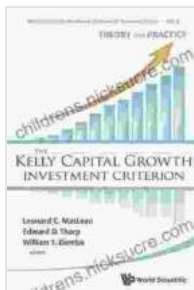


# Kelly Capital Growth Investment Criterion: A Comprehensive Guide

The Kelly Capital Growth Investment Criterion is a mathematical formula that helps investors determine the optimal amount to bet on a given investment. It was developed by John Larry Kelly Jr. in 1956, and it has since become one of the most widely used investment strategies in the world.

The Kelly Criterion is based on the principle of maximizing the expected value of your investment. The expected value of an investment is the average amount of money you can expect to make from it over the long term. The Kelly Criterion tells you how much to bet on an investment based on its expected value and its risk.

The Kelly Criterion can be derived from the following equation:



## Kelly Capital Growth Investment Criterion, The: Theory And Practice (World Scientific Handbook In Financial Economics Series 3) by Edward O Thorp

★★★★☆ 4.3 out of 5

Language : English  
File size : 36438 KB  
Text-to-Speech : Enabled  
Enhanced typesetting : Enabled  
Word Wise : Enabled  
Print length : 884 pages  
Screen Reader : Supported



$$f^* = (b - 1) / r$$

where:

- $f^*$  is the optimal fraction of your bankroll to bet
- $b$  is the expected value of the investment (in decimal form)
- $r$  is the risk of the investment (in decimal form)

To derive this equation, we start by assuming that you have a bankroll of \$1. We then bet a fraction  $f$  of our bankroll on an investment with expected value  $b$  and risk  $r$ . The amount of money we win or lose on this bet is:

$$W = f * b - f * r$$

The expected value of this bet is:

$$E(W) = f * b - f * r$$

We want to find the value of  $f$  that maximizes the expected value of our bet. To do this, we take the derivative of  $E(W)$  with respect to  $f$  and set it equal to zero:

$$dE(W)/df = b - r = 0$$

Solving for  $f$ , we get:

$$f^* = (b - 1) / r$$

The Kelly Criterion can be used to optimize your investment strategy in a variety of ways. Here are a few examples:

- **Betting on sports:** The Kelly Criterion can be used to determine the optimal amount to bet on a sporting event. To use the Kelly Criterion for sports betting, you need to estimate the expected value and risk of each bet.
- **Investing in stocks:** The Kelly Criterion can be used to determine the optimal amount to invest in a stock. To use the Kelly Criterion for stock investing, you need to estimate the expected return and risk of each stock.
- **Managing a portfolio:** The Kelly Criterion can be used to determine the optimal asset allocation for your portfolio. To use the Kelly Criterion for portfolio management, you need to estimate the expected return and risk of each asset class.

The Kelly Criterion has a number of advantages over other investment strategies. Here are a few of the most important benefits:

- **It is mathematically sound.** The Kelly Criterion is based on sound mathematical principles, and it has been shown to be effective in a variety of applications.
- **It is easy to use.** The Kelly Criterion is a simple formula that is easy to understand and apply.
- **It can improve your returns.** The Kelly Criterion can help you to improve your investment returns by maximizing the expected value of your bets.

The Kelly Criterion also has a few disadvantages. Here are a few of the most important drawbacks:

- **It can be risky.** The Kelly Criterion can lead to large losses if you are not careful. It is important to use the Kelly Criterion with caution, and to never bet more money than you can afford to lose.
- **It can be difficult to estimate the expected value and risk of an investment.** The Kelly Criterion requires you to estimate the expected value and risk of each investment. This can be difficult to do accurately, especially for complex investments.
- **It can be difficult to follow emotionally.** The Kelly Criterion can tell you to bet more money than you are comfortable with. It is important to be able to control your emotions and stick to the Kelly Criterion, even when it is difficult.

The Kelly Capital Growth Investment Criterion is a powerful tool that can help you to improve your investment returns. However, it is important to use the Kelly Criterion with caution, and to understand its limitations. If you are able to do this, the Kelly Criterion can be a valuable addition to your investment toolkit.



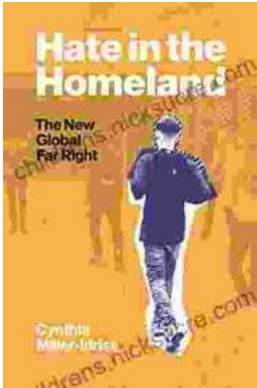
## Kelly Capital Growth Investment Criterion, The: Theory And Practice (World Scientific Handbook In Financial Economics Series 3) by Edward O Thorp

★★★★☆ 4.3 out of 5

Language : English  
 File size : 36438 KB  
 Text-to-Speech : Enabled  
 Enhanced typesetting : Enabled  
 Word Wise : Enabled  
 Print length : 884 pages  
 Screen Reader : Supported

FREE

DOWNLOAD E-BOOK



## Hate In The Homeland: Exploring the Alarming Rise of Domestic Extremism in the United States

In recent years, the United States has witnessed a disturbing surge in domestic extremism, characterized by violent acts, hate-filled rhetoric,...



## My Golf Blog Revolution: Open Stance

Are you ready to revolutionize your golf game? The Open Stance technique is a game-changing approach that can transform your swing, improve accuracy, and boost power....