COMP226: Slides 07

Market makers

Rahul Savani

rahul.savani@liverpool.ac.uk

Overview

- **Market makers**

- **Toxic order flow** and **inventory risk**

Market makers

- Ongoing **liquidity providers** that post bids **and** asks

- **Try to capture bid-ask spread**: try to repeatedly buy at the bid and sell at (higher) ask

- Today market makers are normally high-frequency trading algorithms (referred to simply as **"high-frequency traders"`**)

- Existence of market makers normally ensures a **reasonably tight spread**, however, there is evidence that high-frequency traders abandon the market during times of market stress

- We will in the next set of slides of how **High-frequency Trading (HFT) can be predatory**, and is thus controversial

901 could be a Marker Maker

Price	Vol.	ID
102.0	5	915
102.0	7	902
101.5	9	901
101.5	1	920

100.5	2	901
100.5	2	912
99.0	31	910
99.0	1	901

Toxic order flow

- An important problem faced by a market maker is **avoiding toxic order flow**

- Toxic order flow comprises market orders from informed traders that **precede price moves in the favour of the informed trader**

- After transacting with toxic order flow, a market maker will build up (positive or negative) **inventory with a corresponding potential loss**

- additionally with a large positive or negative inventory the market make faces the **inventory risk** of the price moving further in an unfavourable direction

Summary on market makers

- They **prefer to not hold inventory** (positive or negative)

- Today they are **typically extremely high-frequency algorithmic traders**

- The practice of High-Frequency Trading (HFT) is somewhat controversial because:

  - as we will see in the next set of slides that **HFT traders can exploit their speed**, potentially at the expense of other traders

  - there is some evidence that HFT traders leave the market during times of stress, which is exactly when liquidity provision is most needed

Further reading on HFT

High-Frequency Trading: The Faster, the Better?

Rahul Savani. IEEE Intelligent Systems (2012) 27(4):70–73

This and other (short) relevant readings can be found on the module webpage; they are recommended for those wanting further reading, but they are not required reading for the module.