

# Finance

The PhD concentration in finance emphasizes theoretical economics and provides a rigorous, analytically-grounded education. The Finance Department has a long and prominent intellectual history. Ideas that we now take as commonplace, such as moral hazard problems caused by deposit insurance and the Hansen-Jagannathan bounds in asset-pricing, have their origin at the Carlson School. Faculty members are also dedicated to producing top-flight scholars by offering both doctoral courses that focus on cutting edge research as well as collaborative research opportunities. Students who have strong interests and abilities in quantitative methods, mathematics, and economics will find this program both challenging and stimulating. For more information about this program visit: [z.umn.edu/CarlsonPhDFinance](http://z.umn.edu/CarlsonPhDFinance)



Finance PhD Coordinator

**Frederico Belo**

Associate Professor

PhD, University of Chicago

**Areas of Interest:**

Empirical and theoretical  
asset pricing

## Curriculum & Courses

The PhD finance concentration requires a strong mastery of economic theory. During the first year students take doctoral-level courses in microeconomic theory, econometric analysis, and four 2-credit finance PhD seminars. Second-year coursework includes additional finance doctoral seminars along with elective courses in accounting, economics or mathematics.

### Finance PhD Seminars Offered:

**Fina 8802:** Theory of Capital Markets I: Discrete Time

**Fina 8803:** Theory of Capital Markets II: Continuous Time

**Fina 8804:** Advance Continuous Time Finance

**Fina 8810:** Topics in Asset Pricing

**Fina 8812:** Corporate Finance I

**Fina 8813:** Corporate Finance II

**Fina 8820:** Topics in Corporate Finance

**Fina 8822:** Empirical Methods in Finance

**Fina 8823:** Empirical Corporate Finance

**Fina 8890:** Topics in Finance

## Admissions Statistics (Fall 2017)

80

Applications



4

Admissions  
Offers

3

Acceptances

16

Program size

28

Average age  
in program

1420

Average GRE  
(before August 2011)

324

Average GRE  
(after August 2011)

710 Average GMAT

## Finance Faculty

Hengjie Ai

*Assistant Professor*  
*PhD, University of Minnesota*

**Areas of Interest:** Financial economics, macroeconomics, economic theory

Gordon J. Alexander

*Professor and John Spooner Chair in Investment Management*  
*PhD, University of Michigan*

**Areas of Interest:** Value at risk, portfolio theory and management, short selling and margin purchasing, estimation risk, market microstructure, investment companies

Frederico Belo

*Associate Professor*  
*PhD, University of Chicago*

**Areas of Interest:** Empirical and theoretical asset pricing

Murray Z. Frank

*Professor and Piper Jaffray Professor of Finance*  
*PhD, Queens University*

**Areas of Interest:** Corporate capital structure

Robert S. Goldstein

*Professor and C Arthur Williams Jr/MN Insurance Industry Chair, Academic Director of MS in Finance Program*  
*PhD, University of California - Berkeley*

**Areas of Interest:** Term structure of interest rates, credit risk, capital structure theory, general equilibrium

Erik Loualiche

*Assistant Professor*  
*PhD, Northwestern University*

**Areas of Interest:** Asset pricing and macroeconomics

Stephen Parente

*Associate Dean of MBA Programs; Professor and Minnesota Insurance Industry Chair of Healthcare Finance; Academic Director, Medical Industry Leadership Institute*  
*PhD, Johns Hopkins University*

**Areas of Interest:** Health e-commerce, managed care, health information technology, health economics

Juliana T. Salomao

*Assistant Professor*  
*PhD, Stanford University*

**Areas of Interest:** International economics, macroeconomics, finance

Raj Singh

*Associate Dean of Undergraduate Programs; Professor and Curtis L. Carlson Chair in Finance*  
*PhD, Carnegie Mellon*

**Areas of Interest:** Corporate finance, agency theory, auction theory, market microstructure

Martin Szydlowski

*Assistant Professor*  
*PhD, Northwestern University*

**Areas of Interest:** Microeconomic theory, contract theory, corporate finance

Richard Thakor

*Assistant Professor*  
*PhD, Massachusetts Institute of Technology*  
**Areas of Interest:** Investigating how financial frictions and constraints affect financial policy and real outcomes

Tracy Yue Wang

*Associate Professor*  
*PhD, University of Maryland-College Park*  
**Areas of Interest:** Corporate finance, corporate governance, behavioral finance

Colin Ward

*Assistant Professor*  
*PhD, University of Pennsylvania, The Wharton School*  
**Areas of Interest:** Asset pricing, international finance, macrofinance, investments

Andrew Whitman

*Professor*  
*PhD, University of Wisconsin-Madison*  
**Areas of Interest:** Risk management and insurance, insurance theory and practice, employee benefits, personal financial planning

Andrew Winton

*Department Chair, Professor and Minnesota Chair in Banking & Finance*  
*PhD, University of Pennsylvania, The Wharton School*  
**Areas of Interest:** Corporate finance and ownership structure, financial contracting, financial institutions