# Sunnyvale Library - April 6, 2021 

Presenters
Russell Malley \& Marion Michel
iclub-ram@comcast.net mar02mic@comcast.net

Directors with the Silicon Valley Chapter of Betterlnvesting

1
WWW.BETTERINVESTING.ORG
1

## Disclaimer

The information in this presentation is for educational purposes only and is not intended to be a recommendation to purchase or sell any of the stocks, mutual funds, or other securities that may be referenced. The securities of companies referenced or featured in the seminar materials are for illustrative purposes only and are not to be considered endorsed or recommended for purchase or sale by BetterInvesting ${ }^{\text {TM }}$ National Association of Investors Corporation ("BI"). The views expressed are those of the instructors, commentators, guests and participants, as the case may be, and do not necessarily represent those of BetterInvesting. Investors should conduct their own review and analysis of any company of interest before making an investment decision.
Securities discussed may be held by the instructors in their own personal portfolios or in those of their clients. BI presenters and volunteers are held to a strict code of conduct that precludes benefiting financially from educational presentations or public activities via any Betterlnvesting programs, events and/or educational sessions in which they participate. Any violation is strictly prohibited and should be reported to the CEO of BetterInvesting or the Director of Chapter Relations.
This presentation may contain images of websites and products or services not endorsed by BetterInvesting. The presenter is not endorsing or promoting the use of these websites, products or services.

This session may be recorded for future use.

2

## Presenters - Who Are We?

We are volunteer directors with the Silicon Valley Chapter of BetterInvesting.

Bl is a 501 (c)(3) non-profit organization founded in 1951.
It is dedicated to investor education and has numerous chapters across the county, staffed by volunteers.

We have both belonged to BI and been investors for more than 30 years.

We are NOT licensed financial professionals.
In keeping with Bl's mission, we do not give specific investment advice.
We try to help you understand investing so you can DIY.
Betterlnvesting

3

## Agenda

## A. Saving vs. Investing <br> B. Basic Terminology <br> C. Stocks/Funds/Bonds <br> D. Free information sources

## You May Be a Saver and an Investor Both Are Important

-The reasons for each are different
-Where you put your money is different
-Everyone can benefit from saving
-Everyone can benefit from doing both

- Ideally, you will be able to do both
-The younger you start, the better


5

## Saving

Your goals are short-term: 1-5 years

- Building an emergency fund
- Saving for a vacation
- Saving to buy a car
- Saving to pay taxes
- Saving for a down-payment on a home
- Saving while learning about investing

Expectations

- Your money will be there when you need it.
- It won't grow much.
- Any growth probably won't beat inflation.


## First Reason to Save

Build an Emergency Fund of a minimum of 6-12 months of expenses. Use for:

- Loss of Job
- Medical Emergencies
- Car Repairs
- Household Repairs
- Family Emergencies


7

## Your goals are long-term: 5-20+ years

- College fund for kids
- Retirement
- Hobbies


## Expectations

- You won't need the money to pay ongoing expenses.
- Your money will be at risk. You will definitely experience losses from time to time. You could lose everything.
- But, over the long term, it is likely that you will gain significantly more than you can with savings.
- You expect inflation to seriously erode your money's purchasing power over the long term and you want to maintain and hopefully build purchasing power.
- You will be able to sleep at night when things go wrong.


9

## A Few Words About Debt

Debt problems can make both
saving and investing impossible

- The interest rate you pay on debt, particularly credit card debt, is likely to be greater than the return you'll receive on either savings or investments.
- Paying off excess debt may provide your best return.
- Even if debt isn't a current problem, and you are living within your income, use debt wisely and pay off credit card balances as soon as possible.


## Free Sources of Information About Managing Debt

Consumer Financial Protection Bureau > Consumer Education https://www.consumerfinance .gov/

Financial Industry Regulatory Authority (FINRA) > For Investors > Personal Finance https://www.finra.org/\#/

## Where to Put Your Money (Assets)

## SAVING - Safer

- Piggy bank or mattress ()
- Insured savings/checking account
- Short-term certificates of deposit
- Short-term US Treasury bills or notes

Unlikely or less likely to beat inflation


Average annual rate of inflation since 1913: 3.1\%
INVESTING - Riskier

- Corporate bonds
- Mutual Funds \& ETFs

- Stocks

Likely to do better than inflation long-term

## Other Kinds of Assets

## Not the subject of tonight's presentation

- Real Estate
- Art
- Coins, stamps, collectibles
- Gold, commodities

All are specialty fields of investing
All are harder to evaluate than financial assets

## B <br> Inflation Eats Purchasing Power



Total Real Returns, Large Stocks, 20-year Treasuries, TBills, The Dollar and Gold 1926-2019


94 years. Logarithmic scale. Returns after inflation but excluding trading costs and taxes https://www.investorsfriend.com/asset-performance/ Shawn Allen, CFA,CMA,MBA,P.Eng


16

## Compound Interest - Key Concept



- Compound interest is a powerful force.
- The power behind compound interest is Time \& Patience
- Assets that compound provide a "free lunch."
- Debt that compounds digs a deeper hole. (Credit cards)


## Simple Versus Compound Returns

## Simple: Interest on the principal only

$\$ 1,000$ at $10 \%$ simple interest gives you $\$ 100$ every year. You get $\$ 100$ after one year. You get $\$ 100$ on the $10^{\text {th }}$ year and every year in between. Over ten years, you earn an extra $\$ 1,000$. You now have a $\$ 2,000$ asset.

## Compound: Interest on the principal + prior interest

$\$ 1,000$ at $10 \%$ compound interest gives you an increasing amount each year. Interest is paid on interest already earned, in addition to the principal. In 10 years, you earn an extra $\$ 1,593$. You now have a $\$ 2,593$ asset.

The longer the amount of time, the more beneficial compounding becomes. The benefit is slow in the beginning but dramatic after many years.

Pay attention to whether your assets are earning simple or compound returns

## Simple vs. Compound Interest



## A Handy Rule of Thumb for Estimating Compound Returns

## The "Rule of 72 " tells you how long it takes an asset to double in value.

Dividing 72 by the interest rate or rate of return will give you the years to double

## Examples

An asset earning 3\% annually will take 24 years to double. $72 / 3=24$ This may not beat the inflation rate.

An asset earning 10\% annually will take about 7 years to double. $72 / 10=7.2$ The stock market has historically returned about $10 \%$.

An asset earning 15\% annually will take about 5 years to double 72 / $15=4.8$ years This rate is hard to achieve.

Conversely, dividing 72 by the years it has taken an asset to double in value will give you the rate of return it has been earning.

## What Eats Into Returns?

- Inflation - long-term average about 3\%
- Taxes - gains on taxable assets you sell
- Fees - There are many kinds
- Brokerage commissions. Discount brokers may be free
- "Loads" on buying or selling mutual funds: 5\% common
- Management fees
- On mutual funds/ETFs: <1\% to 2+\%
- Private professionals: $1 \%$ to $2 \%$ of your assets' value

You cannot avoid inflation, taxes or minor fees, but with DIY and discount brokers, you can avoid most fees and have some control over when you take a tax hit.


## Two Approaches to Building a Portfolio

- Investing means leaving your money in the market for at least 5 years.
- What you invest in may change, but you don't pull the money (principal) or the gains out and spend them.

1. Consider hiring professional help

- If you can't or don't want to spend time on investing activities
- If you really dislike researching investments

2. DIY

- If you have time to learn
- If you have time to monitor your investments at least quarterly
- If you like researching businesses or at least don't actively dislike it
- If you don't have a lot of money to invest
- If you want to save on fees

Professional Help - See: https://www.finra.org/investors/learn-to-invest/choosing-investment-professionalhttps://www.finra.org/investors/learn-to-invest/choosing-investment-professional

HIRE: Use financial planners or advisors and other professionals for advice about financial matters. Will have fees. May have account minimums.

HIRE: Use a full-service broker
A full-service broker is a licensed broker-dealer firm that provides a large variety of services to its clients, including research and advice, retirement planning, tax tips, as well as buying and selling stock, funds, bonds for you. Will have fees. May have account minimums.

DIY: Use your workplace 401K. Take advantage of any employer matching.
DIY: Use a discount broker
With discount brokers, you decide for yourself what your overall investment strategy should be, and you choose your own stocks, funds and bonds. You are your own advisor and portfolio manager. Low or no fees, depending on the asset type.

How to Open a Brokerage Account: https://www.investor.gov/introduction-investing/general-resources/news-alerts/alerts-bulletins/investor-bulletins-43

## Some Full-Service Brokers

J.D. Power<br>2020 U.S. Full-Service Investor Satisfaction Study ${ }^{\text {SM }}$

Overall Customer Satisfaction Index Ranking
(Based on a 1,000-point scole)

https://www.jdpower.com/business/press-releases/2020-us-full-service-investor-satisfaction-study

## Some Discount Brokers

These 8 have no account minimums and no commissions on stock trades. They may charge commissions to trade funds, ETFs or bonds.

| Fidelity | Vanguard |
| :--- | :--- |
| TD Ameritrade | Schwab |
| E*Trade | Ally |
| Merrill Edge | Robinhood |

Source: $\underline{h t t p s: / / w w w . f o o l . c o m / t h e-a s c e n t / b u y i n g-s t o c k s / ~}$
Discount brokers are not all the same. Some are bare-bones trading platforms and do nothing but place trades for you. Some offer research, online trading, etc.

## Funds

Between Hiring Management and DYI


Delegate some management...for a fee
Your job
Decide which fund(s) to buy
Monitor them periodically
Sell the fund(s) if they underperform significantly

## If You Are a Beginning DIY Investor

Two characteristics of funds may make them the easiest place for a new investor to get started:

1. Someone else (the fund manager) makes all the buying and selling decisions about what to include in the fund
2. Funds provide some measure of instant diversification
There are many broadly diversified, index mutual funds and ETFs with very low management fees often just fractions of $1 \%$.

## What Are Funds?

Mutual Funds \& ETFs Exchange Traded Funds

## Similarities between mutual funds and ETFs

- Both are baskets of stocks, bonds or other assets
- Both provide some level of instant diversification
- Both are managed by the fund manager(s)
- You buy shares of the basket, not the components
- You have no control over:
- Selection of the fund holdings
- When or if holdings are sold
- How much trading (buying \& selling) the manager(s) do


## Funds

Mutual Funds \& ETFs Exchange Traded Funds

## Differences

Mutual Funds: More likely to be "actively" managed ETFs: More like to mimic an index ("passively" managed)

Mutual Funds: Fees are often higher than for ETFs
Mutual Funds trade only once a day after the market closes
ETFs trade throughout the day
ETFs may be more tax efficient

## Diversification - A Key Concept

Diversification involves acquiring a mix of assets in order to reduce portfolio risk and improve performance.

If one asset declines, the others may continue growing.

## For Example:

Common ways to diversify stock funds and stock holdings:

- By economic sector and industry
- By geography - what country the company HQ is in
- By size
- By other characteristics

For investing terminology: https://www.investopedia.com/ Don't click on the ads.

## Morningstar's Stock Diversification

DEFENSIVE Super Sector has these industries:
Consumer Defensive
Healthcare
Utilities
SENSITIVE Super Sector
Communications
Energy
Industrials
Technology
CYCLICAL Super Sector
Basic Materials
Consumer Cyclicals
Financial Services
Real Estate

## Value Line Stock Diversification

| SECTOR GROUPS AND INDUSTRY DETAIL |  |  |  |
| :---: | :---: | :---: | :---: |
| BASIC MATERIALS | CONSUMER-CYCLICAL | CONSUMER STAPLES | energy |
| Chemical (Basic) | Advertising | Beverage | Coal |
| Chemical (Diversified) | Apparel | Food Processing | Natural Gas (Diversified) |
| Chemical (Specialty) | Auto Parts | Household Products | Oilfield Services/Equip |
| Metal \& Mining (Div.) | Automotive | Retai/Wholesale Food | Petroleum (Integrated) |
| Paper \& Forest Products <br> Precious Metals <br> Steel | Cable TV | Tobacco | Petroleum (Producing) |
|  | Educational Services | Toiletries/Cosmetics | Pipeline MLPs |
|  | Entertainment |  |  |
|  | Entertainment Technology |  | INDUSTRIAL |
|  | Foreign Electron/Entertn |  | Aerospace/Defense |
| FINANCIAL | Furniture/Home Furnishings |  | Air Transport |
|  | Homebuilding | HEALTHCARE | Building Materials |
| Bank (Midwest) | Hotel/Gaming | Biotechnology | Diversified Co. |
| Financial Svcs (Div.) | Newspaper | Drug | Electrical Equipment |
| Insurance (Life) | Publishing | Health Info Services | Electronics |
| Insurance (Prop/Casualty) | Recreation | Medical Services | Engineering \& Construction |
| Public/Private EquityR.E.I.T. | Restaurant | Medical Supplies (Invasive) | Environmental |
|  | Retail Automotive | Medical Supplies (Non-Invasive) | Funeral Services |
| Reinsurance | Retail Building Supply | Pharmacy Services | Heavy Truck/Equip. Makers |
| Securities Brokerage Thrift | Retail (Hard Lines) |  | Human Resources |
|  | Retail (Soft Lines) |  | Industrial Services |
|  | Retail Store |  | Information Services |
| TECHNOLOGY <br> Computer \& Peripherals |  | UTILITIES | Maritime |
|  |  | Electric Utility (Central) | Metal Fabricating |
| Computer Software | TELECOMMUNICATIONS | Electric Utility (East) | Office Equip \& Supplies |
|  | Telecom Equipment | Electric Utility (West) | Packaging \& Container |
| E-Commerce | Telecom Services | Natural Gas Utility | Power |
| > IT Services Semiconductor Semiconductor (Cap Equip) | Wireless Networking | Oi//Gas Distribution | Precision Instrument |
|  |  | Telecom Utility | Property Management |
|  |  | Water Utility | Railroad Trucking |

## Fund Terminology

NAV or Net Asset Value is the price at which a share of the fund is trading

Expense Ratio or management cost as a percent of fund assets
Loads or extra fees levied when you buy or sell. Don't buy funds with loads. Buy "no-load" funds only. Loads are another type of management cost

Category - or where it fits in terms of providing diversity
In the case of a fund, whether it is open to closed to new investments

Try to find the best rated, no load fund with the lowest expense ratio for its category.

## Indexes

## An index is a set of assets that meet certain criteria.

Funds that mimic an index generally have very low management fees because management has little to do by way of asset picking.

Examples of Stock Indexes
S\&P 500: largest 500 US publicly traded companies by market cap
Dow 30: 30 large publicly traded US companies
Russell 2000: smaller publicly traded US companies
S\&P Asia 50 Index: leading stocks in Singapore, Hong Kong, Taiwan, Korea
Examples of Bond Indexes
Barclays U.S. 7-10 Year Treasury Bond Index
Bloomberg Barclays U.S. Aggregate Bond Index - corporate bonds
Some indexes are narrowly defined (S\&P Asia 50 Index).
Indexes are frequently used to benchmark the performance of funds and stocks.

## Index Funds

## - Pros

- Provide easy way to track health of economy
- Track stock indexes
- Fees are low as no active management
- Indexes outperform active management over time
- Cons
- Stocks with higher prices have a larger impact on movements
- Lack of flexibility when there is market volatility
- No opportunity to outperform the market and make larger gains


## Indexes Outperform

According to Standard \& Poor's over the past 15 years* (Data as of June 30, 2019)

-S\&P 500 outperformed large-cap funds $\mathbf{8 9 . 8 3 \%}$ of the time

- S\&P MidCap 400 outperformed the mid-cap funds $\mathbf{9 0 . 3 3 \%}$
-S\&P SmallCap 600 outperformed small-cap funds $\mathbf{9 0 . 2 5 \%}$
- Over the past 15 years, $88 \%$ or more of active managers across all categories underperformed their respective benchmarks*


## When Researching Funds

## Use the Library's Morningstar subscription

 It's free, online 24/7 to library card-holders

Morningstar provides basic information about a large number of mutual funds and ETFs and in-depth reports on many.

There are also user guides and basic information about how to invest in funds.

## Advantages of Investing in Individual Stocks

If you have TIME, KNOWLEDGE, TEMPERMENT

- Individual Stocks have potential for greater returns by having control over:
- What to buy
- When to buy and sell
- How much to pay
- Taxes and fees


## Reasons to Choose to Select Your Own Stocks

- You believe you watch your money better than anyone else
- You enjoy learning about the businesses of the companies you invest in
- You enjoy or at least don't mind stock research
- You want to invest in companies that share your values
- You want to minimize fees
- You have time to learn to invest and to monitor your stocks once you buy them


## Individual Stocks

## - Pros

- Reduced or no management fees
- Longer you hold a stock, the lower cost of ownership
- Easier to manage your taxes
- You understand what you own when you pick the stock
- Cons
- Diversification is harder at the beginning
- It requires more time to monitor your portfolio
- Need to learn to keep emotions in check



## Behavioral Economics

Humans did not evolve with stock markets.

Our brains do not always make rational decisions regarding investing.

Educate yourself about brain shortcuts that may hinder your investing.
Knowledge of these tendencies can help you avoid them.
Realize you will make mistakes occasionally.
Be sure to learn from your mistakes.
Even better - read and learn from others' mistakes.
The Behavior Gap - Simple Ways to Stop Doing Dumb Things with Money by Carol Richards

## Researching Stocks

Use the Library's Morningstar and Value Line subscriptions - free, online 24/7 to card holders


Both provide information to help evaluate stocks and educational guides

## Strategy for a Stock Portfolio

Add stocks to your portfolio as you can
Don't buy more stocks than you can monitor
You don't need lots of stocks to achieve reasonable diversification across sectors

5-10 can be fine
20+ may be unmanageable
Compare candidates to each other in terms of competitors.
Don't compare Verizon to Microsoft
Compare Verizon to AT\&T and T-Mobile
Compare Microsoft to Apple, etc.

## Stock Terminology - P/E Ratio

Price of one share of stock / Earnings per Share
Earnings are the company's profits
Shares refer to stock shares in circulation
Example: Price $=\$ 100 / E P S=\$ 5 . \mathrm{PE}=20$
The PE ratio reflects what buyers are willing to pay for one share of stock. Like price, it can fluctuate significantly over the course of a year

The PE ratio reflects enthusiasm (or lack) about a stock.
It is not necessarily a good indicator of the soundness of the company.
If a company has no PE, that means it is unprofitable. It has no earnings. Stay away, especially if you are a beginner.

Try to develop a sense of a company's typical PE and not buy above that.

## Stock Terminology - Yield

Some companies share their earnings (profit) with shareholders.
They pay shareholders a cash dividend, usually quarterly.
The dividend is expressed in dollars and also as a percent of the stock price (yield)
Example:
25 cent quarterly dividend in $2021=\$ 1$
Price $=\$ 40$
Yield $=\$ 1 / 40=2.5 \%$

Total Return is a combination of the rise in the stock price (price appreciation) plus any dividends.
Example
A stock price rises from $\$ 50$ to $\$ 54$ in a year. Company pays 4 dividends of 25 cents each

Stock cost $=\$ 50$
Price appreciation = \$4 (8\%)
Dividends = \$1 (2\%)
Total Return = \$5 / \$50 = 10\%
Dividends are often a significant part of total return

## Investment Clubs



- Pool your money with club members
- Share a similar interest in investing
- Help each other learn as you earn


## A Few Words About Bonds

- Bonds are different from stocks

- Bondholders are creditors to the corporation, entitled to interest and repayment of principal
- Creditors in a bankruptcy have legal priority over other stakeholders and are made whole first
- Bonds have a fixed duration and expire on the date specified in the bond (maturity date)
- Return is the fixed rate of interest established by the bond and paid by the bond on a periodic basis


## Types of Bonds

## When you buy a bond, you are lending your money to one of the entities below for a set period of time:

- A corporation: Microsoft, Verizon, Domino's Pizza, etc.
- A city, state, county or other local government or government agency ("municipal" bonds - aka "munis")
- The United States government - Treasury bills, notes, bonds

Munis and US government bonds are partially or totally tax free For that reason, their yields (interest rates) are generally lower than for corporate bonds.

Some brokers trade bonds as well as stocks and funds.
You can buy US Treasury bonds and bills directly from the Treasury. For information: https://www.treasurydirect.gov/

## Bond Coupon Rate vs. YTM

Bonds are issued with a stated interest rate, the coupon rate.
Example 3\% per \$100 (par value) and a date when the principal will be paid back (maturity date)

Some bond holders put their bonds on the "secondary" market to trade. Buyers may pay more or less than par value. This changes the effective interest rate they will receive.

If you have to pay $\$ 110$ to acquire this $\$ 100$ bond, your interest rate is only $2.7 \%$ despite the stated coupon rate of $3 \%$.

The impact of paying more or less than par value is reflected in the Yield to Maturity (YTM). Example: 2.7\%, not 3\%. Pay attention to the stated YTM, not the coupon rate.

## 3 Types of Bond Risks

Interest Rate Risk or Inflation Risk
If you need to sell a bond before it matures, other assets, including newer bonds, may offer more attractive returns. You bond may be worth less than you paid. Conversely, if other assets are less attractive, your bond may be worth more than you paid.

Credit Risk
Bonds are issued with credit ratings. Do not buy bonds below investment grade

Prepayment Risk
Sometimes issuers have the right to "call" the bond and pay bondholders off early. In that case, you will be paid the par value (not the price you paid) + any interest that has accrued. But you will no longer hold the bond and will lose the income stream you were depending on. Callability is stated in the bond description.

Note: Whenever bonds mature or are called, holders are paid the par value of the bonds in a lump sum, not what they may have paid for them.

## Bonds

## - Pros

- As long as you hold a bond to maturity, you have some certainty about returns.
- You know how much interest you will earn.
- You know what the par value is and when it will be paid.
- If other kinds of assets drop in value, you might be able to sell your bond for more than you paid for it.
- Cons
- Interest rate risk or inflation risk
- Credit risk
- Prepayment risk
- If you need to sell your bond before it matures, you may not get what you paid for it.


## § 55

## Food for Thought - Where to Put Your Money (Assets)

## SAVING - Safer

- Piggy bank or mattress ©
- Insured savings/checking account
- Short-term certificates of deposit
- Short-term US Treasury bills or notes


Unlikely or less likely to beat inflation
Average annual rate of inflation since 1913: $3.1 \%$

## INVESTING - Riskier

- Corporate bonds
- Mutual Funds \& ETFs
- Stocks

Likely to do better than inflation long-term Questions?


Russell Malley iclub-ram@comcast.net Marion Michel mar02mic@comcast.net

