THESIS SUPERVISORS AND RESEARCH AREAS OF THE FINANCE DEPARTMENT

Dennis Bams (Full Professor)

https://www.maastrichtuniversity.nl/wfm-bams/research

Research interests:
Sustainable Finance, Risk Management, Mutual Funds, Pension Funds,

Potential research areas:
- Sovereign Risk Management
- Option strategies
- Extreme Value Application in Finance
- Household Risk Management
- Sustainable Investment Strategies

Thesis topic(s) (if available):
- Household Risk Management
- Exploring the Implied Volatility Surface
- Sovereign Risk Management

Rob Bauer (Full Professor)

https://www.maastrichtuniversity.nl/rmmj-bauer/research

Research interests: Private markets, sustainable finance, sustainable investing, impact investing, corporate governance, behavioural finance, private debt.

Potential research areas:
- Pension fund governance
- Mutual funds
- Private debt markets
- Investor democracy
- Shareholder engagement

Thesis topic(s) (if available):
- **How to democratize pension funds**

I am running a project on setting up an online deliberative forum in a pension fund (financed by NWO, the Dutch science foundation). I would like to develop a pilot for such a vehicle which will be eventually implemented in the context of a panel of participants. Look at this paper for context. Also look at https://www.dembrane.com/ for a potential tool.

Jaap Bos (Full Professor)

http://www.jwbbos.com

Research interests:
Efficiency, Productivity, Technical change, Banking, Courts of Justice, Growth, Competition

Potential research areas:
- Bank competition
- Efficiency of firms
- Macro growth
- Performance of courts of justice
- Industrial organization
- Technology regimes
- Efficiency and learning

Thesis topic(s) (if available):
- **Hospital analysis**

I want to apply a number of the concepts mentioned to a nice new data set of hospitals.

Frederique Bouwman (Postdoc)

https://sites.google.com/view/frederiquebouwman/about

Research interests:
Sustainable Finance, Corporate Governance, Corporate Social Responsibility, Behavioural Finance

Potential research areas:
- Sustainable Corporate Governance
- Sustainable Investments
- Executive Compensation
- Cultural Finance

Thesis topic(s) (if available):
- **The role of sustainability in financial decision-making**

My research agenda applies a behavioral paradigm to sustainable finance and corporate governance, focusing on the mechanisms that shape corporate sustainability behavior and decision-making. My overarching aim is to uncover how individual and institutional incentives drive the integration of environmental considerations into corporate strategies. This perspective combines insights from finance, psychology, and governance to explain how financial and non-financial motives interact in shaping responsible business conduct and market outcomes. Whereas much of the sustainable finance literature focuses on the financial impact of sustainability performance, my work asks why firms engage in socially and environmentally responsible behavior in the first place. This reframing makes sustainability a goal in itself, rather than a predictive variable.

Dirk Broeders (Full Professor)

https://www.maastrichtuniversity.nl/nl/dwga-broeders

https://www.dnb.nl/en/research/personal-pages/dirk-broeders/

Research interests:
Pension finance, institutional investing, climate change, asset pricing, risk management, central bank capital

Potential research areas:

- Pension fund investment policies
- Model uncertainty and risk management
- Crypto-assets and tokenization

Thesis topic(s) (if available):

- Assessing the role of crypto-assets in portfolios through principal component analysis
- Loss absorption strategies for central banks
- Do inflation expectations respond to sentiment in central bank speeches
- Model uncertainty and sustainability risk management

Dirk Brounen (Full Professor)

https://www.youtube.com/watch?v=2RTU1v9f5e4

Research interests:
Household Finance, Housing Affordability, energy efficiency

Potential research areas:

- Household financial decision making
- Household Financial Well-being (subjective and objective)
- Parental wealth and intergenerational financial decision making
- Optimizing the investment climate for midrent (affordable and investable)

Thesis topic(s) (if available):

- Household financial decision making - how do household amange their finances? What are common money mistakes, and how can we prevent them to be made in the future? (read the book fixed, by John Campblell!)
- Household Financial Well-being (subjective and objective) - how comfortable are real people with their own finances? are some overconfident, and how can we make sure this overconfidence does not result in financial failures and risks?
- Parental wealth and intergenerational financial decision making - what drives the key decisions of young individuals (choosing education level, first job decisions, first

home) and what is the influence of parental wealth on these decisions? How does this differ across countries and cultures, and change over time?
- Optimizing the investment climate for midrent (affordable and investable) - how can we engage investors to add more housing in the midrental segment? How can we create a mixed business model that balances affordability of housing with a reasonable level of return (financial and social)?

Jeroen Derwall (Associate Professor)

www.jeroenderwall.nl

Research interests:
Sustainable Finance, Investments (equity), mutual funds, shareholder activism/engagement

Potential research areas:
- ESG and sustainable finance (broadly)
- Shareholder activism on sustainability in times of ESG backlash
- Biodiversity risk and asset pricing
- Measuring and monetizing corporate social and environmental impact: do financial markets care?

Thesis topic(s) (if available):
- **Does the financial market care about impact?**

A lot of research has gone to the question whether ESG risk and opportunities are priced in the capital market, e.g. whether ESG factors relate to stock returns (Bolton and Kacperczyk 2021), and whether mutual fund flows are determined by ESG characteristics of mutual funds (Bollen 2007). This interest in the financial implications of ESG risk takes an outside-in view on the relevance of sustainability factors for financial markets. In contrast, a different perspective is that sustainable finance entails an impact materiality perspective, where the focus is on how firms and projects themselves impact on society and the environment regardless of whether that impact is material in a strictly financial sense. Questions one could ask is whether investors care about impact beyond financial return and risk implications. Answering this question could entails research at various levels, e.g. the firm level (e.g. how does ownership vary with measures of firm level impact, or even respond to new information about impact), or at investment fund level (does mutual fund flows respond to information about fund-level impact scores)?

References

Bollen (2007), Mutual fund attributes and investor behavior, Journal of Financial and Quantitative Analysis.

Bolton, P and M. Kacperczyk (2021), Do investors care about carbon risk? Journal of Financial Economics

Heeb et al (2023). Do investors care about impact? Review of Financial Studies

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Piet Eichholtz (Full Professor)

https://www.maastrichtuniversity.nl/pma-eichholtz

Research interests:
Real estate, economic history

Potential research areas:

- Corporate real estate ownership
- Climate risk
- Real estate environmental performance
- Real estate effects on health and productivity
- Home ownership and affordability

Thesis topic(s) (if available):

- **Home sharing: do tenants like it?**

To solve the housing shortage, an obvious way seems to be to share existing homes, especially given that single-person (older) households very often live in relatively large homes. The question is whether tenants support that. The purpose of the research proposal is to do a survey among rental tenants of institutional housing landlords, to investigate the support and conditions for home sharing. Your thesis advisor will help you get into contact with these landlords.

- **Corporate real estate ownership and climate risk**

Climate risk affects real estate values, as well as the usability of real estate at vulnerable locations. The research question is whether the apparent increase in physical climate risk in the last decade has changed the rationale for corporate real estate users to own their buildings, or to rent them. Data is available from Compustat through the UM Library system.

Jean-Maurice Henkel (Lecturer)

https://www.maastrichtuniversity.nl/j-m-henkel

Research interests:
Extreme Risk, Tail Risk for equity

Potential research areas:

- Extreme Risk of the AI Disruption for the economy;
- Extreme risk of Unemployment rate and Mortgage default;
- Advance aging consequences for pension funds liability;
- Extreme risk of future state financed health cost;
- Reinforcement learning for hedging;
- Tail Risk protection trading strategies.

Thesis topic(s) (if available):

- **Financial shocks under the passive EFT boom**

Exchange-traded funds (ETFs) representing passive investment strategies have gained considerable momentum. However, what implications does this trend hold for financial markets correlation of asset prices?

- **Tail Risk and Sin Stocks**

Human beings inherently aspire to make meaningful contributions to society. An increasing body of literature acknowledges that employment within organisations perceived as negative to societal welfare correlates with diminished employee motivation, necessitating higher compensation packages compared to roles deemed socially beneficial. Yet do this fundamental human characteristics manifest similarly within equity markets?

Harry Hummels (Full Professor)

https://www.headstart4happiness.com/

Research interests:
Corporate Responsibility/Respect, Ethics, Sustainable Investing, Impact Investing, Indigenous Communities, Social Entrepreneurship, Philosophy and Economy (e.g. Milton Friedman), or related issues dealing with values/ethics in organisations

Potential research areas:

- The fiduciary responsibility of pension fund boards vis-a-vis future participants
- The responsibility of banks in preventing clients becoming overindebted?
- The wellbeing of micro-entrepreneurs resulting from access to microfinance
- Inclusive stakeholder management and the meaningful dialogue
- Is investing in nuclear arms sustainable?
- The tensions between legal compliance and ethical responsibility in international management
- Ethical leadership in financial institutions
- Is impact investing a fad? The real meaning of impact and how to measure it.

Kimon Ivanov (Lecturer)

https://www.maastrichtuniversity.nl/kb-ivanov

Research interests:
As lecturer no particular research interest.

Peiran Jiao (Associate Professor)

https://peiranjiao.wordpress.com/

Research interests:
Behavioral finance, experimental finance, investor behavior, household finance, behavioral asset pricing

Potential research areas:
- Attentional constraints and financial information processing
- Experience and memory effect on financial beliefs and decisions
- Sustainability preferences and socially responsible investing
- Investor behavioral biases
- News and social media information and asset pricing
- Narratives and the stock market

Thesis topic(s) (if available):
- **Social media and the effect on asset pricing**

This project explores how social media information and/or sentiment can influence asset pricing, such as return predictability, volatility, trading volume and other stock market outcomes.
- **Experience and financial decision making**

This project studies how personal experiences, such as gains, losses or particularly experiences of financial downturns, can influence their subsequent beliefs about the financial market and investment decisions.

- **Sustainability preferences and socially responsible investing**

The aim of this project is to study why individual investors engage in socially responsible investing, whether we can measure sustainability preferences reliably, and how it relates to other preferences of investors.

Alexandre Jolet (Lecturer)

https://www.maastrichtuniversity.nl/jolet

Research interests:
I am interested in research about housing prices, and especially cross border housing prices. I am not doing research myself since I am a finance lecturer.

Thesis topic(s) (if available):
- **Cross-Border Real Estate Analysis**

Housing markets don't stop at borders, yet political, fiscal, and social barriers often create striking differences in prices, demand, and investment flows. This thesis invites you to explore how cross-border interactions shape real estate markets and how factors such as taxation, labor mobility, infrastructure, or affordability influence housing dynamics. The goal is to understand how borders can simultaneously divide and connect regional markets, and what this means for households, investors, and policymakers. Possible applications include

well-known border regions such as Belgium–Luxembourg, France–Switzerland, or Sweden–Denmark, though you are encouraged to define your own context of interest.

Papers on the topic:

Cohen, V., & Karpavičiūtė, L. (2017). The analysis of the determinants of housing prices. *Independent Journal of Management & Production, 8*(1), 49–63. https://doi.org/10.14807/ijmp.v8i1.521

Micheli, M., Rouwendal, J., & Dekkers, J. (2019). Border effects in house prices. *Real Estate Economics, 47*(3), 757–783. https://doi.org/10.1111/1540-6229.12255

Hossain, B., & Latif, E. (2009). Determinants of housing price volatility in Canada: A dynamic analysis. *Applied Economics, 41*(27), 3521–3531. https://doi.org/10.1080/00036840701522861

Stevenson, S. (2004). House price diffusion and inter-regional and cross-border house price dynamics. *Journal of Property Research, 21*(4), 301–320. https://doi.org/10.1080/09599910500151228

Adams, Z., & Füss, R. (2010). Macroeconomic determinants of international housing markets. *Journal of Housing Economics, 19*(1), 38–50. https://doi.org/10.1016/j.jhe.2009.10.005

Helgers, R., & Buyst, E. (2016). Spatial and temporal diffusion of housing prices in the presence of a linguistic border: Evidence from Belgium. *Spatial Economic Analysis, 11*(1), 92–122. https://doi.org/10.1080/17421772.2016.1102961

Sirmans, G. S., MacDonald, L., Macpherson, D. A., & Zietz, E. (2006). The value of housing characteristics: A meta-analysis. *Journal of Real Estate Finance and Economics, 33*(3), 215–240. https://doi.org/10.1007/s11146-006-9983-5

Yu, H., Tang, X., & Zhou, Y. (n.d.). Why are housing and services more expensive in rich countries than in poor ones? A model of neighborhood housing effect and its evidence.

Sanne Jongen (Lecturer)

https://www.maastrichtuniversity.nl/st-jongen

Research interests:
Since I am a lecturer, I do not pursue my own research but I am mainly interested in topics about Pension Funds and Portfolio Management as I worked as portfolio manager and advisor of two Dutch pension funds.

Deborah Kaut (PhD)

https://www.maastrichtuniversity.nl/d-kaut
https://www.uhasselt.be/nl/wie-is-wie/detail/deborah-kaut

Research interests:
Public sector economics, organizational productivity, judicial economics, efficiency measurement, incomplete contracts, multitask incentive theory

Potential research areas:
- Public sector labor markets and talent scarcity
- Judicial productivity and efficiency measurement
- DEA/Malmquist productivity decomposition
- Multitask effort allocation under incomplete contracts
- Organizational performance heterogeneity
- What effect does complexity have on efficiency?
- Is there a tradeoff between accessibility and efficiency?

Thesis topic(s) (if available):
Standard efficiency measurement treats all outputs as equivalent, but institutions (such as hospitals, universities, courts etc) serving more complex or disadvantaged populations face a harder production problem and will appear inefficient even when performing well. Potential thesis topic could look as follows: First, how should legal complexity be defined and measured, and does adjusting for it meaningfully change efficiency rankings and resource allocation conclusions? Second, does restricting access to justice through higher fees or procedural barriers improve system efficiency by filtering marginal cases, or destroy welfare by excluding legitimate disputes that cannot find resolution elsewhere? Third, do these measurement and access challenges generalize to financial markets, where regional credit markets face analogous efficiency penalties despite providing socially valuable intermediation, a question students with access to regional German credit data could pursue.

Stefanie Kleimeier (Associate Professor)

https://stefaniekleimeier.nl/

Research interests:

Corporate finance, syndicated lending, gender, culture

Potential research areas:
- The effects of national culture on financial decision making of managers
- Determinants of syndicated loan conditions
- Syndicated loans and the sustainability of the borrower
- Cross-border bank lending and banking market integration

Thesis topic(s) (if available):

Does Culture Affect Outcomes in Finance and Banking?

While globalization has increased integration across countries, it remains unclear whether markets and behaviors are becoming more similar or whether cultural differences continue to shape outcomes. This tension provides a strong motivation for research in the form of a master's thesis in finance.

Culture can be understood as a relatively stable set of values and norms that influences how individuals and institutions behave. In finance and banking in particular, these cultural factors might play a significant role. For example, higher levels of trust may reduce the need for strict lending requirements, while differences in attitudes toward hierarchy or risk can influence a manager's financial strategies. Similarly, investors may prefer domestic assets over international ones due to cultural familiarity.

Students can investigate the link between finance and culture at multiple levels. At the individual level, culture may shape investor or managerial decisions. At the firm level, it can influence policies such as capital structure, dividend payouts, or hedging. At the country level, cultural differences may help explain variations in banking systems, financial market behavior, or integration.

Please note that during the last couple of years, several SBE students have investigated this topic with specific focus on the effect of cultural differences on the performance of cross-border M&A. Thus, new thesis proposals on this specific sub-topic will not be accepted.

Marlene Koch (Assistant Professor)

https://sites.google.com/view/marlenekoch/start

Research interests:
financial economics, household finance, real estate finance, (optimal) portfolio choice, retirement savings, life cycle models

Potential research areas:

- How do regulatory constraints shape (optimal) portfolio choice (e.g., stock and housing investments) over the life cycle?
- What drives limited stock market participation (e.g., financial literacy, trust, behavioral biases)?
- How do major life events (e.g., marriage, divorce) affect household financial decision-making?
- How can households access their housing wealth in retirement?
- What drives real estate transaction prices?

Thesis topic(s):

- **Keep It Simple? Out-of-Sample Performance of Different Portfolio Choice Strategies**

There is a wide variety of portfolio choice strategies, ranging from intuitive and easy-to-implement strategies, such as the 1/N portfolio strategy, to more complex ones, including the mean-variance portfolio strategy. DeMiguel et al. (2009) show that while more complex strategies may exhibit superior performance in-sample, they often do not perform better out-of-sample. In this thesis, recent stock market data can be used to assess whether the findings of DeMiguel et al. (2009) remain valid today and to determine which strategies perform best in different markets and under varying economic conditions.

Reference: DeMiguel, V., L. Garlappi, and R. Uppal (2009). “Optimal Versus Naive Diversification: How Inefficient is the 1/N Portfolio Strategy?” *The Review of Financial Studies*, *22*(5), 1915-1953.

- **Investment Behavior Across the Life Cycle: Theory Meets Reality**

Portfolio choice theory predicts that young individuals should hold relatively more risky assets and reduce their risk exposure as they age. Yet, in reality, individuals’ investment strategies often look very different. Thus, the natural question is where this discrepancy between observed behavior and optimal decision comes from. Under this topic, it might be, for example, interesting to test the theoretical models' predictions using data on individuals' financial decisions over the life cycle, such as data from the Panel Study of Income Dynamics (PSID) or the Survey of Consumer Finances (SCF). Moreover, regression analyses could shed light on the drivers of individuals' empirically observed investment strategies.

References: Cocco, J. F., F. J. Gomes, and P. Maenhout (2005). "Consumption and Portfolio Choice over the Life Cycle," *Review of Financial Studies*, 18(2), 491–533.

Kaustia, M. and S. Torstila (2011). "Stock Market Aversion? Political Preferences and Stock Market Participation," *Journal of Financial Economics*, 100(1), 98–112.

Vestman, R. (2019). "Limited Stock Market Participation Among Renters and Homeowners," *Review of Financial Studies*, 32(4), 1494–1535.

- **Being Asset-Rich but Cash-Poor – Current Challenges and Solution Approaches**

Managing illiquid assets such as real estate is a challenging part of households’ financial planning problems. Despite generally higher wealth levels than renters, homeowners often struggle to smooth consumption and draw down their savings during retirement due to the illiquidity of their assets and the lack of financial products to tackle the problem. Thus, these individuals are asset-rich but cash-poor. Under this topic, it might, for example, be interesting to study different home equity release schemes such as reverse mortgages and shared ownership. Moreover, one could then address which types of individuals use which products and what drives the popularity of such products. These driving factors could include, for example, different countries’ pension system designs and family statuses. Possible data sources include the US Panel Study of Income Dynamics or HILDA (Household, Income and Labour Dynamics in Australia Dataverse) as reverse mortgages are particularly popular in Australia.

References: Alai, D. H., H. Chen, D. Cho, K. Hanewald, and M. Sherris (2014). “Developing Equity Release Markets: Risk Analysis for Reverse Mortgages and Home Reversions,” *North American Actuarial Journal*, *18*(1), 217–241.

Brandsaas, E. E., and J. S. Kvaerner (2024). “Partial Homeownership: A Quantitative Analysis,” *working paper*, available at https://ssrn.com/abstract=4512563

Fong, J. H., O. S. Mitchell, and B. S. Koh (2023). “Asset-Rich and Cash-Poor: Which Older Adults Value Reverse Mortgages?” *Ageing & Society*, *43*(5), 1104–1121.

- **How Relationship Status Shapes Housing Choices**

Buying a home and entering a committed relationship are two of an individual's biggest decisions, and they are closely linked. Under this topic, it is, for example, interesting to shed light on the long-term financial consequences of either marrying or entering the housing market first. A possible data source for the analysis is US panel data, such as the Panel Study for Income Dynamics (PSID). Moreover, regression analyses could shed light on the drivers (e.g., the pool of eligible partners, mortgage availability, borrowing rates, and birth rates) of the timing of these decisions.

References: Bacher, A. (2024). "Housing and Savings Behavior across Family Types," *working paper*, available at https://annikabacher.github.io/Bacher_JMP.pdf

Chang, M. (2024). "Changing Marital Transitions and Homeownership Among Young Households," *Review of Economic Dynamics*, 52, 46–63.

Chu, C. Y. C., J. C. Lin, and W. J. Tsay (2020). "Males' Housing Wealth and Their Marriage Market Advantage," *Journal of Population Economics*, 33(3), 1005–1023.

Fischer, M. and N. Khorunzhina (2019). "Housing Decisions under Divorce Risk," *International Economic Review*, 60(3), 1263–1290.

Nils Kok (Full Professor)

Nils Kok is Professor in Real Estate Finance at Maastricht University, the Netherlands, where he also directs the Maastricht Center for Real Estate. See https://cris.maastrichtuniversity.nl/en/persons/nils-kok/

Research interests:
Nils’ research interests range from urban economics to institutional real estate investments, with a strong focus on the economics of energy efficiency and sustainability in the real estate sector.

Potential research areas:

- Energy efficiency in the housing or commercial real estate market
- The performance of the institutional infrastructure sector
- Capitalization of (environmental) externalities in the housing market

- Impact of housing conditions on health outcomes
- Air quality and cognitive performance
- Climate risk: implications for real estate and insurance

Thesis topic(s) (if available):

- **Explaining Air Quality: A Global Study**

Air quality has emerged as a hot topic (literally) not just in emerging economies like India and China, but also in developed nations such as the UK, the Netherlands, and the U.S. The air that we breath has implications for physical development and cognitive performance, and the body of evidence on this topic is increasing rapidly.

Most studies use satellite data to gain an understanding of local levels of air pollution, but such measures are not necessarily precise or accurate. Alternatively, most countries have local air quality measurement systems, but these are typically spread across large distances. This thesis aims to use the data gathered by the network of installed sensors provided by PurpleAir, which has an “opt out” policy for each outdoor sensor that they sell to a customer (see the the PurpleAir website). With global data on air quality in hand, the question is what determines the cross-sectional variation in air quality, building a model that includes metrics such as local GDP, industry concentration, and urban development.

Data Sources:
- PurpleAir
- Local Census bureaus/agencies

References and background reading:
Air pollution lowers Chinese urbanites’ expressed happiness on social media (link)
Real estate valuation and cross-boundary air pollution externalities: evidence from Chinese cities (link)
Self-protection investment exacerbates air pollution exposure inequality in urban China (link)

Requirements:
Statistical proficiency, using R or Stata.

Janek Kretschmer (Post-doc)

Add your webpage here. If you don’t have your own, add the link to your Maastricht University webpage here: https://www.maastrichtuniversity.nl/j-kretschmer

Research interests:
Household Finance, Behavioral Finance, Philanthropy

Potential research areas:

- Pension planning
- Behavioral biases in finance
- Investment strategies

- Donation behavior
- Investor behavior

Thesis topic(s) (if available):

Active vs. Passive Investment: Long-run Outperformance Tests with Fundamental and Analyst-Based Strategies

Short text:

A central question in finance is whether simple, rules-based active strategies can reliably outperform passive benchmarks net of risk and realistic costs. With the growth of low-fee index funds (e.g., S&P 500, MSCI World) and the parallel availability of rich fundamental and analyst data, this thesis examines the long-run performance of transparent active strategies that households and institutional investors could plausibly implement.

Using equity-level data from FactSet (or comparable databases), you will construct portfolios based on value and expectation-based signals—such as (forward) P/E, price-to-book, earnings yield, analyst recommendation levels/changes, target-price gaps, and earnings-revision momentum. The project will compare these strategies against major indices over multiple decades, evaluating risk-adjusted returns (Sharpe, Sortino, Fama-French/Carhart alphas), drawdowns, turnover, and tax-sensitive after-cost performance. Robustness checks will include alternative weighting schemes (value-weighted vs. equal-weighted), rebalancing frequencies, sector/region neutrality, and transaction-cost/tax frictions consistent with household execution.

Methodologically, the thesis will (i) define investable screening rules with clear look-ahead and survivorship-bias controls, (ii) benchmark against passive ETFs/indices, and (iii) test whether combinations of signals (e.g., value × revisions, value × quality) deliver statistically and economically meaningful alphas that persist out-of-sample. A secondary aim is to profile the cyclicality of strategy payoffs (e.g., regimes around recessions, inflation shocks, and rate cycles) to inform timing or diversification across signals.

The empirical part of the thesis will implement and backtest a suite of strategies on U.S. (S&P 500 constituents) and global (MSCI World) universes from at least 2000 onward, with careful data hygiene (point-in-time fields, delisting returns). The expected contribution is to assess which simple active rules—if any—outperform passive investing over the long run once realistic constraints are applied; to offer guidance on how investors could implement such rules; and to discuss whether these findings contradict modern portfolio theory or can be reconciled with it.

Dominique Lopez (PhD)

https://www.dominique-lopez.com/

Research interests:

Female entrepreneurship; entrepreneurial finance; life-course transitions; gender and banking; gender and pensions/ retirement savings

Potential research areas:

- Female entrepreneurship and access to finance
- Entrepreneurial decision-making and life-course transitions
- Gendered financial behavior in entrepreneurship and retirement planning
- Gender gaps in pension savings and long-term financial security
- Tourism dependence and macro-financial vulnerability

Thesis topic(s):

- **Financial institutions and women's entrepreneurship across the life course**

Short explanation: This thesis examines how financial institutions shape women's entrepreneurial opportunities and constraints across different life stages. Possible themes include access to credit, banking relationships, financial inclusion, and the role of life-course transitions in influencing entrepreneurial finance.

- **Women entrepreneurs and long-term financial vulnerability**

Short explanation: This thesis examines the extent to which women entrepreneurs face particular challenges in saving, investing, and preparing for retirement. It may explore pension gaps, financial planning, wealth accumulation, and the ways entrepreneurial careers interact with gendered patterns of financial security.

Kermeen Mehta (Lecturer)

https://www.maastrichtuniversity.nl/kp-mehta

Research interests:
As lecturer no particular research interest.

Sjoke Merk (Lecturer)

https://www.maastrichtuniversity.nl/jmr-merk/research

Research interests:
Since I am a lecturer, I do not pursue my own research but I am mainly interested in topics about asset management, derivatives, and hedging.

Stefany Moreno Burbano (PhD)

https://stefany-burbano.github.io/

Research interests:

climate finance, real estate, banking, insurance

Potential research areas:

- Physical climate risk and insurance gap in Europe
- Firms performance and climate risk
- Real estate markets and climate risk
- Private credit markets
- Bank branches, climate risk and local credit markets in Europe
- Productivity of european firms and climate risk

Enver Muftic (PhD)

https://www.maastrichtuniversity.nl/e-mufti%C4%87

Research interests:
Housing economics, energy efficiency, indoor environment and health, real estate finance and economics

Potential research areas:

- Affordable housing
- Energy efficiency of residential and commercial buildings
- The effects of the indoor environment on the tenant productivity and health
- Governmental regulation and housing market failures
- Policy and real estate development

Thesis topics:

- **The Effect of Efficiency Improvements on the Household Energy Burden**

Energy costs represent a significant share of household expenditures. The energy burden (energy costs relative to disposable income) is increasingly recognized as a determinant of financial vulnerability. Households with high energy burdens may face greater difficulties in meeting mortgage or rental payments, which in turn creates financial risk. This study would investigate the evolution of the energy burden across Dutch neighbourhoods using panel data on energy costs, household income, and energy efficiency indicators. The analysis contributes to the finance literature by linking energy efficiency directly to household financial vulnerability. The findings would inform whether energy efficiency could reduce household vulnerability to energy price shocks. The findings would be relevant to tenants, banks, institutions, and policymakers.

Data: https://klimaatmonitor.databank.nl/jive

References: Fowlie, M., Greenstone, M., & Wolfram, C. (2018). Do Energy Efficiency Investments Deliver? Evidence from the Weatherization Assistance Program*. The Quarterly Journal of Economics, 133(3), 1597–1644. https://doi.org/10.1093/qje/qjy005 Burlinson, A., Giulietti, M., Law, C., & Liu, H.-H. (2021). Fuel poverty and financial distress. Energy Economics, 102, 105464. https://doi.org/10.1016/j.eneco.2021.105464

- **Climate Risk, Property Values, and Systemic Financial Exposure in the Netherlands**

The financial sector faces increasing exposure to physical climate risks, including flooding, heat stress, and windstorms. In the Netherlands, climate risks are not explicitly taken into account when determining property valuations (WOZ-waarden). Nevertheless, it remains unclear whether such risks may already be implicitly priced. Namely, properties in high-risk neighbourhoods are selling at a discount relative to otherwise comparable areas. If climate risks are currently ignored or only partially accounted for, the potential for sudden repricing events remains a concern for financial stability. This study would investigate whether Dutch property values reflect neighbourhood-level climate exposures. In addition, one could conduct stress-test scenarios to estimate the scale of potential financial losses under the assumption that climate risks are fully priced, thereby quantifying a "climate value-at-risk" for the Dutch housing market. The study would contribute to the finance literature on mispricing and systemic vulnerability. The results would provide insights into the extent to which climate risks are already incorporated into Dutch property values and the potential consequences of their future repricing.

Data: https://www.klimaateffectatlas.nl/en/dashboard

References: Bernstein, A., Gustafson, M. T., & Lewis, R. (2019). Disaster on the horizon: The price effect of sea level rise. Journal of Financial Economics, 134(2), 253–272. https://doi.org/10.1016/j.jfineco.2019.03.013 Baldauf, M., Garlappi, L., & Yannelis, C. (2020). Does Climate Change Affect Real Estate Prices? Only If You Believe In It. The Review of Financial Studies, 33(3), 1256–1295. JSTOR. https://doi.org/10.2307/48574185

Roger Otten (Assistant Professor)

Roger Otten, PhD | LinkedIn

Roger Otten - Maastricht University

Research interests:

- Institutional Investors
- Responsible Investments
- Real Assets
- Impact Investing
- Mutual Funds

Juan Palacios (Assistant Professor)

https://sites.google.com/view/juanpalacios/about-me

Research interests:

Real Estate finance, Sustainable Finance, Health Economics

Potential research areas:

- Impact Investments: How investors generate impact / change firm behavior
- Energy efficiency in the housing or commercial real estate market
- Impact of housing conditions on health outcomes
- Air quality and cognitive performance
- Climate Finance
- Biodiversity Finance
- Nature based finance

Thesis topic(s) (if available):

- **Activism at the Right Time: Investor Pressure and Sustainable Capital Investment**

This project examines whether the effectiveness of shareholder proposals in driving firms' environmental investments depends on timing relative to firms' capital reinvestment cycles. While institutional investors increasingly use proposals to influence sustainability outcomes, firms typically adjust long-lived assets—such as buildings or machinery—only during infrequent replacement periods. The project tests the hypothesis that investor interventions are effective primarily when they coincide with these reinvestment windows. The goal is to better understand when investor engagement translates into real economic change, with implications for sustainable finance, corporate investment, and real estate economics.

Bram van der Kroft, Juan Palacios, Roberto Rigobon, and Siqi Zheng, "Timing Sustainable Engagement in Real Asset Investments," NBER Working Paper 32646 (2024), https://doi.org/10.3386/w32646.

Florens Pfann (PhD)

https://sites.google.com/view/florenspfann

Research interests:
Behavioral economics, economic psychology, applied econometrics, inequality, and trust

Potential research areas:

- The economics of trust and its relationship with time preferences (patience)
- Behavioral drivers and real decisions of loan crowdfunding investors
- Price depreciation and quality uncertainty in secondary markets

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Thomas Post (Associate Professor)

https://www.thomas-post.com

Research interests:
Behavioral science: understanding households' financial decision-making, designing nudges and interventions

Potential research areas:

- (1) understanding household financial decisions (based on survey or experimental data)
- decisions hereby include (but are not limited to): saving for pensions, retail investor trading, mortgage choice
- which factors help understanding - for example, financial literacy, subjective financial well-being, trust, behavioral biases and heuristics
- (2) changing households financial decisions through choice architecture and nudging
- for example: design and testing of communication strategies & messages that tap into psychological mechanisms and biases, strategic information provision (or non provisions)

Thesis topic(s) (if available):

- **Understanding and changing household financial behaviors**

I work on various projects related to the research areas. So my suggestion for interested students is: contact me either with a related topic of your own or meet me and we develop a topic together based on your interests and my current projects.

Rachel Pownall (Full Professor)

https://www.maastrichtuniversity.nl/raj-pownall

Research interests:
Art Finance, Art Investment, Art Auction Markets, Cultural Economics, Behavioural Finance

Potential research areas:

- Understanding non-pecuniary drivers of investor and consumer behaviour
- Aesthetic, environmental and emotional values of decision making
- Art as an Asset, in times of inflation and stagflation
- Secured art lending

Thesis topic(s) (if available):

- Ideas related to my research interests
- Maastricht as a Cultural City for Change
- Economic and Cultural impact in the city of Maastricht.

Quinn Ramakers (PhD)

https://www.maastrichtuniversity.nl/qm-ramakers

Research interests:
Financial economics, household finance, machine learning, mathematical finance, portfolio choice, retirement savings and pension design

Potential research areas:

- Using alternative data (text,video, audio, etc.) in financial markets
- Machine learning for contract/derivative pricing
- How can and should individuals react to changing regulations and policies over their life cycle of investments?
- The impact of unrealised capital gains taxes on households financial decision making
- How do mandatory pension systems influence heterogeneous households?

Thesis topic(s) (if available):

Beyond the Representative Agent: Household Heterogeneity and Financial Decision-Making

How individuals behave in terms of saving and investing is a widely studied topic. Generally, this is done using so-called life-cycle models and dynamic optimisation problems, where we solve for the optimal behaviour of a representative agent. Although these methods are optimal for a certain stylized model, there are numerous examples where, on the individual/subgroup level, the observed behaviour varies wildly from the model predictions. To explain this we can take into account the heterogeneity of agents/households. Think along the lines of different household composition, housing choice, income streams, behavioural biases, exposure to differing risks, etc. Ideally we (you) find an interesting hypothesis about one specific aspect of heterogeneity and how that impacts the individual's financial choices. Which is then tested using the literature's predictions of behaviour and the observed data of decision making, before trying to explain this difference in behaviour.

Relevant literature:

Cocco, J. F., Gomes, F. J., & Maenhout, P. J. (2005). Consumption and portfolio choice over the life cycle. *The Review of Financial Studies*, *18*(2), 491-533.

Merton, R. C. (1969). Lifetime Portfolio Selection under Uncertainty: The Continuous-Time Case. *The Review of Economics and Statistics*, *51*(3), 247–257. https://doi.org/10.2307/1926560

From Black-Scholes to Black Boxes: Constructing Replicating Portfolios with Machine Learning

While closed-form solutions exist for the pricing of certain types of financial contracts, famously the Black–Scholes equation, calculating them depends on the ease of calculating their conditional expectation, which is not always feasible. An alternative is to replicate such a contract using a combination of contracts that lead to the same payoffs and have a known

pricing formula. Traditional approaches use regression now-or-later techniques; however, these can suffer from certain problems and are very dependent on the quality of the choice of basis functions. An alternative is to use machine-learning methods to construct these replicating portfolios. The goal of this thesis is to review what has been done in the literature, implement an interesting alternative, and compare their relative performances.

While you do not have to write this code completely from scratch, many good packages exist for machine learning. You will require a basic knowledge of programming to use these packages.

Related literature: Carr, P., Ellis, K. and Gupta, V. (1998), Static Hedging of Exotic Options. The Journal of Finance, 53: 1165-1190. https://doi.org/10.1111/0022-1082.00048

James, G., Witten, D., Hastie, T., & Tibshirani, R. (2013). *An introduction to statistical learning: With applications in R*. Springer (https://www.statlearning.com/)

Daniele Ripani (PhD)

D.M. Ripani - Maastricht University

Research interests:
Empirical Asset pricing, Asset allocations,Intangible Assets (e.g. Marketing Excellence)

Potential research areas:

- Using alternative assets to (e.g. video, voice, etc.) to better understand how intangible assets (such as marketing excellence) are evaluated in financial markets
- Heterogeneity of Institutional Investors in evaluating intangible assets

Thesis topic(s) (if available):

- **Analyzing Financial Market Reactions to Management's Earnings Call Language on Marketing and R&D Discourse**

Research shows that "investors underreact to the value-relevant, but difficult to process, information embedded in marketing capability" (Ang, et al. 2022, abstract). However, the role of Top Management Teams' communication of these marketing capabilities remains unclear. This thesis aims to analyze the language employed by Top Management Teams' during earnings calls, with a specific focus on the emphasis placed on marketing and earnings. The study seeks to investigate the impact of this communication on financial markets. Specifically, it explores whether and to what extent investors capture the communicated aspects of marketing and R&D.

References

Ang, T. C., Chordia, T., Mai, V. V. A., & Singh, H. (2022). The marketing capability premium. *Review of Asset Pricing Studies, 12*(4), 918-959.

Martin, A., & Kushwaha, T. (2024). Can words speak louder than actions? Using top management teams' language to predict myopic marketing spending. *Journal of Marketing*, *88*(6), 140-161.

- **Do financial experts think about the pricing of marketing capabilities?**

There is an ongoing discussion in practice about whether investments in intangible assets are properly reflected in financial markets (The Economist, 2017). Among them, marketing capabilities account for a large chunk of a firm's intangible expertise. On the one hand, the higher financial performance of marketing capabilities has long been recognized (Dutta et al, 1999). However, do financial experts recognize it? Recently, research shows that "investors underreact to the value-relevant, but difficult to process, information embedded in marketing capability" (Ang, et al. 2022, *abstract*). Additional evidence is needed to understand the mechanism driving this result. The goal of this thesis is to develop a first approach in trying to understand if and how financial experts think about the pricing of marketing capabilities from a behavioural point of view.

References

Ang, T. C., Chordia, T., Mai, V. V. A., & Singh, H. (2022). The marketing capability premium. *Review of Asset Pricing Studies, 12*(4), 918-959.

Dutta, S., Narasimhan, O., & Rajiv, S. (1999). Success in high-technology markets: Is marketing capability critical? *Marketing science, 18*(4), 547-568.

The Economist (2017). Intangible assets are changing investment. *The Economist*. https://www.economist.com/finance-and-economics/2017/12/19/intangible-assets-are-changing-investment

- **Perceived marketing capability**

Much of the empirical work in the marketing-finance interface has focused on assessing the contribution of marketing efforts to financial performance via balance sheet data (Mishra et al. 2016, Moon et al. 2023). However, less research focuses on the effect of perceived marketing capabilities on the ability of a firm to increase pricing power without losing revenues. Are marketing capabilities only "on the books" or do clients/buyers take them into account also during their buying process? The goal of this thesis is to develop a first step in assessing the strength of perceived marketing capabilities on stakeholder's decision making and bridge the managerial marketing finance gap by drawing from new functional fields (marketing, behavioural finance, …) (Burggraeve, 2021).

References

Burggraeve, C. (2021), Marketing IS NOT a Black Hole.

Mishra, S., & Modi, S. B. (2016). Corporate social responsibility and shareholder wealth: The role of marketing capability. *Journal of Marketing, 80*(1), 26-46.

Moon, S., Tuli, K. R., & Mukherjee, A. (2023). Does disclosure of advertising spending help

investors and analysts? *Journal of Marketing, 87*(3), 359-382.

Paulo Rodrigues (Assistant Professor)

https://sites.google.com/view/prodrigues

Research interests:

Financial economics, asset pricing, asset allocation, household finance

Potential research areas:

- Asset Pricing
- Optimal Asset Allocation
- Pension Investments
- Lifecycle Models

Thesis topic(s) (if available):

- All topics related to research interests

Peter Schotman (Full Professor)

Add your webpage here. If you don't have your own, add the link to your Maastricht University webpage here.

Research interests:
Pension economics and finance; financial econometrics

Potential research areas:

- Machine learning applications in portfolio management
- Inflation and interest rate risk (for households and institutions)
- Financial market anomalies
- Long-term financial planning
- Pension plan designs

Thesis topic(s) (if available):

- **Profitable trading strategies using statistical learning algorithms**

Once asset pricing and portfolio selection were simple. An optimal portfolio was a combination of the riskfree asset and the market portfolio, and its risk and expected returns were given by the CAPM beta. Nowadays hundreds of profitable trading strategies have been discovered that appear to outperform the market. With the advance of sophisticated statistical learning algorithms the pace of new discoveries increases. Many strategies share common characteristics. Therefore investors have become interested in summarising the multitude of trading strategies in a few factors. Constructing factors has

also benefited from learning techniques. Seeking exposure to particular factors is called factor investing. Many promising trading strategies fail to deliver, however, after being discovered. This could be because many investors implement the strategy, and thereby arbitrage it away,or because the strategy was a statistical illusion from the start. The latter are called false discoveries.

These are three areas for thesis topics: (i) prediction methods for returns, (ii) factor portfolio construction, (iii) performance evaluation. Each offers many opportunities for a thesis. Both the academic as well as the practitioner literature has abundant suggestions for new techniques and new promising strategies. This a very broad thesis topic, for which yiu need your own creativity to come up with a propoer research question. For a finance thesis, the emphasis must be on the finance application, not on mathematical or statistical proofs. How useful are techniques for finance? Two things are important for a feasible project. First, it must be possible to obtain the necessary data. Through the library the school has access to many databases. In addition the Ken French Data Library is a rich, freely available, online database on asset returns. Second. working with statistical learning techniques requires some programming skills. Most methods are available as packages in the statistical language R (or Python). When packages are available, you don't need to program the algorithms, but you must be able to use the packages. Relying solely on Excel will not be sufficient.

Literature: Below are a few suggestions to start reading.
Gu, S., B. Kelly and D. Xiu (2020) Empirical Asset Pricing via Machine Learning, Review of Financial Studies 33, 2223-2273.
Harvey, C. R., (2017) The Scientific Outlook in Financial Economics, Journal of Finance 72, 1399-1440.
Hodges, P.H., K.E. Hogan, J.R. Peterson and A. Ang (2017) Factor Timing with Cross-Sectional and Time-Series Predictors, Journal of Portfolio Management Fall 2017, 30-43

- **Data based portfolio construction**

The textbook recommendation for portfolio construction is mean-variance analysis. Since Markowitz the idea is to find a portfolio that obtains the highest expected return for a given variance. In practice this is far from trivial because mean-variance analysis requires accurate inputs for expected returns and covariances. Many studies show that naïve portfolio strategies almost always beat sophisticated optimised strategies. A famous classic study is DeMiguel, Garlappi and Uppal (2009) who find nothing can beat "1/N", which is a strategy that put equal weights in all available assets. Various solutions have been propsoed, either by restricting portfolio weights (Jagannathan and Ma, 2003) or by structuring investment beleifs (Black and Litterman, 1992). More recently, advances in data analytics, suggest a different solution (for example Pedersen, Babu Levine, 2021). In some of our own recent work, Lönn and Schotman (2024) explore a very simple algorithm for a different purpose but possibly also effective for portfolio construction. Further empirical evidence from a thesis study would be very helpful.

Literature:
Black, F. and Litterman (1992) Global Portfolio Optimization, Financial Analysts Journal 48, 28–43.

DeMiguel, Victor, Lorenzo Garlappi and Raman Uppal (2009) Optimal Versus Naive Diversification: How Inefficient is the 1/N Portfolio Strategy?, Review of Financial Studies 22, 1915–1953.
Lönn, Rasmus, and Peter Schotman (2024) Empirical Asset Pricing with Many Test Assets, Journal of Financial Econometrics, https://academic.oup.com/jfec/advance-article/doi/10.1093/jjfinec/nbae002/7630144.
Pedersen, L., A. Babu, and A. Levine (2021) Enhanced Portfolio Optimization, Financial Analysts Journal 77, 124–151.

- **Model free portfolio strategies**

Traditional advice for young people is to invest heavily in equity and reduce the equity weight in their portfolio when they grow older. In a recent series of studies, Anarkulova et al (2022, 2025) challenge the standard view on how to invest for retirement income. They mploy a different methodology to construct an optimal investment plan. Instead of first specifying a model for returns, they acknowledge that models can be wrong, and even if they are correct, the inputs may be very poorly estimated. Instead of relying on a model for returns, they draw directly from historical evidence in many countries. This broader perspective implies more risk than conditioning on a very specific model for US financial markets. For a thesis there are numerous potential extensions of their ideas. One area of particular practical interest is developing simple rules that work well in this setting.

Literature:
Anarkulova , A., S. Cederburg and M. O'Doherty (2022) Stocks for the long run? Evidence from a broad sample of developed markets, Journal of Financial Economics 143, 409-433. https://doi.org/10.1016/j.jfineco.2021.06.040
Anarkulova , A., S. Cederburg and M. O'Doherty (2025) Beyond the status quo: a critical assessment of lifecycle investment advice, SSRN working paper. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4590406

- **Pension plan investments**

Each quarter DNB, the Dutch Central Bank, publishes a set of scenarios for stocks, bonds and inflation, that pension funds should use to evaluate their pension plans. An interesting question for a thesis project is to analyse what portfolio strategy would be optimal based on the published scenarios. Moreover, how robust are such optimised strategies? In other words, suppose you optimise with one set of scenarios, what is the performance of these strategies when evaluated on another set of DNB scenarios. It may be difficult to construct the very best strategy, but there exist various reasonable strategies that are easy to explain and probably near optimal for many people. Choosing the best among these and evaluating them under different scenario sets will provide an insight in the robustness of the portfolio strategies.

Scenarios are published at:
https://www.dnb.nl/voor-de-sector/open-boek-toezicht/sectoren/pensioenfondsen/dnb-publiceert-definitieve-scenariosets-bij-wet-toekomst-pensioenen/#id06pq86rrk
The website is in Dutch, but even if you cannot read Dutch you can still download the spreadsheets with 20,000 (or more) numerical scenarios with returns.

Literature:

Grebenchtchikova, Anna, Roderick Molenaar, Peter Schotman and Bas Werker (2017) Default life-cycles for retirement savings, Netspar Design Paper 70. https://www.netspar.nl/publicatie/default-life-cycles-for-retirement-savings/
Rodrigues, P., and P. Schotman (2025) Costs of suboptimal investments, Netspar Industry Paper 2025-20. https://www.netspar.nl/wp-content/uploads/Netspar-Industry-Paper-2025-20.pdf

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Stefan Straetmans (Full Professor)

https://cris.maastrichtuniversity.nl/en/persons/stefan-straetmans/

Research interests: Exchange rate behavior, Macroeconomic and financial disasters, Multivariate analysis of financial markets, Financial stability and macroprudential policies, empirical finance, empirical banking, Applications of extreme value theory into economics/finance, climate change and its real and financial impact.

Potential research areas:

- Modelling (determinants) and measurement of systemic risk (financial stability)
- Deviations from international parity conditions
- Relationship between sustainability and financial resilience proxies, tail risk and systemic risk
- Distributions of economic and financial variables
- The effectiveness of more strict capital and liquidity regulation on curbing financial instability
- Determinants of financial resilience

Thesis topic(s) (if available):

- **Finite endpoint distributions in economics and finance**

The boundedness of economic or financial variables is often open to discussion: is there a lower or upper bound and if so does it increase or decrease over time? For example, since the 1960s and the birth of the ‘eco-movement’ (even long before the discussions on the climate crisis even started), economists started to question the limits to (long run) growth and productivity given the limited resources of the earth. Are there boundaries to industrial output and productivity (probably yes) but (more importantly), how did these bounds change over time? Another example where boundedness plays a role is efficiency measurement (governmental institutions, banking sector etc). Do these institutions produce their goods and services at the lowest possible costs or are there ‘inefficiencies’ in the system? The estimation of finite endpoints provides an alternative methodology to measuring these inefficiencies within an institutional context. Yet another application could be in the domain of climate data: do temperature and weather distributions have finite endpoints and if so, does it shift rightward? Establishing this statistically may provide further empirical evidence for climate change.

References

Jesson J. Einmahl, John H. J. Einmahl & Laurens de Haan (2019) Limits to Human Life Span Through Extreme Value Theory, Journal of the American Statistical Association, 114:527, 1075-1080, DOI: 10.1080/01621459.2018.1537912

Daouia, A., Florens, JP, Simar, L. (2010). Frontier estimation and extreme value theory. Bernouilli. 16(4), 1039–1063, DOI: 10.3150/10-BEJ256

- **Can tail risk and systemic risk of financial institutions be jointly reduced?**

Systemic risk is at the forefront of regulatory and policy discussions since the banking and financial crisis of 2007-2009. Post-crisis financial regulatory reform also claims to tackle systemic risk by e.g. targeting so-called "SIFI's" (Systemically Important Financial Institutions) by imposing additional capital surcharges. The purpose is to disincentivize financial institutions to being systemically important. Recent research, however, questions whether it is possible to both regulate tail risk of financial institutions and their systemic contribution, see e.g. Beale et al. (2011). More specifically, by diversifying their risks, financial institutions reduce their own probability of failure. However, if many banks decrease their risks in comparable fashion, then the likelihood of multiple failures (systemic risk) may increase. Whereas the Beale et al. (2001) paper mainly provides a theoretical analysis of this apparent trade off (and resulting policy dilemma), the aim of the current research project is to provide more empirical evidence by calculating different proxies of tail risk and systemic risk over time and for many different institutions and by investigating their correlation. Is there indeed a negative correlation visisble between popular measures of tail risk and systemic risk over time and across institutions?

References

Beale, N, Rand, D.G., Battey, H., Croxson, K, May, R.M., Nowak, M.A., 2011. Individual vs. Systemic risk and the Regulator Dilemma. Proceedings of the National Academy of Sciences of the United States (PNAS) 108 (31), 12647-12652.

De Jonghe, O., 2010. Back to the basics in banking? A Micro-analysis of Banking System Stability. Journal of Financial Intermediation, 19, 387–417.

Idier, J., Lame, G., Mésonnier, JS. 2014. How useful is the Marginal Expected Shortfall for the Measurement of Systemic Exposure? A practical assessment. Journal of Banking and Finance 47, 134–146.

- **Predictive regressions and extreme signals (Asset pricing)**

The classic approach in asset pricing towards testing return predictability is to regress (excess) returns on past returns or other publically available information (financial or macroeconomic variables, see e.g. Goyal and Welch (2008) for predictors of stock returns). In this project we would like to investigate return predictability when predictors (i.e. the 'signal') take on extreme values (spikes). For example, in foreign exchange markets Purchasing Power Parity (PPP) and Uncovered Interest Parity (UIP) constitute cornerstones of short-run and long-run exchange rate determination. However, the empirical evidence on both conditions is relatively weak. There is some long-run evidence for relative PPP (regressing nominal bilateral exchange rate changes on inflation differentials for multiyear

periods). But absolute and relative PPP are characterized by serious deviations (swings in the real exchange rate) when considering higher frequency data (the short run). Empirical evidence on UIP is also relatively weak: regressing nominal bilateral changes of the spot exchange rate on lagged cross-country interest differentials typically render a negative relation instead of the expected positive relation according to the theory. We would like to investigate the empirical validity of the parity conditions above when the inflation differential or interest differential is large in absolute value (extreme). Goods (interest) arbitrage might be more worthwhile to undertake when these cross country differentials are large.

The same question can be asked about other risky asset classes like stocks, bonds, housing etc. Do extreme swings in fundamentals (like e.g. changes in dividend policy) transfer to returns? And if so, what does it imply for return predictability? Obviously, given that regressions are by definition average relations between dependent and independent variables, one needs to resort to other methodologies. In this project, one could focus on truncated regressions, quantile regressions or tail dependence measures like the Marginal Expected Shortfall (MES) which has been widely used to measure systemic risk of financial institutions.

References

Brownlees, C.T., Engle R. , 2017. SRISK: A Conditional Capital Shortfall Measure of Systemic Risk. The Review of Financial Studies 30(1), 48-79.

Cumparayot, P., de Vries, Casper G., 2017. Linking Large Currency Swings to Fundamentals' Shocks. Working paper.

Hartmann P, Straetmans S, Vries CG de., 2004. Asset market linkages in crisis periods. Review of Economics and Statistics 86 (1):313-326.

Welch, I., Goyal, A., 2008. A comprehensive look at the empirical performance of Equity Premium Prediction. The Review of Financial Studies 21(4), 1455-1508.

- **Macro stress tests and disaster risk**

The aim of this project would be to assess the marginal and joint likelihood of sharp downfalls in macro variables. It is well known that financial returns and losses are nonnormally distributed. However, the frequency of sharp falls in macrovariables remains underinvestigated as to date. Very little empirical research has been done on the tail risk and the tail dependence of real variables, partly because the data frequency of these series is much lower. This implies that it is harder to make estimation and inference in the tails. This project aims to fill this gap by assessing the tail risk and the tail dependence (spillovers) of variables like GDP growth, changes in unemployment, inflation or money growth. A scant literature looks into volatility clustering of real variables (see e.g. Engle (1982)) which is a sufficient condition for the heavy tailness of the corresponding variables. Correctly assessing the marginal and joint (spillover) likelihood of extreme downfalls in macro variables may be relevant for e.g. the asset pricing or disaster risk literature, the literature on business cycle synchronisation or for stress testing. The approach can also be used to assess whether macro-economic policy is effective in curbing extreme business cycle fluctuations.

References

Janssen, D., de Vries, C.G., 1991. On the frequency of large stock returns: putting booms and busts into perspective. Review of Economics and Statistics 73, 19-24.

Engle, R.J., 1982. Autoregressive Conditional Heteroscedasticity with Estimates of the Variance of UK Inflation, Econometrica, 50 (4), pp. 987-1007.

R.J. Barro, 2006. Rare Disasters and Asset Markets in the Twentieth Century. 121(3), 823-866.

- **Climate risk and financial instability**

Climate change may impact the financial health of corporations (both in terms of physical risk but also transitional risk related to climate change). More specifically, for the banking sector, this has become an important attention point for Central Banks. In this project, we would mainly focus on the physical risk of climate change and how this potentially impacts the stability of the financial system. Is there a link between extreme weather data (temperature, precipitation etc) and large fluctuations in stock prices for financial institutions (banks, insurance companies)? The focus in this research can e.g. lie on the impact of extreme weather data on tail risk of individual institutions as well as systemic risk measures.

References

Straetmans S., Chaudhry, S. 2015. “Tail Risk and Systemic Risk for U.S. and Eurozone Financial Institutions in the wake of the Global Financial Crisis”, with Sajid Chaudhry, the Journal of International Money and Finance, 58:191-223.

- **Extreme financial returns and sustainability**

It is generally accepted a stylized fact that the extreme financial returns (stocks, bonds etc) happen more often than predicted by the Gaussian model. On the other hand, the modern literature on corporate sustainability and resilience often corroborates that more sustainable companies are also more resilient. This would imply they are less prone towards extreme downfalls in their stock returns (reduction in downside risk as measured by e.g. Value-at-Risk or expected shortfall). The purpose of this investigation would be to empirically investigate this corroboration using several metrics of sustainability (ESG metrics but preferably also others). The impact of sustainability proxies on downside risk can be considered for both individual stocks or portfolios.

Pomme Theunissen (Assistant Professor)

https://pommetheunissen.com/

Research interests:
Entrepreneurship, Entrepreneurial Finance, Female Entrepreneurship, Women life-cycle events, crowdfunding, gender

Potential research areas:

- How do policy changes impact entrepreneurship?
- How do women entrepreneurs benefit from crowdfunding?
- Fintech and start-up finance
- Women's health and the impact on entrepreneurial propensity
- Motherhood and entrepreneurship, how to combine work and family responsibilities
- The consequences and implications of the gender wage gap

Thesis topic(s):

- **(Female) Entrepreneurship in the FinTech era**

This thesis topic builds on the possibilities offered by FinTech and other new digital technologies as a contribution to (female) entrepreneurship research. To entrepreneurs, access to finance is often the main hurdle that impedes the growth of their business (Block et al., 2018; Cumming et al., 2019) . In this thesis topic, the student is requested to investigate the potential opportunities and drawbacks offered by FinTech and other digital technologies in enhancing the access to finance, and the related impact on their business (Bollaert et al., 2021; Kavuri & Milne, 2019). Digital technologies are recognized as disruptive (von Briel et al., 2018) and are an important source of transformation of the entrepreneurial environment (Bi et al., 2017; Giones & Brem, 2017). They therewith offer a broader set of opportunities particularly salient for start-ups and prospective entrepreneurs (Dholakia & Kshetri, 2004; Kolokas et al., 2020). The scope of this topic may be aimed at startups and entrepreneurship in general; Alternatively, the topic can focus on female entrepreneurship (Ughetto et al., 2019).

Carl Vandenboorn (Lecturer)

https://www.maastrichtuniversity.nl/nl/cjg-vandenboorn

Research interests:

Since I am a senior lecturer, I do not pursue my own research but I am mainly interested in topics in the field of International Financial Management, Hedging & FX Risk Management, Corporate Finance.

Nils van der Vegte (Phd)

https://www.maastrichtuniversity.nl/n-van-der-vegte

Research interests:
energy economics.,energy efficiency, environmental economics, public policy, sustainability

Potential research areas:

- Diffusion of energy efficiency technologies (solar panels, heat pumps, insulation, home battery)
- Role of energy crises on the adoption of energy efficiency technologies
- Effects of energy efficiency subsidies on the diffusion of technologies
- Self-selection of individuals in energy efficient homes
- Impact of sentiment of technologies on diffusion
- Early adopters of technologies
- Regulation uncertainty on adoption decisions of energy efficiency technology

Thesis topic(s) (if available):

- **Diffusion of solar panels: spillovers within neighbourhoods**

The adoption decisions of green technologies are often influenced not only by individual economic or environmental considerations but also by social and spatial spillovers. When residents observe neighbours installing solar panels, it can reduce uncertainty, normalize the technology, and signal both financial and environmental benefits, thereby accelerating diffusion. Understanding these peer effects is crucial for designing more effective policies, as they can amplify the impact of subsidies or awareness campaigns. The topic of this thesis proposal is to examine the effects of solar adoptions within a neighbourhood on further adoptions in that neighbourhood, and examining potential moderation and mediation effects across neighbourhoods. In the Dutch context, Data on neighbour-level adoptions is publicly available via CBS and via the “Klimaatmonitor” (https://klimaatmonitor.databank.nl/jive). However, you can explore data on other countries as well.

Bollinger, B., Gillingham, K., Kirkpatrick, A. J., & Sexton, S. (2022). Visibility and peer influence in durable good adoption. *Marketing Science*, *41*(3), 453-476.

Graziano, M., & Gillingham, K. (2015). Spatial patterns of solar photovoltaic system adoption: the influence of neighbors and the built environment. *Journal of Economic Geography*, *15*(4), 815-839.

Bollinger, B., & Gillingham, K. (2012). Peer effects in the diffusion of solar photovoltaic panels. *Marketing Science*, *31*(6), 900-912.

- **Effects of Energy efficiency subsidies**

Studying the effects of energy efficiency subsidies is highly relevant because policies aim to reduce energy consumption, lower household energy costs, and improve building energy labels, yet their actual impact often depends on regional and household-specific factors. Subsidies may trigger selection effects, where mainly households already inclined to invest in efficiency apply, while others remain unaffected. Moreover, differences in uptake across regions can shape both the equity and effectiveness of these programs, as areas with low participation may miss out on benefits, while high-uptake areas could see stronger market

transformation. Understanding these dynamics is essential for refining subsidy design to ensure that public funds achieve meaningful, widespread, and lasting energy savings. The topic of this research is to measure effects of subsidies for energy efficiency retrofits, such as the Dutch ISDE, on a selection of relevant outcomes, such as energy use, energy costs, energy labels, as well an analysis of differences in areas with low/high subsidy uptake, for example in socio-demographics or political preferences. In the Dutch context, regional data on this topic can be obtained via the CBS and the "Klimaatmonitor" (https://klimaatmonitor.databank.nl/jive). However, you can explore data on other countries as well.

Borenstein, S., & Davis, L. W. (2025). The distributional effects of US tax credits for heat pumps, solar panels, and electric vehicles. *National Tax Journal*, *78*(1), 263-288.

Aydin, E., Kok, N., & Brounen, D. (2017). Energy efficiency and household behavior: the rebound effect in the residential sector. *The RAND Journal of Economics*, *48*(3), 749-782.

Levinson, A. (2016). How much energy do building energy codes save? Evidence from California houses. *American Economic Review*, *106*(10), 2867-2894.

Allcott, H., Knittel, C., & Taubinsky, D. (2015). Tagging and targeting of energy efficiency subsidies. *American Economic Review*, *105*(5), 187-191.

Kahn, M. E. (2007). Do greens drive Hummers or hybrids? Environmental ideology as a determinant of consumer choice. *Journal of Environmental Economics and Management*, *54*(2), 129-145.

Ge Wang (Phd)

https://www.maastrichtuniversity.nl/g-wang

Research interests:
ESG disclosure, Sustainable finance, Corporate social responsibility (CSR), ESG assurance, ESG materiality, Sustainable investing, Greenwashing, Institutional investors and sustainability

Potential research areas:

- The effectiveness of ESG assurance in improving the credibility of sustainability disclosure
- The role of material ESG issues (based on the SASB Materiality Map) in shaping corporate sustainability strategies
- Market reactions to changes in ESG ratings or sustainability performance
- Socially responsible investing (SRI) and its impact on corporate behavior and sustainability outcomes
- Greenwashing and the credibility of corporate sustainability communication
- Institutional investors and their influence on firms' ESG performance
- Corporate misconduct, environmental violations, and their relationship with ESG ratings or sustainability disclosure

Thesis topic(s) (if available):

- **Can Socially Responsible Investment (SRI) Truly Achieve Sustainability?**

Socially responsible investing (SRI) has gained significant momentum as an approach to aligning investment portfolios with environmental, social, and governance (ESG) principles. However, the true impact of SRI on corporate behavior and long-term sustainability remains debated. Critics argue that many SRI funds engage in "impact washing," selecting firms with strong ESG scores without driving meaningful improvements in sustainability practices. This thesis examines different SRI strategies—such as divestment and portfolio tilting—and evaluates their effectiveness in influencing firm behavior. Using indicators such as ESG scores, cost of capital, green innovation, or environmental performance, the study will assess whether SRI can lead to measurable sustainability outcomes or whether its impact remains largely symbolic. Students may focus on a sample of U.S. and/or European firms.

References:

Dyck, A., Lins, K. V., Roth, L., and Wagner, H. F. (2019). Do institutional investors drive corporate social responsibility? international evidence. Journal of financial economics, 131(3):693–714.

Khan, M., Serafeim, G., and Yoon, A. (2016). Corporate sustainability: First evidence on materiality. The accounting review, 91(6):1697–1724.

Heath, D., Macciocchi, D., Michaely, R., and C. Ringgenberg, M. (2023). Does socially responsible investing change firm behavior? Review of Finance, 27(6):2057–2083.

Philibert Weenink (PhD)

https://cris.maastrichtuniversity.nl/en/persons/philibert-weenink/

Research interests:

Housing Markets, Environmental Economics, Public Economics, Household Finance, Economics of Health, Regional and Urban Economics

Potential research areas:

- Climate risk and property prices
- Natural disasters and financial distress
- Real estate development
- Climate risk adaptation
- Environmental policy

Thesis topic(s) (if available):

- **Economics of Climate Risk Adaptation**

Climate change forces countries to adapt and mitigate environmental risk. In doing so, they need to allocate scarce funds and make important trade-offs. However, while optimal adaptation is desirable, fund allocations are often prone to political pressure. The goal of this thesis is to examine whether the assignment of independent institutions who make these allocations, can resolve political bias. The benefits of institutional independence are well articulated in the context of central banks (Fischer, 1995), but remain unclear in other circumstances. As an empirical test case, students will examine water management in the

Netherlands – one of the few examples where environmental authorities enjoy (complete) political independence.

References:
Fischer, S. (1995). Central-Bank Independence Revisited. *The American Economic Review, 85*(2), 201-206.

Stefan Weiland (PhD)

https://www.maastrichtuniversity.nl/s-weiland

Research interests:
economics of knowledge and innovation, competition, experimental learning, ambiguity, computational economics

Potential research areas:

- innovation and competition
- innovation and uncertainty/ambiguity
- leader (innovators) and follower (imitators) dynamics
- patenting (or lack, thereof) of technological advancements that result from process innovation
- strategic decision making in high-dimensional spaces

Thesis topic(s) (if available):

- **The relationship between ambiguity and innovation**

A large body of research studies the relationship between innovation and competition, focusing on how competitive pressure shapes firms' incentives to invest in R&D and attain innovations. Most of this literature assumes that uncertainty is well-defined, meaning that firms face risks with known or estimable probabilities. This, in turn, allows to compute expected returns of innovation and optimal R&D spending. In reality, however, firms often operate under ambiguity, where the probabilities of success are unknown. Introducing ambiguity into the analysis may significantly change predicted behavior. For example, it may affect firms' willingness to experiment or alter the intensity of competition. This research project involves designing an indicator that can proxy ambiguous environments and studying the relationship between ambiguity and R&D spending, innovation, or competition.

- **Patenting in process innovation**

The dominant framework in the economics of innovation assumes that patents are the primary appropriability mechanism, but this assumption fits product innovation far better than process innovation. Process innovations are often tacit and difficult to describe with the precision patent law requires. Further, even if patents protected a distinct production process, competing firms may be able to "invent around" a patent due to the many possibilities of production. As a result, the incentives for process innovation may differ widely from those of product innovation. This project examines the incentive structures related to process innovation and how it affects R&D spendings, innovation, and competition.

References:
Cozzi, G., Giordani, P.E. Ambiguity attitude, R&D investments and economic growth. *J Evol Econ* 21, 303–319 (2011). https://doi.org/10.1007/s00191-010-0217-x

Coiculescu G, Izhakian Y, Ravid SA. Innovation Under Ambiguity and Risk. *Journal of Financial and Quantitative Analysis*. 2024;59(7):3190-3229. doi:10.1017/S002210902300128X

- **feel free to connect the ideas above to more standard finance-related topics, see e.g. the 2nd reference above by Coiculescu G et al. for a finance-related proxy of ambiguity**

- **I'm happy to supervise anything to your own liking that is somewhat related to the research areas and topics above**

Jonas Wogh (Post-doc)

https://sites.google.com/view/jonaswogh/home

Research interests:
Household Finance, Housing Markets, Public Economics, Wealth Inequality, Economics of Identity, Discrimination

Potential research areas:
- Determinants of House Prices
- The Causes and Effects of Financial Distress
- Barriers to Homeownership
- Public Policy in the Housing Market
- Cognitive Decline and Financial Decision Making
- Inter-Generational Wealth Transfers

Thesis topic(s) (if available):
- Open to discussion

Juliette Wulms (PhD)

https://www.maastrichtuniversity.nl/jade-wulms

Research interests:
Impact investing, Finance, Real assets, Alternative Investments, Healthcare Economics

Potential research areas:
- Impact Investing in Real Assets

Thesis topic(s) (if available):

- **TBD**

Hongqing Zhang (PhD)

https://www.maastrichtuniversity.nl/h-zhang

Research interests:
behavioural and psychological economics, experimental economics and finance

Potential research areas:

- memory and financial investment
- decision making and experience effect
- sustainable investment behaviour
- social interaction and social preference
- intra-household financial decisions
- gender

Thesis topic(s) (if available):

- **Sustainable Investment Under Multi-Dimensional Loss Aversion Perspective**

There is a two-sides function embedded in sustainable investment, which allows investors to earn monetary profit and protect the environment at the same time. Though most sustainable investment lacks certainty and generates low profit, investors still prefer to engage. We propose that the other function: environment protection compensates the low return. We use multi-dimensional loss aversion to explain how the environment protection function compensates for low monetary return in sustainable investment.
Related paper:
https://www.aeaweb.org/articles?id=10.1257/aer.99.3.909

https://academic.oup.com/qje/article/121/4/1133/1855210

- **Let's discuss if you have more ideas**

Larissa Zimmermann (PhD)

L.T. Zimmermann - Maastricht University

Research interests:
Household Finance, Behavioural Economics, Financial decision making, Financial Well-Being, Financial Literacy, Mortgages, Monetary and Public policy effects on households, Household expectations

Potential research areas:

- Effect of financial well-being on household decision making
- Interactions of financial literacy and financial well-being
- Mortgage decisions and the effect on financial well-being

Thesis topic(s) (if available):

- **Exploring household financial well-being**

Households have an increasing responsibility for their own financial well-being, including budgeting and saving decisions, as well as securing financial independence and security in retirement. Understanding how people perceive their financial situation becomes critical, as subjective financial well-being often diverges from objective measures such as income or wealth. This project could examine different ways to capture financial well-being by comparing established financial well-being scales in a Qualtrics survey and conducting a factor analysis on the responses to assess underlying measurement dimensions. It could also explore how different demographic groups interpret financial well-being , and to what extent subjective financial well-being aligns with objective indicators. The project could furthermore investigate which individual or household characteristics—such as financial literacy, housing situation, or family composition—help explain differences in financial well-being, providing insight into its determinants. The topic leaves a lot of room to explore financial well-being from different angles.

References:

- Netemeyer, R. G., Warmath, D., Fernandes, D., & Lynch, J. G. (2018). How am I doing? Perceived financial well-being, its potential antecedents, and its relation to overall well-being. *Journal of Consumer Research*, *45*(1), 68-89.
- Prawitz, A., Garman, E. T., Sorhaindo, B., O'Neill, B., Kim, J., & Drentea, P. (2006). InCharge financial distress/financial well-being scale: Development, administration, and score interpretation. Journal of Financial Counseling and Planning, 17(1).