High-frequency trading in Australian equities and the Australian–US dollar cross rate (summary version)

Report 598 | November 2018

About this report

This summary version of Report 597 highlights some of the key findings from our 2018 review of high-frequency trading in the listed Australian equity and electronic foreign exchange markets. Read the full report for detailed information.

Overview

> **High-frequency trading has evolved to exploit modern electronic markets. It dominates short-term trading in Australian equities and the Australian–US dollar cross rate.**

Background

In 2018, we undertook a review of high-frequency trading. This review builds on our earlier analysis of trading in the Australian equity market and extends our study into the foreign exchange market's trading of the Australian-US dollar cross rate.

Key findings

- High-frequency traders are responsible for a quarter of all market transactions but their presence is trending down.
- The technology arms race is losing its potency. Traders are investing in faster technologies and accessing markets more quickly but competing for the same signals. Intraday trading has decreased and holding times are increasing.
- The costs imposed on market users continue to decline although outbreaks of market volatility can reverse this trend. High-frequency trading rapidly increases over periods of market stress or peak demand.

"This review reinforces the strength of the Australian market structure and the importance of having a varied mix of traders and investors in our markets."

Cathie Armour | ASIC Commissioner

Trading accounts

Equity < 0.5%
AUD/USD 2%

Turnover

Equity 25%
AUD/USD 25%

Number of trades

Equity 27%
AUD/USD 31%

Number of orders

Equity 45%
AUD/USD 38%

Order-to-trade ratios

Equity 9:1
AUD/USD 73:1

High-frequency trading in Australian equities

High-frequency traders maintain a large presence but their contribution to turnover has fallen from 27% to 25%.

The largest traders are dominating turnover with the top 10 responsible for 74% of all high-frequency trades.

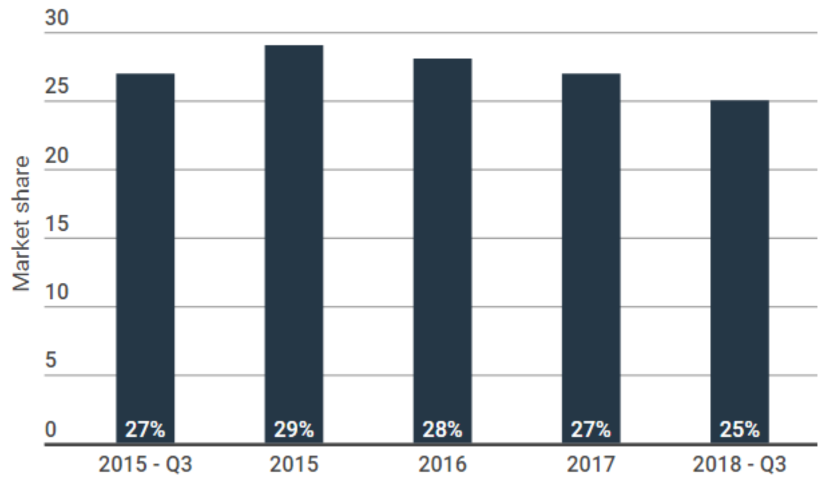
Over $10 billion of equity transactions was unwound in under 100 milliseconds but the bulk of this trading was held for more than 10 minutes. Traders are investing in faster technologies and holding positions for longer periods of time.

Order-to-trade ratios have trended down but are susceptible to periodic volatility. At 9:1, traders are running order-to-trade ratios more than double those of other market users.

Costs imposed on market investors continue to trend down. While susceptible to volatility spikes, market investors are paying between 0.7 and 1.0 basis points to interact with unsolicited high-frequency liquidity.

The market is becoming more efficient at determining short-term clearing levels. High-frequency traders are contributing disproportionately to the price discovery process but their contribution is trending down. Over low volatility periods in smaller securities they provide no additional utility to investor price signalling.

Figure 1 High-frequency trading market share in Australian equities



Note: See Table 1 in the appendix for data shown in this figure (accessible version).

High-frequency trading in the AUD/USD cross rate

High-frequency turnover has fallen in line with lower volumes over the global multi-dealer platforms. High-frequency traders now account for 25% of all AUD/USD trading, down from a high of 32% in early 2013.

The number of high-frequency traders has steadily fallen but their relative concentration has increased. The top five traders are responsible for 86% of all high-frequency trades.

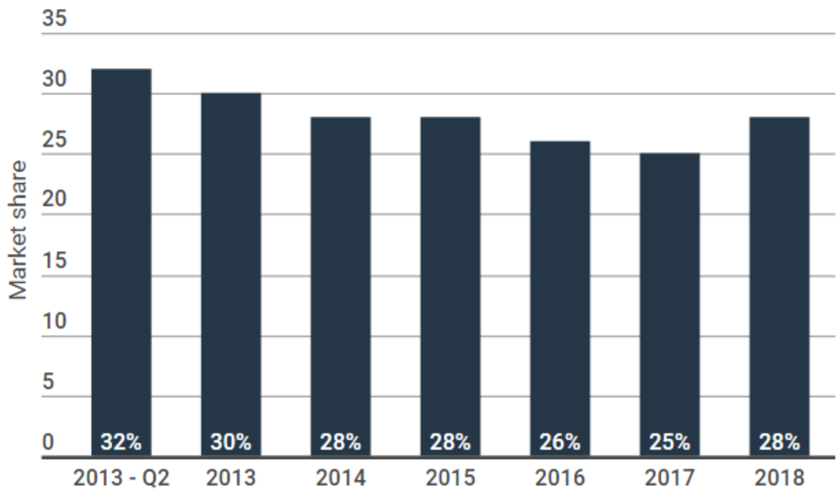
Lower volumes have been compensated with higher returns. Traders are taking on riskier positions, churning less inventory and holding positions longer.

High-frequency traders are submitting more orders to achieve the same level of trading. Order-to-trade ratios have increased strongly from 25:1 to 73:1 over the past five years.

High-frequency traders are getting better at facilitating investor demand. Investors interact with high-frequency liquidity more often than would be expected from market share alone.

High-frequency trading is associated with higher execution costs for investors. Traders are not front-running orders but selectively facilitating higher cost demand.

Figure 2 High-frequency trading market share of the AUD/USD cross rate across electronic inter-dealer platforms



Note: See Table 2 in the appendix for data shown in this figure (accessible version).

Appendix: Accessible versions of figures

Table 1: Data table for Figure 1—High-frequency trading market share in Australian equities

Year	HFT market share
2015, Q 3	27%
2015	29%
2016	28%
2017	27%
2018, Q 3	25%

Note: This is the data shown in Figure 1.

Table 2: Data table for Figure 2—High-frequency trading market share of the AUD/USD cross rate across electronic inter-dealer platforms

Year	HFT market share
2013, Q 2	32%
2013	30%
2014	28%
2015	28%
2016	26%
2017	25%
2018	28%

Note: This is the data shown in Figure 2.

About ASIC regulatory documents

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