

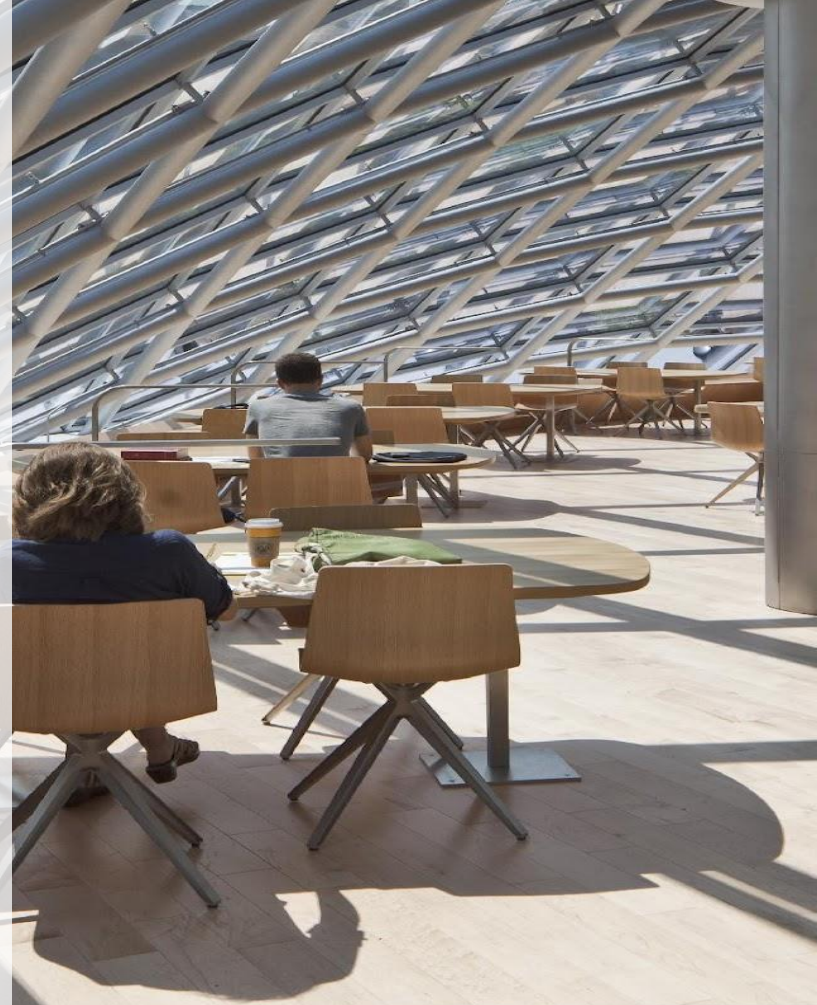
Prime Trading

Project Lab - The University of Chicago
May 2nd meeting

Futures Basis Model

Presented by

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Mooseok Kang, James Chen





1. Theoretical value for basis

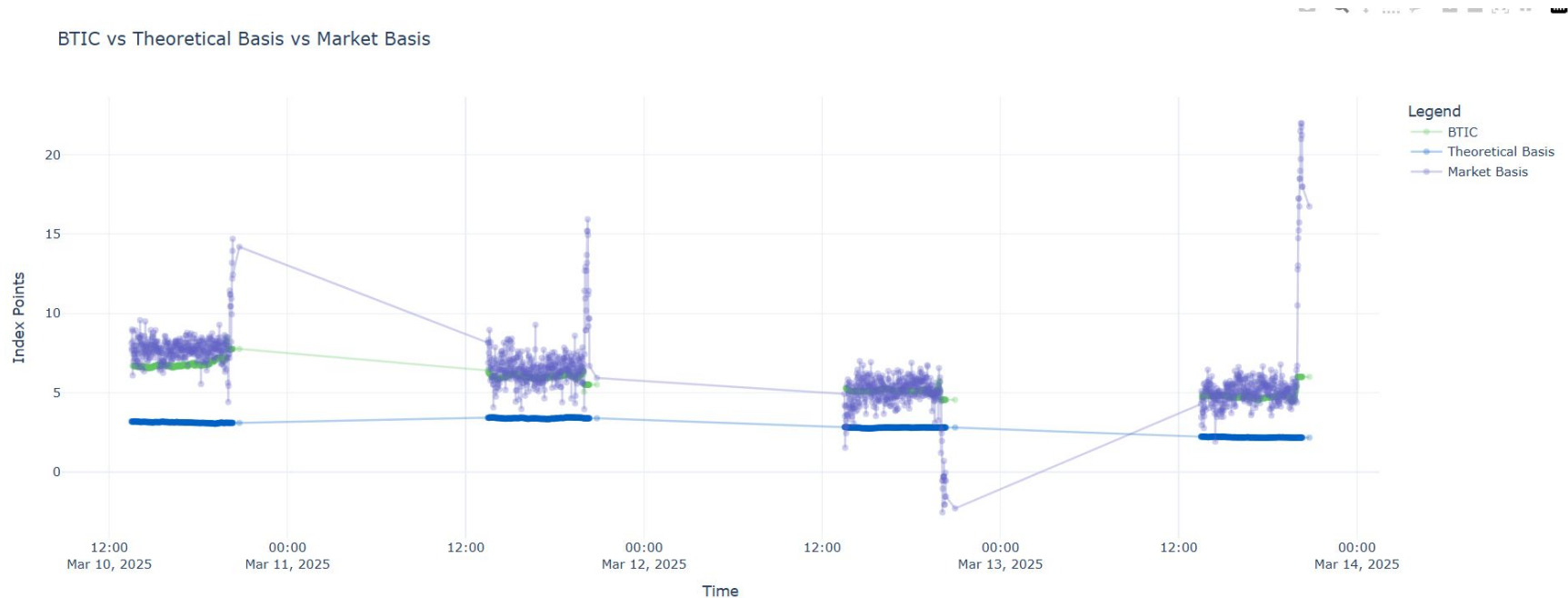
- Visualization for different basis
- Market Implied Pricing

2. Milestone

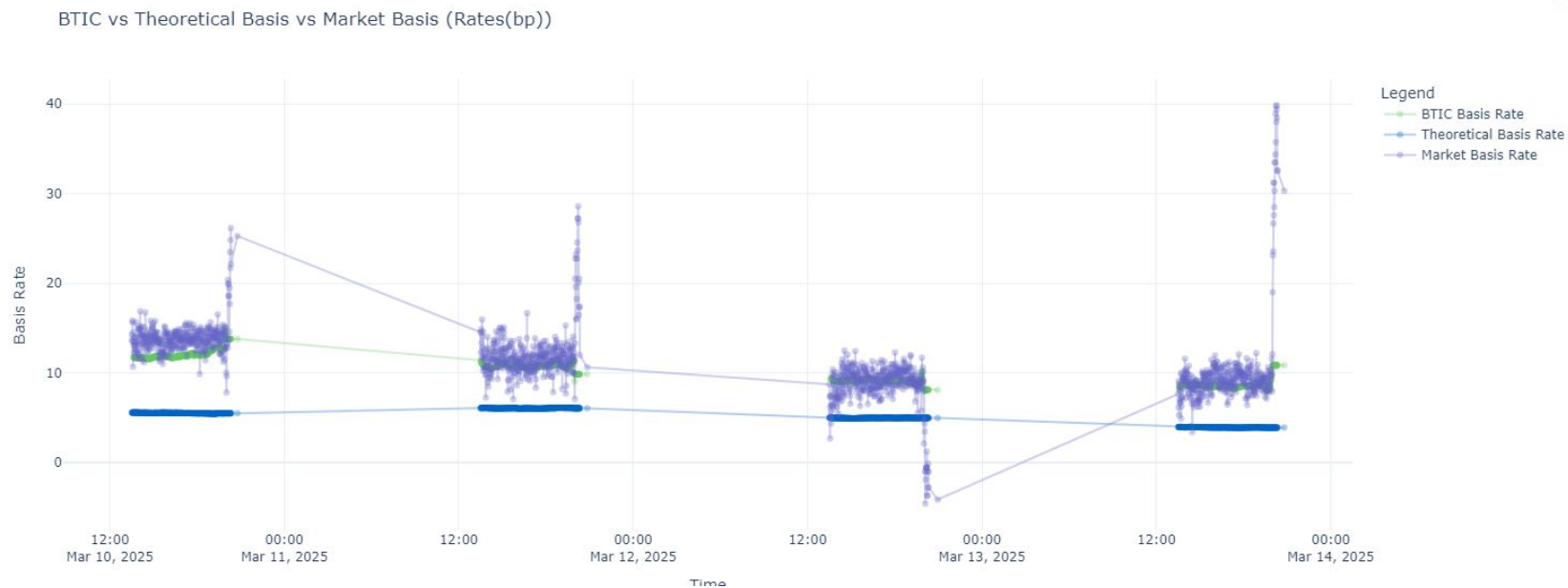


1. Theoretical value for basis

Visualisation of different basis



Visualisation of different basis

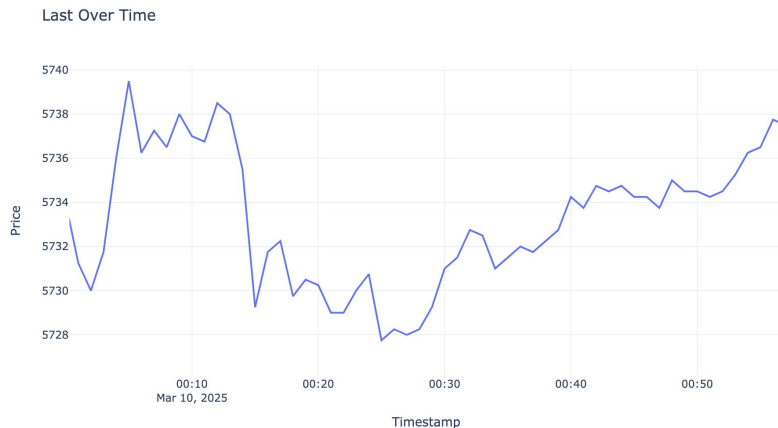


Implication

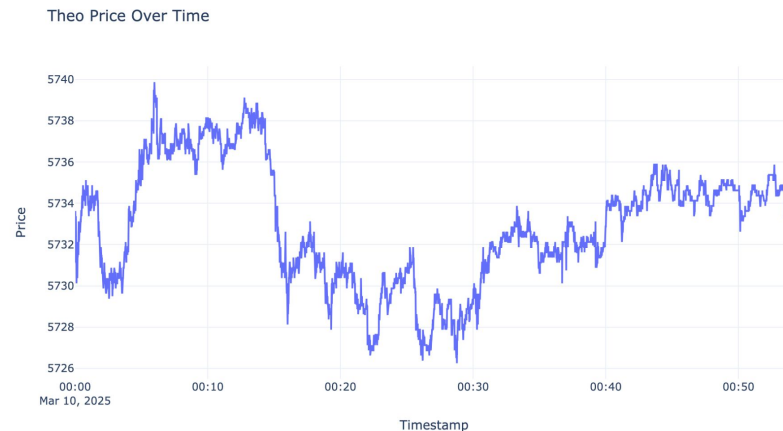
- **Potential reasons for spike of market basis**
 - Information bias
 - Leveraged funds
- **Potential Trading Strategy**
 - Buy BTIC contract and short market basis(sell ES buy spot) etc.
 - We need longer timeframe to test the hypothesis

Market Implied Pricing

- As mentioned last week, we want to try the pricing without adding the filtering from last week
- Below is direct plot of trade data vs mid price from nbbo of ES
- The trade data shows much less noise

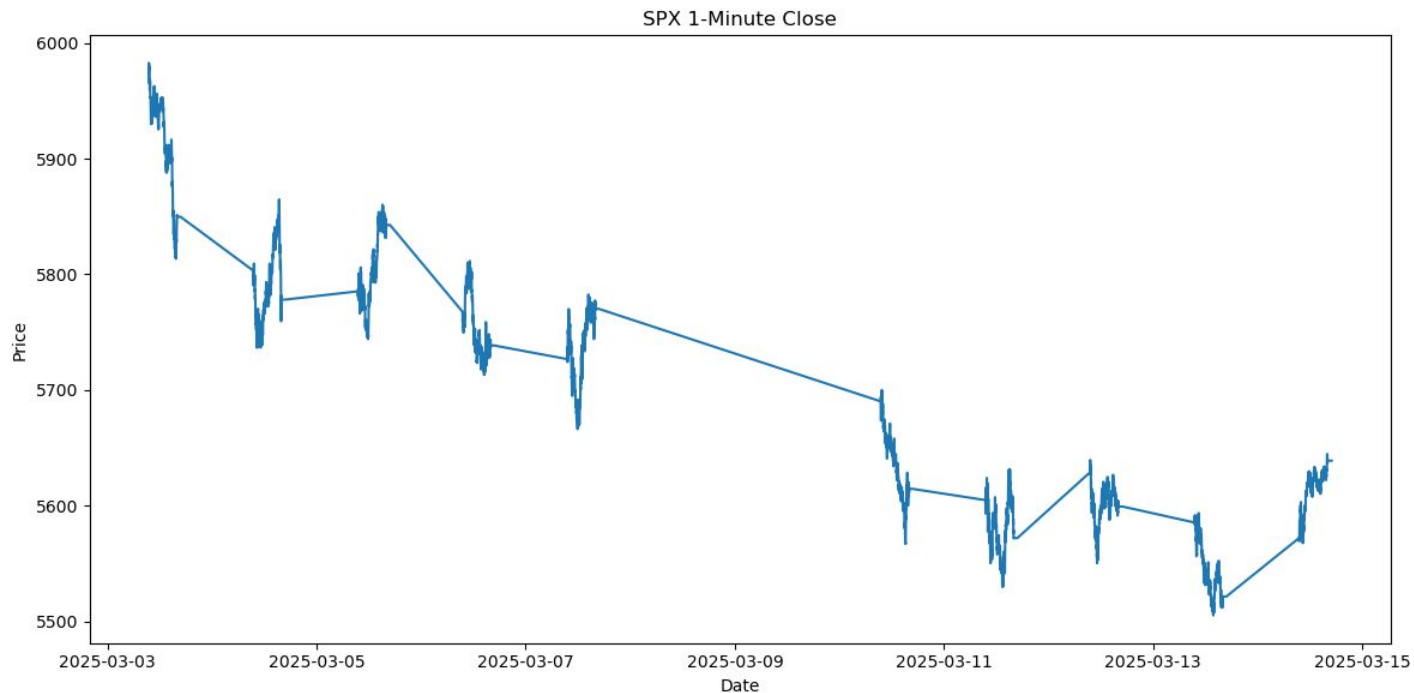


Trade data plot



Mid price from quote data plot

SPX 1-minute data (Source: FirstRate Data)





2. Milestone

Data

- **Data we currently have**

- SPX DIV Trade/Quote 03/03 - 03/14
- SPX DIV Index - 2020/1/2 - 2025/4/25
- Term SOFR - 2020/1/2 - 2025/4/25
- BTIC Trade 03/10-03/21
- ES Trade/Quote 03/03-03/14
- SPX 1min 03/03 - 03/14

-> Currently Analysed 03/10-03/14 (UTC)

- We need further more data to test our hypothesis

Thank you!

