CURRICULUM VITAE

SHIRONG ZHAO

Last updated on August, 2025

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ACADEMIC POSITIONS

Dongbei University of Finance & Economics, School of Finance

Associate Professor, July 2023-Present.

Assistant Professor, June 2021–July 2023.

The University of Queensland, Department of Economics

Visiting Scholar, May 2025–July 2025.

University of Tennessee, Department of Clinical Pharmacy and Translational Science

Postdoctoral Fellow, August 2020–January 2021.

EDUCATION

- Ph.D. Economics, May 2020, Clemson University, Clemson, USA.
- M.S., Mathematical Sciences, December 2020, Clemson University, Clemson, USA.
- M.A., Economics, October 2014, Tohoku University, Sendai, Japan.
- B.A., Economics, July 2012, Peking University, Beijing, China.
- B.A., Management Science and Engineering, July 2012, Renmin University of China, Beijing, China.

RESEARCH INTERESTS

Efficiency and Productivity, Banking, Corporate Finance

SELECTED ARTICLES in REFEREED JOURNALS

- 13. Kerstens, K., Bart, R., Van de Woestyne, I., and Zhao, S. (2025a). An exploratory analysis of learning from peers: Radial vs. nonradial efficiency measures and convex vs. nonconvex technologies. *European Journal of Operational Research*. forthcoming.
- 12. Kerstens, K., O'Donnell, C., Van de Woestyne, I., and Zhao, S. (2025b). When cost metafrontiers are nonconvex in the outputs, then the production metafrontier is nonconvex: the price of a convexification strategy. *European Journal of Operational Research*. forthcoming.

- 11. Zelenyuk, V. and Zhao, S. (2025). Inference for DEA estimators of malmquist productivity indices: an overview, further improvements, and a guide for practitioners. *Macroeconomic Dynamics*, 29:e81.
- 10. Wilson, P. W. and Zhao, S. (2025). A non-parametric analysis of world productivity growth, 1990–2019. Annals of Operations Research, 346(3):2253–2285.
- 9. Simar, L., Zelenyuk, V., and Zhao, S. (2024b). Statistical inference for Hicks-Moorsteen productivity indices. *Annals of Operations Research*, pages 1–29.
- 8. Zelenyuk, V. and Zhao, S. (2024). Russell and slack-based measures of efficiency: A unifying framework. European Journal of Operational Research, 318(3):867–876.
- 7. Simar, L., Zelenyuk, V., and Zhao, S. (2024a). Inference for aggregate efficiency: Theory and guidelines for practitioners. *European Journal of Operational Research*, 316:240–254.
- 6. Wu, J. and Zhao, S. (2024). Returns to scale in cost, revenue, and profit for european banks: New results from nonparametric local linear methods. *Financial Review*, 59(2):487–517.
- 5. Parmeter, C. F. and Zhao, S. (2023). An alternative corrected ordinary least squares estimator for the stochastic frontier model. *Empirical Economics*, 64(6):2831–2857.
- 4. Wilson, P. W. and Zhao, S. (2023). Investigating the performance of Chinese banks over 2007–2014. *Annals of Operations Research*, 321(1-2):663–692.
- 3. Zhao, S. and Parmeter, C. F. (2022). The "wrong skewness" problem: Moment constrained maximum likelihood estimation of the stochastic frontier model. *Economics Letters*, 221:110901.
- 2. Wilson, P. W. and Zhao, S. (2022). Evidence from shadow price of equity on "Too-Big-to-Fail" Banks. *Journal of Productivity Analysis*, 57(1):23–40.
- 1. Zhao, S. (2021). Quantile estimation of stochastic frontier models with the normal–half normal specification: A cumulative distribution function approach. *Economics Letters*, 206:109998.

GRANTS AND CONTRACTS

- 3. National Natural Science Foundation of China (Grant no. 72401056), principal investigator (January, 2025–December, 2027).
- 2. Liaoning Provincial Department of Education Research Fund (Grant no. LJKMZ20221602), principal investigator (November, 2022–November, 2023).
- 1. Liaoning Social Science Foundation (Grant no. L22CJY011), principal investigator (November, 2022–November, 2023).

PROFESSIONAL SERVICE

JOURNALS REFEREE

Journal of Econometrics (\times 1), European Journal of Operational Research (\times 1), Annals of Operations Research (\times 1), OR Spectrum (\times 1), Journal of Productivity Analysis (\times 6), Empirical Economics (\times 3).

PROFESSIONAL MEMBERSHIPS

American Economics Association, International Society for Efficiency and Productivity Analysis, Chinese Economists Society, CFA

TEACHING & RESEARCH EXPERIENCE

Graduate Instructor of Record

School of Finance, Dongbei University of Finance and Economics Securities Investment (Undergraduate), Fall 2022 Corporate Finance (Undergraduate), Spring 2022, 2024, 2025, 2026 Business Finance (IFoA) (Undergraduate), Spring 2025, 2026 Financial Markets and Institutions (Graduate), Fall 2022, 2023, 2025 The Economics of Banking (Graduate), Spring 2026

John E. Walker Department of Economics, Clemson University Principles of Microeconomics (Undergraduate), one section, Fall 2019

Teaching Assistant

School of Mathematical and Statistical Sciences, Clemson University Introductory Business Statistics (Undergraduate), Summer 2019 Calculus of One Variable II (Undergraduate), Summer 2019

John E. Walker Department of Economics, Clemson University Principles of Microeconomics (Undergraduate), Fall 2019 Microeconomics II (PhD Core), Spring 2017 Econometric I (PhD Core), Fall 2017, 2018 Econometric III (PhD Core), Fall 2017, 2018

Graduate School of Economics and Management, Tohoku University Microeconomics II (Graduate), Spring 2014 Comparative Economics (Graduate), Fall 2012

PRESENTATION & CONFERENCE

- 18. "Central Limit Theorems for Directional Distance Functions with and without Undesirable Outputs," The 2025 Youth Fund (Category C) Exchange Meeting for the Management Science and Engineering Division of the National Natural Science Foundation of China (NSFC), Hefei University of Technology, Hefei, 18-19 September, 2025.
- 17. "Central Limit Theorems for Directional Distance Functions with and without Undesirable Outputs," The 17th National Conference on Management Science and Systems Science for Young Scholars, Dongbei University of Finance and Economics, Dalian, 22-24 August, 2025.
- 16. "The Evolution of Scope Economies in European Banking Industry," Conference of Contemporary Topics on Financial Markets, Tianjing University, Tianjing, 8-11 July, 2024.
- 15. "Statistical Inference for Hicks-Moorsteen Productivity Indices," IAER Econometrics Workshop, Dongbei University of Finance and Economics, Dalian, 2024.
- "Statistical Inference for Hicks-Moorsteen Productivity Indices," China Development and Global Economy, Liaoning University, Shenyang, 2024.
- 13. "Inference for Aggregate Efficiency: Theory and Guidelines for Practitioners," Young Economist Society YES, Southwestern University of Finance and Economics, Chengdu, 2023.
- 12. "Further Improvements of Finite Sample Approximation of Central Limit Theorems for Envelopment Estimators," Asia-Pacific Productivity Conference (APPC 2022), Taipei (Virtual), 2022.

- 11. "Returns to Scale in Cost, Revenue and Profit for European Banks: New Results from Non-parametric Local Linear Methods," Southwestern University of Finance and Economics, Chengdu (Virtual), 2022.
- 10. "An Alternative Corrected Ordinary Least Squares Estimator for the Stochastic Frontier Model", The Virtual African Productivity Conference (Virtual), Sweden, 2021.
- 9. "Investigating the performance of Chinese banks over 2007–2014," The 2021 CES Annual Conference (Virtual), Wuhan, 2021.
- 8. "Non-Parametric Analysis of World Productivity Growth, 1990–2019," The North American Productivity Workshop (Virtual), University of Miami, Miami, 2021.
- 7. "Returns to Scale in Cost, Revenue and Profit for European Banks: New Results from Non-parametric Local Linear Methods," The 8th Conference on Asia and Pacific Economies, XJTLU, Suzhou, 2021.
- 6. "Investigating the Performance of Chinese Banks over 2007–2014," The 2020 CES North America Conference (Virtual), Boston, 2020.
- 5. "Investigating the Performance of Chinese Banks over 2007–2014," The North American Productivity Workshop XI (Virtual), University of Miami, Miami, 2020.
- 4. "Investigating the Performance of Chinese Banks over 2007–2014," University of Tennesse Health Science Center (Virtual), Memphis, 2020.
- 3. "Investigating the Performance of Chinese Banks over 2007–2014," East China University of Science and Technology, Shanghai, 2020.
- 2. "Investigating the Performance of Chinese Banks over 2007–2014," Hunan University, Changsha, 2020.
- 1. "Investigating the Performance of Chinese Banks over 2007–2014," Harbin Institute of Technology, Harbin, 2020.

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REFERENCES

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Professor Paul Wilson Department of Economics 200-D Sirrine Hall, Clemson University Clemson, SC, 29634

Professor Matthew Lewis Department of Economics 220-A Sirrine Hall, Clemson University Clemson, SC, 29634