, The 16th International Congress on Insurance: Mathematics and Economics, University of Hong Kong, Hong Kong, June 28-30, 2012.
19. Hong-Chih Huang* and **Yung-Tsung Lee** and Martin Halek, Comparisons of Investment Performances between Dynamic Investment Strategy and Static Investment Strategy for a Long-term Liability, The 16th International Congress on Insurance: Mathematics and Economics, University of Hong Kong, Hong Kong, June 28-30, 2012.
20. Hong-Chih Huang and **Yung-Tsung Lee***, Longevity Risks and Optimal Asset Allocation for Defined Contribution Pension Plans, 2012 TRIA Annual Meeting, National Central University, November 24, 2012.
21. **Yung-Tsung Lee*** and Yu-Hao Luo, Structural Analysis of Reverse Mortgages, 2012 TRIA Annual Meeting, National Central University, November 24, 2012.
22. Hong-Chih Huang and **Yung-Tsung Lee*** and Martin Halek, Comparisons of Investment Efficiencies- Anticipative Model versus Adaptive Model, APRIA 15th annual conference, Meiji University and Financial Services Agency, Tokyo, July 31- August 3, 2011.
23. Hong-Chih Huang, Chou-Wen Wang, and **Yung-Tsung Lee*,** On the Pricing and Risk Analysis of the Reverse Mortgage, The 14th International Congress on Insurance: Mathematics and Economics, University of Toronto, Toronto, June 17- 19, 2010.
24. Hong-Chih Huang* and **Yung-Tsung Lee,** Optimal Asset Allocation Incorporating with Longevity Risk in the Defined Contribution Pension Plan, The 4th International Longevity Risk and Capital Markets Solutions Conference, Amsterdam, September 25- 26, 2008.

25. Hong-Chih Huang and **<u>Yung-Tsung Lee*</u>,** Optimal Asset Allocation on Life Insurance Reserves for a General Portfolio of Life Insurance Policies, ARIA 11-th Annual Conference, National Chengchi University, Taipei, July 22-25, 2007

26. Sharon S.W. Yang, Hong-Chih Huang and **<u>Yung-Tsung Lee</u>,** Longevity Risk and Optimal Asset Allocation for a Defined Contribution Pension Plan, ARIA 10-th Annual Conference, Meiji University, Tokyo, July 30- August 2, 2006.

Dissertation & Thesis

Yung-Tsung Lee (2009), Optimal Fund Management under the Mean-Variance Approach, Ph.D. Dissertation in Department of Risk Management and Insurance, National Chengchi University.

Yung-Tsung Lee (2004), A Framework to Charge for Unit-linked Contracts when Considering Guaranteed Risk, MBA Thesis in Department of Risk Management and Insurance, National Chengchi University.

Research Projects

NSTC research projects:

1. **Yung-Tsung Lee** (2021), Valuation of Reverse Mortgage Line of Credit and Applying it on Taiwan Products, 2021 Research Project in Ministry of Science and Technology, MOST 110-2410-H-415 -009 -MY2, 2021/08/01~2023/07/31.
2. **Yung-Tsung Lee** (2019), On the valuation and analysis of reverse mortgage with surrenders-an application of intensity-governed modeling, 2019 Research Project in Ministry of Science and Technology, MOST 108-2410-H-415 -006 -MY2, 2019/08/01~2021/07/31.
3. **Yung-Tsung Lee** (2017), Cyber risk and Cyber insurance: risk modeling and the design of a cyber-insurance policy, 2017 Research Project in Ministry of Science and Technology, MOST 106-2410-H-415 -006 -MY2, 2017/08/01~2019/07/31.
4. **Yung-Tsung Lee** (2015), Pricing and Risk Analysis for Structured-Note Annuities, 2015 Research Project in Ministry of Science and Technology, MOST 104-2410-H-415 -008 -MY2, 2015/08/01~2017/07/31.
5. **Yung-Tsung Lee** (2014), Creating Customer Value in Guaranteed Minimum Withdrawal Benefits under Variable Annuity Contracts, 2014 Research Project in Ministry of Science and Technology, MOST 103-2410-H-415-007-, 2014/08/01~2015/07/31.
6. **Yung-Tsung Lee** (2013), Valuation of Intergenerational Transfer under Social Security Reforms- Generational Accounting Approach, 2013 Research Project in Ministry of Science and Technology, NSC 102-2410-H-415 -007 -, 2013/08/01~2014/07/31.
7. **Yung-Tsung Lee** (2012), Individual Retirement Planning and the Interest Rate Risk when Annuitizing - an Potential Application of Reverse Mortgages, 2012 Research Project in

Ministry of Science and Technology, NSC 101-2410-H-415 -014 -,2012/08/01~2013/07/31.

8. **Yung-Tsung Lee** (2011), Risk Evaluation and Reserve Calculation for Equity-Linked Life Insurance Policies with Guaranteed Minimum Benefit: when Considering the Policyholder's Asset Allocation Strategy, 2011 Research Project in Ministry of Science and Technology, NSC 100-2410-H-415 -011 -, 2011/08/01~2012/07/31.
9. **Yung-Tsung Lee** (2010), On the Design and Valuation of Reverse Mortgage Insurances, 2010 Research Project in Ministry of Science and Technology, NSC 99-2410-H-415 -017 -, 2010/08/01~2011/07/31.
10. **Yung-Tsung Lee** (2009), Optimal Fund Management for a General Policy Portfolio, 2009 Research Project in Ministry of Science and Technology, NSC 98-2410-H-415 -048 -, 2009/08/01~2010/07/31.