# Xinyu Xia

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#### Education

Peking University, HSBC Business School

Mphill, Economics 2024.09-2027.06

Beijing Jiaotong University, School of Economics and Management

Bachelor, Economics

2020.09-2024.06

#### Research Interest

Primary: Macroeconomics, Financial Economics, Asset Pricing

Secondary: Fintech, Digital Currency

### Working Papers

## Venture Capital under Spatio-Temporal Compression: High-speed Railway Opening and Regional Changes of Venture Capital Investment

This paper studies the new changes in China's VC behavior after the opening of high-speed rail changed the spatial and temporal constraints of geographical distance. The DID model analysis shows that after the opening of HSR, the new investment of VCs in HSR cities increases significantly compared with that in non-HSR cities. At the same time, the high-speed railway expands the investment radius of VC center cities. Moreover, the information asymmetry between investors and entrepreneurs is reduced after the opening of the high-speed railway, resulting in a significant increase in venture capital investment in the start-up and expansion phases, which are more information-sensitive. Meanwhile, non-state VC institutions with higher degree of marketization have more new investments in HSR cities than state VC institutions.

# Calculating the Debt Ceiling of the Chinese Government: Methodology, Analysis, and Implications (With Kai Li)

This paper provides a comprehensive analysis of the debt ceiling of the Chinese government, exploring the methodology behind the calculation, the key economic factors involved, and the implications for fiscal policy. The paper first defines the concept of a government debt ceiling and reviews theoretical models for determining its limits. It then presents a detailed approach for calculating China's debt ceiling, considering factors such as GDP growth, fiscal revenue, inflation, and external factors. The analysis concludes with an assessment of China's current debt situation, the potential risks of breaching the debt ceiling, and policy recommendations for sustainable fiscal management.

#### Charting by Machine (Replication, with Tsinghua IIIF Institute)

We test the efficient market hypothesis by using machine learning to forecast stock returns from historical performance. These forecasts strongly predict the cross-section of future stock returns. The predictive power holds in most subperiods and is strong among the largest 500 stocks. The forecasting function has important nonlinearities and interactions, is remarkably stable through time, and captures effects distinct from momentum, reversal, and extant technical signals. These findings question the efficient market hypothesis and indicate that technical analysis and charting have merit. We also demonstrate that machine learning models that perform well in optimization continue to perform well out-of-sample.

#### The Rise and Fall of FTX

The abrupt downfall of Futures Exchange (FTX) has sent shockwaves throughout the cryptocurrency industry. In this case report, we delve into the causes and consequences of the crisis at the FTX exchange, examining the precarious relationship with Alameda that sowed the seeds of danger. The extensive lending of money to Alameda, using FTX's own token as collateral, gave rise to a death spiral, a destructive interplay between FTX's assets and liabilities. While the repercussions of the event extended to other crypto related entities, the fallout was predominantly contained within the crypto sector. We conclude with a discussion on the future regulatory landscape and its implications for the industry.

## Awards, Scholarships, and Grants

National Scholarship for Undergraduate Students, China 2021&2022&2023

## Teaching Assistant Experience

Macroeconomics(PhD) , TA for Prof. Pengfei Wang
Financial Economics(PhD) , TA for Prof. Kai Li
Spring 2025

## Research Experience and Other Employment

China International Capital Corporation 2023.09-2024.02

Reasearch Group, Real Estate and Spatial Service

The People's Bank of China

Credit Reference Center

### Additional Information

**Citizenship** China

Permanent Resident China, Shenzhen
Programming Skills Python, R, Matlab, Mathematica, Stata, SAS

Languages English (Fluent), Chinese (Native)