

## Matthias M. M. Buehlmaier, Ph.D.

高德祿, 博士

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### ACADEMIC POSITIONS

Associate Professor of Teaching in Finance  
HKU Business School  
The University of Hong Kong  
Jul. 2024  
–present

Principal Lecturer in Finance  
HKU Business School  
The University of Hong Kong  
Aug. 2017  
–present

Program Director of the BBA(IBGM) Program  
HKU Business School  
The University of Hong Kong  
Oct. 2018  
–present

Founding Director  
Center for Investment Management (CIM)  
Virtual Center for Experiential Learning  
HKU Business School  
The University of Hong Kong  
Feb. 2023  
–present

Visiting Scholar  
Department of Finance  
Regensburg University  
Jul. 2019

Doris Zimmern HKU-Cambridge Hughes Hall Fellow  
Cambridge Judge Business School  
University of Cambridge  
Dec. 2017

Deputy Program Director of the BBA(IBGM) Program  
Admissions Tutor BBA(IBGM)  
HKU Business School  
The University of Hong Kong  
Oct. 2017  
–Oct. 2018

Assistant Professor of Finance  
HKU Business School  
The University of Hong Kong  
Aug. 2010  
–Aug. 2017

### EDUCATION

Vienna University of Economics and Business, Austria  
Vienna Graduate School of Finance (VGSF) Doctoral Program  
Ph.D. Finance  
With Distinction (Equivalent to Summa Cum Laude)  
May 2010

Texas A&M University–College Station, USA  
M.S. Mathematics

Dec. 2004

Ulm University, Germany  
Vordiplom Applied Mathematics (“Wirtschaftsmathematik”)

Sep. 2002

## INTERESTS

- Investment management and investment strategies with a focus on quantitative, quantitative, or data-driven approaches
- Asset pricing, market efficiency, and price discovery
- Corporate finance and investment banking, in particular mergers & acquisitions (M&A) including leveraged buyouts (LBOs)
- Financial market stability, financial “bubbles,” cycles, and crises
- Data science and big data in finance
- Machine learning and artificial intelligence (AI) in finance
- Text analytics and natural language processing (NLP) in finance, e.g. textual analysis of financial media, social media, or company filings
- Bayesian data analysis
- Predictive analytics and forecasting
- Fintech and wealthtech

## PUBLICATIONS

[FINANCIAL MEDIA, PRICE DISCOVERY, AND MERGER ARBITRAGE](#) (with Josef Zechner)

*Review of Finance*, 25(4) (2021): 997–1046

Winning paper of the *Hong Kong Asian Capital Markets Research Prize 2013* of the Hong Kong Society of Financial Analysts (HKSFSA) and the CFA Institute

Using merger announcements and applying methods from computational linguistics we find strong evidence that stock prices underreact to information in financial media. A one standard deviation increase in the media-implied probability of merger completion increases the subsequent 12-day return of a long-short merger strategy by 1.2 percentage points. Filtering out the 28% of announced deals with the lowest media-implied completion probability increases the annualized alpha from merger arbitrage by 9.3 percentage points. Our results are particularly pronounced when high-yield spreads are large and on days when only few merger deals are announced.

[SHOULD INVESTORS JOIN THE INDEX REVOLUTION? EVIDENCE FROM AROUND THE WORLD](#) (with Kit Pong Wong)

*Journal of Asset Management*, 21(3) (2020): 192–218

Over the past fifteen years, passive investing has seen 1.5 trillion dollars of fund inflows while active investing has seen 500 billion of outflows. These numbers are in line with the tenets of passive investing, which assert it is close to impossible to consistently outperform the market. We therefore ask in this paper whether there are truly no viable alternatives to indexing and passive investing. We devise a simple actively-managed strategy based on a new version of the minimum variance portfolio that outperforms comparable stock indices around the world with on average 20.2% higher raw returns, 46.7% higher risk-adjusted returns, and 28.4% smaller drawdowns. Furthermore, it exhibits 32.4% lower portfolio turnover than the  $1/N$  strategy of DeMiguel et al. (2009) around the world. Not only does this actively-managed portfolio have higher returns at lower risk (the well-known risk-return puzzle), it also displays higher returns

at higher skewness levels (i.e. lower downside risk) and thus presents a novel skewness-return puzzle. Moreover, the portfolio also has lower recession risk. Our evidence thus suggests that the principles of passive investing should be questioned and that more effort in the actively-managed fund industry should be devoted to the exploration and application of similar strategies to overcome the industry's decades-long underperformance.

#### [ARE FINANCIAL CONSTRAINTS PRICED? EVIDENCE FROM TEXTUAL ANALYSIS](#) (with Toni M. Whited)

*Review of Financial Studies*, 31 (2018): 2693–2728

Second Prize at CQAsia 2014 Academic Competition

We construct novel measures of financial constraints using textual analysis of firms' annual reports and investigate their impact on stock returns. Our three measures capture access to equity markets, debt markets, and external financial markets in general. In all cases, constrained firms earn higher returns, which move together and cannot be explained by the Fama and French (2015) factor model. A trading strategy based on financial constraints is most profitable for large, liquid stocks. Our results are strongest when we consider debt constraints. A portfolio based on this measure earns an annualized risk-adjusted excess return of 6.5%.

A summary article of [ARE FINANCIAL CONSTRAINTS PRICED? EVIDENCE FROM TEXTUAL ANALYSIS](#) (with Toni M. Whited) appeared in the [Harvard Law School Forum on Corporate Governance and Financial Regulation](#) in 2018

#### [DEBT, EQUITY, AND INFORMATION](#)

*Journal of Mathematical Economics*, 50 (2014): 54–62

Most firms issue financial assets such as debt or equity (e.g. bonds or stock) to outside investors. While these financial assets differ greatly in their characteristics, their diversity has received little attention in the literature. Filling this important gap in the literature, this paper views debt and equity as financial contracts and asks why they are optimal instead of other financial contracts. By endogenizing the bankruptcy process, this paper shows how debt and equity arise as a consequence of an optimal allocation of cash-flow rights and monitoring rights, and how equity leads to dividend signaling.

#### **WORKING PAPERS**

##### [THE ROLE OF THE MEDIA IN TAKEOVERS: THEORY AND EVIDENCE](#)

Best paper award semifinalist (corporate finance), 2011 FMA Annual Meeting

A previous version of this paper was circulated under the title "Takeovers and the Media."

Using text-based media content, this paper develops and empirically confirms a theory that explains how the media predicts takeover outcomes. It shows that positive media content about the acquirer predicts takeover success. Relative to other predictors proposed in the literature, the media measure is the most important explanatory variable in terms of marginal effect, significance, and goodness of fit.

#### **CASE STUDIES**

##### [A USD400MN LESSON IN RISK MANAGEMENT OF STRUCTURED EQUITY DERIVATIVES](#)

Asia Case Research Centre (ACRC), HKU Business School, 2023

This case reviews the market risks resulting from issuing and managing auto-callable equity-linked instruments by a bank in the Asian markets. A number

of weaknesses in the risk management framework of the issuing organization ultimately led to significant losses that could have been avoided. The purpose of the case is to identify these potential weaknesses and suggest what could have been done to improve the risk management framework of the organization.

**HKTv (MALL): MISSION IMPOSSIBLE—THE AGILE GIANT** (with Chau Yin Chan, Wai Yiu Ryan Ho, and Chun Lai Ma)  
*Academy of Asian Business Review*, 6(2) (2020): 81–114  
 Top 10 Winner in World Asian Case Competition 2020  
 Best Advisor Award

Hong Kong Television Limited (HKTv) is an emerging heavyweight in the Hong Kong retailing and e-Commerce market, earning the reputation as a successful e-Commerce platform locally. The story of HKTv is a demonstration of attaining business performance while shifting industry and service as a result of excellent management and corporate strategy, making it an ideal subject to investigate. This study aims to track its story-like adventure from its start of providing telecommunications service to television broadcasting services, before the dramatic change of stepping into the unfamiliar e-Commerce market segment.

<b>GRANTS</b>	Teaching Development Grant (TDG) The University of Hong Kong Co-Investigators: Bruno Oliveira and Tracy Zou <a href="https://clojure-finance.github.io/clojure-backtesting-website">clojure-finance.github.io/clojure-backtesting-website</a> <a href="https://clojure-finance.github.io/clojask-website">clojure-finance.github.io/clojask-website</a>	2021
	Teaching Development and Language Enhancement Grant (TDLEG) The University of Hong Kong Co-Investigator: Gregor Dorfleitner <a href="https://clojure-finance.github.io/HKU-TDLEG-website">clojure-finance.github.io/HKU-TDLEG-website</a>	2020
	Teaching Development Grant Seed Funding The University of Hong Kong	2020
	Knowledge Exchange Impact Project Scheme The University of Hong Kong	2018
	Doris Zimmern HKU-Cambridge Hughes Hall Fellowship The University of Hong Kong and University of Cambridge	2017
	General Research Fund (GRF) of the Research Grants Council University Grants Committee of the Hong Kong SAR Co-Investigator: Josef Zechner	2012
	General Research Fund (GRF) of the Research Grants Council University Grants Committee of the Hong Kong SAR Co-Investigator: Toni Whited	2011
	Seed Funding, The University of Hong Kong Co-Investigator: Josef Zechner	2011

<b>CONFERENCE PRESENTATIONS</b>	UBS Quant, Evidence Lab and HOLT Conference	Sep. 2024
	reClojure	Dec. 2022
	3rd HKU Teaching and Learning Festival (TDG Poster), HKU	Nov. 2022
	Intl. Conference on Learning and Teaching (ICLT), EdUHK	Dec. 2021
	HKU FinTech Day (part of Hong Kong FinTech Week), HKU	Nov. 2019
	Teaching and Learning Innovation Expo (Poster), CUHK	Dec. 2018
	Hong Kong Fintech Week (HKCEC)	Nov. 2018
	Global Quantitative Research Conference, Macquarie Hong Kong	June 2017
	Workshop on Textual Analysis in Finance, LMU Munich, Germany	Dec. 2016
	WFA, Seattle, USA	June 2015
	CQAsia 2014, Hong Kong	Nov. 2014
	EFA 2014, Lugano, Switzerland (two papers)	Aug. 2014
	SFM 2013, Kaohsiung, Taiwan	Dec. 2013
	2011 FMA Annual Meeting, Denver, USA	Oct. 2011
	2011 Asian Finance Assn. Annual Meeting, Macao	July 2011
	10th Conference, Soc. for the Advancement of Economic Theory, Singapore	Aug. 2010
	3rd European Economic Review Talented Economists Clinic, Florence, Italy	May 2010
	12th Conference, Swiss Soc. for Financial Market Research, Geneva, Switzerland	Apr. 2009
	2008 Southern Economic Assn. Annual Meeting, Washington, D.C., USA	Nov. 2008
	EEA-ESEM 2008, Milan, Italy	Aug. 2008
	2008 Far Eastern and South Asian Meeting, Econometric Soc., Singapore	July 2008
	2008 North American Summer Meeting, Econometric Soc., Pittsburgh, USA	June 2008
	2008 French Finance Assn. Annual Meeting, Lille, France	May 2008
<b>PRESENTATIONS</b>	Regensburg University	
	Technical University of Munich	
	Ulm University	
	University of Mannheim	
	CFA Institute / HKSFA	
	Lingnan University	
	City University of Hong Kong	
	University of Illinois at Chicago	
	Texas A&M University	
	Universitat Pompeu Fabra	
	Hong Kong University of Science and Technology	
	The University of Hong Kong	
<b>TEACHING</b>	Investment Banking: Valuation, LBOs, and M&A	Fall '21, '22, '23
	U of Hong Kong, undergraduate level	
	Text Analytics and NLP in Finance	Fall '19, '20
	U of Hong Kong, undergraduate level	Spring '22, '23, '24
	Machine Learning and AI in Finance and Marketing	Jul. '19
	U of Hong Kong Summer Institute	

	Text Analytics in Finance and Marketing U of Hong Kong Summer Institute	Jul. '19
	Financial Derivatives OTH Regensburg, undergraduate level	Winter '18
	NLP and Text Analytics for FinTech U of Hong Kong, MFin/MFFinTech	Spring '18, '19, '20, '21, '22, '23, '24
	Mergers and Acquisitions U of Hong Kong, MBA	Fall '17; Spring '19, '20, '21, '22, '23, '24
	Mergers and Acquisitions U of Hong Kong, GBA (HK-SZ) MBA	Fall '23
	The Mathematics of Finance Johns Hopkins U CTY and U of Hong Kong	Jul. '17
	Mergers, Acquisitions, and Corporate Restructurings U of Hong Kong, MFin	Spring '15, '16, '17 (2x), '18 (2x), '19 (2x), '20 (2x), '21 (2x), '22 (3x), '23 (3x), '24 (3x)
	Financial Engineering U of Hong Kong, MFin	Spring '13, '14, '15, '16, '17, '18, '19, '20, '21, '22, '23, '24
	Financial Engineering U of Hong Kong, undergraduate level	Fall '11, '13, '14, '21, '22, '23; Spring '13, '16, '17, '18, '19, '20, '21
	Derivatives U of Hong Kong, undergraduate level	Spring '11 (2x), '12, '13
	Financial Engineering Peking U (Shenzhen) & U of Hong Kong, MFin	Fall '10, '11, '12, '13
	Management Science Lab: Financial Management WU (Vienna U of Economics and Business), graduate level	Winter '08/'09 and '09/'10
	Financial Management WU (Vienna U of Economics and Business), graduate level	Summer '08, '09, '10
<b>HONORS &amp; AWARDS</b>	Faculty Outstanding Teaching Award (TPG) 2021–2022 HKU Business School The University of Hong Kong	Oct. 2022
	Faculty Outstanding Teaching Award (UG) 2020–2021 HKU Business School The University of Hong Kong	Oct. 2021
	Outstanding Teaching Award The University of Hong Kong	Nov. 2020
	Teaching Innovation Award The University of Hong Kong	Nov. 2020

Faculty Teaching Innovation Award 2019–2020 HKU Business School The University of Hong Kong	Oct. 2020
Best Advisor Award World Asian Case Competition Academy of Asian Business	Aug. 2020
Advance HE Fellow Advance HE (previously Higher Education Academy)	Apr. 2020
Faculty Outstanding Teaching Award (TPG) 2017–2018 HKU Business School The University of Hong Kong	Oct. 2018
Nomination for (University) Outstanding Teaching Award The University of Hong Kong	May 2018
Winner at CQAsia 2014 Academic Competition (Second Prize)	Nov. 2014
Faculty Outstanding Teaching Award (UG) 2013–2014 HKU Business School The University of Hong Kong	Nov. 2014
Hong Kong Asian Capital Markets Research Prize 2013 Hong Kong Society of Financial Analysts (HKSFA) and CFA Institute	Nov. 2013
Faculty Outstanding Teaching Award (TPG) 2012–2013 HKU Business School The University of Hong Kong	Nov. 2013
Stephan Koren Prize 2011 WU (Vienna University of Economics and Business)	Dec. 2011
Best paper award semifinalist in corporate finance 2011 FMA Annual Meeting, Denver Paper: The Role of Media in Takeovers: Theory and Evidence	Oct. 2011
Outstanding Dissertation Prize WU (Vienna University of Economics and Business)	May 2010
Invitation to EERTEC3 3rd European Economic Review Talented Economists Clinic	May 2010
Graduated with Distinction Portfolio Management Program ISK Research Institute for Capital Markets, Vienna	May 2008
VGSF Ph.D. Scholarship Funded by the Austrian Science Fund	2005–2010

<b>EXPERIENCE</b>	Consulting (Pro Bono) for Samsung Asset Management Hong Kong	2017–2018
	Portfolio Manager Marc Faber Ltd	2008–2011
	Consulting for the Gutmann Center for Portfolio Management and Bankhaus Spängler on Dynamic Asset Allocation	2008
	ISK Research Institute for Capital Markets Vienna, Austria Portfolio manager in the portfolio management program for students	2007–2008
	Technical Editor of Monthly Market Commentary Marc Faber Ltd	2006–2010
	ISK Research Institute for Capital Markets Vienna, Austria Analyst in the portfolio management program for students	2006–2007
	Vienna Graduate School of Finance Vienna, Austria Elected representative and speaker of the first cohort of Ph.D. students	2005–2010
	Dresdner Kleinwort Wasserstein Frankfurt, Germany Internship at the investment banking arm of Dresdner Bank	2003
	DaimlerChrysler Sindelfingen, Germany Internship at DaimlerChrysler's biggest production facility	1999
	Allianz Leben Stuttgart, Germany Internship at Germany's largest life insurance company	1997