

FX Market Behaviour during the WM/R Fixing Window, 2015–2019

Global Foreign Exchange Committee (GFXC)
Sydney, December 2019

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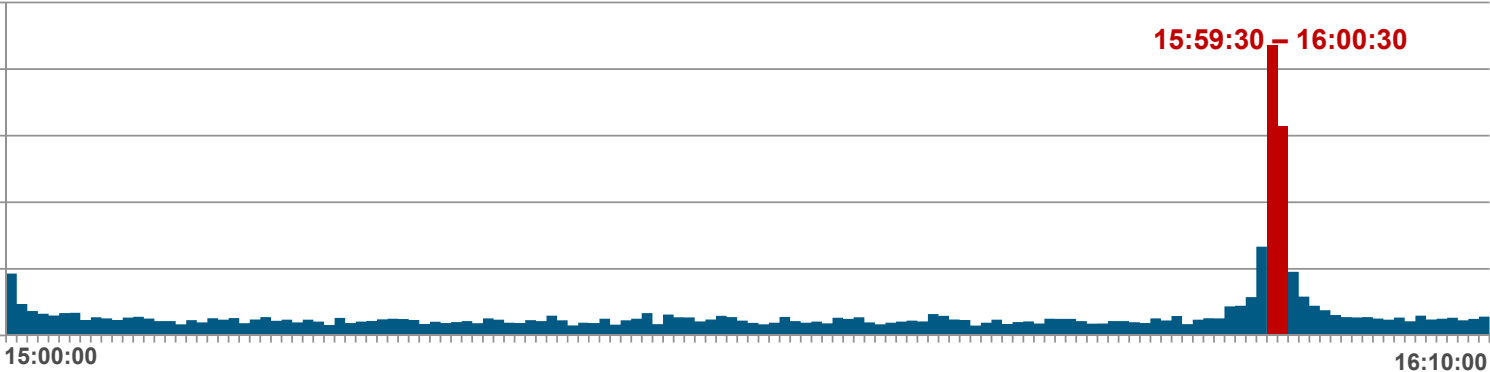


We have been tracking activity on Matching during the WM/R window since 2014

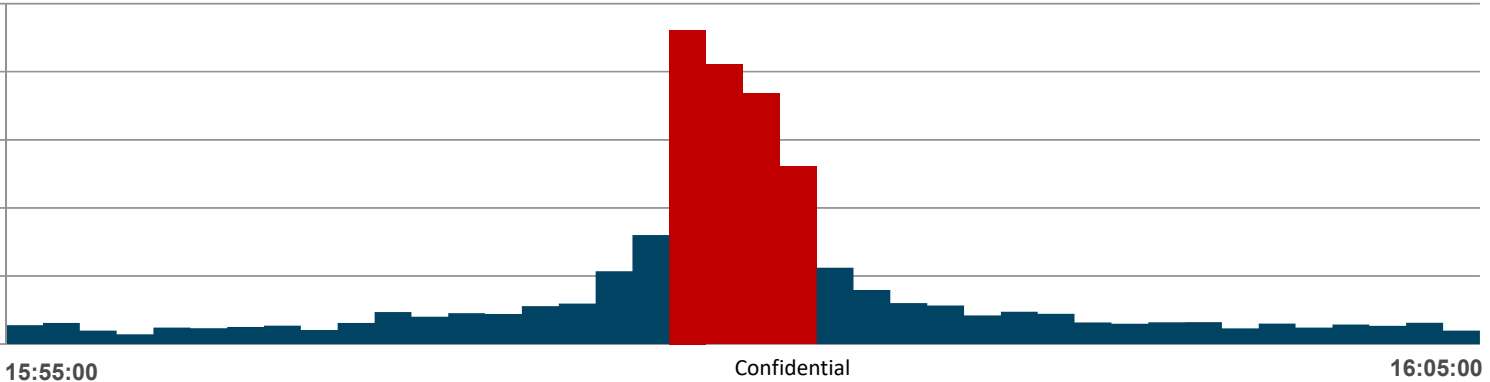
- Levels of activity before, during and after the window
- Distribution of trading activity within the window
- Changes in spreads within the window
- Size of market movement during the fixing period
- Predictability of market direction after the window opens

Prior to February 2015, GBP volumes peaked during the window, and there was an increase in volumes ahead of the window

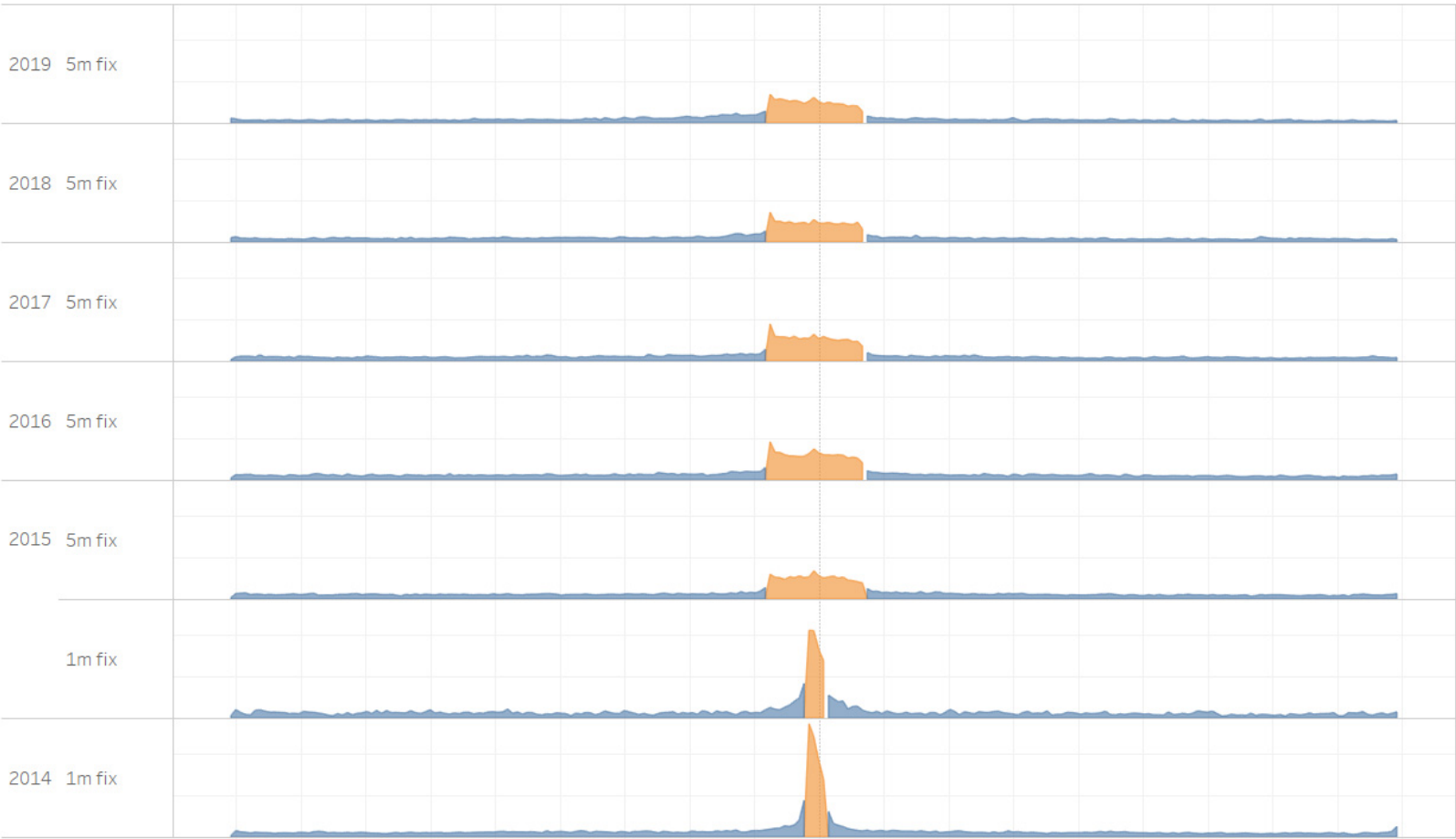
Average Amount Traded GBP/USD at 30s Intervals Around 4pm WM/R fix
(in £GBP) Nov 24th 2014-Feb 13th 2015



Average Amount Traded GBP/USD at 15s Intervals Around 4pm WM/R fix
(in £GBP) Nov 24th 2014-Feb 13th 2015



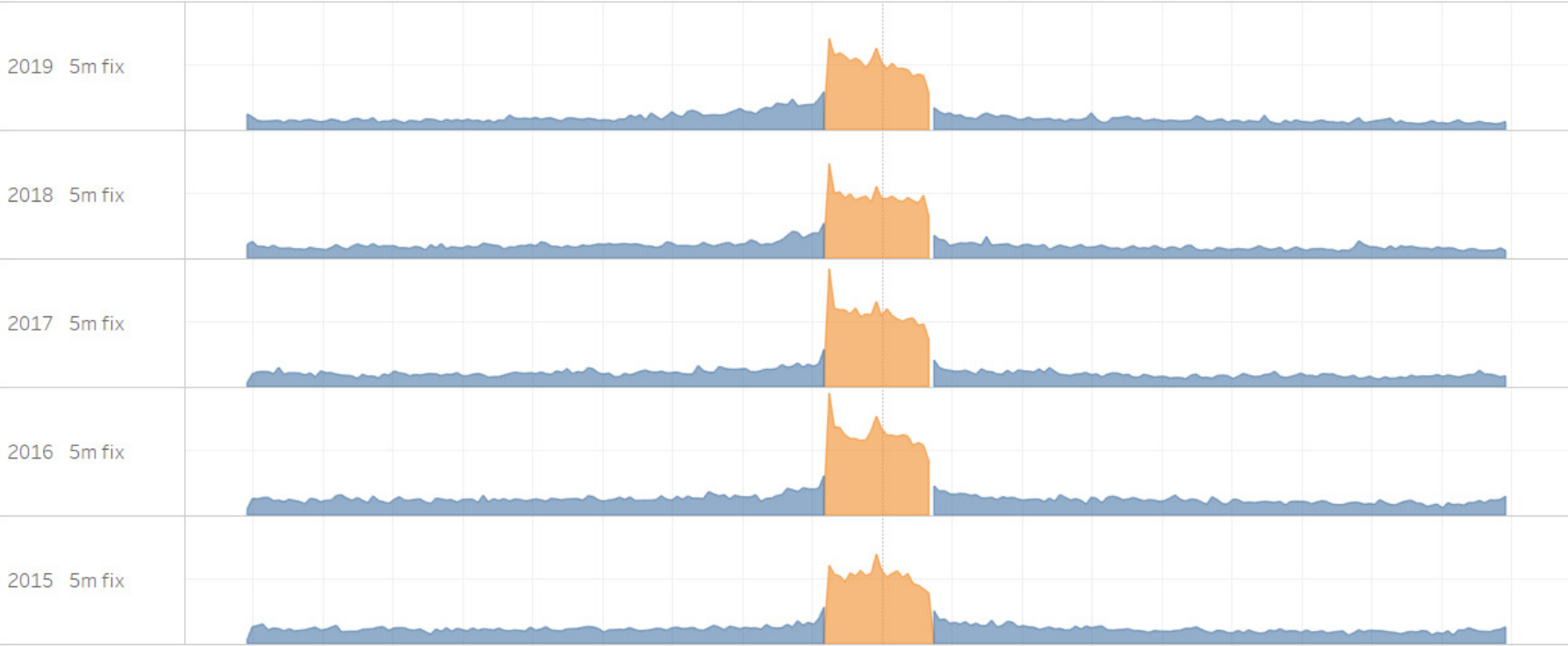
Switch to the 5 minute window led to reduced trading ahead of the window



Left:
Average quantity
executed on
gbp/usd in 15s
slices from 3.30pm
to 4.30pm London
time

Y-axes have same
scale per graph

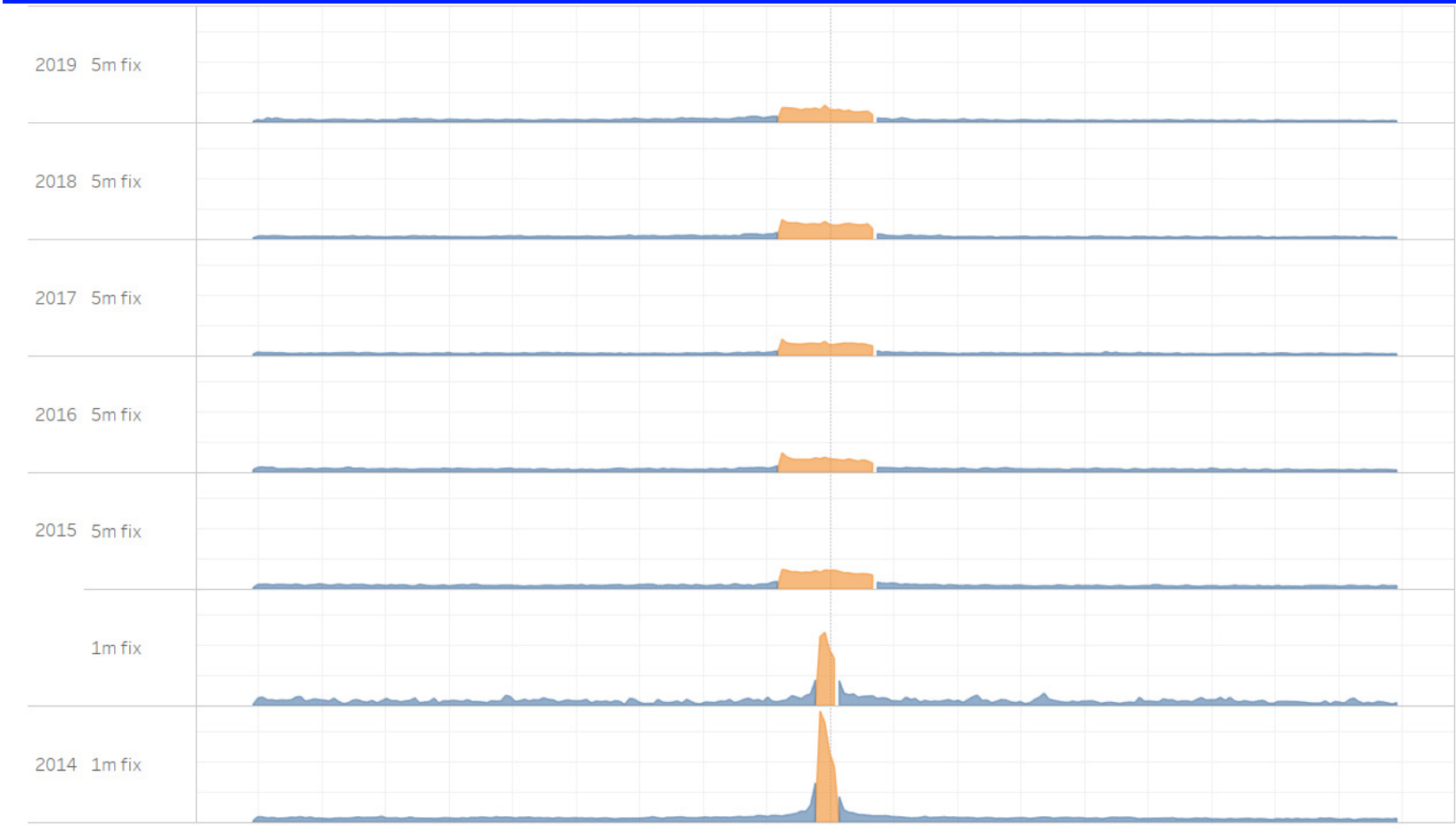
Switch to the 5 minute window led to reduced trading ahead of the window (expanded view)



Left:
Average quantity executed on **gbp/usd** in 15s slices from 3.30pm to 4.30pm London time

Y-axes have same scale per graph

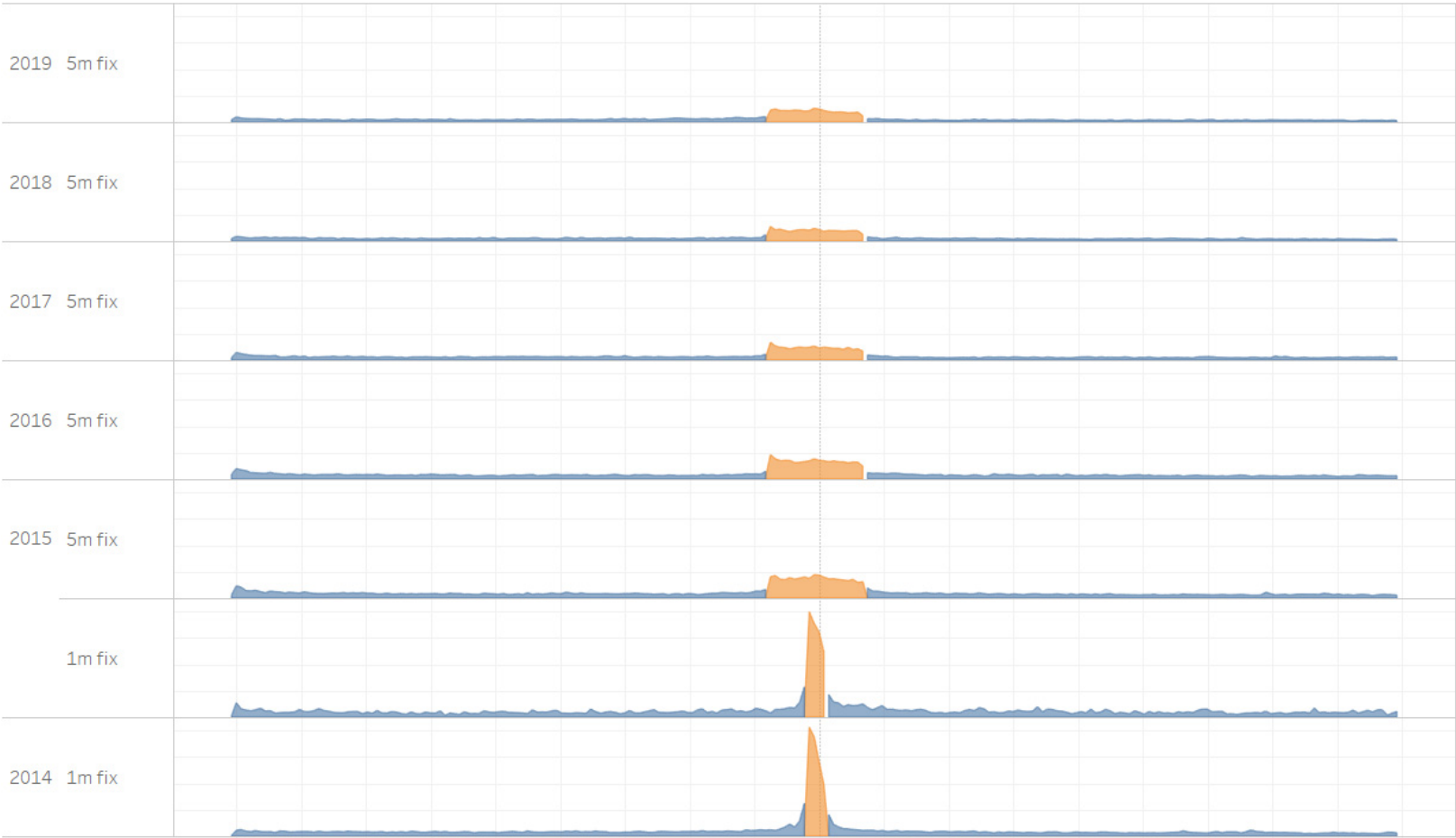
AUD behaviour is similar



Left:
Average quantity
executed on
aud/usd in 15s
slices from 3.30pm
to 4.30pm London
time

Y-axes have same
scale per graph

CAD behaviour is similar



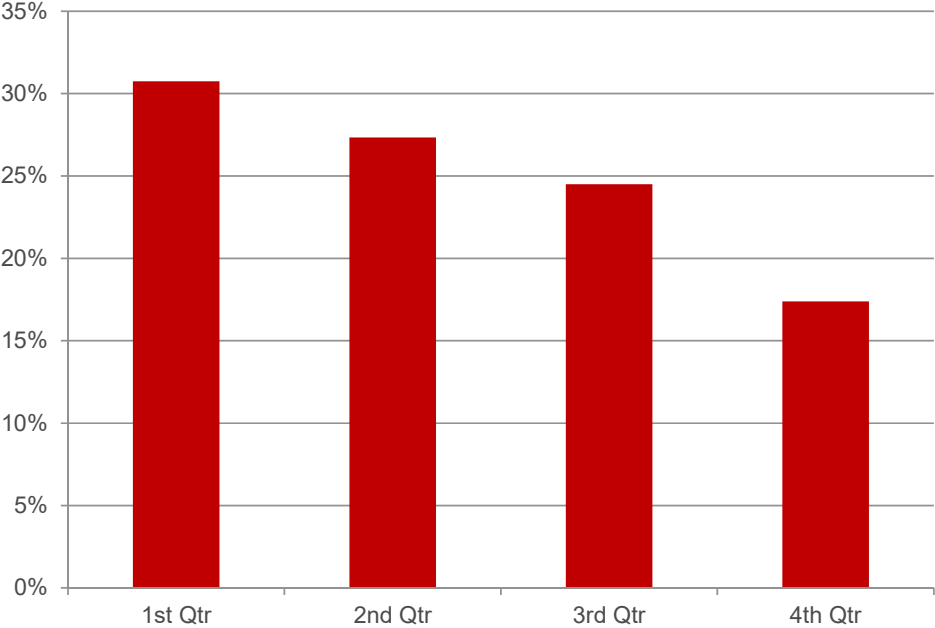
Left:
Average quantity
executed on
usd/cad in 15s
slices from 3.30pm
to 4.30pm London
time

Y-axes have same
scale per graph

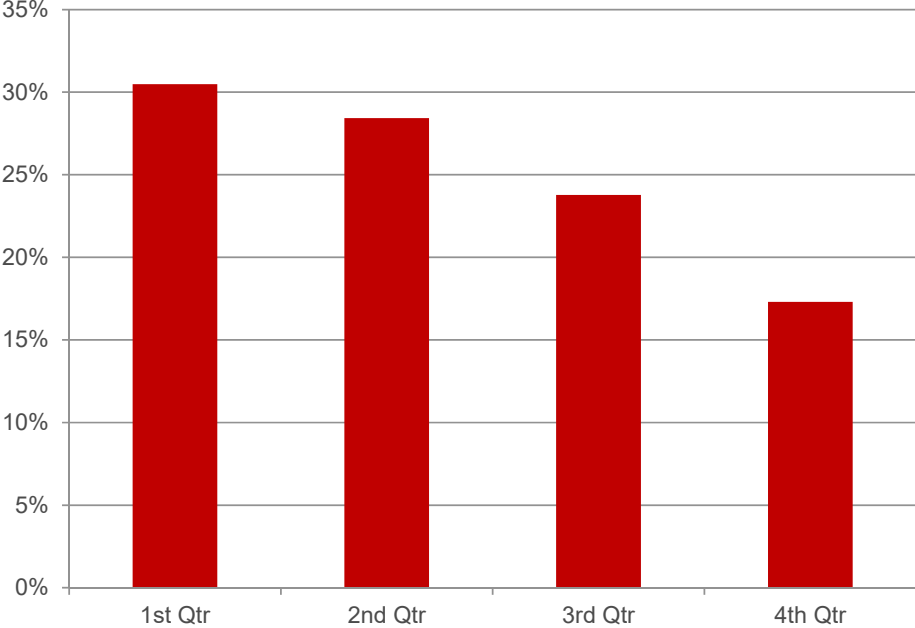
Confidential

Prior to February 2015, trading activity was highest in the first part of window

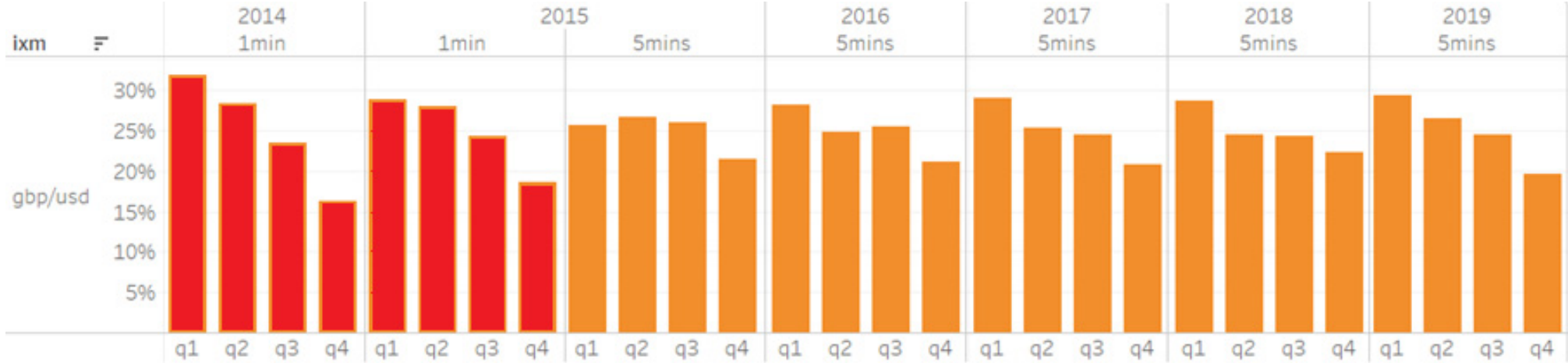
**GBP/USD Volume During Quartiles of Fixing Window,
24 Nov 2014 – 13 Feb 2015**



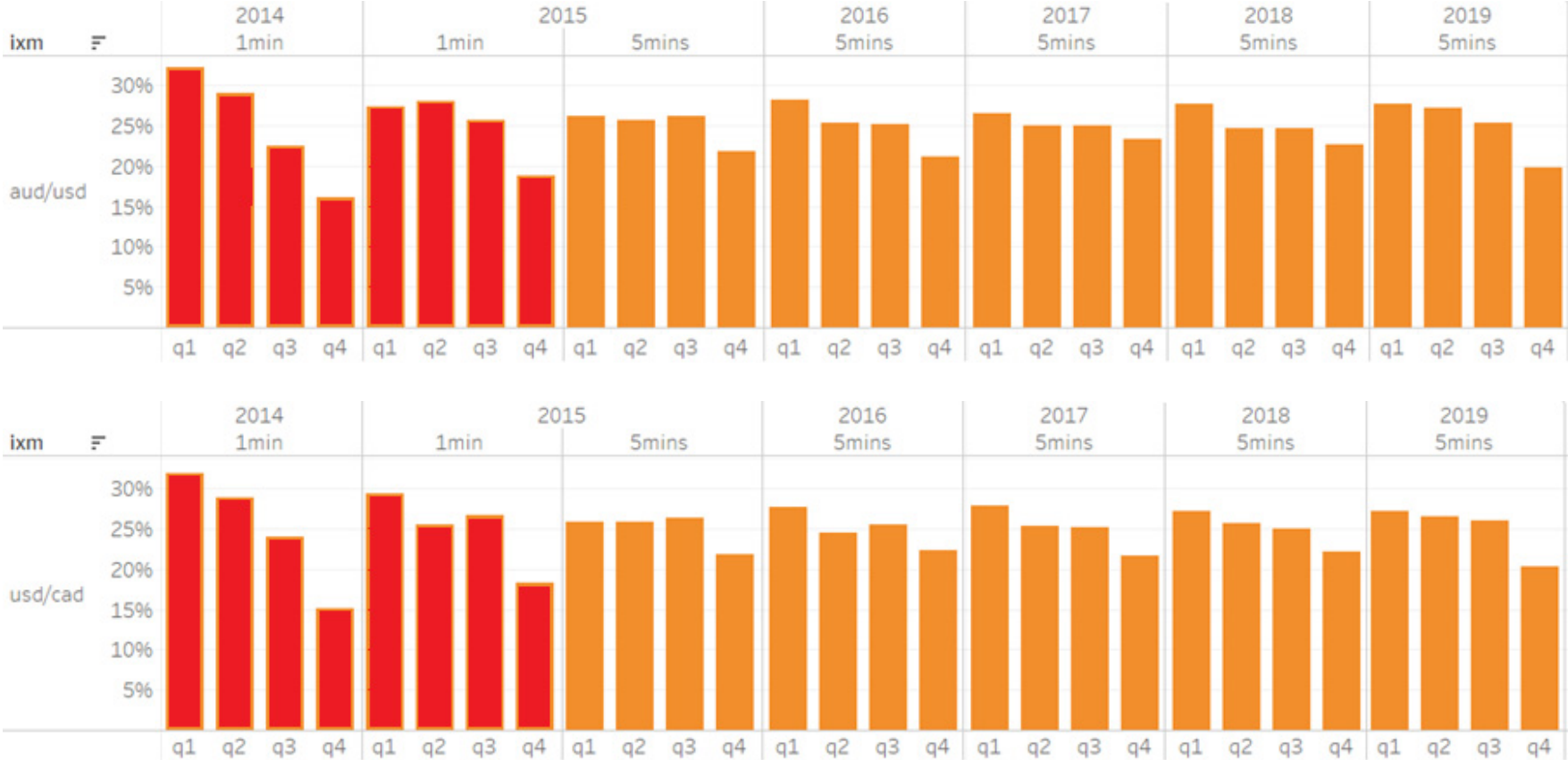
**AUD/USD Volume During Quartiles of Fixing Window,
24 Nov 2014 – 13 Feb 2015**



In GBP, volume became more evenly distributed after lengthening the window, but has recently been reverting back to a steeper profile

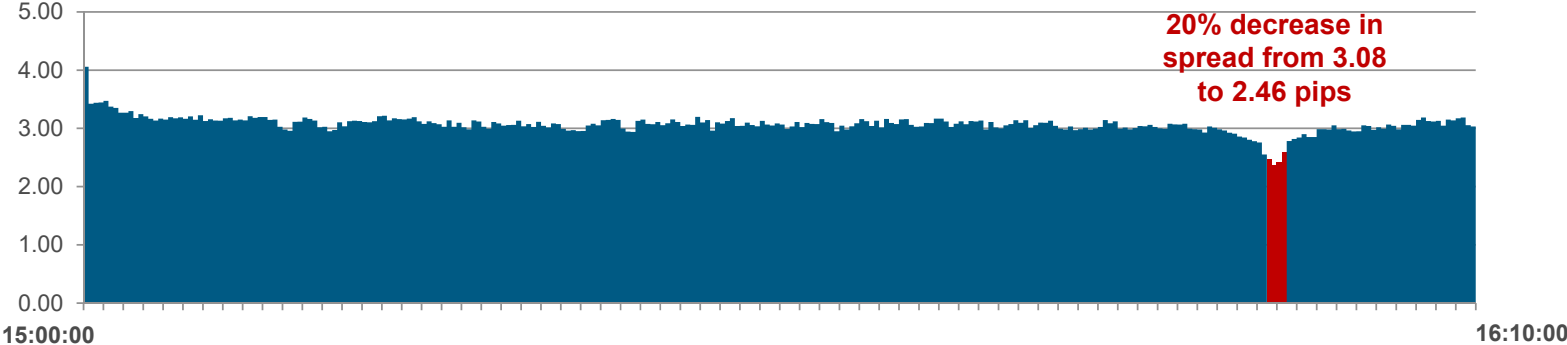


The behavior in AUD and CAD is similar, but has remained flatter

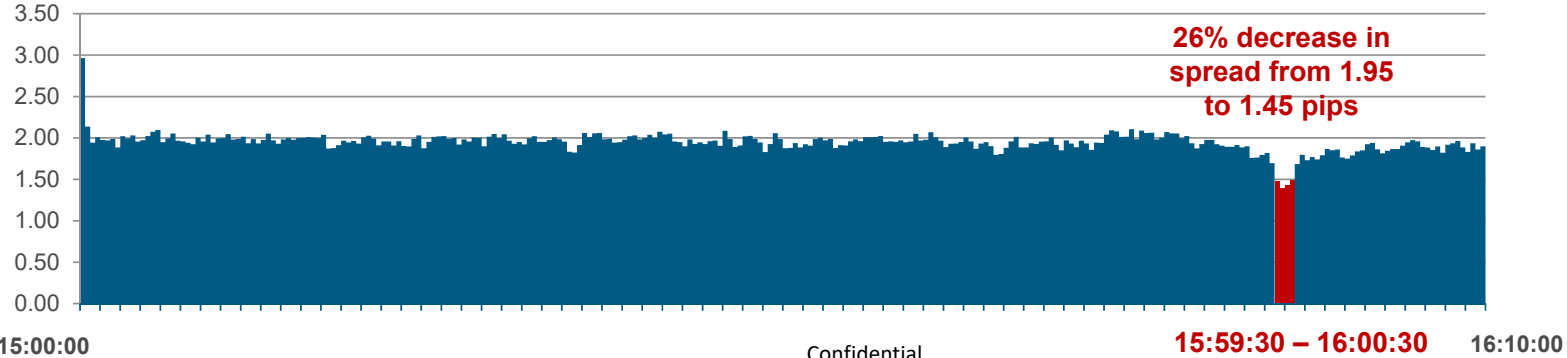


Prior to February 2015, spreads tightened during the window

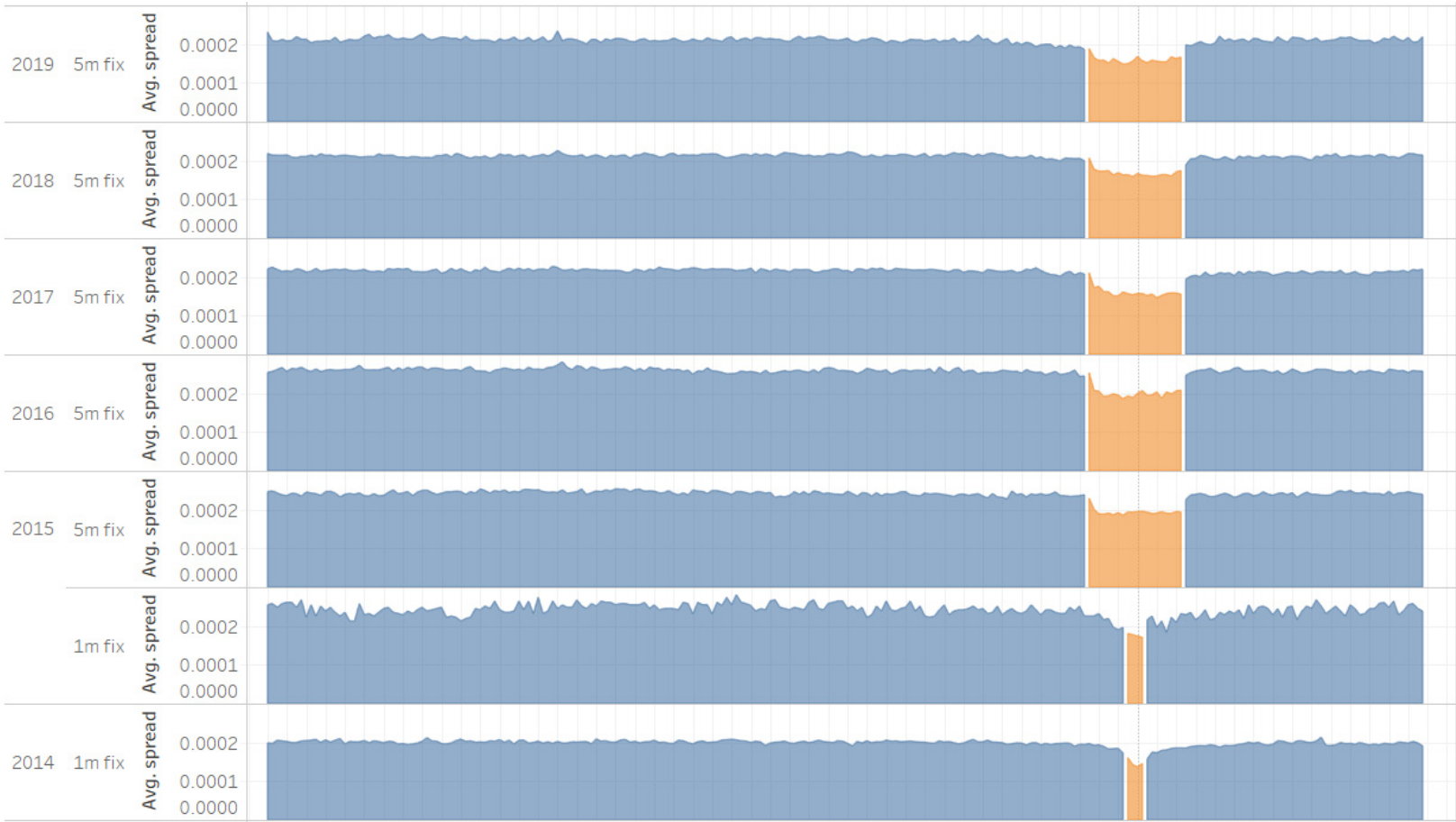
Average GBP/USD Spread (pips) at 15s Intervals Around 4pm WM/R fix
Nov 24th 2015 - Feb 13th 2015



Average AUD/USD Spread (pips) at 15s Intervals Around 4pm WM/R fix
Nov 24th 2015 - Feb 13th 2015



GBP spreads continue to tighten during the benchmark window



24% spread compression

21%

26%

22%

20%

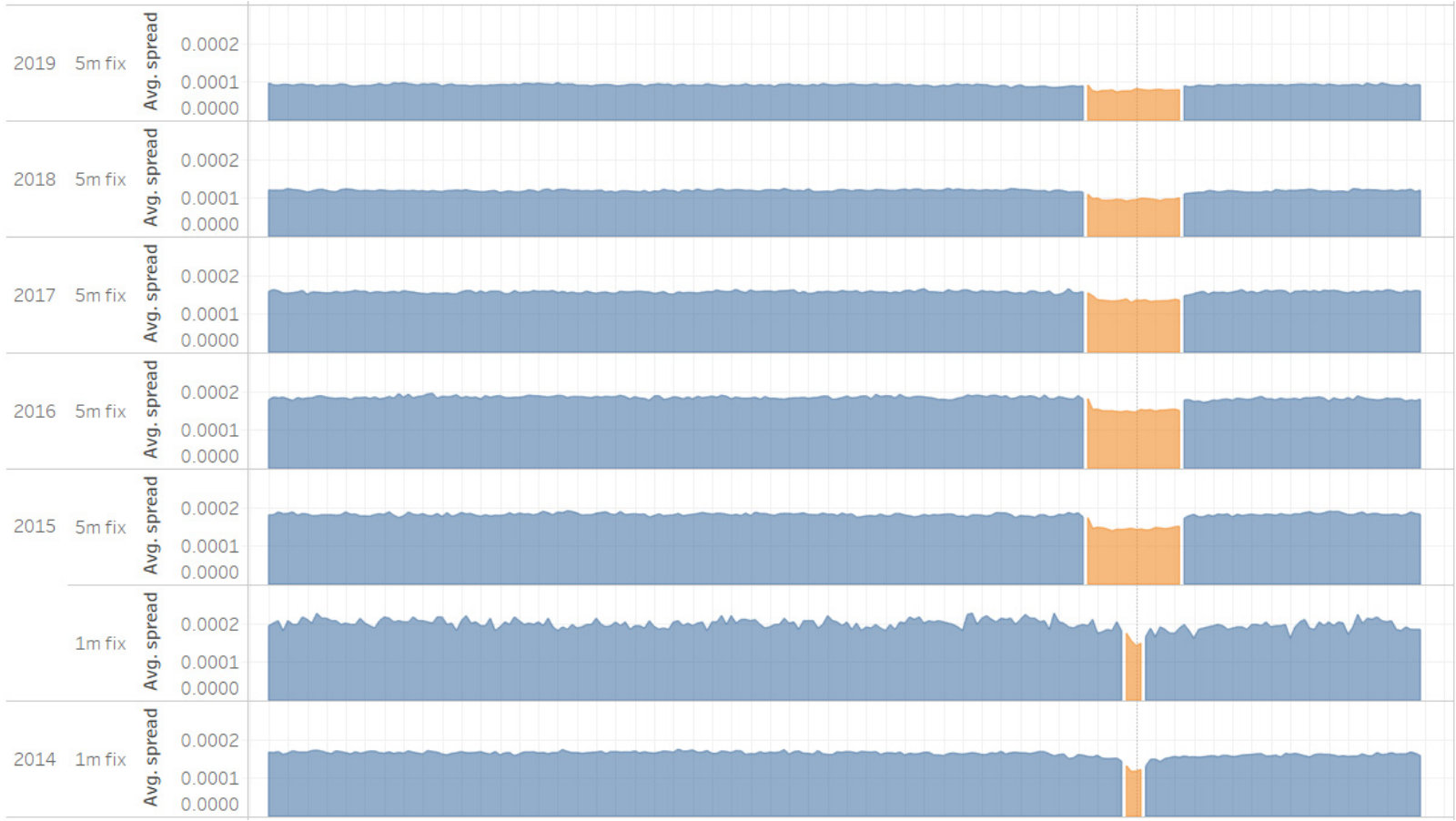
27%

26%

Spreads at 15s intervals from 3.15pm to 4.15pm London time on **gbp/usd**

X-axis 15s slices before and after 4pm

AUD behaviour is similar



14% spread compression

19%

13%

17%

19%

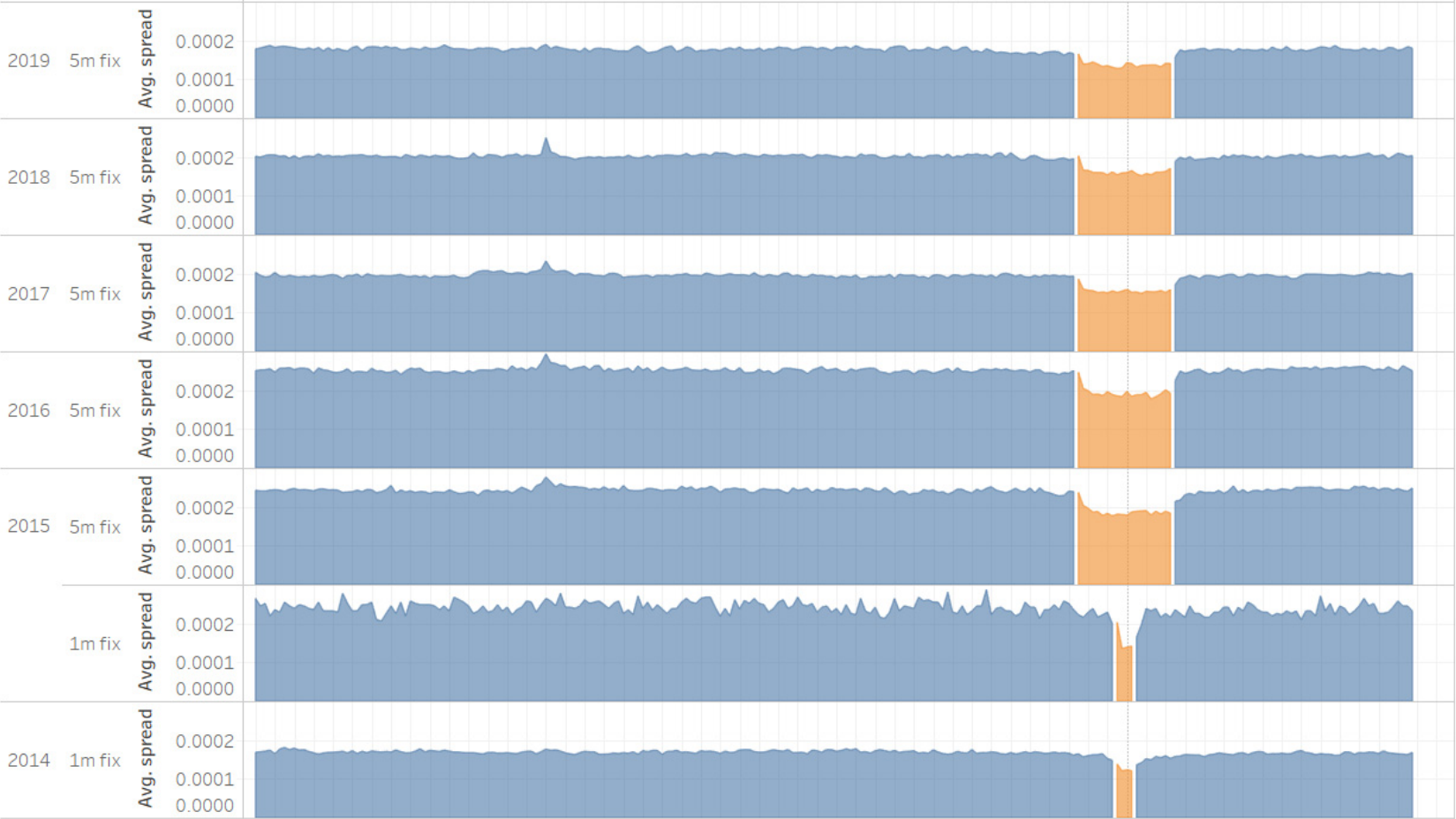
22%

25%

Spreads at 15s intervals from 3.15pm to 4.15pm London time on **aud/usd**

X-axis 15s slices before and after 4pm

CAD behaviour is similar



22% spread compression

20%

20%

23%

23%

35%

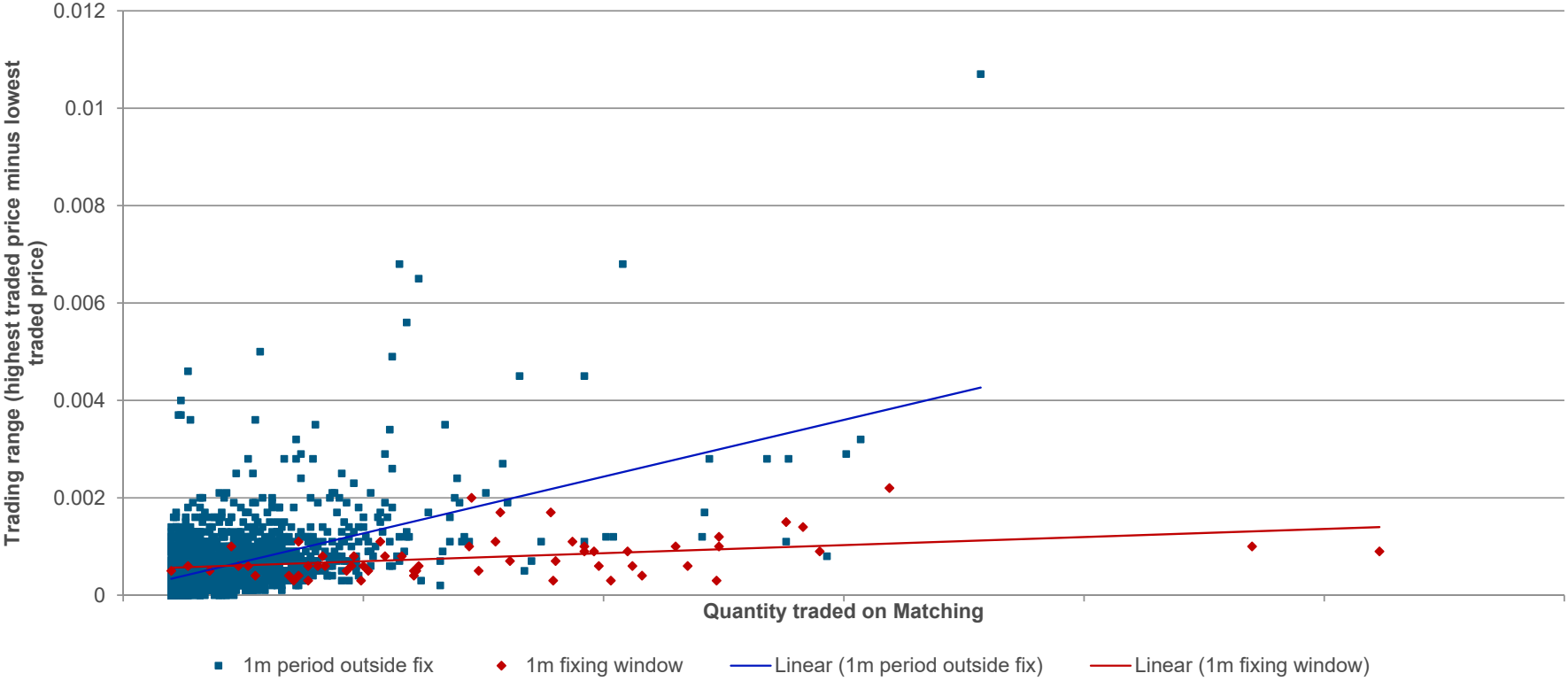
25%

Spreads at 15s intervals from 3.15pm to 4.15pm London time on usd/cad

X-axis 15s slices before and after 4pm

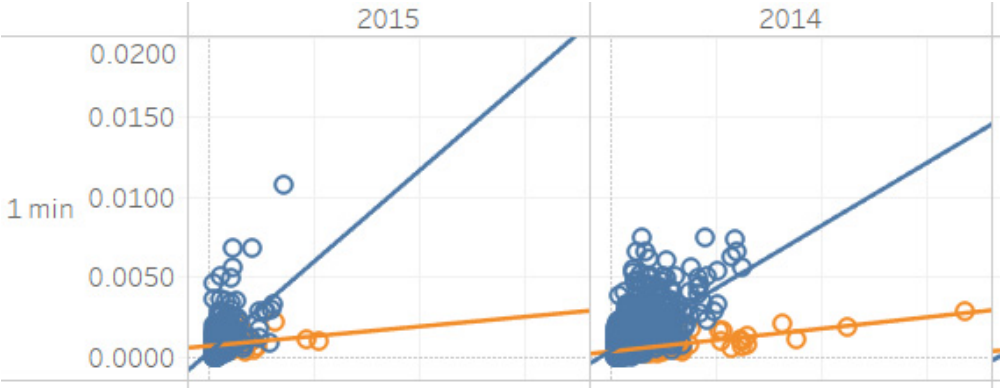
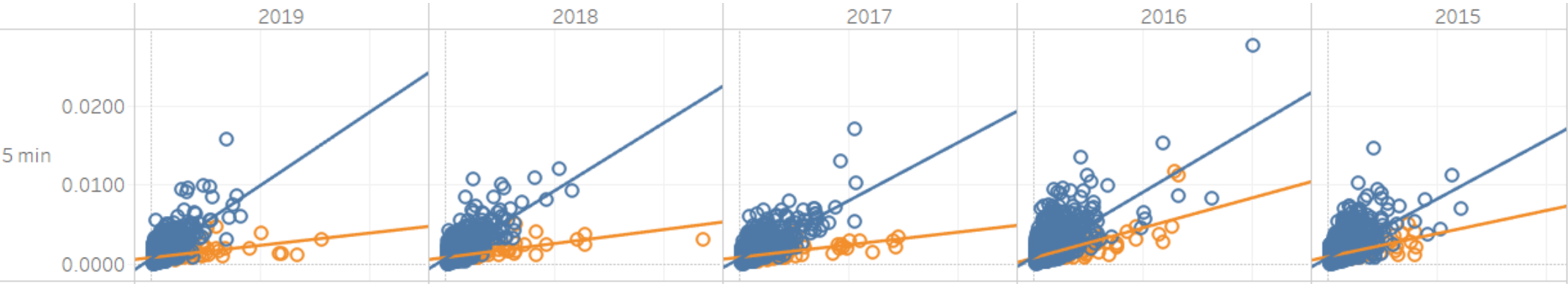


Prior to February 2015, large quantities of GBP could be executed with minimal market impact compared to other times of day



Note: 1 min periods outside fix taken from London hours, 8am-5pm.
Data from Nov 24th 2014 to Feb 13th 2015

Large amounts can still be executed in GBP during the window with lower market impact than at other times of day

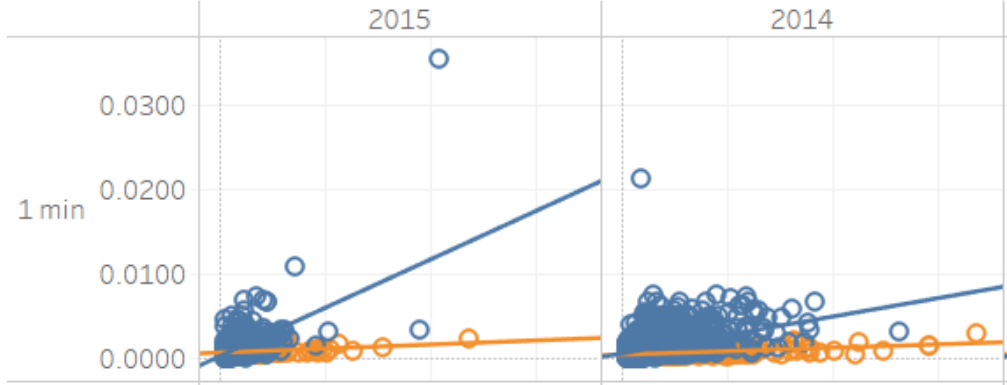
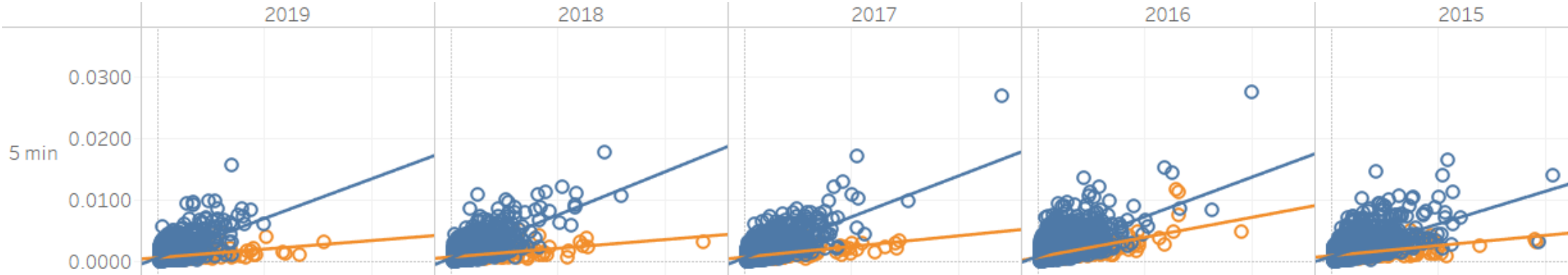


Orange: during fix
 Blue: 1 or 5 minute periods during 8am-5pm London time where >25mio executed and outside fix

X-axis: quantities traded in each 1 min or 5min period

Y-axis: trading range for 1 min or 5 minute period

AUD behaviour is similar

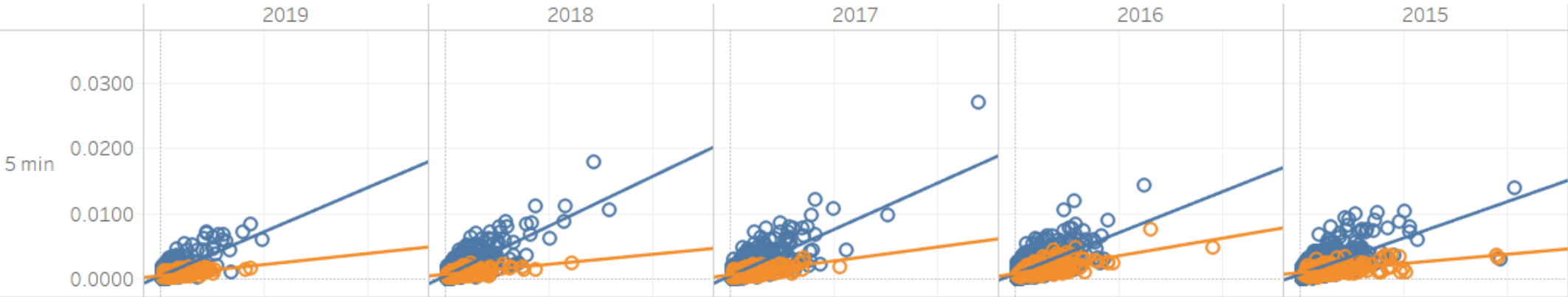


Orange: during fix
 Blue: 1 or 5 minute periods during 8am-5pm London time where >25mio executed and outside fix

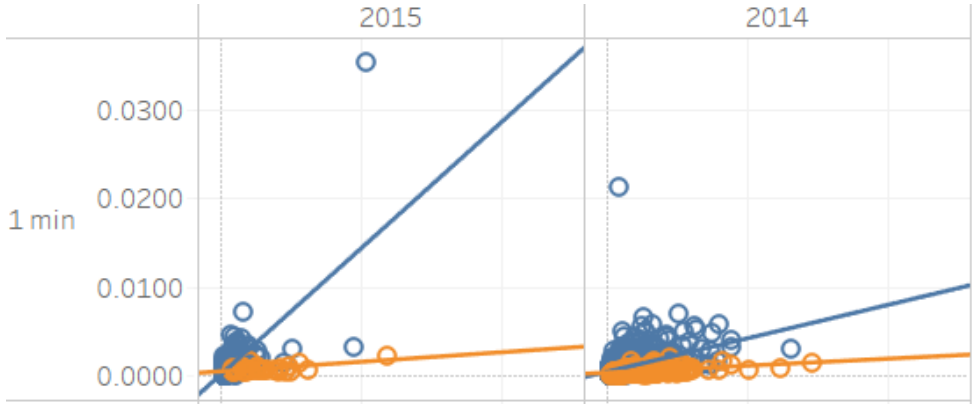
X-axis: quantities traded in each 1 min or 5min period

Y-axis: trading range for 1 min or 5 minute period

CAD behaviour is similar



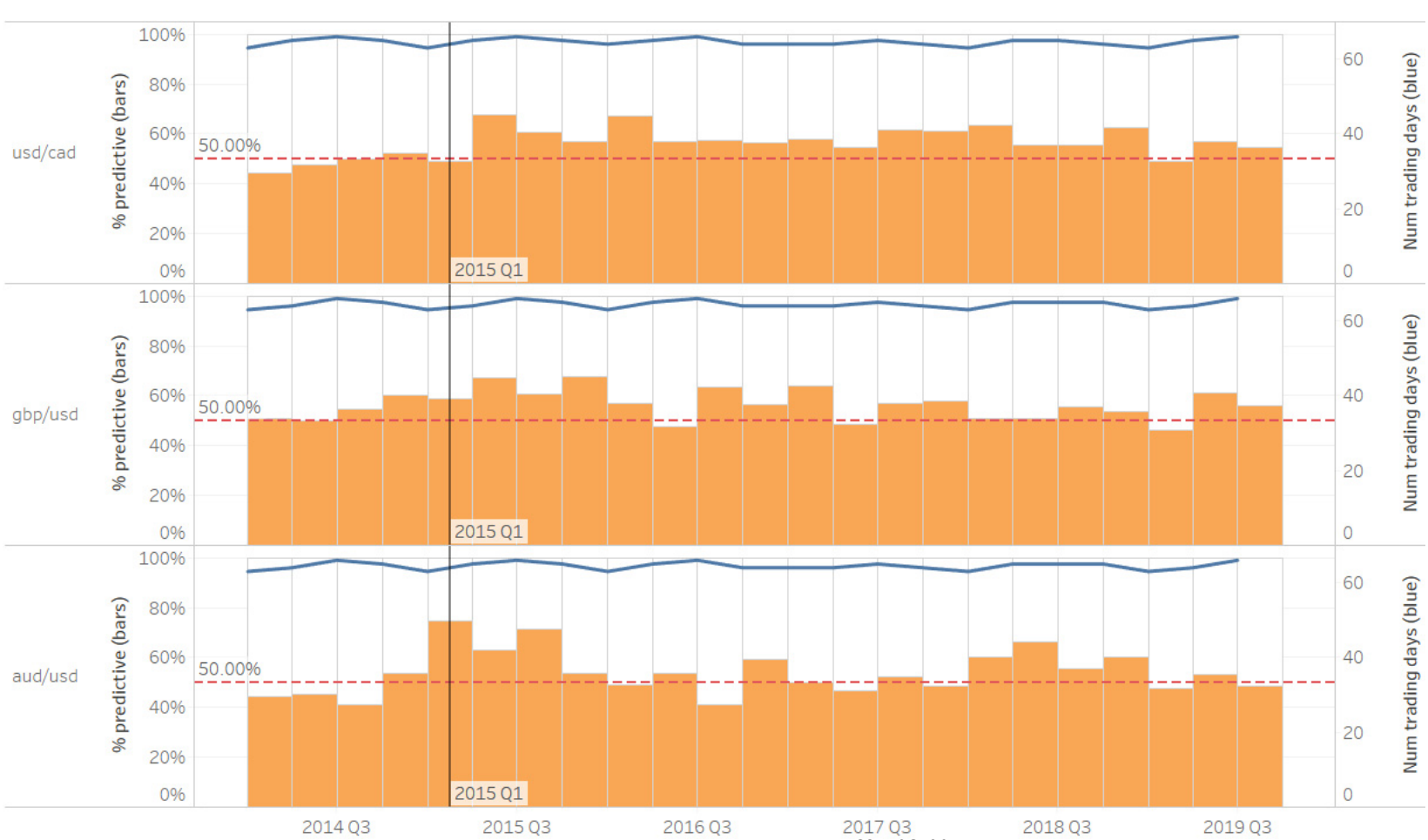
Orange: during fix
 Blue: 1 or 5 minute periods during 8am-5pm London time where >25mio executed and outside fix



X-axis: quantities traded in each 1 min or 5min period

Y-axis: trading range for 1 min or 5 minute period

Does market direction in the first quartile predict market direction over the remainder of the window?



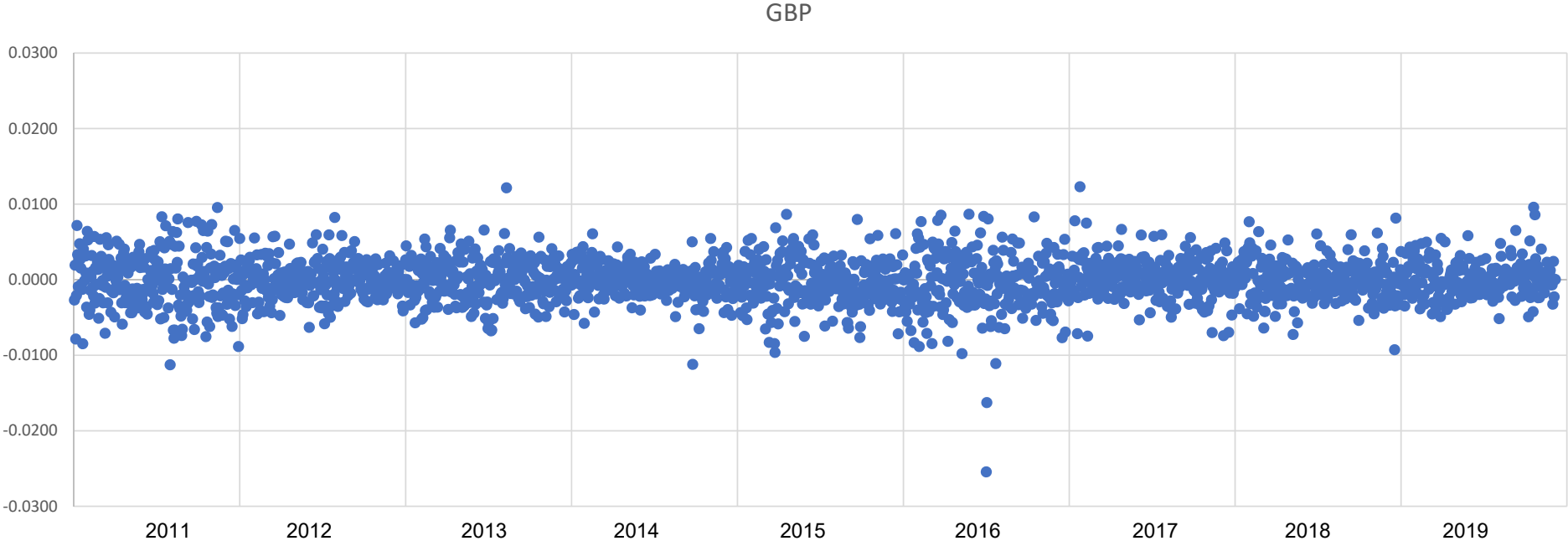
negatively predictive
 positively predictive

Positively predictive: upward move in first quarter of fix predicts upward move in remaining three quarters

Negatively predictive: upward move in first quarter of fix predicts downward move in remaining three quarters

How well does the VWAP of trades during the 4pm benchmark window correlate to the VWAP for the day?

The chart shows the difference between the VWAP of all trades during the 4pm benchmark window and the VWAP of all other trades in the day for GBP



How well does the VWAP of trades during the 4pm benchmark window correlate to the VWAP for the day?

The chart shows the difference between the VWAP of all trades during the 4pm benchmark window and the VWAP of all other trades in the day for AUD and CAD

