

Curriculum Vitae Alex van de Minne

PERSONAL

NAME:	Alex van de Minne
NATIONALITY:	Dutch (green card)
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EDUCATION

PhD	2015	University of Amsterdam Amsterdam Business School
MSc	2009	Delft Institute of Technology
BSc	2007	Delft Institute of Technology

AREA OF EXPERTISE

- Empirical research in commercial property price dynamics.
- Climate finance.
- Economics of development.
- Financial econometrics.
- Spatial econometrics. (Non-Intrinsic Conditional Autoregressive Models and Gaussian Random Fields.)
- Bayesian structural models (state space models), with Bayesian estimation such as full MCMC procedures (Gibbs and No-U-Turn-Sampler) and Laplace Approximation.
- Time series analysis, including Dynamic Factor modeling, Kalman filter, and forecasting.
- Working with scarce, heterogeneous, and unbalanced data.
- Machine Learning. Decision Trees, ANN, SVM, and Convolutional Neural Networks.

PROFESSIONAL EXPERIENCE

Visiting Professor (Cornell University, SC Johnson College of Business)

2026 - Current

Assistant Professor (University of Connecticut, School of Business)

2019 – 2026

PostDoc/Research Scientist (MIT Center for Real Estate)

2015 – 2019

- I started as a PostDoc in 2015 and was promoted to research scientist in 2017.
- Founder and head of the Real Estate Price Dynamics Platform at the MIT Center for Real Estate in 2017. Developed multiple real estate pricing products. These include (1) forecasting, (2) total return indexes, and (3) supply/demand indexes. Started in 2018.

Visiting Scholar at the Philadelphia Federal Reserve

2024 – current

- Developed county-level commercial property price indexes for the Federal Reserve (Philadelphia). We use these to Mark-to-Market LTV ratios of banks. This allows the Fed to monitor banks' loan performance (2024-2025)
- Research on interest rates and commercial real estate performance.

Consultant

2015 - current

- **MSCI:** Developed the MSCI Commercial Property Price Indexes (CPPIs). A Bayesian Structural Time Series Repeat Sales Model, with time-varying signal and noise and implied autoregressive returns. (In production; 2017.)
- **MSCI:** Develop a cap rate and price per square foot time series for RCA/MSCI. Based on chained structural time-series hedonic models. (In production; 2019.)
- **MSCI:** Helped develop liquidity indicators for RCA/MSCI. The liquidity indicators are based on sales probabilities (Probit), entered as inverse Mills ratios in the repeat sales model (see above). (In production; 2023.)
- **Moody's Analytics:** Developed an automated "comps" finder (Nearest Neighbors Algorithm) of cap rates for Moody's, which combines machine learning with more traditional frequentist principles. (In production; 2025.)

- **Moody's Analytics:** Developed their market-level price indexes. These models pool properties when there are not enough historical transactions from neighboring markets. (With weights for distance.) The basis is a Bayesian Structural Time Series Repeat Sales Model. (In production; 2026)

RESEARCH

Peer-to-Peer Publications

- Land, Structure & Depreciation, with Marc Francke. *Real Estate Economics* (2017).
- Riskiness of Real Estate Development: A Perspective from Urban Economics & Option Value Theory, with Anil Kumar and David Geltner. *Real Estate Economics* (2020).
- Modeling Unobserved Heterogeneity in Hedonic Price Models, with Marc Francke. *Real Estate Economics* (2021).
- Daily Appraisal of Commercial Real Estate; A New Mixed Frequency Approach, with Marc Francke. *Real Estate Economics* (2022).
- Where is the Opportunity in Opportunity Zones? With Alan Sage, and Mike Langen. *Real Estate Economics* (2023).
- Combining Machine Learning and Econometrics: Application to Commercial Real Estate Prices, with Marc Francke. *Real Estate Economics* (2023).
- Commercial Real Estate and Air Pollution, with Dragana Cvijanovic and Lyndsey Rolheiser. *Real Estate Economics* (2024).
- On the value of market signals: Evidence from commercial real estate redevelopment. With Simon Buechler and Olivier Schoni. *Real Estate Economics* (2026).
- An Application of the Hierarchical Repeat Sales Model on Thin Commercial Real Estate and Residential Markets, with Marc Francke. *Journal of Real Estate Finance and Economics* (2018).
- Using Random Revisions as a Goodness-of-Fit Measure in Repeat Sales Models, with Marc Francke, David Geltner, and Robert White. *Journal of Real Estate Finance and Economics* (2020).
- The Dynamics of Liquidity in Commercial Real Estate Markets, with Dorinth van Dijk and David Geltner. *Journal of Real Estate Finance and Economics* (2021).

- Preferences of Institutional Investors in Commercial Real Estate, with Dragana Cvijanovic and Stanimera Milcheva. *Journal of Real Estate Finance and Economics* (2021).
- A Machine Learning Approach to Price Indices: Applications in Real Estate. With Felipe Calainho and Marc Francke. *Journal of Real Estate Finance and Economics* (2022).
- Estimating Census Tract House Price Indexes: A New Spatial Dynamics Factor Approach. With Marc Francke and Lyndsey Rolheiser. *Journal of Real Estate Finance and Economics* (2023).
- Estimating Commercial Property Fundamentals from REIT data. With David Geltner and Anil Kumar. *Journal of Real Estate Finance and Economics* (2023).
- Forecasting US Commercial Property Price Indexes using Dynamic Factor Models, with Marc Francke and David Geltner. *Journal of Real Estate Research* (2021).
- Is There Supernormal Profit in Real Estate Development? With David Geltner and Anil Kumar. *Journal of Real Estate Research* (2022).
- The Price of Work-from-Home: Commercial Real Estate in the City and the Suburbs, with Lyndsey Rolheiser, Chinmoy Ghosh, and Xiaofeng Weng. *Journal of Real Estate Research* (2025).
- Do Different Price Points Exhibit Different Investment Risk and Return in Commercial Real Estate? With David Geltner. *Journal of Portfolio Management* (2017).
- Does Housing Vintage Matter? With Lyndsey Rolheiser and Dorinth van Dijk. *Regional Science and Urban Economics* (2020).
- Detecting housing bubbles in Poland: Investigation into two housing booms. With Radoslaw Trojanek, Michal Gluszak and Justyna Tanas. *Habitat International* (2023).

Working Papers (a selection)

- Temperature Extremes and Real Assets. With Dragana Cvijanovic and Lyndsey Rolheiser.
- Smoked Out: Impact of Wildfire Smoke on Labour and Buildings. In this paper, we study the impact of wildfire smoke on worker productivity on a building level and analyze the impact this has on office rents. With Dragana Cvijanovic, Lyndsey Rolheiser, and Olivier Schoni.

- Mass Valuation of Cap Rates using a Novel Nearest Neighbors Approach. In this paper, we value all properties in the U.S. using a simple nearest-neighbors approach that mimics the appraisal approach. With Simon Buechler.
- (Sub)Urbanization of Commercial Real Estate Development from 1980 to 2020. With Lyndsey Rolheiser, Dragana Cvijanovic, and Tom Davidoff.

Books

- Main author of the 4th edition of "Commercial Real Estate Analysis & Investment."

Editorial Boards

- Journal of Real Estate Research
- Journal of Real Estate Portfolio Management

AWARDS & GRANTS

- 2025. Best referee award from Real Estate Economics.
- 2019. Appointed as a PostDoc at Homer Hoyt.
- 2019. Received \$100,000 research grant from Equity International (a Sam Zell company) to work on estimating the relationship between PurePlay REIT returns and private markets.
- 2016 – 2017. Real Estate Research Institute grant for a paper on quantile price indices with David Geltner.
- 2017 – 2018. Real Estate Research Institute grant for a paper on dynamic factor models with David Geltner and Marc Francke.
- 2024 – 2025. Real Estate Research Institute grant for a paper on the change in locational preference of commercial development (1970 – 2020). With Lyndsey Rolheiser and Dragana Cvijanovic.
- 2016. The European Real Estate Society RICS Award for the Best Paper in Real Estate Valuation. For a paper on long-run house price determinants with Martijn Dröes.
- 2017. Nominated best Dutch Real Estate Research of the Year. Awarded by VOGON and PropertyNL.
- 2013. Best Dutch Real Estate Research of the year. Awarded by VOGON and PropertyNL for his work on price indices.
- 2011. Best European Doctoral Paper. Awarded by the ERES for his work on demand and supply in housing markets.

COURSE WORK

- **Real Estate Investment** (2019—2026): Making proformas with students. The class includes forecasting cash flows and determining the cost of capital.
- **Real Estate Finance** (2021): How do mortgage markets work? Where is the risk, and how do mortgages amortize? The course also explains how mortgage markets relate to the broader economy.
- **Real Estate Principles** (2019 - 2026). Introducing real estate law, urban economics, appraisals, and the mortgage market to students with an interest in real estate.
- **Thesis Supervision** (2010—current). I started with my undergraduates at the University of Amsterdam in 2010. Subsequently, I supervised graduate students' theses in 2012 at the University of Amsterdam and starting in 2016 (2019) at MIT (UConn).
- **Machine Learning Course** (2019). Applied course (in R) on mass real estate valuation using different machine learning techniques, like Regression Trees (CART).
- **Statistics Course** (2016 - 2019): An introduction to statistics for MSRED students at MIT. The focus was on applications of econometric modeling in real estate.
- **Principles of Real Estate** (2010 - 2015). Introduction course in urban economics and real estate finance. Third-year elective course for undergraduate students at the University of Amsterdam (Amsterdam Business School) interested in real estate. Has been one of the most highly rated undergraduate courses (by student satisfaction) at the Amsterdam Business School.
- **Principles in Finance** (2012 - 2015). First-year (required) course at the Amsterdam Business School for undergraduates (approximately 1,000 students). The course introduced students to some principles of finance, including the time value of money, accounting, and the CAPM. Awarded the highest grade in terms of student satisfaction for anyone contributing to this course.
- **Housing Economics** (2012 - 2014). Explaining house prices over time and analyzing risks for underwriters. The course is given at the Amsterdam School of Real Estate (for MRE/MSRED students).

OTHER SKILLS

- Language skills: Dutch (Native), English.
- Main computer languages: R, Stan, Python, and LaTeX.
- Other computer languages include: JAGS/BUGS, S, Ox Metrics, STATA, Eviews, Matlab, and Office.