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

Global Foreign Exchange Committee (GFXC)
Sydney, December 2019
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.
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
Prior to February 2015, trading activity was highest in the first part of window.
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

20% decrease in spread from 3.08 to 2.46 pips

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

26% decrease in spread from 1.95 to 1.45 pips
GBP spreads continue to tighten during the benchmark window

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

X-axis 15s slices before and after 4pm

24% spread compression
21%
26%
22%
20%
27%
26%
AUD behaviour is similar

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

14% spread compression
19%
13%
17%
19%
22%
25%

X-axis 15s slices before and after 4pm
CAD behaviour is similar

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

X-axis 15s slices before and after 4pm

22% spread compression

20%

20%

20%

23%

23%

35%

25%
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 5 min 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?

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.