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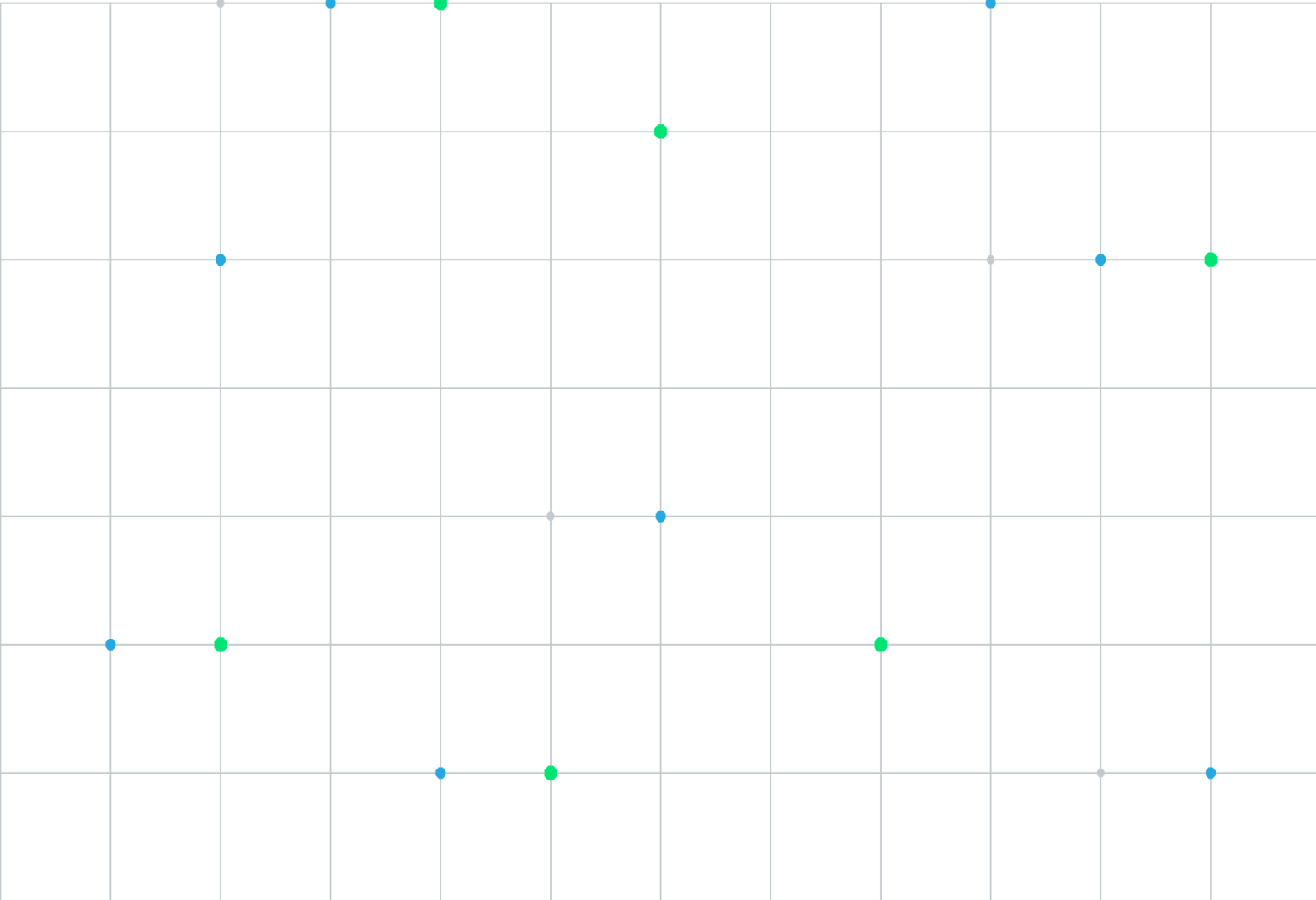
US Treasury Market Profile
User Guide

1 Feb 2022

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Getting Started

The UST Market Profile brings the power of its listed Treasury futures together with BrokerTec's cash traded U.S. Treasury trading in one place for deep market insights. Now with the ability to assess, liquidity, pricing, orderbook levels, and market microstructures clients have the ability to see how they can best manage the interest rate risk across markets.

The UST Market Profile can be used to:

- Compare traded activity across markets to see which platforms are busiest throughout the trading day.
- View the volumes of U.S. Treasury futures traded in, contract, volume and proportional terms to determine when the market is most active.
- Find out what times of the day have the tightest spreads, and compare spreads for U.S. Treasury.
- View statistical plots available for top of book ("TOB") spreads.
- Review historic data to determine how spreads, order book depth and trading activity performed over a determined time range.

> ⓘ Note: All times are shown in GMT and all data is exportable, down to the five-minute level. (Only one-hour buckets available for the percentile plots). Currently, only futures volume data is public domain data.

Exporting the data

To export the data click on the "Data" tab and then on your preferred export format. Excel and CSV are available.

Trading Pairs

The dashboard features 7 U.S. Treasury futures markets and cash equivalents.

- 2 Year Cash vs 2 Year Futures (ZT)
- 3 Year Cash vs 3 Year Futures (Z3N)
- 5 Year Cash vs 5 Year Futures (ZF)
- 7 Year Cash vs 10 Year Futures (ZN)
- 10 Year Cash vs 10 Year Futures (TN)
- 20 Year Cash vs 20 Year Future (ZB)
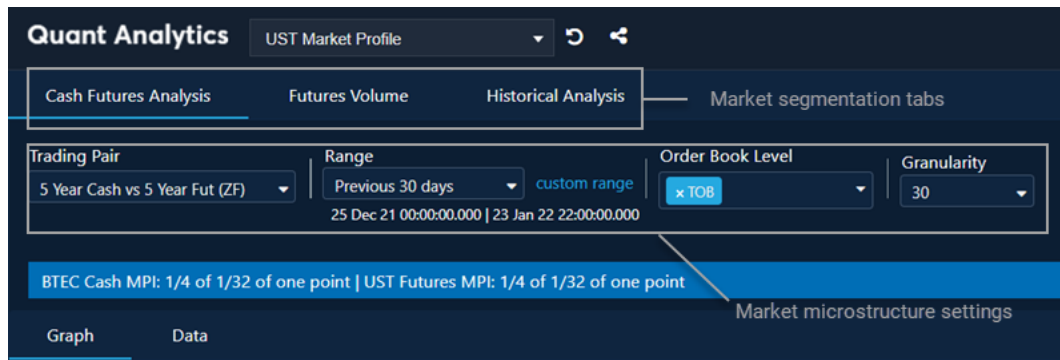- 30 Year Cash vs Ultra 20 Year Futures (UB)

Types of Analysis

The dashboard has three separate panels, showing:

- Craft Unique Views from the Start
- Cash Futures Analysis
- Futures Volume
- Historical Analysis

Craft Unique Views from the Start

The UST Market Profile starts up with standard settings that are highly customizable through quick dropdown menus and tabs. "Cash Futures Analysis" is selected as the initial market segmentation type. Other types include Futures Volume and Historical Analysis.

The top section of the UST Market Profile provides significant customization

The market microstructures settings seek to dial into the insights that the UST Market Profile can provide. Establish similar tenor derivative and cash products by selecting "Trading Pair." The UST Market Profile starts with the 5-year point. The other pairs available include 2-, 3-, 5-, 7-, 10-, 20- and 30-year points. At present, the 20-year only has BrokerTec levels, but with the announcement of the 20-Year Bond future, the data will be available soon after the future's planned launch on March 7, 2022.*

*Pending regulatory review.

Date Range

Choose the date range to view. Standardized time periods include the previous 30 days, each of the prior two months and month-to-date. In addition, custom time periods are simple to create by clicking on the "custom range" link to the right of the dropdown box. Once a time period has been selected, white text below the dropdown box clearly reports what is the beginning and end of the time period.

By default, the tool displays data between 00:00 – 22:00 GMT.

Order Book Level

Analyze up to 10 orderbook levels with the next dropdown box. The UST Market Profile tool is set to initially displace Top-of-Book (TOB), but other individual levels or all levels can be displayed. This brings the power of pricing transparency of a Central Limit Order Book with the significant depth of CME Group's interest rate markets.

Granularity

Determine the discrete time periods to view as a final setting for market microstructures. Units are in minutes and you can select 5, 10-, 15-, 30- or 60-minute intervals on the Cash Futures Analysis tab.

MPI

For clarity and consistency across markets, the blue bar with white text clearly states what each market's minimum price increment (MPI) is. For the 5-year, the UST Market Profile displays

> "BTEC Cash MPI: 1/4 of 1/32 of one point | UST Futures MPI: 1/4 of 1/32 of one point."

For each market tenor point, the correct MPIs are displayed.

Update Frequency

Providing backward looking data for analysis, the data is updated on a T+1 day basis – the tool does not provide real time / trade date data.

Cash Futures Analysis
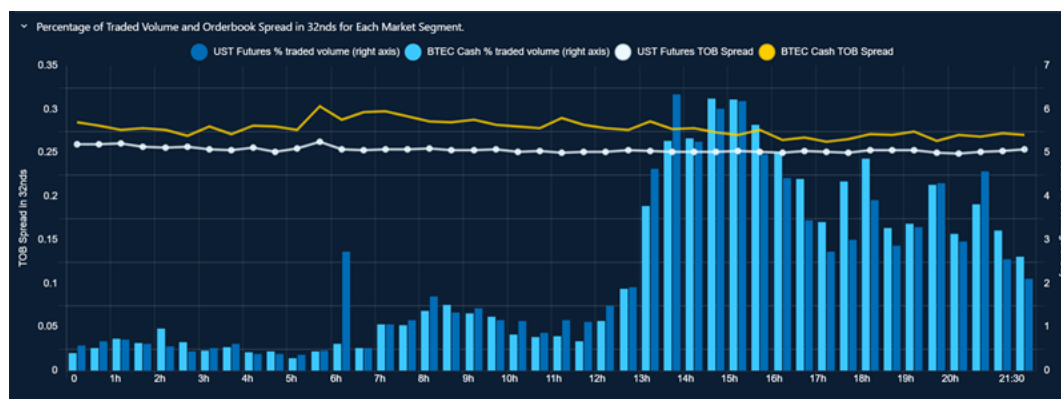
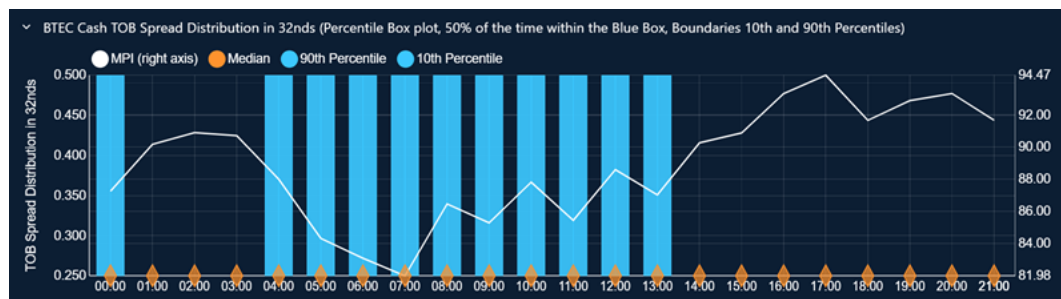Configure the dashboard for Cash Futures Analysis display:

Types of Analysis

Percentage of Traded volume and orderbook spread in 32nds for each market segment

- Plots the traded volume for UST Futures and BrokerTec Cash as a percentage of the hours selected.
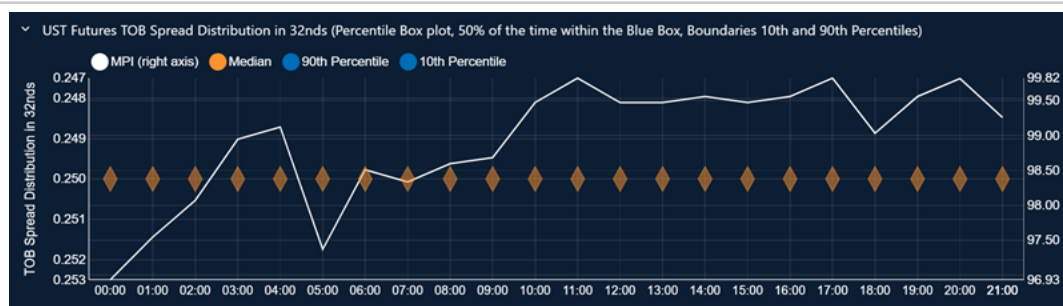- Overlays the bid-ask spread for the selected orderbook levels in 32nds.

BTEC Cash TOB Spread Distribution in 32nds (Percentile Box plot, 50% of the time within the Blue Box, Boundaries 10th and 90th Percentiles)

A box-whiskers (percentile) plot that buckets TOB BrokerTec spreads into an hourly statistical plot. The median spread is shown in orange. The blue box highlights the range observed 50% of the time between the 10th and 90th percentiles.
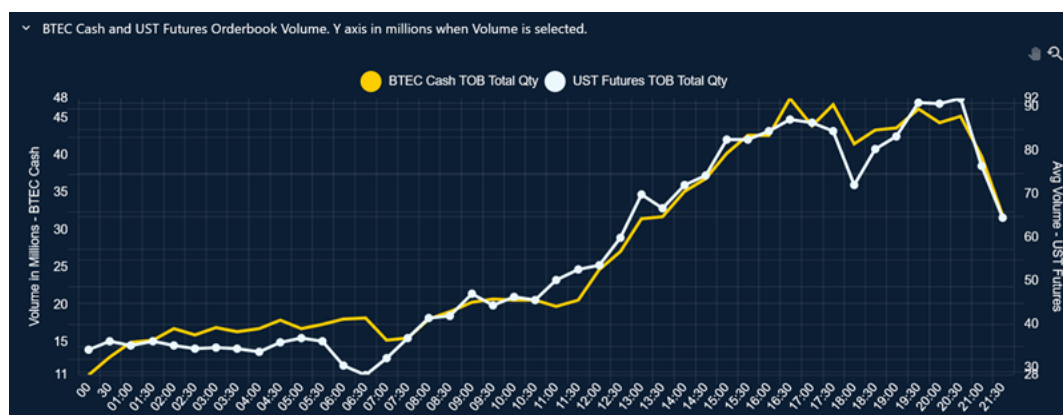
UST Futures TOB Spread Distribution in 32nds (Percentile Box plot, 50% of the time within the Blue Box, Boundaries 10th and 90th Percentiles)

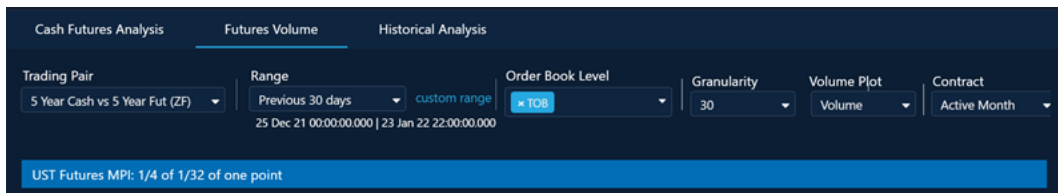Similar display to BrokerTec TOB spread distribution but displaying TOB UST futures spreads.

BrokerTec Cash and UST Futures Order book volume

A side-by-side comparison of available BrokerTec cash and U.S. Treasury orderbook volume for the selected orderbook levels.

Futures Volume

Configure the dashboard for Futures Volumes display:

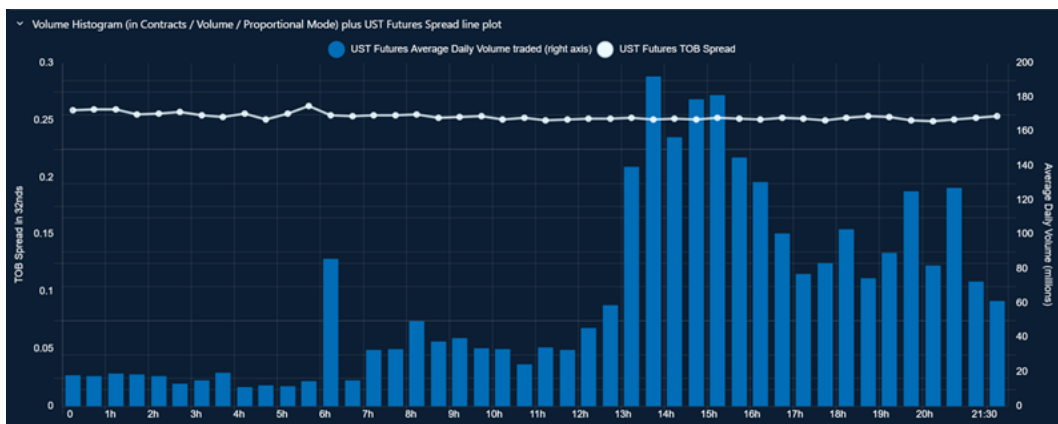The Futures Volume tab offers two additional configuration options:

Volume Plot

The traded volume chart can be displayed in terms of the number of contracts traded, the $US value or the percentage of volume observed in each time period.

Contract

Use this option to display the spread and volume data for either the most active contract month (typically the front quarterly contract) or all contract months blended.
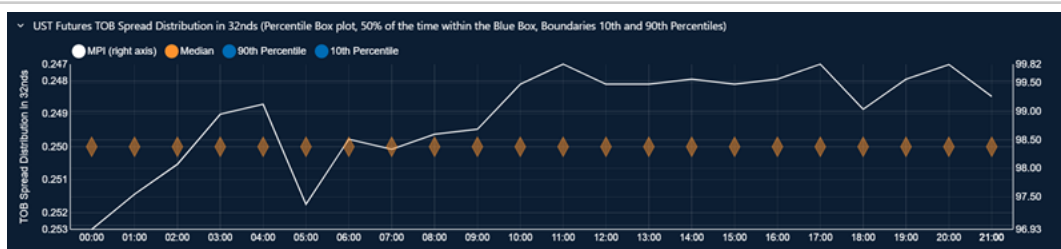
Types of Analysis

Volume Histogram (in Contracts / Volume / Proportional Mode) plus UST Futures Spread line plot
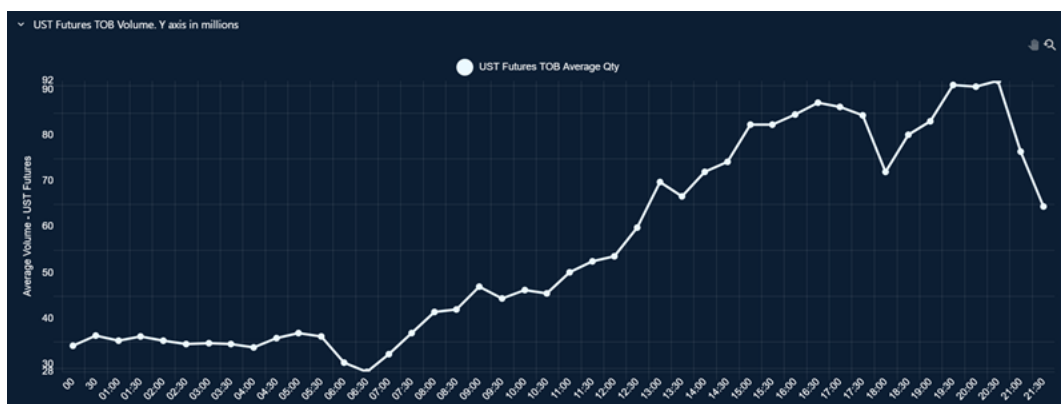

- Plots the traded volume for UST Futures.
- Overlays the bid-ask spread for the selected orderbook levels in 32nds.
- Depending on the volume plot selections:
  - **Contract** will display the traded volume in terms of the number of contracts traded
  - **Volume** will display the US dollar traded volume
  - **Proportional** will display as a percentage of the traded volume for that day

UST Futures TOB Spread Distribution in 32nds (Percentile Box plot, 50% of the time within the Blue Box, Boundaries 10th and 90th Percentiles)

A box-whiskers (percentile) plot that buckets TOB UST Futures spread in 32nds into an hourly statistical plot. The median spread is shown in orange. The grey box highlights the range observed 50% of the time between the 10th and 90th percentiles.

UST Futures TOB Volume. Y axis in millions

A plot of the UST Futures orderbook volume for the selected orderbook levels.

Historical Analysis

Configure the dashboard for Historical Analysis display:

This panel provides the analysis formats seen on the Cash Futures Analysis and Futures volume panels.

The data range defaults to the past 3 months and is plotted on a daily basis.The Historical Analysis tab offers two additional configuration options:

Volume Plot
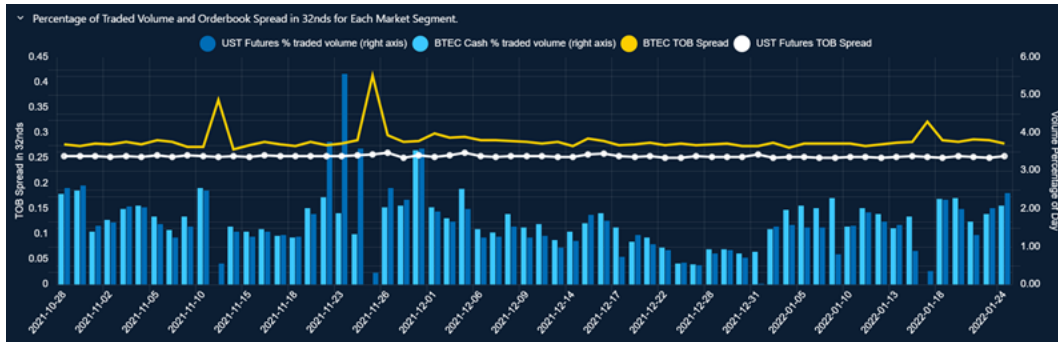
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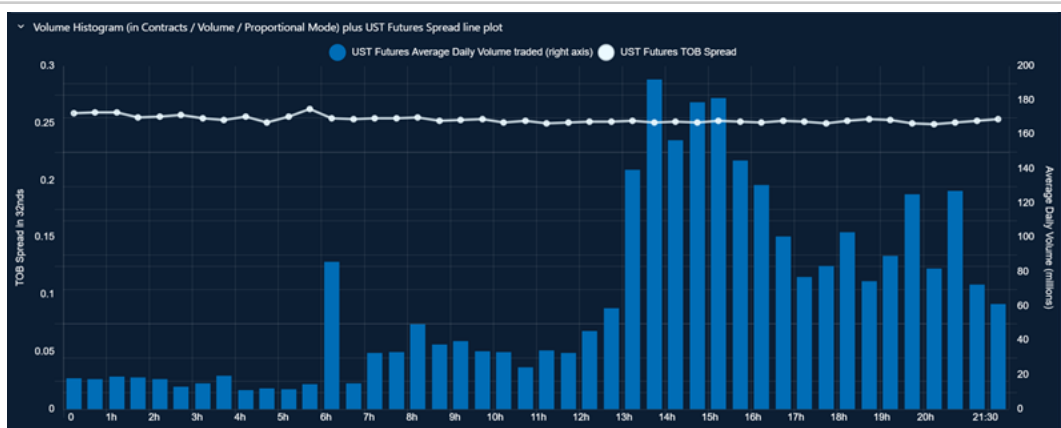
Contract

This allows you to see spread and volume data for either the most active contract month (typically the front quarterly contract) or all contract months blended.
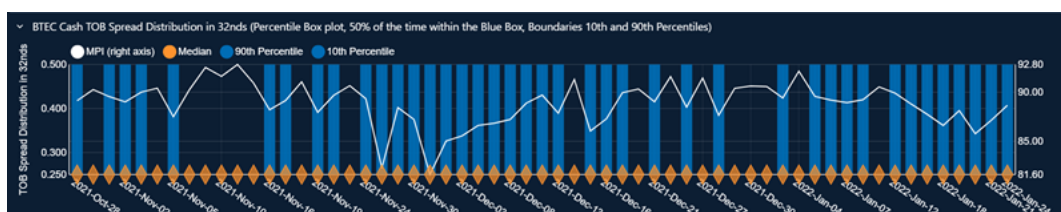
Types of Analysis

Percentage of Traded Volume and Orderbook Spread in 32nds for Each Market Segment

Volume Histogram (in Contracts / Volume / Proportional Mode) plus UST Futures Spread line plot

UST Futures TOB Spread Distribution in 32nds (Percentile Box plot, 50% of the time withing the Blue Box, Boundaries 10th and 90th Percentiles)

BTEC Cash and UST Futures Orderbook Volume. Y axis in millions when Volume is selected