

# Limits to Arbitrage in Markets with Stochastic Settlement Latency

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- ▶ Blockchain: Need to wait for the settlement of the buy order.

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- ▶ What about *statistical* arbitrage?



## More Direct Evidence?



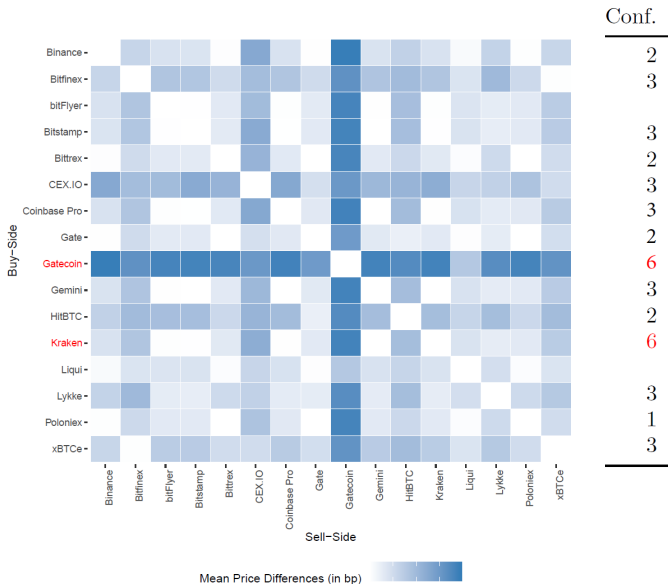
## More Direct Evidence?



Required mispricing  $d$  depends on

- ▶  $\tau$  settlement delay in **Market A**
- ▶  $\sigma$  price volatility in Market B
- ▶  $\gamma$  investor risk aversion

# More Direct Evidence?



## Other Causes of Crypto Mispricing

- ▶ Asset mispricing occurs in less developed markets
- ▶ High frequency traders in crypto market?
- ▶ Order slippage
- ▶ Low liquidity

## Mispricing between Futures and Spot

- ▶ Future price \$8,895, maturing June 19, 2019 (CBOE)
- ▶ Spot price \$8,762 (Binance)
- ▶ Today: Buy at spot, short the future
- ▶ On June 19, 2019: settle the future with the long spot position
- ▶ Say  $S$  = spot price on June 19, 2019
- ▶ Profit on the future contract:  $\$8,895 - S$
- ▶ Profit on the Spot position:  $S - \$8,762$
- ▶ Arbitrage profit:  $\$8,895 - \$8,762$
- ▶ Problem: What if the spot market is illiquid? Hard to trade at the spot price immediately.