CURRICULUM VITAE

Personal Data

Name: Chen Zhou

Birth: May 27, 1981, Qingdao, China

Nationality: Chinese

Address 1: Economics and Research Division

De Nederlandsche Bank

P.O. Box 98

1000 AB, Amsterdam The Netherlands

Address 2: Erasmus School of Economics, H11-05

Erasmus University Rotterdam

P.O. Box 1738 3000DR, Rotterdam The Netherlands

Tel number: (+31) 20 5243189 (Amsterdam)

(+31) 10 4081342 (Rotterdam)

E-mail: c.zhou@dnb.nl; zhou@ese.eur.nl Homepage: http://people.few.eur.nl/zhou

Employments

11/2015 – now Senior Economist, Economics and Research Division,

De Nederlandsche Bank

01/2016 – now Associate Professor, Erasmus School of Economics,

Erasmus University Rotterdam

12/2013 – now Research Fellow, Tinbergen Institute

09/2008 – 10/2015 Economist, Economics and Research Division, De Nederlandsche Bank

10/2009 – 12/2015 Assistant Professor, Erasmus School of Economics,

Erasmus University Rotterdam

Education

09/2004 - 11/2008

Ph.D. in Economics, Erasmus University Rotterdam, The Netherlands Supervised by Prof. dr. Laurens de Haan and Prof. dr. Casper de Vries 09/2001-07/2003

Master in Probability and Statistics, Peking University, Beijing, China 09/1997 - 07/2001

Bachelor in Probability and Statistics, Peking University, Beijing, China

Research interests

Financial stability; risk management; financial regulation; Extreme Value Theory

Research Grant/Awards

- 1. EUR fellowship on the project "The evolution of tail risks in financial markets", 150,000 euro, 2016-2019.
- 2. EUR fellowship on the project "Systemic Risk in the Financial System: Defined, Measured and Assessed", 200,000 euro, 2010 2013.

- 3. William F. Sharp Best Paper Award, 5th International Finance and Banking Society conference, Nottingham, United Kingdom, June 26-28, 2013.
- 4. The 2010 EWG-EPA Best Young Researcher Award. EWG-EPA Conference on "Global Trends in the Efficiency and Risk Management of Financial Services", Chania, Greece, July 2-4, 2010.

Professional activities

Editorial duty

Associate Editor of Extremes, 2015-

Scientific program committee

10th Extreme Value Analysis conference, 2017 7th International Finance and Banking Society conference, 2015 6th International Finance and Banking Society conference, 2014 16th European Young Statistician Meeting, 2008

Conference/Workshop organization committee

10th Extreme Value Analysis conference, 2017

Publications

- 1. de Haan, L., Mercadier, C. and Zhou, C. (2016) Adapting extreme value statistics to financial time series: dealing with bias and serial dependence. *Finance and Stochastics*, **20**(2), 321-354.
- 2. van Oordt, M.R.C. and Zhou, C. (2016) Systemic risk of European banks: regulators and markets. In: *Effective Macroprudential Instruments in Macroeconomic Policy Making*, Series 5. Edited by P. Mizen, M. Rubio and P. Turner. Cambridge University Press. Forthcoming.
- 3. Einmahl, J., de Haan, L. and Zhou, C. (2016) Statistics of heteroskadastic extremes, *Journal of the Royal Statistical Society, Series B*, **78**(1), 31-51.
- 4. van Oordt, M.R.C. and Zhou, C. (2016) Systematic tail risk, *Journal of Financial and Quantitative Analysis*, **51**(2), 685-705.
- 5. Cai, J., Einmahl, J., de Haan, L. and Zhou, C. (2015) Estimation of the marginal expected shortfall: the mean when a related variable is extreme, *Journal of the Royal Statistical Society*, *Series B*, **77**(2), 417-442.
- 6. Sun, P. and Zhou, C. (2014) Diagnosing the Distribution of GARCH Innovations, *Journal of Empirical Finance*, **29**, 287-303.
- 7. Zhou, C. (2013) The impact of imposing capital requirement on systemic risk, *Journal of Financial Stability*, **9**(3), 320-329.
- 8. de Haan, L., de Vries, C.G. and Zhou, C. (2013) The number of active bidders in internet auctions, *Journal of Economic Theory*, **148**(4), 1726-1736.
- 9. Cai, J., de Haan, L. and Zhou, C. (2012) Bias correction in extreme value statistics with index around zero, *Extremes*, **16**(2), 173-201.
- 10. van Oordt, M.R.C. and Zhou, C. (2012) The simple econometrics of tail dependence, *Economics Letter*, **116**(3), 371-373.
- 11. Huurman, C., Ravazzolo, F. and Zhou, C. (2012) The power of weather, *Comput. Stat. Data Anal.*, **56**(11), 3793-3807.
- 12. de Haan, L., Ferreira, A. and Zhou, C. (2011) Exceedance probability of the integral of a stochastic process, *J. Multivariate Anal.*, **105**(1), 241-257.
- 13. de Haan, L. and Zhou, C. (2011) Extreme residual dependence for random vectors and processes, *Adv. Appl. Probab.*, **43**(1), 217-242.
- 14. Galati, G., Poelhekke, S. and Zhou, C. (2011) Did the crisis affect inflation expectations? *International Journal of Central Banking*, **7**(1), 167-208.

- 15. Zhou, C. (2010) Are banks too big to fail? Measuring systemic importance of financial institutions, *International Journal of Central Banking*, **6**(4), 205-250.
- 16. Zhou, C. (2010) Dependence structure of risk factors and diversification effects, *Ins.: Mathematics Econ.*, **46**(3), 531-540.
- 17. Zhou, C. (2010) The extent of the maximum likelihood estimator for the extreme value index, *J. Multivariate Anal.*, **101**(4), 971-983.
- 18. de Haan, L., de Vries, C.G. and Zhou, C. (2009) The expected payoff to Internet auctions, *Extremes*, **12**(3), 219-238.
- 19. Zhou, C. (2009) Existence and consistency of the maximum likelihood estimator for the extreme value index, *J. Multivariate Anal.*, **100**(4), 794-815.
- 20. Zhou, C. (2008) A 2-step estimator of the extreme value index, *Extremes*, **11**(3), 281-302.
- 21. Buishand, A., de Haan, L. and Zhou, C. (2008) On spatial extremes: with application to a rainfall problem, *Ann. Appl. Statist.* **2**(2), 624-642.
- 22. de Haan L. and Zhou, C. (2007) On extreme value analysis of a spatial process, *Revstat*, **6**(1), 71-81.
- 23. de Vries, C.G. and Zhou, C. (2006) Discussion of "Copulas: Tales and facts", by Thomas Mikosch, *Extremes*, **9**, 23-25.

Policy publications

Zhou C. and Tarashev N. (2013) Looking at the tail: price-based measure of systemic importance. *BIS Quarterly Review*, June 2013. Bank for International Settlement.

Public opinion and media attention

- 1. Danielsson, J. and Zhou, C. Why risk is hard to measure? VoXEU, April 25, 2015. Based on the working paper "Why risk is so hard to measures?"
- 2. Tracy Alloway 'Capital requirements increase systemic risk' Discuss. Financial Times Alphaville, Aug 6, 2010. Based on the paper "Why the micro-prudential regulation fails?"

Working Papers

- 1. Xiao, X. and Zhou, C. (2016) Entropy-based implied volatility and its information content.
- 2. Galati, G., Gorgi, Z., Moessener, R. and Zhou, C. (2016) Deflation risk in the euro area and central bank credibility. DNB Working Paper No. **509**.
- 3. Danielsson, J. and Zhou, C. (2015) Why risk is so hard to measure? DNB Working Paper No. 494.
- 4. van Oordt, M. and Zhou, C. (2014) *Systemic risk and bank business model*. DNB Working Paper No. **442**.
- 5. Oesting, M., Schlather, M. and Zhou, C. (2013) *On the normalized spectral representation of max-stable processes on a compact set*. arXiv preprint arXiv:1310.1813.
- 6. Qin, X. and Zhou, C. (2013) *Systemic risk allocation for system with a small number of banks*. DNB Working Paper No. **378**.
- 7. Moore, K., Sun, P., de Vries, C.G. and Zhou, C. (2013) *The Cross-Section of Tail Risks in Stock Returns*. Working paper.
- 8. Moore, K. and Zhou, C. (2012) "Too big to fail" or "Too non-traditional to fail"? The determinants of banks' systemic importance. DNB Working Paper No. **347**.
- 9. Galati, G. Lewis, J., Poelhekke, S. and Zhou, C. (2011) *Have market views on the sustainability of fiscal burdens influenced monetary authorities' credibility?* DNB Working Paper No. **304**.
- 10. Garita, G. and Zhou, C. (2009) *Can open capital markets help avoid currency crises?* DNB Working Paper No. **205**.

Presentations at conferences/workshops/seminars (in last five years)

- 1. Invited talk in 10th ICSA international conference, Shanghai, China, Dec 19-22, 2016 (Scheduled).
- 2. Invited talk in 9th CFE-ERCIM Conference, Seville, Spain, Dec 9-11, 2016 (Scheduled).
- 3. Invited talk in the Workshop on Extremes and Risks in Higher Dimensions, Leiden, The Netherlands, Sept 12-16, 2016.
- 4. 2016 Asian Meeting of the Econometric Society, Kyoto, Japan, Aug 11-13, 2016.
- 5. Invited seminar, Bank of Canada, Ottawa, Canada, Aug 4, 2016.
- 6. 2016 Joint Statistical Meetings, Chicago, United States, July 30-Aug 4, 2016.
- 7. 20th International Congress on Insurance: Mathematics and Economics, Atlanta, United States, July 24-27, 2016
- 8. Invited seminar, University of Waterloo, Waterloo, Canada, July 14, 2016.
- 9. World Congress in Probability and Statistics, Toronto, Canada, July 11-15, 2016.
- 10. Invited talk in the Symposium on Financial Engineering and Risk Management (FERM), Guangzhou, China, June 12-13, 2016.
- 11. Invited seminar, Toulouse School of Economics, Toulouse, France, March 24, 2016.
- 12. The Midwest Finance Association annual conference, Atlanta, United States, March 3-5, 2016.
- 13. 13th International Paris December Finance Meeting, Paris, France, Dec 17, 2015.
- 14. Invited talk in the 8th CFE-ERCIM Conference, London, United Kingdom, Dec 9-10, 2015.
- 15. 2015 RiskLab/BoF/ESRB Conference on Systemic Risk Analytics, Helsinki, Finland, Sept 23-25, 2015.
- 16. The 30th Annual Congress of the EEA, Mannheim, Germany, Aug 24-27, 2015.
- 17. The International Banking, Economics and Finance Association 2015 Summer Meeting, Honolulu, United States, June 28-July 2, 2015.
- 18. Invited talk in the 21th International Conference on Computing in Economics and Finance, Taipei, June 20-22, 2015
- 19. Invited talk in the 9th Extreme Value Analysis conference, Ann Arbor, United States, June 15-19, 2015.
- 20. Invited talk in Workshop on New Developments in Econometrics and Time Series, Bochum, Germany, June 11-12, 2015.
- 21. 18th Annual Conference of the Swiss Society for Financial Market Research, Zurich, Switzerland, April, 10, 2015
- 22. The Midwest Finance Association annual conference, Chicago, United States, March 5-7, 2015.
- 23. ESSEC Conference on Extreme events in finance, Royaumont Abbey, France, Dec 15-17, 2014.
- 24. 2014 Financial Stability Conference, Washington D.C., United States, Dec 4-5, 2014.
- 25. Invited talk in Workshop on Extreme Value Theory, with an emphasis on spatial and temporal aspects, Besancon, France, Nov 3-5, 2014.
- 26. 20th International Conference on Computing in Economics and Finance, Oslo, Norway, June 22-24, 2014.
- 27. 6th International Finance and Banking Society conference, Lisbon, Portugal, June 18-20, 2014.
- 28. The Financial Management Association Asian conference, Tokyo, Japan, May 9-11, 2014.
- 29. The Midwest Finance Association annual conference, Orlando, United States, March 5-8, 2014.
- 30. Invited research seminar in City University London, London, United Kingdom, March 4, 2014.
- 31. Basel Committee for Banking Supervision Research Task Force Workshop, Beijing, China, Feb 24-25, 2014.
- 32. Invited talk in the joint CFE-ERCIM conference, London, United Kindom, Dec 14-16, 2013.
- 33. Invited seminar in Université Libre de Bruxelles, Brussels, Belgium, Nov 21, 2013.
- 34. Invited Seminar in Vrije Universiteit Amsterdam, Amsterdam, The Netherlands, Oct 11, 2013.
- 35. The joint EEA-ESEM conference, Gothenburg, Sweden, Aug 26-30, 2013.
- 36. Invited talk in the 8th Extreme Value Analysis conference, Shanghai, China, July 8-12, 2013.

- 37. 5th International Finance and Banking Society conference, Nottingham, United Kingdom, June 26-28, 2013.
- 38. 3rd International Conference of the Financial Engineering and Banking Society, Paris, France, June 6-8, 2013.
- 39. Invited talk in Workshop on spatial extreme value theory and properties of max-stable random fields, Poitiers, France, Nov 9, 2012.
- 40. Conference on Fiscal Policy and Coordination in Europe, Bratislava, Slovakia, Sept 13-14, 2012.
- 41. VII Annual Seminar on Risk, Financial Stability and Banking, Sao Paulo, Brazil, Aug 9-10, 2012
- 42. 2012 Joint Statistical Meetings, San Diego, United States, July 28-Aug 2, 2012.
- 43. The 29th Symposium on Money Banking and Finance, Nantes, France, June 27-28, 2012.
- 44. Invited talk in the Annual CF-UPenn-Tinbergen Finance Conference, Cambridge, United Kingdom, June 24-25, 2012.
- 45. The EMG-ESRC Workshop on Global Linkages and Financial Crises, Cass Business School, London, United Kingdom, April 27, 2012.

Teaching

Master courses

Quantitative Risk Management, ESE, Erasmus University Rotterdam (2016, Scheduled) Market and systemic risk management, Duisenberg School of Finance (2013)

Bachelor courses

Probability Theory, ESE, Erasmus University Rotterdam (2015, 2016) Microeconomics and markets, RSM, Erasmus University Rotterdam (2006, 2007)

Other teaching performed

A two-day course on extreme value analysis, Norges Bank (2009)

Doctoral students

Graduated

Maarten van Oordt (Oct 2013, first job placement: Bank of The Netherlands; second job placement: Bank of Canada)

Pengfei Sun (Oct 2013, first job placement: Deutsche Bank)

Kyle Moore (Dec 2013, first job placement: London School of Economics) Sander Muns (Jan 2016, first job placement: Central Planning Bureau)

Upcoming

Xiao Xiao (expected Jan 2017)

Other activities

- 1. Consultancy for European Central Bank on research project: financial stability indicators based on extreme value analysis. May 2008.
- 2. Technical assistance on European Parliament Research Project: Hedge Funds and Financial Stability (IP/A/ECON/IC/2007-23). Oct, 2007.