BitMEX

Topics Covered

Cash and Carry Arbitrage - Inverse futures vs. spot

Calendar Spreads - Rolling futures contracts

Volatility Arbitrage - Quanto futures vs. spot

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Cash and Carry Mechanics

Borrow USD, buy spot Bitcoin

Sell futures contracts to hedge the USD value of Bitcoin

Manage futures margin

At futures expiry, determine whether to roll or let expire

If expiring futures, sell Bitcoin to receive USD

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When to Roll?

Calculate the inter-contract fair price

Compare that to the inter-contract spread

If there is a premium, then roll

When rolling, we refer the action on the far leg

Long Roll - Sell Near vs. Buy Far

Short Roll - Buy Near vs. Sell Far

Cash and Carry Margin

Must deposit margin on BitMEX for the futures leg

Initial Margin - Minimum equity needed to open a position

Maintenance Margin - Minimum equity needed to keep a position open

Margin Call - When equity drops below maintenance margin, BitMEX will liquidate your open position

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Volatility Arbitrage Mechanics

Calculate your cost to borrow USD

Calculate the Fair Futures Price based on Covered Interest Rate Parity

The difference between the Last Price and Fair Price is the USD Gamma component

Compute the lower and upper bound breakeven prices in USD terms by solving quadratic equation

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Example Spreadsheets

BitMEX Arbitrage Lesson 2

XBT Pricing