

CURRICULUM VITAE

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CURRENT POSITIONS

- Vice President, Federal Reserve Bank of Philadelphia, Jan. 2023 –
- First Vice President, American Real Estate and Urban Economics Association, Jan. 2023 –

PREVIOUS POSITIONS

- Senior Specialist II/Principal Financial Economist, Manager III, Officer, and Assistant Vice President, Federal Reserve Bank of Philadelphia, Nov. 2015 – Dec. 2022
- Second Vice President, American Real Estate and Urban Economics Association, Jan. 2022 – Dec. 2022
- Full Professor of Finance and Endowed Professor of Real Estate, San Diego State University, 2016-2018 (on leave)
- Associate Professor (with tenure) of Finance and Endowed Professor of Real Estate, San Diego State University, 2011-2015
- Assistant Professor of Finance, San Diego State University, 2007-2011
- Visiting Associate Professor, UCLA Anderson School of Management, spring 2014
- Adjunct Professor, Wuhan University (China), 2013; Tsinghua University (China), 2011-2013
- Visiting Senior Research Fellow, National University of Singapore Risk Management Institute, summer 2010, summer 2013
- Visiting Scholar, UCLA Ziman Center for Real Estate, 2011-2016; National University of Singapore Institute of Real Estate Studies, summer 2010-2012, fall 2013
- Real Estate Consultant and Manager, TAKTIK (Jiangsu) Real Estate, 2001-2002
- Intern, State Department of Construction, the Government of Jiangsu Province, China, 1998-1999

EDUCATION

- Ph.D., University of Southern California (USC), 2007
 - Dissertation committee: Raphael Bostic, Yongheng Deng, Stuart Gabriel, Chris Jones, Fernando Zapatero

EDITORIAL BOARD SERVICES

- *Real Estate Economics* (2017–)
- *Journal of Real Estate Finance and Economics* (2017–)

FELLOWSHIPS AND HONORS

- Weimer School Fellow, Homer Hoyt Institute (2015)
- Outstanding Faculty Contribution Award, SDSU College of Business Administration (2015)

RESEARCH AREAS

- Retail credit, fixed-income securities, consumer finance, housing, commercial real estate, risk management, applied econometrics.

REFEREED JOURNAL ARTICLES

- An, Xudong, Stuart A. Gabriel, and Nitzan Tzur-Ilan. 2022. More Than Shelter: The Effects of Rental Eviction Moratoria on Household Well-Being. *American Economic Review (AEA Papers and Proceedings)* 112: 308-312.
- Acolin, Arthur, Xudong An, and Susan Wachter. 2021. Lending Competition, Regulation and Non-traditional Mortgages. Forthcoming at *Real Estate Economics*.
- An, Xudong, Yongheng Deng, and Stuart Gabriel. 2021. Default Option Exercise over the Financial Crisis and Beyond. *Review of Finance* 25(1): 153-187.
- An, Xudong and Larry Cordell. 2021. Mortgage Loss Severities: What Keeps Them So High? *Real Estate Economics* 49(3): 809-842.
- An, Xudong, Larry Cordell, and Joseph B. Nichols. 2019. Reputation, Information, and Herding in Credit Ratings: Evidence from CMBS. *Journal of Real Estate Finance and Economics* 61: 476-504.
- An, Xudong and Gary Pivo. 2017. Green Buildings in Commercial Mortgage-Backed Securities. *Real Estate Economics* 48(1): 7-42 (lead article).
- Acolin, Arthur, Xudong An, Raphael W. Bostic, and Susan Wachter. 2017. Homeownership and the Use of Nontraditional and Subprime Mortgages. *Housing Policy Debate* 27(3): 393-419.
- An, Xudong, Yongheng Deng, Jeffrey D. Fisher, and Maggie Rong Hu. 2016. Commercial Real Estate Rental Index: A Dynamic Panel Data Model Estimation. *Real Estate Economics* 44(2): 378-410.
- An, Xudong, Jeffrey D. Fisher, and David Geltner. 2015. Cash Flow Performance of Fannie Mae Multifamily Real Estate. *Journal of Real Estate Finance and Economics* 52(4): 512-542.
- An, Xudong, Yongheng Deng, Joseph B. Nichols, and Anthony B. Sanders. 2015. What Is Subordination About? Credit Risk and Subordination Levels in Commercial Mortgage-backed Securities (CMBS). *Journal of Real Estate Finance and Economics* 51(2): 231-253.
- An, Xudong, Yongheng Deng, Joseph B. Nichols, and Anthony B. Sanders. 2013. Local Traits and Securitized Commercial Mortgage Default. *Journal of Real Estate Finance and Economics* 47(4): 787-813.
- An, Xudong, Yongheng Deng, Eric Rosenblatt, and Vincent W. Yao. 2012. Model Stability and the Subprime Mortgage Crisis. *Journal of Real Estate Finance and Economics* 45(3): 545-568 (lead article).

- An, Xudong, Yongheng Deng, and Stuart A. Gabriel. 2011. Asymmetric Information, Adverse Selection and the Pricing of CMBS. *Journal of Financial Economics* 100(2): 304-325.
- An, Xudong, John M. Clapp, and Yongheng Deng. 2010. Omitted Mobility Characteristics and Property Market Dynamics: Application to Mortgage Termination. *Journal of Real Estate Finance and Economics* 41(3): 245-271 (lead article).
- An, Xudong and Raphael W. Bostic. 2009. Policy Incentives and the Extension of Mortgage Credit: Increasing Market Discipline for Subprime Lending. *Journal of Policy Analysis and Management* 28(3): 340-365 (lead article).
- An, Xudong, Yongheng Deng, and Stuart A. Gabriel. 2009. Value Creation through Securitization: Evidence from the CMBS Market. *Journal of Real Estate Finance and Economics* 38:302-326.
- An, Xudong and Raphael W. Bostic. 2008. GSE Activity, FHA Feedback and Implications of the Efficacy of the Affordable Housing Goals. *Journal of Real Estate Finance and Economics*, 36(2): 207-231.
- Clapp, John M., Yongheng Deng, and Xudong An. 2006. Unobserved Heterogeneity in Models of Competing Mortgage Termination Risks. *Real Estate Economics*, 34(2): 243-273.

RESEARCH BRIEFS

- An, Xudong, Siddhartha Biswas, Mallick Hossain, Solomon Tarlin, and Calvin Zhang. 2022. A Bottom-Up Approach to Climate Stress Tests: The Effect of Hurricanes on Mortgage Repayment. *Philadelphia Fed SRC Research Brief*, December 2022.
- An, Xudong, Larry Cordell, Erik Dolson, Mallick Hossain, and Nilim Roy. 2021. Is Credit Card Forbearance Worth It? *Philadelphia Fed SRC Research Brief*, July 2021.
- An, Xudong, José Canals-Cerdá, Keyoung Lee, and Gerald Rama. 2021. Credit Score Dynamics in the Time of COVID-19. *Philadelphia Fed SRC Research Brief*, June 2021.
- An, Xudong, Larry Cordell, Charles Mattioli, and Calvin Zhang. 2020. Underwriting Cycles and Mortgage Default. *Philadelphia Fed SRC Research Brief*, June 2020.
- An, Xudong, Larry Cordell, Jason Keegan, and Sharon Tang. 2019. How Many Seriously Delinquent Auto Borrowers Are There? *Philadelphia Fed SRC Research Brief*, August 2019.

BOOK CHAPTERS

- An, Xudong, Larry Cordell, Raluca Roman, and Calvin Zhang. 2023. Central Bank Monetary Policy and Consumer Credit Markets. Article in **Oxford Research Encyclopedia of Economics and Finance**, forthcoming.
- An, Xudong and Kerry D. Vandell. 2014. Commercial Mortgages and Commercial Mortgage-Backed Securities (CMBS). Book chapter in H. Kent Baker and Peter Chinloy (eds.), *Public Real Estate Markets and Investments*, Oxford University Press. ISBN: 978-0-19-999327-7.
- An, Xudong, Yongheng Deng, and Anthony B. Sanders. 2008. Subordination Levels in Structured Financing. Book chapter in Arnoud Boot and Anjan Thakor (eds.), *Handbook of Financial Intermediation and Banking*, Elsevier. ISBN: 978-0-444-51558-2.

- An, Xudong, Raphael W. Bostic, Yongheng Deng, and Stuart A. Gabriel. 2007. GSE Loan Purchases, the FHA, and Housing Outcomes in Targeted, Low-income Neighborhoods. Article in *Brookings-Wharton Papers on Urban Affairs*, 2007: 205-256.

WORKING PAPERS

- An, Xudong, Stuart A. Gabriel, and Nitzan Tzur-Ilan. 2023. The Effects of Extreme Wildfire and Smoke Events on Household Financial Outcomes. SSRN Working Paper (February 3, 2023).
- An, Xudong, Yongheng Deng, and Dayin Zhang. 2023. Flood Risk, Insurance and Business Relocation. International Banking, Economics and Finance Association Conference Paper.
- An, Xudong, Sadok El Ghouli, Omrane Guedhami, Ross E. Levine, and Raluca A. Roman. 2023. Social Capital and Mortgages. SSRN Working Paper (March 1, 2023).
- An, Xudong, Larry Cordell, and Keyoung Lee. 2022. Inequality in the Time of COVID-19: Evidence from Mortgage Delinquency and Forbearance. SSRN Working Paper (February 2, 2022) and Federal Reserve Bank of Philadelphia Working Paper 21-09/R.
- Ambrose, Brent, Xudong An, and Luis A. Lopez. 2021. Eviction Risk of Rental Housing: Does It Matter How Your Landlord Finances the Property? SSRN Working Paper (February, 2021) and Federal Reserve Bank of Philadelphia Working Paper 21-05.
- Agarwal, Sumit, Xudong An, Larry Cordell, and Raluca Roman. 2020. Bank Stress Test Results and Their Impact on Consumer Credit Markets. SSRN Working Paper (July 1, 2020), 2021 WFA conference paper, and Federal Reserve Bank of Philadelphia Working Paper 20-30.
- An, Xudong, Larry Cordell, and Sharon Tang. 2020. Extended Loan Terms and Auto Loan Default Risk. Federal Reserve Bank of Philadelphia Working Paper 20-18.
- An, Xudong and Ying Zhang. 2018. Commercial Real Estate Diversification: A New Method. 2018 ARES conference paper.
- An, Xudong and Vincent W. Yao. 2016. Credit Expansion, Competition, and House Prices. SSRN Working Paper (November 16, 2016).
- An, Xudong, Andrew Q. Do, Timothy Riddiough, and Vincent W. Yao. 2015. Asymmetric Information and Subprime Mortgage Default. SSRN Working Paper (November 13, 2015).
- An, Xudong and Timothy Riddiough. 2015. Liquidity Provision, Credit Risk and the Bond Spread: New Evidence from the Subprime Mortgage Market. SSRN Working Paper (October 28, 2015).
- An, Xudong, Raphael W. Bostic, and Vincent W. Yao. 2015. Financial Literacy and Mortgage Credit: Evidence from the Recent Mortgage Market Crisis. SSRN Working Paper (July 15, 2015).
- An, Xudong and Joseph B. Nichols. 2014. The Upgrade and Downgrade of CMBS Credit Ratings. Real Estate Research Institute Working Paper.
- An, Xudong, Yongheng Deng, and Jia He. 2012. Predicting Default of Chinese Companies: Information beyond Accounting and Market Variables. NUS RMI Working Paper.
- An, Xudong. 2007. Macroeconomic Conditions, Systematic Risk Factors, and the Time Series Dynamics of Commercial Mortgage Credit Risk. SSRN Working Paper (July 17, 2007).

RESEARCH GRANTS

Real Estate Research Institute Research Grant (2014, 2013, 2010, 2008, 2006); UCLA Ziman Center for Real Estate Research Grant (2015, 2014, 2013); NUS Risk Management Institute Research Grant (2009); Freddie Mac Research Grant (2008); SDSU University Grant (2015, 2011, 2010, 2009); SDSU College of Business Research Grant (2015, 2013, 2012, 2011, 2010); USC Lusk Center for Real Estate Summer Research Grant (2005)

TEACHING

- Courses taught
 - MBA Real Estate Investment and Development, MBA Securities Investments (Wuhan University), MS Real Estate Finance (Tsinghua University), Real Estate Finance, Real Estate Finance and Investments (UCLA), Real Estate Principles, Real Estate Valuation, Exploration of Business, MBA/MS theses, Graduate Intermediate Microeconomics (USC)
- Curriculum development
 - Led the revision of SDSU's undergraduate real estate program in 2011 and 2013; started a real estate minor program; revitalized the graduate real estate program; developed 9 major case studies based on real projects and transactions in San Diego; wrote numerous mini cases
- “Most Influential Faculty” nomination by my students in spring 2015

SELECTED PROFESSIONAL SERVICES

- Board of Directors, American Real Estate and Urban Economics Association (AREUEA), January 2018-January 2021
- Founder and organizing committee chair, AREUEA Virtual Seminar Series, 2020-2021.
- Award committee, program committee and nomination committee of various organizations including AREUEA, the American Real Estate Society, the Financial Management Association, the International Finance and Banking Society, and the Asian Real Estate Society
- Consultant to Fannie Mae, US Department of the Treasury, and HUD
- SDSU University Senate General Education Committee
- Referee services to academic journals such as the Journal of Banking and Finance, Journal of Real Estate Finance and Economics, Management Science, Real Estate Economics, Review of Financial Studies, etc.

OTHER AWARDS AND FELLOWSHIPS

Homer Hoyt Postdoctoral Honoree, Homer Hoyt Institute (2010); Best Paper Award, ARES Annual Conference (2019); Outstanding Academic Achievement Award, USC Office of International Services (2007); Pension Real Estate Association (PREA) Scholarship, PREA (2006-2007); Urban Land Institute (ULI) Kenneth M. Good Graduate Fellowship, ULI (2006-2007); Lusk Center Ph.D. Fellowship, USC Lusk Center for Real Estate (2006-2007); Phi Beta Kappa International Scholarship, The Alpha Association of California (2006); Haynes Foundation Graduate Fellowship, The Haynes Foundation (2005-2006); Ph.D. Scholarship, USC School of Policy, Planning, and Development (2002-2005)

RECENT INVITED SEMINARS AND PRESENTATIONS

USC, UC Irvine, UCLA, Wisconsin Madison, Penn State, Fed Board, OCC, FHFA, Fannie Mae, Freddie Mac, Hoyt Institute, Fed System Community Development Seminar Series, Fed System Stress Testing Conference, Philadelphia Fed-State Housing Finance Agencies Roundtable, Philadelphia Fed Consumer Finance Institute, American Economic Association Annual Conference, American Finance Association Annual Conference, American Real Estate and Urban Economics Association (AREUEA) Annual Conference, AREUEA National Conference, AREUEA International Conference, Western Finance Association Annual Conference, Mid-Atlantic Finance Research Conference, International Banking, Economics and Finance Association Summer Conference

MODELING EXPERIENCE

- Mortgage modeling: 20 years of experience with competing risks hazard models (with unobserved heterogeneity), Logit Models (multinomial and nested, with unobserved heterogeneity), and various other econometric models; modeling work published at the *Journal of Financial Economics*, *Review of Finance*, *Real Estate Economics*, etc.
- Developer of the residential mortgage loss given default model that is used in Fed stress test.
- Developer of the original commercial mortgage-backed securities (CMBS) default model that later evolved into the FedCREST stress test model.
- Team lead, deputy lead, co-lead of the Fed retail risk modeling teams (first-lien mortgage, home equity, auto, credit card and non-core retail) for Fed stress test.