

Zhongfang He

Contact Information:

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Education

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| 2009 | PhD, Economics, University of Toronto, Canada (2005-2009), specializing in econometrics, thesis “ <u>Structural breaks and forecasting in empirical finance and macroeconomics</u> ”. |
| 2005 | MA, Economics (doctoral stream with full scholarship), University of Toronto, Canada (2004-2005) |
| 2004 | BA, Economics, Nankai University, China (2000-2004), top graduation grade |

Working Experience

2017 – Present: Director, Royal Bank of Canada.

2011 – 2017: Senior Manager, Royal Bank of Canada.

- Develop behavioural models for managing structural interest rate risk, including deposits, loans and mortgage commitments etc.
- Develop models for measuring liquidity risk including deposits, credit lines and credit cards etc.
- Develop models for stress tests including enterprise-wise, OSFI-Bank of Canada Macro, and US Fed CCAR.

2011: Senior Analyst, Manulife Financial.

- Develop assumptions for long-run government bond yields, corporate spreads and equity returns of difference countries.
- Provide recommendations to the development of structural break models for equity returns.
- Participate in the insurance industry working group of developing capital requirement models.

2009 – 2011: Senior Analyst, Bank of Canada.

- Develop model for separating the credit and liquidity risks of corporate bond spreads.
- Develop model for measuring the effect of unconventional monetary policy on Canadian market interest rates.
- Develop model of extracting market expectation of monetary policy rate via overnight index swap rate.
- Model the credit, funding liquidity and contagion risks of Canadian financial institutions.
- Evaluate the predictive power of the yield curve for subsequent macroeconomic performance.

Professional Designation

Financial Risk Manager (FRM), 2010

Research Work

“Time Dependent Shrinkage of Time-Varying Parameter Regression Models”, 2022, revision and resubmission to *Econometric Reviews*.

[“Integrating Macroeconomic Variables with Interest Rate Scenarios for Interest Rate Risk Measurement in the Banking Book”](#), 2020, *Journal of Risk*, volume 22, pages 67-82.

[“Evaluating the Effect of the Bank of Canada’s Conditional Commitment Policy”](#), 2010, presented at the workshop of the Bank of Canada, featured in Bloomberg, Business Week and U.S. Fed Chairman Ben Bernanke’s speech.

“Monetary Policy and Time Varying Risk Premium: Evidence from the Canadian Overnight Index Swap Market”, joint with Timothy Grieder, 2010, presented at the workshop of the Bank of Canada.

“Credit and Liquidity Risks in Canadian Corporate Spreads: A Latent Factor Approach”, joint with Jean-Sebastien Fontaine and Timothy Grieder, 2010, presented at the workshop of the Bank of Canada.

[“Understanding Systemic Risk: The Trade-Offs between Capital, Short-Term Funding and Liquid Asset Holdings”](#), joint with Celine Gauthier and Moez Souissi, 2010, presented at the workshop of the Bank of Canada.

[“Forecasting Output Growth by the Yield Curve: the Role of Structural Breaks”](#), presented at the 2009 Annual Conference of the Canadian Economic Association and the workshop of the Bank of Canada.

[“Real Time Detection of Structural Breaks in GARCH Models”](#), joint with John Maheu, presented at the 2008 SOEGW international conference and the workshop of the Bank of Canada, published at *Computational Statistics and Data Analysis*, volume 54, November 2010, page 2628-2640.

[“A Tilt Stochastic Volatility Model with Leverage Effect”](#), presented at the 2007 International Conference on Computing in Economics and Finance.

Other Professional Experiences

2004-2008: Teaching Assistant, University of Toronto

- Graduate courses: econometrics, financial econometrics,
- Undergraduate courses: quantitative methods in economics, macroeconomics, microeconomics.

2006-2008: Research Assistant, University of Toronto

- Participated in various research projects on financial asset pricing.