

## Hilbert's portfolio research paper most downloaded by far in International Journal of Theoretical and Applied Finance

Hilbert's research paper "Kelly Trading and Market Equilibrium" has reached 2,500 downloads and tops the list of most read articles over the last three years on the publisher's website.

Kelly Trading sits at the core of the portfolio construction for all of Hilbert's funds. In the research paper, it is shown that a Kelly Trader (see description below) can exploit a market outside equilibrium but by doing so, the Kelly Trader also affects the market in a way that steers it towards this equilibrium. In contrast to the leading model, CAPM, it is shown that it is merely the volatility and the correlation that is priced by the market participants in contrast to the expected return as famed by CAPM.

The paper can be read here.

Hilbert's research revises traditional financial theories through the lens of Kelly Trading, a natural multi-period extension of the one-period models used in Modern Portfolio Theory (MPT). Unlike MPT's focus on expected returns, Kelly Theory optimizes portfolios based on logarithmic returns over multiple periods. This approach is more aligned with real-world investing, emphasizing the importance of reinvesting winnings for capital growth, rather than the static betting approach of MPT

Some implications are that in a high volatility market environment, a Kelly Trader holds a fractional position to capitalize on trading gains. Conversely, in a low volatility market environment, the Kelly Trader adopts a leveraged position. Similarly, in a low (high) correlation market, the Kelly Trader adopts a Long-Long (Long-Short) position.

## **About Kelly Trading:**

The Kelly Criterion suggests that an investor should allocate a percentage of their portfolio to a given investment, which is proportional to the edge (or expected advantage) that the investment offers compared to the odds of success. The formula considers both the probability of winning and the probability of losing, along with the potential return on the investment and the size of the loss if the investment does not work out. In essence, a Kelly Trader uses this criterion to manage risk and determine the ideal amount to invest in each trade to maximize long-term growth of their portfolio.



## **About Us**

Hilbert group is a quantitative investment company specializing in algorithmic trading strategies in digital asset markets.

Hilbert Group is a Swedish public company and is committed to providing operational infrastructure, risk management and corporate governance that meets the ever-increasing demands of institutional investors.

Hilbert Group is listed on Nasdaq First North Growth Market (ticker HILB B) with Eminova Fondkommission (phone +46 8 684 211 10 | adviser@eminova.se) as Certified Adviser.

For more information, visit: www.hilbert.group

## **Attachments**

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