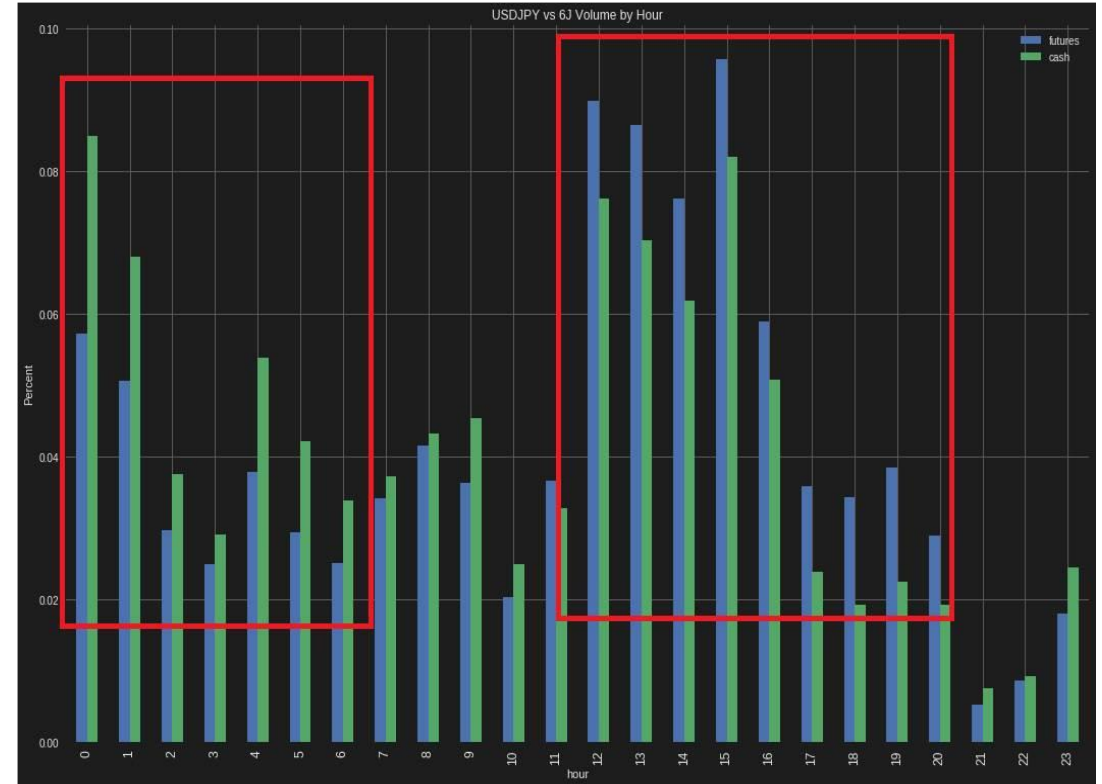
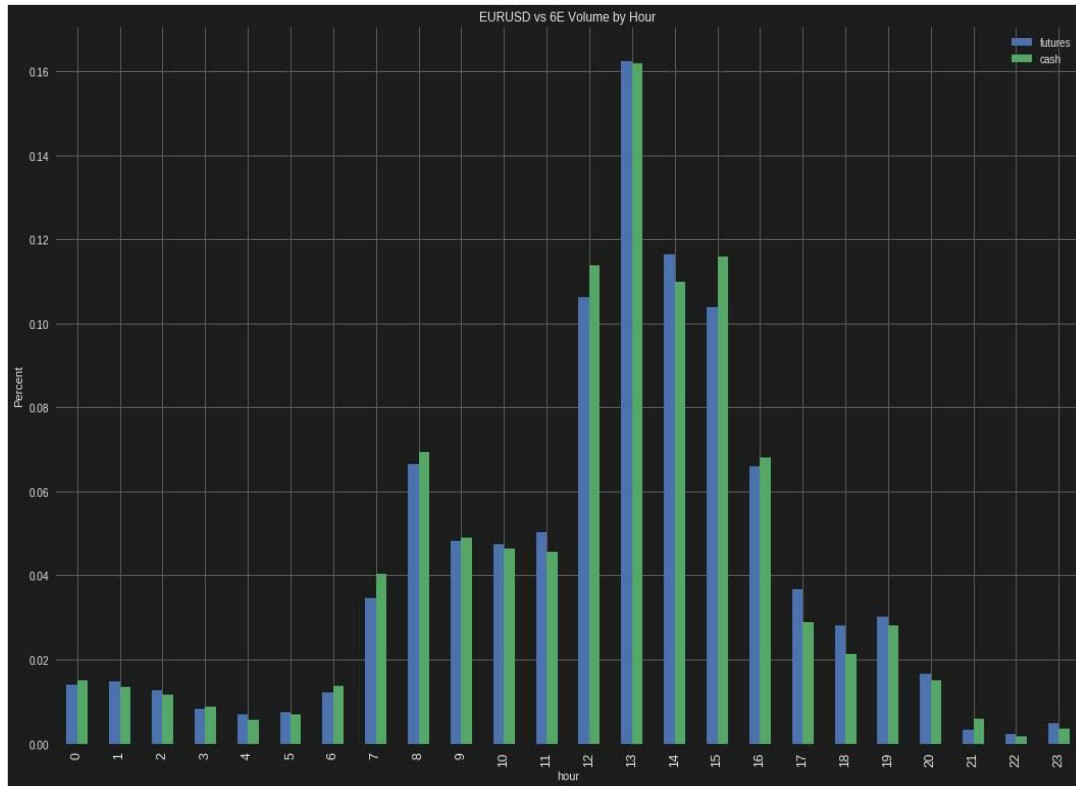


Overview of the Cash vs Futures markets in FX

March 2018

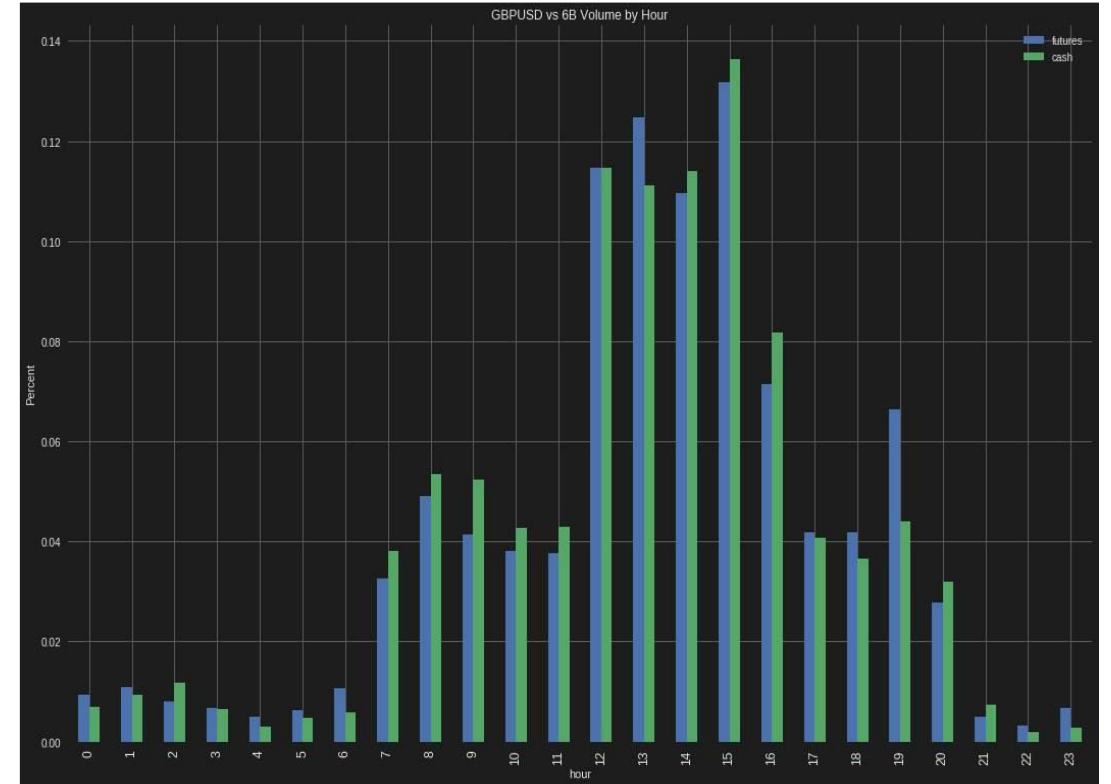
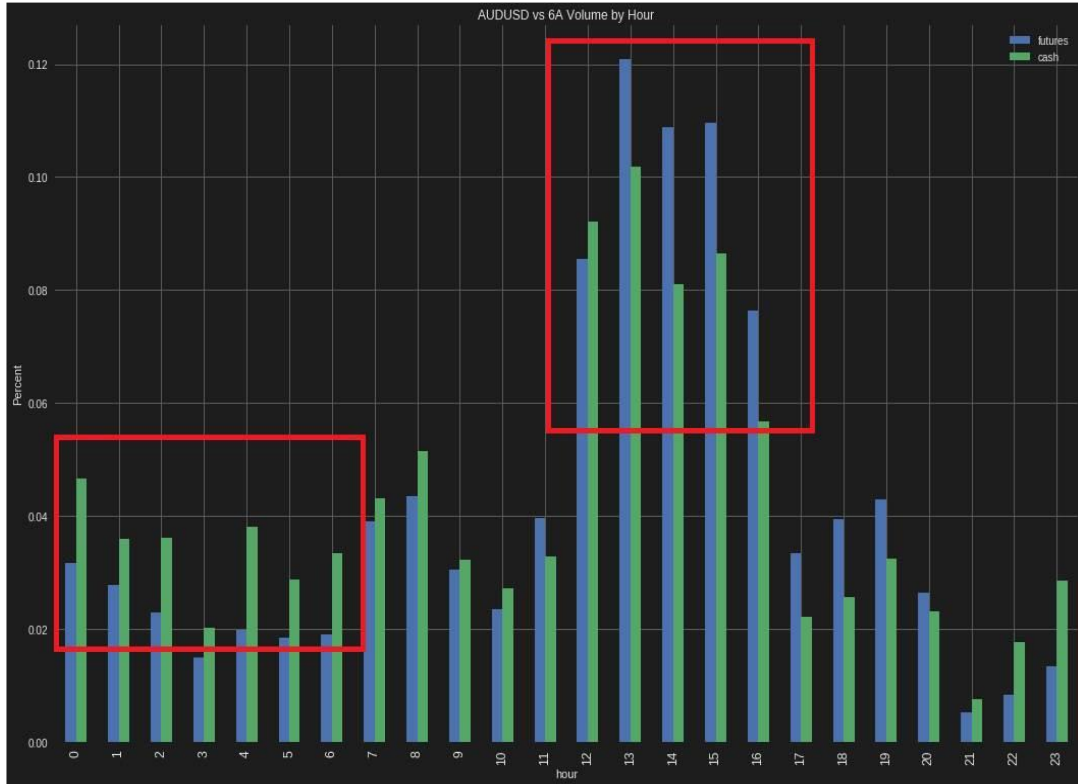
Mark Bruce, Head of FICC, Jump Trading

Futures vs Cash relative volume



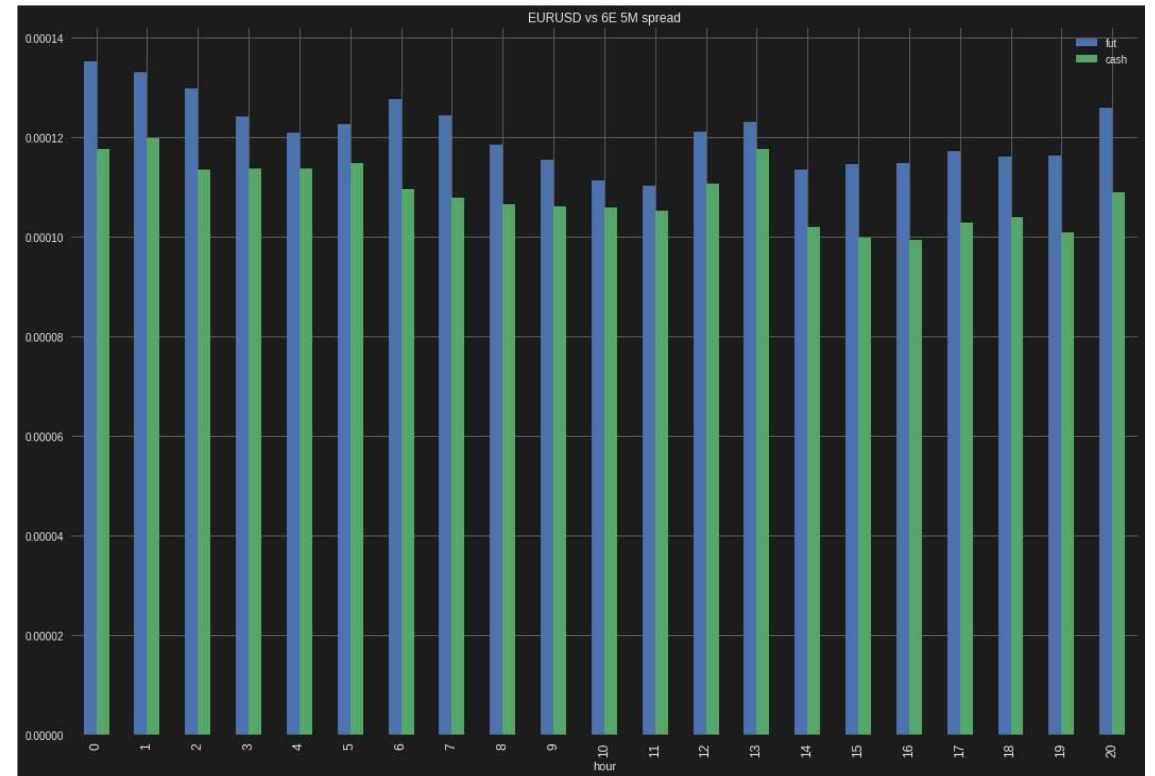
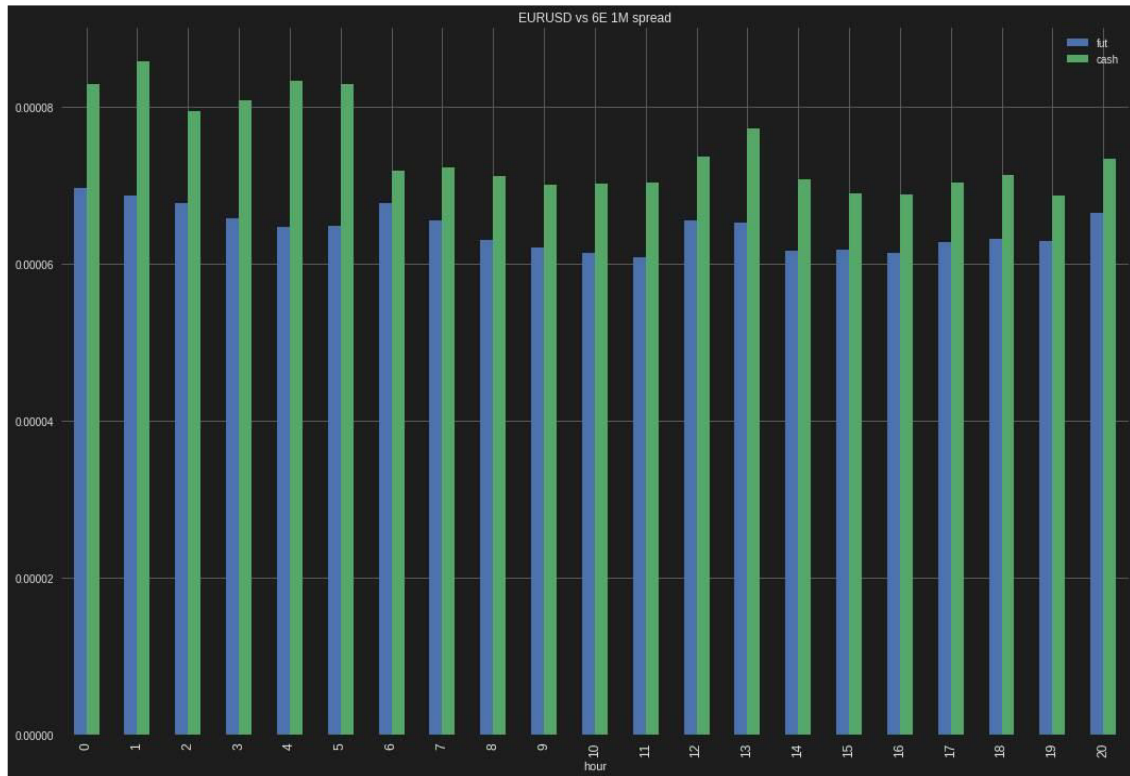
- Here we look at the relative volume seen in cash vs futures over the course of the day (time in UTC)
- For EURUSD vs 6E (EURUSD futures symbol) one can see high correlation in volume, with both cash and futures volumes following a similar trend throughout the day with peak activity in the LN<>NY crossover
- For USDJPY vs 6J (USDJPY futures symbol) it is evident that the cash market dominates early local trading hours, but there is a migration towards futures from London midday into US trading

Futures vs Cash relative volume



- For AUDUSD vs 6A (AUDUSD futures symbol) there are similarities to USDJPY, whereby the cash market dominates local market trading hours with a migration to futures volumes into the US open
- GBPUSD vs 6B (GBPUSD futures symbol) is consistent throughout the day for both cash and futures on a relative basis again with the largest peak in LN<>NY crossover and very low volume in Asian trading hours

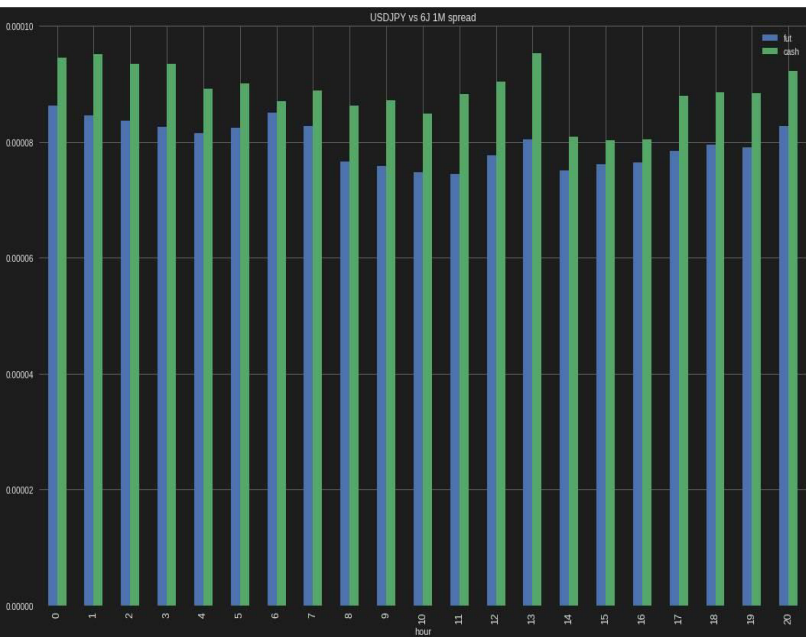
EURUSD VWAP Spreads for \$1m and \$5m



One can see that the futures markets are generally tighter than the cash market for \$1m trade execution – this logistically makes sense as contract sizes are significantly smaller (125k for 1 lot 6E) with a 0.7 spread for cash vs 0.6 in futures. However, when looking to execute \$5m, one finds that the cash market is tighter at 1 tick vs 1.2

The next 2 slides show that this is generally the trend with other currency pairs aside from AUDUSD, whereby execution seems to favor the futures market for both \$1m and \$5m

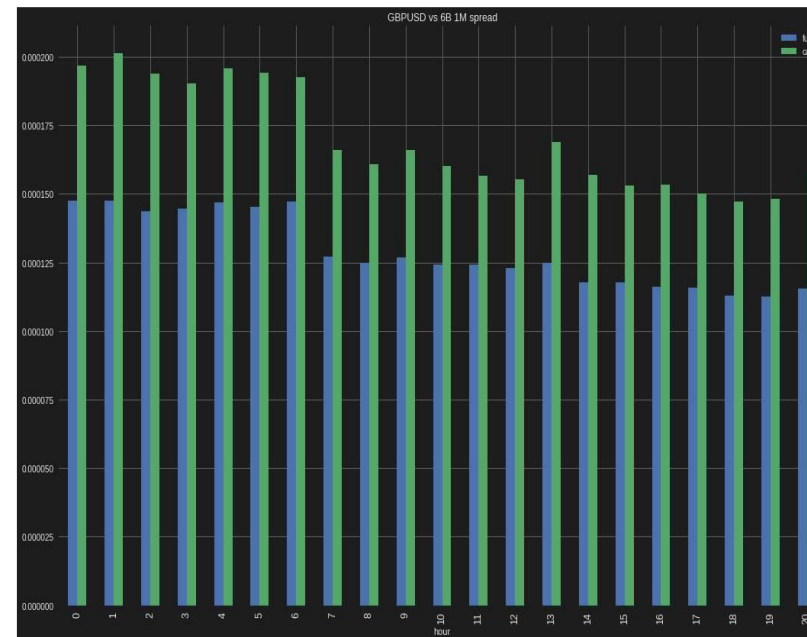
USDJPY \$1m spread



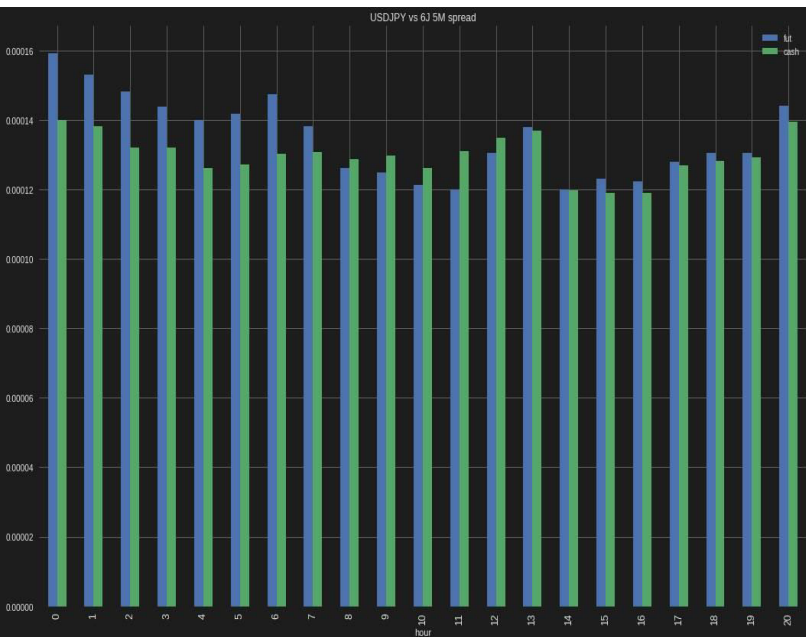
AUDUSD \$1m spread



GBPUSD \$1m spread



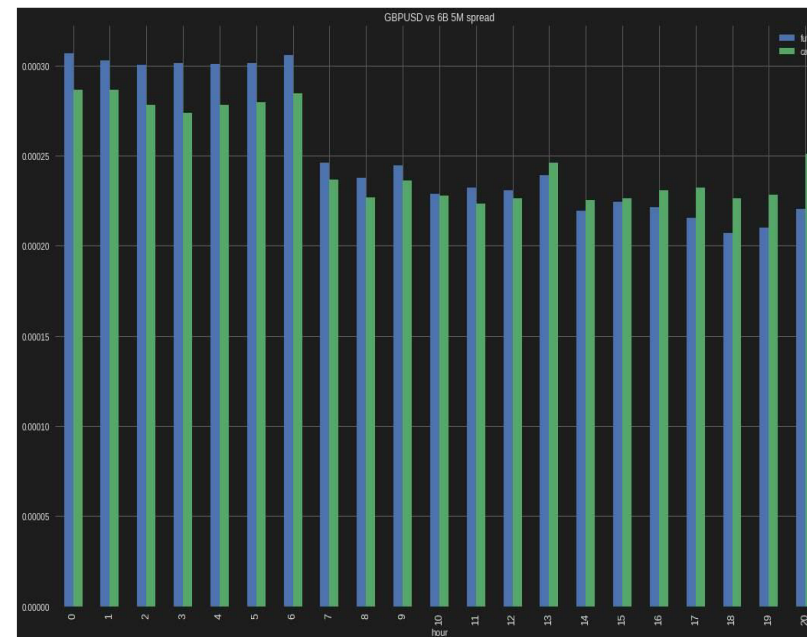
USDJPY \$5m spread



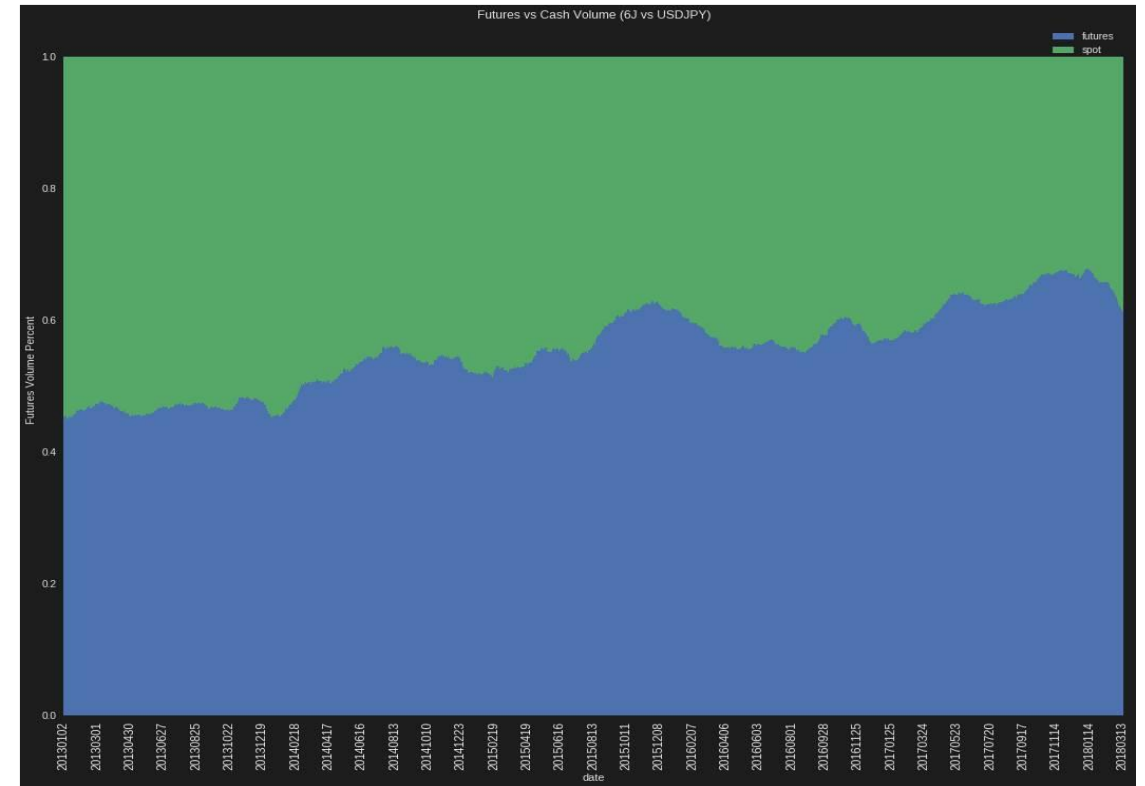
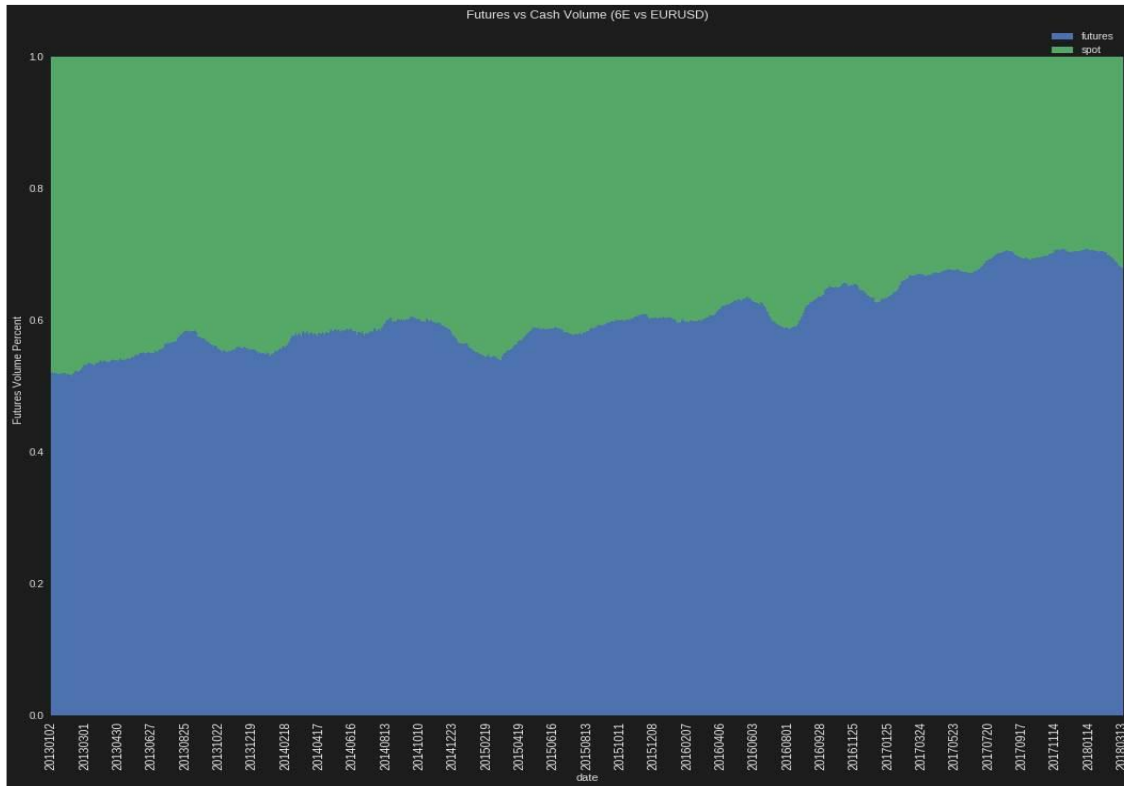
AUDUSD \$5m spread



GBPUSD \$5m spread



Normalized Trade Volumes

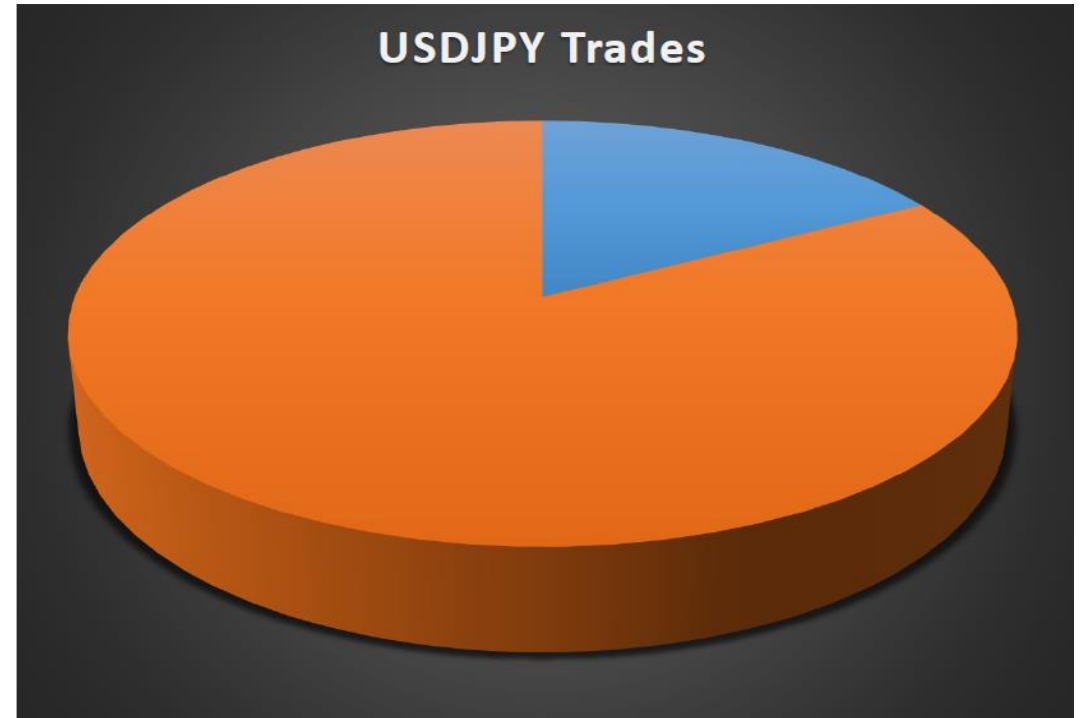


Here we look at trade volume from 2012 onwards and the general trend of cash vs futures volume

On the left, one can see that the trend in EURUSD is generally showing an increase in futures volume over time, which is also complimented by the same trend in USDJPY on the right.

It is important to note that this chart only looks at primary FX venues vs Futures and would not account for any bifurcation to the ECN space, or disclosed trading, which have been growing trends over the same period.

Unique flow?



- We tried to measure some form of 'unique' flow between cash and futures, whereby a trade on either cash or futures doesn't result in a trade on the other within 10ms (this is enough time for NY4<>AUR)
- We ensured that a 'futures trade' would be for \$1m for avoid small lot execution creating noise and only looked at matching in NY4 for the cash market
- In both cases, around 18% of the time, there is a trade in either cash or futures that doesn't result in a trade on the opposing side