# Dijun Liu

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## Education

2019-2023 (Expected) Ph.D. in Economic Analysis, Universitat Autònoma de Barcelona (UAB)
2017-2019 M.A. in Economic Analysis, Universitat Autònoma de Barcelona (UAB)
2013-2017 B.A. in Economics, Zhongnan University of Economics and Law (ZUEL)

#### Fields of Interests

Empirical Asset Pricing, Market Anomalies

#### **Research Papers**

1. "What Drives the Short Duration Premium", 2021

Abstract: Equity duration is the present value weighted cash flow maturity. It measures the sensitivity of the price to the change of interest rate. Using a present value decomposition approach, I calculate the contribution of cash flow news and discount rate news to the unexpected returns for portfolios based on equity duration. Surprisingly, the cash flow news is the main driver across portfolios that are composed of stocks with long duration or short duration. Stocks characterized by a shorter duration earn return premium over stocks with a longer duration. Though the short duration premium embeds value premium, it cannot be a substitute for the intangible adjusted book-to-market ratio. Portfolio analyses indicate that the premium is concentrated on small stocks and stocks that are possibly short-sale constrained.

2. "Intangible Capital and the Value-Growth Anomaly", 2020

Abstract: In this chapter, I study the variation of the book-to-market (B/M) ratio across firms and over time. The B/M ratio, a firm characteristic defined as the book value over the market value of equity, plays an important role in finance theory and practice. I first replicate and extend the Chapter of "Value Premium" in n Bali, Engle, and Murray (2016). Second, recent work debates whether the B/M ratio should also account for intangible capital. I estimate three versions of internally generated intangible capital, use it to adjust B/M ratio, and confirm that including intangible capital does improve the performance of the value strategy. One of the contributions of this paper is to compare methods to estimate intangibles. The long-short value premium and the cumulative return of HML factor favor  $bm^{Eisfeldt}$  compared with  $bm^{Peters}$  and  $bm^{Ewens}$ . Nevertheless, none of them can expand the mean-variance frontier spanned by four other factors, and they all experience persistent drawdowns in recent decades. Third, to delve into the time-series and cross-sectional behavior of B/M ratio and its associated value premium, I conduct two sub-sample analyses: pre- or post-1999 analysis and high tech sector or not analysis. The pre- or post-1999 analysis indicates that the positive relationship between all the four versions of B/M and future stock returns is much weaker post-1999. High tech sector or not analysis does not corroborate the argument that the death of value strategy is caused by the conservative accounting biases in book value. The selection of a better estimation method for intangibles is hampered as it changes across contexts. Last, I show that instead of using intangible capital to adjust book value, leveraging the ratio of intangible capital over market value can deliver HML factors which feature much higher cumulative returns and smaller drawdowns in recent decades. The drawdowns of HML factors are closely associated with the change of relative valuation.

3. "Volatility-Managed Portfolio Performance: An Empirical Analysis", 2019

Abstract: "Risk parity" is a widely employed trading strategy in the real world. Similar to its main idea of allocating risk, a variation of this strategy, called volatility scaling or dynamic risk parity has drawn much attention in academia. In a comprehensive study, Moreira and Muir (2017) argue that volatility weighted portfolios perform better than other weighting methods. Liu, Tang and Zhou (2018) suggest that these results have a look-ahead bias and do not survive once this bias is corrected for. I revisit this issue and find, based on a detailed analysis, that Liu, Tang and Zhou (2018)'s conclusions about the results of Moreira and Muir (2017) may not be well-founded. I also add to this debate with further suggestions and results on the question of volatility weighting of risky portfolios and their subsequent performance relative to alternate weighting approaches.

#### **Seminars and Conferences**

2022 Universitat Autònoma de Barcelona (Applied working group), BSE PhD Jamboree 2021 Universitat Autònoma de Barcelona (Applied working group), ENTER PhD Jamboree

(discussant)

2020 Universitat Autònoma de Barcelona (Applied working group)

#### Research Experience

Spring 2021 Development Economics, UAB, RA for Prof. Andre Groeger

## **Teaching Experience**

Fall 2021	Microeconomics II, UAB, Masters, TA for Prof. Ramon Caminal
Fall 2019, 2020, 2021	Probability and Statistics, UAB, Masters, TA for Prof. Jordi Caballe
Fall 2016	Macroeconomics, ZUEL, undergraduate, TA for A/Prof. Yin Chu

# Other Experience

2021 European Winter Meetings of the Econometric Society (student helper)

### Fellowships and Awards

2020-2023	FI-AGAUR Predoctoral Fellowship, Generalitat de Catalunya and European Social Fund
2017-2019	Master Track Fellowship, BSE
2016	Outstanding Undergraduates, ZUEL
2015-2016	Annual Third-Class Scholarship, ZUEL
	National Endeavor Fellowship, Ministry of Education of the People's Republic of China
2014-2015	Annual Third-Class Scholarship, ZUEL
	National Endeavor Fellowship, Ministry of Education of the People's Republic of China
2013-2014	The Third-Class Prize in school empirical innovation projects, ZUEL
	Outstanding Volunteer, ZUEL
	Annual Second-Class Scholarship, ZUEL
	National Endeavor Fellowship, Ministry of Education of the People's Republic of China

# Skills

Languages: Chinese (native), English (fluent)

Programming: Python, Stata, R, LATEX

## References

Abhay Abhyankar (supervisor) Michael Creel (tutor) Jordi Caballé

Professor of Finance Professor of Economics Professor of Economics

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## **Personal Information**

Born: 30 March 1995. Citizenship: Chinese.