

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

## Curriculum Vitae and Academic Publication

### Associate Professor Yung-Tsung Lee

#### Education

Ph.D., Department of Risk Management and Insurance, NCCU (2004-2009)  
MBA, Department of Risk Management and Insurance, NCCU (2002-2004)  
Bachelor of Science, Mathematics, NTHU (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, NCCU. (2009.01-2009.07)

#### Honor & Service

Consultant, Chiayi City Teachers Union (2016.01~)

Reviewer of Research Project in Ministry of Science and Technology

Reviewer of College Student Research Project in Ministry of Science and Technology

Reviewer of *Scandinavian Actuarial Journal* (SSCI)

Reviewer of *International Review of Economics and Finance* (SSCI)

Reviewer of *Applied Stochastic Models in Business and Industry*

Reviewer of *Asia-Pacific Journal of Risk and Finance*

Reviewer of *Journal of Population Aging*

Reviewer of *Sun Yat-Sen Management Review* (TSSCI)

Reviewer of *NTU Management Review* (TSSCI)

Reviewer of *Journal of Financial Studies* (TSSCI)

### Journal Papers

1. Hong-Chih Huang, **Yung-Tsung Lee**\* and Yu-Hsuan Kuo, Evaluation Indicators for Defined Benefit Pension Plans and an Application to Plans in Taiwan, *Journal of Management and Business Research* (TSSCI), 39, 357-381.
2. **Yung-Tsung Lee** and Tianxiang Shi\*, 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\***, 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.
2. **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.

3. 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.
4. 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.
5. 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.)
6. **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.
7. **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.)
8. **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.
9. **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.
10. 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.
11. **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.
12. **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.

13. 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.
14. **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.
15. 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.
16. **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.
17. **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.
18. 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.
19. 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.
20. **Yung-Tsung Lee\*** and Yu-Hao Luo, Structural Analysis of Reverse Mortgages, 2012 TRIA Annual Meeting, National Central University, November 24, 2012.
21. 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.
22. 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.
23. 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.
24. Hong-Chih Huang and **Yung-Tsung Lee\***, 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

25. Sharon S.W. Yang, Hong-Chih Huang and **Yung-Tsung Lee**, 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.