

Andreas Krause



Market efficiency

Information acquisition

- ▶ Some investors may want to acquire information to make additional profits
- ▶ Information will be costly and the additional profits should cover these costs
- ▶ Their trading behaviour will affect asset prices and may reveal some of the information
- ▶ If information is revealed through their behaviour, this might reduce their profits

Performance of investments

- ▶ If investors are generating higher profits, they do not necessarily perform better
- ▶ To assess the performance of an investor, the risks they are taking need to be taken into account
- ▶ Investors can exploit differences between asset values and prices only if they generate sufficiently high returns
- ▶ We will look at how such returns can be evaluated

Definition of market efficiency

A market is efficient if prices include all relevant information

Weak form efficiency Prices reflect information from past prices

Semi-strong form efficiency Prices reflect all publicly available information

Strong form efficiency Prices reflect all available information, including private information



Information acquisition and market efficiency

Implications of market efficiency

- ▶ If markets are efficient, no one can make profits from information, making costly information acquisition unprofitable
- ▶ This leads to the paradox that markets which are too efficient, cannot exist
- ? If a market is not perfectly efficient, would all investors acquire information?
- ! Firstly, the inefficiency must be large enough such that information costs can be recovered, and secondly if all investors are informed, they will have no one to trade with

The importance of performance measurement

- ▶ If exploiting market inefficiencies, investors could generate higher returns than holding the asset
- ▶ However, relying on information is also risky as information can be wrong
- ▶ We need to take into account the risks investors take to assess if they are generating economic profits



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Performance evaluation

Assessing investment performance

- ▶ Investors need to take into account the risks of their trading strategies to determine whether they are profitable
- ▶ Which performance measure is chosen, will depend on the risk that is relevant to an investor
- ? After taking into account the systematic risks taken, an investor shows a higher return than the market. Is he able to exploit market inefficiencies?
- ! The investor might have taken on additional risks that need to be compensated. While it looks like the investor is successful, it might be compensation for idiosyncratic risks

Summary of key results

- ▶ Efficient markets do not allow investors to generate profits and efficient markets cannot exist.
- ▶ Even if markets are not efficient, investors need relevant information to make profits
- ▶ With relevant information, they can make economic profits only if they do not take on too much additional risk



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