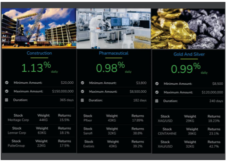
Grinhold™

GH PORTFOLIO SMART AI

Introduction

Grinhold aims to deliver an automated self directed investment management service that maximizes the long- term, net-of-fee, after-tax, real investment return for each client's particular tolerance for risk. Optimal portfolios are identified using Modern Portfolio Theory (MPT) and combine a broad set of asset classes, each usually represented by a low-cost, passive CFD.
The underlying research — recognized with two Nobel Prizes (1990,2013) — demonstrated that a security's return is determined by the set of risk factors that it is exposed to, rather than its standalone risk (e.g. as measured by its volatility).
Modern Portfolio Theory is the most widely accepted framework for managing diversified portfolios. The economists who developed MPT, Harry Markowitz and William Sharpe, received the Nobel Prize in Economics in 1990 for their groundbreaking research. While MPT has its limitations, especially in the area of very low probability significant downside scenarios, we and our advisors believe it is the best framework on which to build a compelling investment management service.
We continuously monitor and periodically rebalance portfolios to ensure they remain optimally diversified. We also attempt to minimize your taxes by analyzing the taxes likely to be generated by each asset class, and creating allocations that are specifically customized for taxation.

Example: GOLD AND SILVER PORTFOLIO



You know while most investors enjoy the luxury of being able to physically hold gold bullion, some prefer a truly digital holding. Gold investments are an essential part of any portfolio, as it is a great hedge against other currencies you know.
Specifically, gold tends to rise in value in response to events that often cause the price of stocks and fiat currencies to decrease, and gold has maintained an incredible status throughout our thousands of years and has even increased in value over time.
It doesn't matter whether you are concerned about political tensions, supply constraints, or inflation rates the truth is that there are countless investors all around the world that believe that gold is a necessary part of any portfolio.
Well if you invest in GOLD/SILVER PORTFOLIO you are investing in digital gold and silver through the use of CFDs.
GH Portfolio AI was built in a way that it handles buying and selling automatically to make you profit and make it easier and quicker to purchase and sell gold than ever. Of course, your digital gold will be asset-backed by actual gold. But traded virtually, so if the trading robot sees a good opportunity to sell or buy gold it takes it and makes profit for you over the period of the investment horizon, handsfree and efficiency with stop loss. You don't know when to buy or when to sell so you can leave it to the robot to do it, if you do you can also place trades by yourself from Grinhold trade and compare performances.
Each time the Grinhold robot earns you money you can withdraw it immediately and also you end the portfolio whenever you want and withdraw back your capital.

How does Gh Portfolio AI trade assets?

Grinhold Portfolio makes profits by utilizing CFD's and not real stocks.
For example, say you buy a real share of Microsoft – you are now technically an owner of the company! As a shareholder of Microsoft, you are now afforded certain rights, below are the most important:
- Ownership of Microsoft Just to repeat the same thing in a different way, similar to Bill Gates, you can now say you are an owner of
Microsoft – albeit Bill's piece of the pie is much larger!
- Recipient of dividends
When a company starts to make a lot of money and has a lot of cash on hand it can decide to distribute this money to its shareholders. Microsoft paid a dividend on December 12th, 2019 in the amount of $0.51 per share. If you owned 1,000 shares you would have received $510.
- Voting power on major issues
Yes, you heard that right. Now that you own a piece of the company, you can vote on certain issues that might impact the company such as a merger with another company.
What is a CFD?
CFD (Contract-for-Difference) is an agreement between a seller and a buyer that is based on an underlying asset. Trading on CFD trade, you speculate on whether the asset will increase or decrease in value to eventually win (or lose) on the difference. Thus, you never actually own the asset but forecast whether it will rise or fall.
In a way, CFD resembles traditional investing. Investing in gold or oil, you purchase a bar of gold or oil in a bid to eventually sell it once the value increases and make a profit on the difference.
In the same way, you start a trade on an asset at a certain price, wait for the value to rise or fall, and make a profit on the difference if the price moves in your direction. The only difference of CFD trading from traditional trading is that you do not actually own the asset, but simply speculate on its volatility.

When trading a CFD you are simply speculating on the price change of the stock price. For example, if you buy a CFD on Microsoft shares and the price goes up, you can close the position with a profit.
Unlike buying actual stock, the CFD does not come with any of the shareholder rights. But, CFDs have a purpose. Below are two big reasons why people trade CFDs on shares:
- CFDs on assets allow investors to invest in the downside
If you believe a stock will go down in price, you will not be able to easily take this position with real shares and it will be very expensive. Simply "Sell" the CFD and you can invest in or protect yourself from downside moves of the share price.
- CFDs offer leverage
Leverage is purchasing power which allows you to spread your capital further and amplify returns. One example could be if you have a leverage of 5 to 1, then you can buy 5 times more shares for the same amount of money.

Interesting Facts

Risk Budgeting and Management
All investors have a capacity to bear some investment risk. The best way to manage risk is to measure it, rather than relying on a traditional stock –to- bond ratio.
A portfolio's investment methodology should pair disciplined risk management with a flexible asset allocation approach. The term "risk" as it relates to investing may have negative or scary connotations in an investor's mind. And it is true that riskier assets have a greater chance of decreasing in value at some point. Yet, taking on risk in the investment world can also bring reward, as riskier investments tend to have greater potential to significantly increase in value. The key is to find a balance between lower risk and higher risk investments that are appropriate for the investor's specific investment objectives.
Grinhold Risk Budgeting Methodology is flexible enough to be applied to a broad variety of investor risk comfort levels, from aggressive to conservative. We have also found that most investors have one of four main investment objectives.

Protection

Investing is an emotional experience. The market can take investors on a roller-coaster of emotion ranging from panic to euphoria. For investors who are particularly sensitive to market declines due to a shortened time horizon or an extreme fear of decreasing account value, Grinhold Protection plan seek long-term growth as well as protection of principal account value.
Traditionally, investors have relied on investments like CDs and bonds to generate income. However, in a low-interest rate environment, these conventional sources may not yield enough to meet income needs. They also typically provide less opportunity for investment growth than stocks. Investors seeking income may, therefore, be searching for other types of investment to supplement these traditional assets. Grinhold combines a variety of traditional experienced income-generating trading assets from around the globe thatoffer the best income and risk/return opportunities.

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Algorithms never sleep. We're constantly monitoring your account to ensure that you're achieving your goals – the faster, smarter way. Our dedicated support specialists are available 7 days a week, 365 days a year.
You're a smart investor. Now you've found a service that's right for you.

Selecting Asset Classes

Grinhold periodically reviews the entire population of CFDs to identify the most appropriate ones for use in portfolio construction. We look for CFDs that minimize cost and tracking error, offer ample market liquidity, and minimize the lending of their underlying securities.
1. Fee: All things being equal we attempt to choose the CFDs with the lowest expense ratios. Unfortunately, all things are not equal so we have to trade off fee for the other three characteristics.
2. Tracking error: Most investors are surprised to learn that CFDs do not exactly track the indices they were created to mimic. The higher the variance from its selected benchmark (tracking error), the less appropriate an ETF is to represent its asset class. An ETF issuer can reduce its tracking error by improving its operational systems, but that adds expense which is typically passed on as a higher management fee to the investor. In other words, expense and tracking error are often inversely correlated. We pay careful attention to this trade-off.
3. Liquidity: We choose CFDs that are expected to have sufficient liquidity to allow purchases and sales at any time. Newly issued CFDs usually take a while before they are appropriate for recommendation, even if they offer lower fees because the lack of liquidity may cause trading costs that more than offset their lower fees.
4. Securities lending: CFD issuers generate income from lending out their underlying securities to hedge funds to enable short sales; the more prevalent the lending, the higher the risk to the ETF buyer. We prefer CFDs that either minimize lending or share the lending revenue with their investors to lower management fees.
Allocating Assets while placing trades;
Grinhold determines the optimal mix of our chosen asset classes by using Mean-Variance Optimization (Markowitz, 1952), the foundation of Modern Portfolio Theory. The output of the optimization is a collection of portfolios that generate the maximum return at each level of targeted risk, or equivalently, minimize the level of risk for a specific expected return. Collectively these portfolios form the (mean-variance) efficient frontier.
Mean-Variance Optimization

(SMART FORMULA)

$$\max_w \mu \cdot w \text{ st. } w \cdot \Sigma \cdot w = s^2,\ w \cdot i = 1,\ LB \leq w \leq UB$$

where:

μ denotes the asset class expected returns (N x 1),
Σ denotes the asset class covariance matrix (N x N),
w denotes the asset class weights (N x 1),
i is a vector of ones (N x 1)
s is the target portfolia volatility

LB and UB are the minimum and maximum asset allocation constraints (each N x 1)

The expected return of the portfolio is a weighted average of the expected returns of the individual asset classes, μ, with the weights given by the portfolio allocations, w. The variance of the portfolio depends on the variances of the individual asset classes, but also on how they comove with one another, collectively captured by the asset class covariance matrix, Σ. To identify mean-variance efficient portfolios we solve the following quadratic programming problem:

Solving this problem for different values of the target volatility, s, gives us a collection of portfolios that maximize expected return for each level of risk, and have weights that sum to one (i.e. a portfolio that is fully invested and does not use leverage), and satisfy the lower- and upper-bound constraints on the weights. These constraints ensure that resulting portfolio are long-only (i.e. weights are positive) and are not overly concentrated in a small number of asset classes. Client's are recommended a portfolio based on the results of a risk questionnaire, which evaluates their ability and willingness to take risk.