

Andreas Krause



Strategic trading

Informed trading

- ▶ Some traders will acquire information about the value of an asset and seek to exploit their informational advantage
- ▶ Through their trading they will reveal some of the information they have obtained
- ▶ This information will be included into the price and this process leads to markets becoming efficient
- ▶ Prices can reflect information, even if the information itself has never been disclosed
- ▶ It is prices that can be used as a proxy for the information itself

Anonymity of markets

- ▶ Informed traders will seek to exploit their informational advantage optimally for as long as they hold this advantage
- ▶ Uninformed traders will want to learn this information through observing the trading of informed investors
- ▶ Financial markets are mostly anonymous and a trade can be initiated by an informed or an uninformed trader
- ▶ We will investigate how the informed trader optimally trades and what implications this has for the market

Informed traders optimising their demand

- ▶ Informed investors will have time to exploit their informational advantage until the information they hold become common knowledge
- ▶ Facing only uninformed traders with random demands, they will seek to submit buy or sell orders that are maximizing their total profits
- ▶ Their behaviour has implications for market efficiency and the general quality of markets, in particular its liquidity
- ▶ We will explore how market efficiency and liquidity evolves over time



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Trading with informed investors

Market efficiency is not instant

- ▶ Markets become informationally efficient only over time, and the more widespread information is held and the more often it can be used, the sooner the market becomes efficient
- ▶ The liquidity of a market similarly increases over time as the asymmetric information reduces and markets become more efficient
- ? Markets are constantly moving and do not seem to converge to a price reflecting the information; is this a sign of markets being inefficient?
- ! Firstly, markets will move due to noise traders submitting their orders, price trends need to be assessed stripping out their impact; second, new information arrives continuously and changes the fundamental value, causing the prices trying to catch up permanently

Trading volume as a source of information

- ▶ Many market participants are usually not aware whether additional information exists, how widely it is known, and how precise it is
- ▶ These unknown factors make it difficult to use the price as a source of information
- ▶ An additional source of information is available, trading volume
- ▶ We will show how trading volume can be used to assess the degree of asymmetric information and improve the knowledge about information



The information content of trading volume

Informational asymmetry and trading volume

- ▶ Trading volume allows to assess the amount of information that is available in a market
- ▶ If price movements are accompanied by high trading volume, this suggests that the information is either widespread or precise
- ? Rumours circulate about a company receiving a bid to be taken over soon; if there is no increase in trading volume, can this rumour be dismissed?
- ! The low trading volume is a sign that the information is either vague or few people hold this information, but it can nevertheless be true.

Summary of key results

- ▶ Prices can be used to assess the contents of information traders hold and markets become efficient over time
- ▶ Trading volume can be used to assess the degree of asymmetric information and high trading volume should decline over time as the markets become more efficient
- ▶ Combining price movements with information on trading volume gives us a more accurate assessment of information that may be hold by some traders



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