

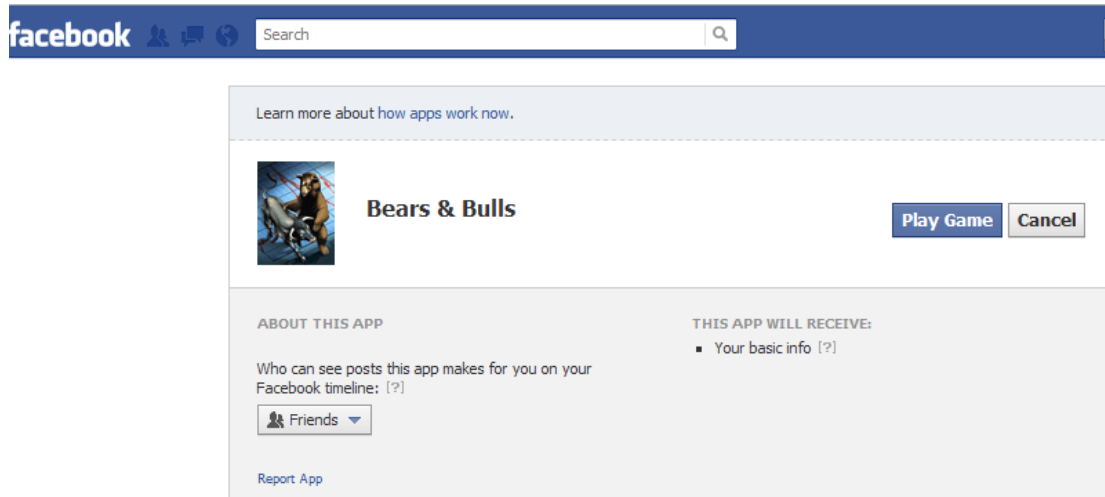
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## Creating a Bears and Bulls Account

All that is required in order to start playing Bears and Bulls is a valid Facebook account (<https://www.facebook.com>). Once an account is active, the user can create a Bears and Bulls account by either going to <http://apps.facebook.com/bearsandbulls/> and clicking the Play Game button or by getting invited to a league.

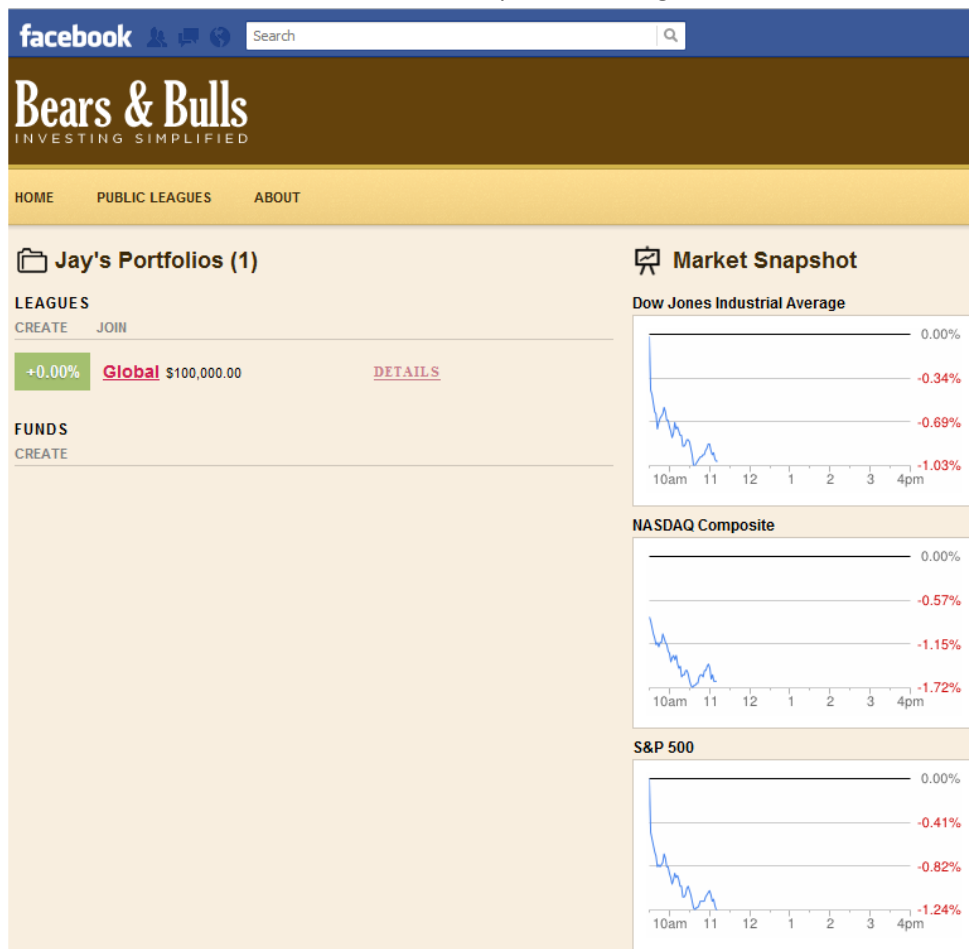


An account will be immediately created and the user will automatically be entered into the Global league.

## Home Page

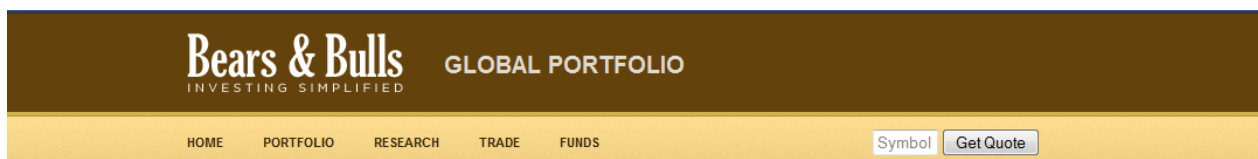
When a user first creates a Bears and Bulls account or clicks on Home in the header menu, he will be presented with the Home Page. The Home Page displays all the league's and funds the user is participating in. It also shows a snapshot of the daily progress of the Dow Jones, NASDAQ and S&P markets. The user can now click on the names of the leagues and funds in order to view their portfolios

and make trades in that particular league or fund.



## Header Menu

For every page besides for the Home page, the user will see a menu across the top of the page. This is the header menu and allows the user to navigate to any of the main pages of the application. The names include links to the following pages: Home, Portfolio, Research, Trade and Funds. It also contains a quick quote box.



## Global League

When a Bears and Bulls account is created, the user is automatically entered into the Global League. The Global League is a league that consists of every Bears and Bulls user. Every user starts off with 100,000

dollars starting balance and can buy and sell freely. The Global League is permanent and has no end date.

## League Details

Clicking on the Details link next to any league will bring the user to the League Details page. Here the user can view league rules and settings, the leaderboard and the league comments section. The leaderboard lists the top 3 investors and then shows the rest of the members of the league in order of profit.

The screenshot shows the 'Bears & Bulls' website with the 'Global League' details. The page is divided into three main sections: League Details, Best Investors, and a comments section.

**League Details:**

- League Name:** Global
- League Description:** This is the Global League. Every new investor joins this league when they enter, and competition is between all investors in Bears & Bulls.
- Public:** Yes
- Starting Balance:** 100000
- Allowed Sectors:** All Sectors Allowed
- Investing in Funds:** Yes
- Start Date:** 23-03-2012
- End Date:** 22-03-2222

**Best Investors:**

Rank	Investor	Balance	Profit
1.	Dean Douvikas	\$103,976.40	12.68%
2.	Phillip Quiza	\$100,000.00	0.00%
2.	Rich Jordan	\$100,000.00	0.00%

Below the leaderboard is a grid of 25 small profile pictures of league members.

**Comments:**

- Joshua Beninson** (Rutgers University School of Engineering): I just invested in ur hedge fund, Will. lol This looks great, guys. Nice work!  
Reply · Like · Follow Post · Tuesday at 4:49pm
- Joshua Beninson** (Rutgers University School of Engineering): well, i tried to but it didn't do it!  
Reply · Like · Tuesday at 7:05pm
- Aaron Sun** (Holmdel High School): Joshua Beninson That's cuz will didn't reply to your investment probably (the fund gets to choose which investments to accept or not)  
Reply · Like · Tuesday at 8:55pm
- Joshua Beninson** (Rutgers University School of Engineering): ah, that makes sense. nice real-world implementation  
Reply · Like · Tuesday at 9:36pm
- William Pan** (Rutgers University School of Engineering): comment!  
Reply · Like · Follow Post · Wednesday at 1:27pm
- Joshua Beninson** (Rutgers University School of Engineering): good luck today

## Creating a League

A user can create a league by clicking on Create under Leagues on the home page.

**Bears & Bulls**  
INVESTING SIMPLIFIED

HOME PUBLIC LEAGUES ABOUT

### Create A League

League Name:

League Description:

Public or Private (Private Leagues can only be joined via invitations)

☐ Public

☒ Private

Starting Balance

☐ \$10,000

☐ \$100,000

☐ \$1,000,000

Allowed Sectors

☒ Basic Industries

☒ Capital Goods

☒ Consumer Durables

☒ Consumer Non-Durables

☒ Consumer Services

☒ Energy

☒ Finance

☒ Healthcare

☒ Miscellaneous

☒ Public Utilities

☒ Technology

☒ Transportation

Allow Investing in Funds (Bears & Bulls Funds)

☒ Yes

☐ No

End Date:  mm/dd/yyyy

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Leagues are organized competitions among Bears & Bulls players. You may have noticed multiple portfolios on your dashboard. Each portfolio is associated with a specific league and the portfolio's performance is compared against those of other investors in that league. Each league has different restrictions on the types of stocks that may be traded, the starting capital, rules about short selling, and other guidelines.

As a Bears & Bulls player, you are automatically entered into the global Bears & Bulls league, which allows you to compare your performance to all the other Bears & Bulls players. You may also join other public leagues, or create your own by following the link above. If you are a league coordinator, you may edit the settings of your league by choosing the Manage a League link.

League Name – Every league will have a unique name that allows its members to distinguish it from all other leagues.

League Description – When creating a league, a user should write a short description of the league explaining the purpose of the league and any special rules or settings.

Public or Private – Public leagues can be joined by anyone whereas private league require a personal invitation by the league coordinator to join.

Starting Balance – The league coordinator can specify if members of the league will start off with \$10,000, \$100,000 or \$1,000,000.

Allowed Sectors – This is where the coordinator specifies what type of companies members can invest in. The coordinator can choose as many of the 12 categories. For the default, all categories will be checked off.

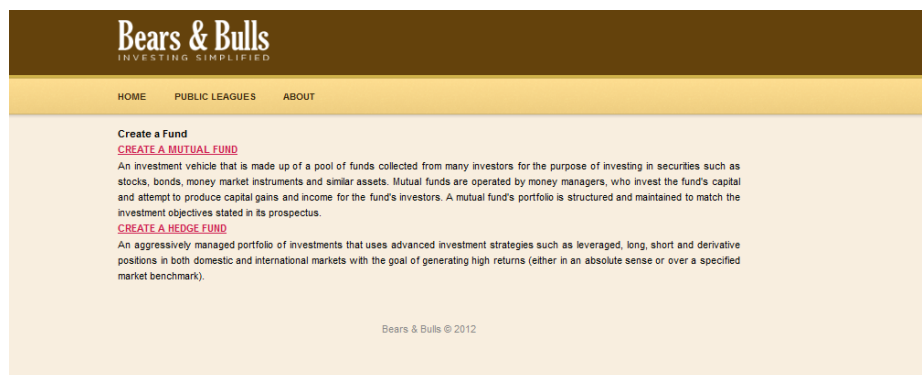
Allow Investing in Funds (Bears & Bulls Funds) – This setting specifies whether users can invest in funds with the money provided in the league.

End Date – The date the league will end and users can no longer trade.

When all the information is filled out the user should click Submit Form at the bottom of the page. This will take the user back to the home page. The user should now see a portfolio with the name of the league just created. The user can click on the name to make trades, League Details to view or change league settings and Invite Friends to send invitations to join the league.

## Create a Fund

A user can create a fund by clicking Create under funds on the Home Page.



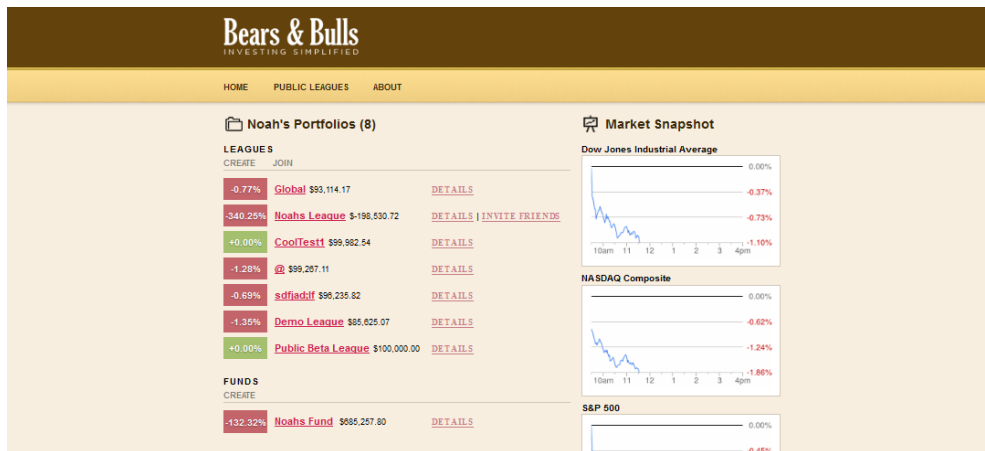
This page allows the user to choose the type of fund they wish to invest in. A description on mutual and hedge funds is given. To create a mutual fund, the user clicks on Create A Mutual Fund and specifies the mutual fund settings:

**Fund name:** A unique name to distinguish it from other leagues and funds.

**Fund Prospectus:** This allows the user to describe his strategy for his investors' reference.

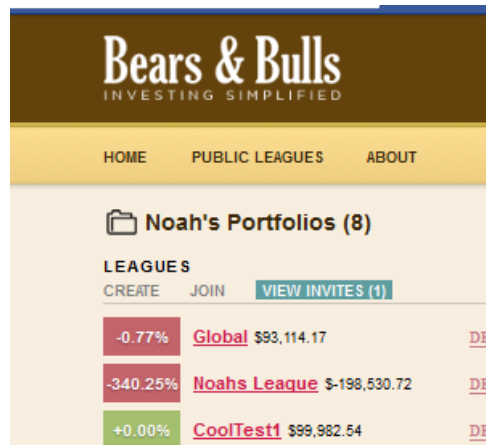
**Open to Other Bears and Bulls Investors:** Can other investors on Bears and Bulls invest in your fund?

Clicking Submit at the bottom of the page will create the fund and navigate the user to the Home Page which should now contain a portfolio for the newly created fund. Mutual funds start with a cash balance of \$1,000,000.

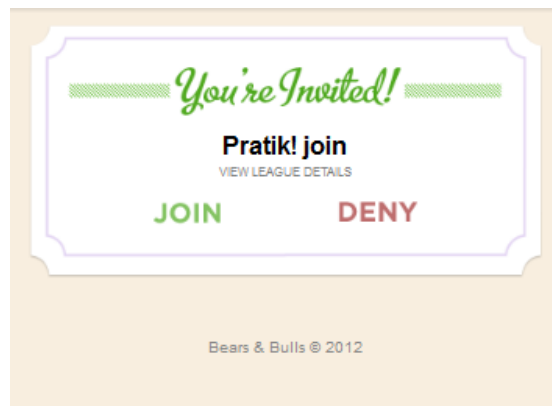


## Join a League

When a user is invited to join a league, a View League Invitations link will appear on the Home Page.



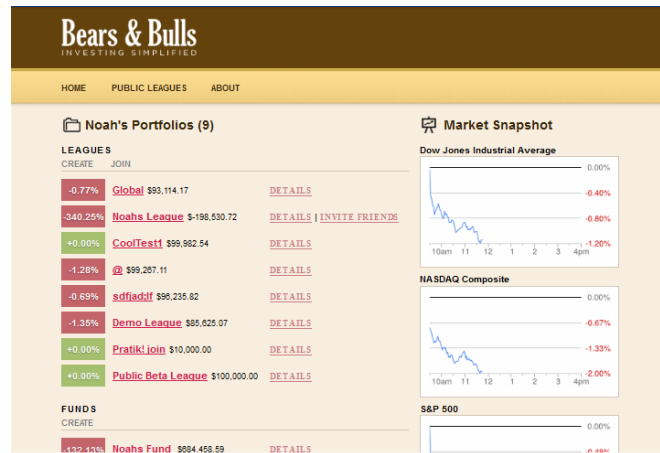
Clicking on this link will bring the user to a page containing all pending invitations.



The user can now click on View League Details to view the league settings and either accept or decline the invitation by clicking Join or Deny, respectively.



The Home Page should now contain portfolios for the joined leagues.



## View Portfolio

A user can view his progress and status in any league or fund by clicking on the portfolio name on the Home Page.



The user can now view the status of all owned stocks:

Ticker: The stock symbol.

Last Price: The most recent price queried by Bears and Bulls. This will update every time the page is reloaded.

Quantity: The number of shares currently owned.

Price Paid: The price of the stock at the time it was originally bought.

Mkt. Value: The total value of the user's stocks in that particular company.

Total Gain: The difference between the stock's original value when bought and the current value.

Day's Gain: The amount gained or lost since the market opened in the morning.

The user can click on View Transaction History to view past transactions and keep track of stocks bought and sold. Clicking on View Pending Orders shows pending transactions bought with a limit price that have not been processed yet. Once the limit is reached, the transaction is processed and will appear in the portfolio.

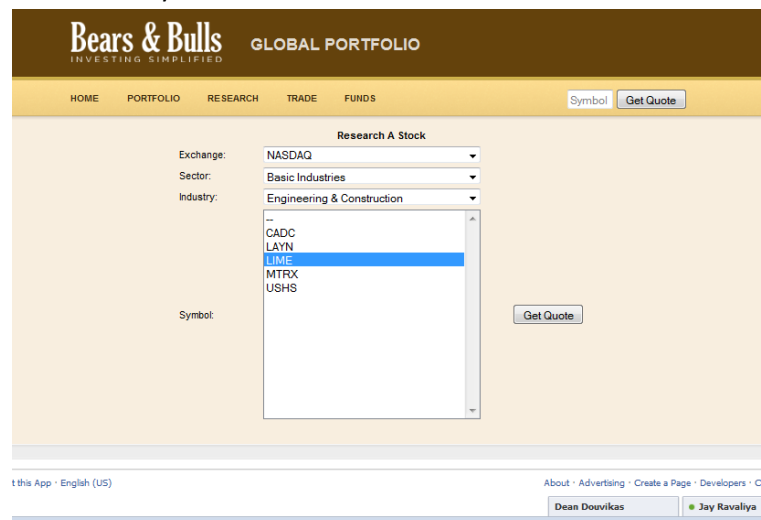
## Research

The user can research a particular stock in two ways:

1. Quick Search - If the user already knows the stock symbol of the company to research and wants a quick quote, he can type it in to the box on the right side of the Header Menu and click Get Quote.



2. Detailed Search - For a more detailed search the user can click on Research and pick the exchange, sector and industry to narrow down the search.



Exchange: If desired, the user can specify an exchange: AMEX, NASDAQ, NYSE

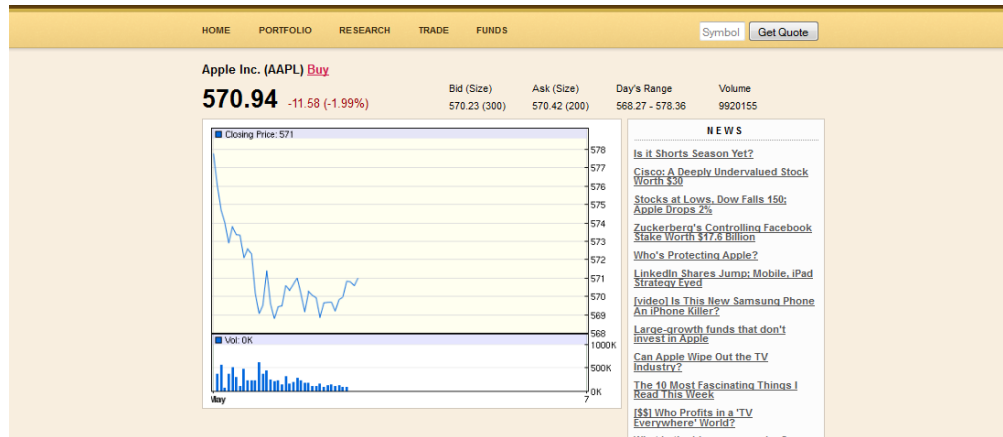
Sector: The user can specify a specific sector which is particularly useful for leagues that only allow trades of companies in certain sectors.

Industry: The user can specify a specific industry.

Symbol: This box lists all of the stock symbols that fit the chosen categories. If none of the above categories have been specified, it will display all known stock symbols. Once the desired stock symbol is found, the user clicks Get Quote to view the desired quote.

The user is now presented with a quote of the specified stock symbol.

### Stock Symbol



Price: The current price of the stock.

Change: Rise/fall since the market opened in the morning.

Bid (Size): The current bid price and size.

Ask (Size): The current ask price and size.

Day's Range: The lowest and highest prices for the stock that day.

Volume: The amount of stocks being traded.

The user is also presented with a graph showing the stock's progress over the past 6 months.

### **Trades**

The user can buy or sell stocks by clicking on Trade in the Header Menu within a portfolio. The user is then presented an order ticket.

### Order Form Prototype

**Order Form**

Commission Fee is 10 Dollars

Symbol:

Quantity:

Order Type:

Term:

Price Type:

Limit Price:

Stop Price:

Trailing Stop \$:

Trailing Stop %:

Symbol: Stock symbol

Quantity: Desired number of stocks to buy/sell.

Term: For limit orders, the user must specify how long Bears and Bulls should wait for the limit price to be reached. Good for the Day waits until the market closes and Good for 60 Days will wait 60 days before discarding the requested order.

Order Type: The user can specify Buy, Sell, Sell Short or buy to Cover.

Price Type: The user can specify Market, Limit, Stop, Trailing Stop \$ or Trailing Stop %.

For limit orders, the user should specify a Limit Price.

For stop orders, the user should specify a Stop Price.

For trailing stop \$ orders and trailing stop % orders, the corresponding field should be filled out.

Once all of the important order ticket information is filled in, the user clicks Submit Ticket. If the ticket was filled out correctly the user will be prompted that the order ticket is valid.

The page at <http://high-window-8945.herokuapp.com> says:

Your order ticket is valid.

Please review the contents before clicking 'Final Submit'

The user can then click OK and either Final Submit to submit the order or Revise to change any of the filled out fields. If the user does not have sufficient funds for the transaction, an error warning will appear.

**Bears & Bulls**  
INVESTING SIMPLIFIED GLOBAL PORTFOLIO

HOME PORTFOLIO RESEARCH TRADE FUNDS Symbol Get Quote

**Order Form**

Commission Fee is 10 Dollars  
Error: Balance is too low to complete order  
You have 63,227.17 dollars and the total order price is 5,707,126.16 dollars

Symbol:   
Quantity:   
Order Type:   
Term:   
Price Type:   
Limit Price:   
Stop Price:   
Trailing Stop \$:   
Trailing Stop %:

If one of the required fields is not filled out, the user will be prompted with the specific field requirement.

**Bears & Bulls**  
INVESTING SIMPLIFIED

Home Portfolio Research Trade

Con

Symbol:   
Quantity:   
Term:   
Order Type:   
Price Type:   
Limit Price:   
Stop Price:   
Trailing Stop \$:   
Trailing Stop %:

Submit Ticket

The page at <http://high-window-8945.herokuapp.com> says:  
Please choose a positive decimal Limit Price

OK

Once the ticket is filled out and submitted, the changes will be updated. If it is market price it will immediately appear under the user's portfolio. Otherwise, it will stay under Pending Orders until the limit price is reached.

## Investing in Funds

If the league allows it, the user can invest in a fund by clicking on funds under a portfolio. The user can choose if he wants his name to be shown or not and needs to be accepted by the Fund Manager.

Bears & Bulls

INVESTING SIMPLIFIED

GLOBAL PORTFOLIO

HOME

PORTFOLIO

RESEARCH

TRADE

FUNDS

Symbol

Get Quote

Invest in a Fund

Funds

☐ Will Fund
 ☐ Prospectus!
 ☐ HedgeTest
 ☐ Noahs Fund
 ☐ Omar's Fund
 ☐ Fufaliga
 ☐ Aawe
 ☐ TestPLZWORK
 ☐ Pratik's Fund
 ☐ Aaron's Fund
 ☐ Software's Funds
 ☐ Fund
 ☐ Good stuff
 ☐ Fund Two
 ☐ ASSH TITLES

Amount to Invest

Display Name

Yes ▾

Invest in Fund

Mutual Funds

One of the main advantages of mutual funds is that they give small investors access to professionally managed, diversified portfolios of equities, bonds and other securities, which would be quite difficult (if not impossible) to create with a small amount of capital. Each shareholder participates proportionally in the gain or loss of the fund. Mutual fund units, or shares, are issued and can typically be purchased or redeemed as needed at the fund's current net asset value (NAV) per share, which is sometimes expressed as NAVPS.

Hedge Funds

For the most part, hedge funds (unlike mutual funds) are unregulated because they cater to sophisticated investors. In the U.S., laws require that the majority of investors in the fund be accredited. That is, they must earn a minimum amount of money annually and have a net worth of more than \$1 million, along with a significant amount of investment knowledge. You can think of hedge funds as mutual funds for the super rich. They are similar to mutual funds in that investments are pooled and professionally managed, but differ in that the fund has far more flexibility in its investment strategies.

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