How are you going to fund your retirement?

Wealth

What is wealth:

- **In the United States wealth is perceived**
  - The lower class has little hope of much income and so they don't even try to create wealth. **Wealth is unattainable.**
  - The middle-class mindset (majority of dentists) is **income is wealth.**
    - And the more money I make, gross or net, the wealthier I am.
  - The wealthy mindset is wealth is **net worth.**

One single assumption that can fatally impact your financial life: Income is wealth, Michael Schuster, DDS, The Science of Creating Wealth, www.dentaleconomics.com, March 2009

Wealth

- **ADA statistics suggest that Dentist earn $25 to $50 million or more in a lifetime of practicing dentistry**
  - And yet fewer than 5% of dentists can retire without decreasing their standard of living.
- **This middle-class mentality of measuring wealth on income is why the vast majority of dentists are still working into their 60's, 70's and even 80's.**

One single assumption that can fatally impact your financial life: Income is wealth, Michael Schuster, DDS, The Science of Creating Wealth, www.dentaleconomics.com, March 2009

Wealth

- **There are two fundamental mindsets in relationship to money: income and net worth.**
- **Important Accounting Statements:**
  - Income Statement--- Shows income and expenses over a period of time
  - Balance Sheet- Shows Net Worth at a fixed point of time
  - Statement of Cash Flows

One single assumption that can fatally impact your financial life: Income is wealth, Michael Schuster, DDS, The Science of Creating Wealth, www.dentaleconomics.com, March 2009

Wealth

- **The most important financial statement you get from your accountant is your Balance Sheet(or net worth statement).**
- **You can produce $1 -2 million/ year from your practice and not create wealth.**
  - Your income statement tells you how much you are making.
  - Your Balance Sheet (net worth statement) tells you how much you are keeping.

One single assumption that can fatally impact your financial life: Income is wealth, Michael Schuster, DDS, The Science of Creating Wealth, www.dentaleconomics.com, March 2009

Wealth

Dentist 1	Dentist 2
• **Let's look at a dentist who grosses $950,000 a year, nets $305,000, and spends it all on lifestyle and taxes.**	• **Let's look at another dentist who grosses $650,000 a year nets $205,000 and saves $50,000 annually.**

- **Although the first is making $100,000 more a year in income, only the second dentist is actually creating wealth.**
- **With $50,000 accumulated per year, after 20 years (9%) the second dentist is able to save almost $2.95 million and over 30 years almost $7.8 million.**
- **(10% compounded annually over 20 years $3.2million and over 30 years $9.5 million)**
- **(10% compounded annually over 35 years $15.6 million)**

Wealth

- **INCOME STATEMENT:**
  - Plan your future by preparing an income statement in advance that lists all your expenses and income.
    - Then, as the year goes by, you can easily check how you're doing.
  - Your income statement shows exactly what you've earned, what you've spent, and what you've made.

One single assumption that can fatally impact your financial life: Income is wealth, Michael Schuster, DDS, The Science of Creating Wealth, www.dentaleconomics.com, March 2009

Wealth

- **INCOME STATEMENT:**
  - Unless you actually see in advance where your money is going, all you can do is react to it.
  - Check your income statements during the year, if your net profits are below your forecast, take action to raise your earnings by raising your revenue or cutting your expenses.

One single assumption that can fatally impact your financial life: Income is wealth, Michael Schuster, DDS, The Science of Creating Wealth, www.dentaleconomics.com, March 2009

Wealth

- **NET WORTH STATEMENT:**
- **It is our obligation to be ready when it comes time to enjoy our golden years.**
  - If you make the choice to create wealth in your life, it is far, far more important to track your net worth than income.
  - You need to know how much you will need AND by when.
  - You need your spouse and family on board to create wealth,
    - To save and invest 20% of your income you will need your family in agreement.

One single assumption that can fatally impact your financial life: Income is wealth, Michael Schuster, DDS, The Science of Creating Wealth, www.dentaleconomics.com, March 2009

Wealth: Get your Spouse on Board

Wealth

- **NET WORTH STATEMENT:**
  - Put a fair market value on everything you own and add up all the selling prices.
    - The total will be your total assets.
  - Next, list how much you owe. Add up all your debts and include every debt that you have.
    - The total will be your total debts.
  - Now subtract what you owe from what you own. That is your **Net Worth.**

One single assumption that can fatally impact your financial life: Income is wealth, Michael Schuster, DDS, The Science of Creating Wealth, www.dentaleconomics.com, March 2009

Wealth

- **NET WORTH STATEMENT:**
  - For planning and goal setting, you want to create two net worth statements.
    - The first is your current net worth statement
    - Your second net worth statement makes up your 10-15-20-year net worth goal statement.
      - You must develop a statement of exactly how much you will need and how your net worth in the future will be realized.

One single assumption that can fatally impact your financial life: Income is wealth, Michael Schuster, DDS, The Science of Creating Wealth, www.dentaleconomics.com, March 2009

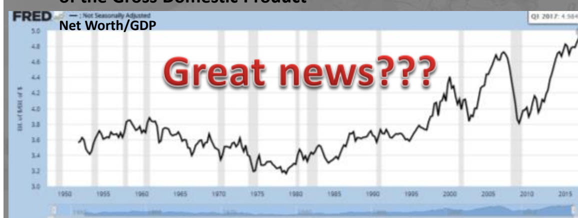
USA Net Worth

- **In 2013, there were a record:**
  - 9.63 million American millionaires
  - including 1.24 million households with a net worth above **$5 million**.

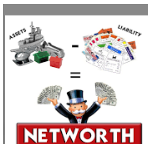
USA Federal Reserve, https://www.federalreserve.gov/pubs/bulletin/2014/articles/scf/scf.htm and Spectrem Group

2015 USA Net Worth/GDP

The US net worth is at an all time high and is 500% (5 times) of the Gross Domestic Product



USA Federal Reserve, https://fred.stlouisfed.org/graph/?g=dGy



2014 United States Household Net Worth

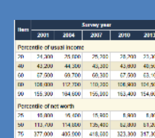
2014 Total US Households 123 Million

2014 Net Worth	Number in USA	% of Total	Percentage change
$100,000			
$500,000			
$1,000,000			
$5,000,000			

USA Federal Reserve, https://www.federalreserve.gov/pubs/bulletin/2014/articles/scf/scf.htm and Spectrem Group

USA Income

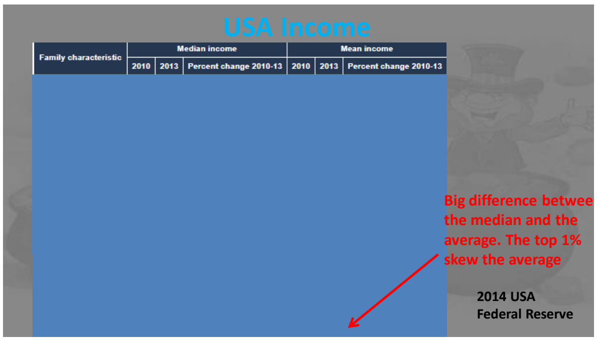
Family characteristic	Median income			Mean income		
	2010	2013	Percent change 2010-13	2010	2013	Percent change 2010-13

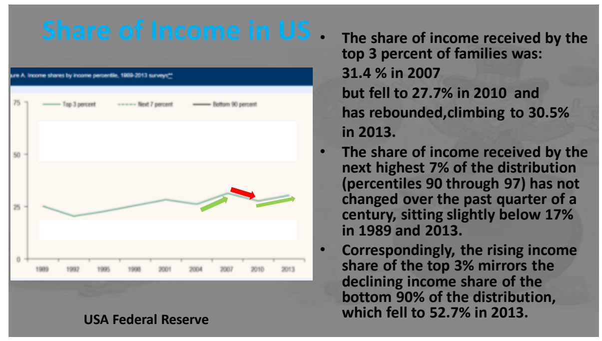


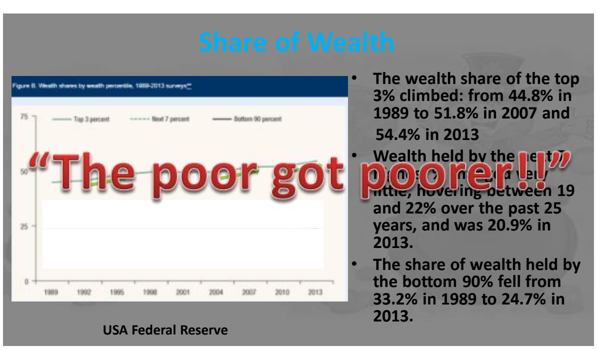
Item	Survey year 2001	2004	2007	2010	2013
Percentile of usual income					
20	24,300	25,800	25,700	26,200	23,300
40	43,200	44,300	45,300	43,600	40,900
60	67,500	69,700	69,300	67,500	63,100
80	108,000	112,700	110,200	106,900	104,500
90	155,300	164,600	165,800	163,400	154,600
Percentile of net worth					
25	18,800	16,400	15,900	8,900	8,800
50	113,700	114,800	135,400	82,800	81,200
75	377,000	405,500	418,600	323,300	317,300
90	972,000	1,070,400	1,072,100	1,050,800	941,700

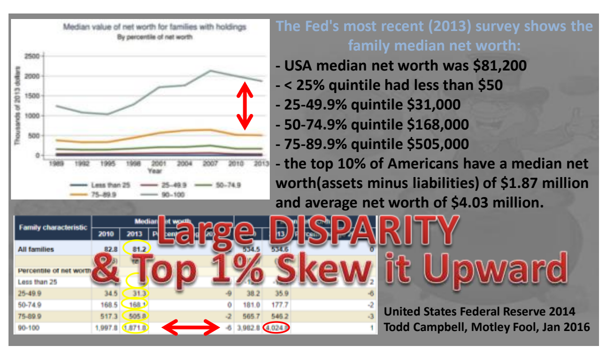
Big difference between the median and the average. The top 1% skew the average

2014 USA Federal Reserve


USA Income
Family characteristic
Median income
2010
2013
Percent change 2010-13
Mean income
2010
2013
Percent change 2010-13
Big difference betwee
the median and the
average. The top 1%
skew the average
2014 USA
Federal Reserve


Share of Income in US
Top 3 percent
Next 7 percent
Bottom 90 percent
1989
1992
1995
1998
2001
2004
2007
2010
2013
USA Federal Reserve
• The share of income received by the top 3 percent of families was: 31.4 % in 2007 but fell to 27.7% in 2010 and has rebounded,climbing to 30.5% in 2013.
• The share of income received by the next highest 7% of the distribution (percentiles 90 through 97) has not changed over the past quarter of a century, sitting slightly below 17% in 1989 and 2013.
• Correspondingly, the rising income share of the top 3% mirrors the declining income share of the bottom 90% of the distribution, which fell to 52.7% in 2013.


Share of Wealth
Top 3 percent
Next 7 percent
Bottom 90 percent
"The poor got poorer!!"
• The wealth share of the top 3% climbed: from 44.8% in 1989 to 51.8% in 2007 and 54.4% in 2013
• Wealth held by the ... and 22% over the past 25 years, and was 20.9% in 2013.
• The share of wealth held by the bottom 90% fell from 33.2% in 1989 to 24.7% in 2013.
USA Federal Reserve


Median value of net worth for families with holdings
By percentile of net worth
Thousands of 2013 dollars
Year
Less than 25
25–49.9
50–74.9
75–89.9
90–100
The Fed's most recent (2013) survey shows the family median net worth:
- USA median net worth was $81,200
- < 25% quintile had less than $50
- 25-49.9% quintile $31,000
- 50-74.9% quintile $168,000
- 75-89.9% quintile $505,000
- the top 10% of Americans have a median net worth(assets minus liabilities) of $1.87 million and average net worth of $4.03 million.
Large DISPARITY
& Top 1% Skew it Upward
Family characteristic
All families
Percentile of net worth
United States Federal Reserve 2014
Todd Campbell, Motley Fool, Jan 2016

USA Net Worth by Percentile of Income

Family characteristic	Median net worth			Mean net worth		
	2010	2013	Percent change 2010-13	2010	2013	Percent change 2010-13
Percentile of usual income						
Less than 20	7.3	6.4	-12	81.8	64.6	-21
20-39.9	31.0	27.9	-10	134.7	113.1	-16
40-59.9	66.6	55.4	-17	189.5	164.8	-13
60-79.9	138.6	161.3	16	306.8	350.9	14
80-89.9	321.7	287.9	-11	645.0	631.4	-2
90-100	1,275.7	1,125.9	-12	3,274.6	3,327.3	2

175 X greater
40 X greater
20 X greater
7.0 X greater
3.9 X greater

- The United States top 10% income earners boast a median net worth of $1.13 million
- And that's almost 4 times larger than people in the 80% to 89.9% percentile

USA Federal Reserve

USA Net Worth by Home Ownership

Family characteristic	Median net worth			Mean net worth		
	2010	2013	Percent change 2010-13	2010	2013	Percent change 2010-13
Housing status						
Owner	187.0	195.4	4	764.6	783.0	2
Renter or other	5.4	5.4	0	61.3	70.3	15

36 x
11 x

- Millionaires own homes, rather than rent.
- Interestingly, the average net worth of Americans who own a home is more than 11 times larger than the net worth of those who don't.

USA Federal Reserve

Net Worth and Education Level

Family characteristic	Median net worth			Mean net worth		
	2010	2013	Percent change 2010-13	2010	2013	Percent change 2010-13
Education of head						
No high school diploma	17.2	17.2	0	118.6	108.3	-9
High school diploma	60.7	52.5	-14	233.8	199.6	-15
Some college	54.5	46.9	-14	291.7	317.9	9
College degree	209.2	219.4	5	1,047.8	1,031.6	-2

12.8 X
4.7 X

- A head of household with a college degree has 4.7 times higher net worth than those with some college and the average net worth for a college graduate is $1.03 million
- And 12.8 times higher net worth than those with no high school diploma

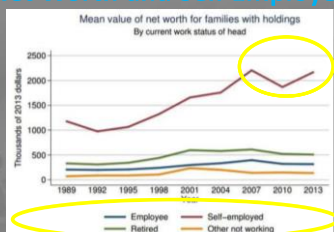
USA Federal Reserve

Net Worth and Occupation

- Americans working in managerial or professional occupations boast an average net worth of $1.06 million
- And that's 4 times greater than the $269,000 net worth for people working in technical, sales, or services jobs.

USA Federal Reserve

Net Worth and Self Employed



- Meanwhile, the average net worth of someone who is self-employed is a show-stopping $2.167 million.

USA Federal Reserve

U.S. Asset Distribution

Balance sheet item	Percent holding		Conditional median value			Conditional mean value		
	2010	2013	2010	2013	Percent change 2010-13	2010	2013	Percent change 2010-13
Any Asset	97.4	97.9	200.6	177.9	-11	656.2	638.9	-3

USA Federal Reserve

Income and Net Worth Analysis Conclusions

These correlations define Private Practice Dentists

- … the bottom 90%
- Education level correlates with higher income level
- Income level correlates with higher net worth level
  - And the top 1% skew the number higher
- Owning a business correlates with higher net worth
  - And the top 3% is increasing at the expense of the bottom …%
  - And the top 1% skew the number higher

Yet less than 5% of dentists can retire without decreasing their standard of living!

USA Federal Reserve

"Someone is sitting in shade today because someone planted a tree a long time ago."

Investing in the Wrong Places?

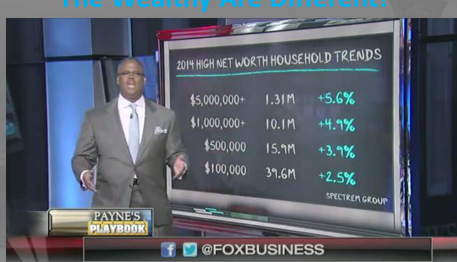
- **In 2013 BankRate.com started an annual survey asking U.S. adults:**
  - Where is the best place to invest money that's not needed for more than 10 years?
  - The S&P 500 Index is up more than 50 % since 2013.
  - And up 16 % since 2016's poll.

Investing in the Wrong Places?

#1 choice of Millennials was CASH!!!!!

Baby Boomers and members of the Silent Generation (those born before 1945) are much more likely to choose stocks.

The Wealthy Are Different!



Which Jar Is The Best to Invest Our Money? How Can We Grow Money?

What do these houses have in common?

- It's located in Omaha Nebraska.
- The home was built in 1921.
- Buffet bought the home in 1958 for $31,500.
- It's current value is about $700,000.
- The Buffett home is 6,570 sq ft and has five bedrooms and 2.5 baths.
- Buffet once said his home was the "'third best investment' he ever made, behind only wedding rings."
- Gates' home fetches the highest tax at $1.03 million per year, while Zuckerberg's $49,260 yearly tax payment is the closest to Buffett's $13,859 property tax payments.

- Why not a mansion?
- "I'm happy there. I'd move if I thought I'd be happier someplace else," he told the BBC's Evan Davis in "The World's Greatest Moneymaker." "How would I improve my life by having 10 houses around the globe? If I wanted to become a superintendent of housing … I could have as a profession, but I don't want to manage 10 houses and I don't want somebody else doing it for me and I don't know why the hell I'd be happier. "

- This house does just fine, he says. "I'm warm in the winter, I'm cool in the summer, it's convenient for me," he said in the interview. "I couldn't imagine having a better house."
- In February, Buffett shared further nonmaterialistic sentiments with Charlie Rose. "I have every possession I want. I have a lot of friends who have a lot more possessions. But in some cases, I feel the possessions possess them, rather than the other way around."

Real Estate Prices

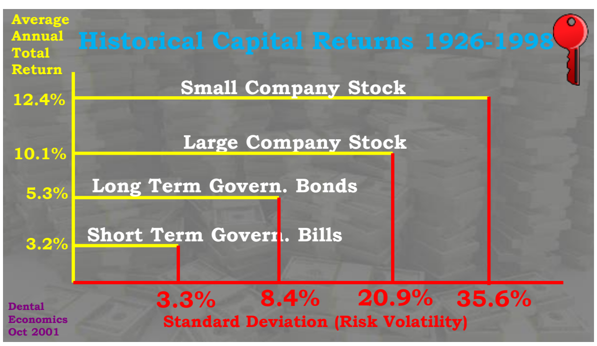
Market	Annual Sales		Change from 2015	Median Price (Dec 2016)	Change from Dec 2015	Inventory (Dec 2016) months
Austin	Units	32,957	4%	285,000	6%	2.1
	Volume	$11,453,611,551	9%			
DFW	Units	98,666	5%	240,000	12%	1.8
	Volume	$28,122,292,063	12%			
Houston	Units	80,581	2%	226,000	3%	3.4
	Volume	$22,712,824,461	3%			
Killeen	Units	7,090	32%	136,700	1%	3.6
	Volume	$1,118,381,720	32%			
San Antonio	Units	31,484	9%	207,000	6%	3.0
	Volume	$7,490,178,494	13%			

The final stats are in for 2016 housing sales.
The table shows in every major market in Texas, both sales and prices increased.
In addition, the markets remain sellers markets, with less than 6 months of inventory.

How Can We Grow Money?
Average Annual Rate of Returns since 1920.

Investment choices	Average Annual Return
US Long Term Inflation Rate	3.2 % (prior 2008 4%)
Small Capitalization Stocks	12.5 %
Large Capitalization Stocks	10.4 %
Long Term Government Bonds	5.4 %
Treasury Bills	3.7 %

Historical Capital Returns 1926-1998



Everything Can Be Bought!

Variables:
1. Amount saved monthly
2. Investment rate of return
3. Type of account
4. Time


Franklin Templeton Investments
Retirement Planning Calculator
Step 1 – Line up
Step 2 – Align
10 20 30 40 years
Step 3 – Look


Franklin Templeton Investments
Retirement Planning Calculator
Step 1 – Line up
Step 2 – Align
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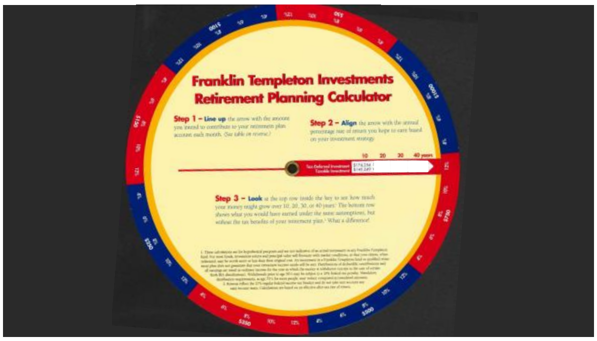
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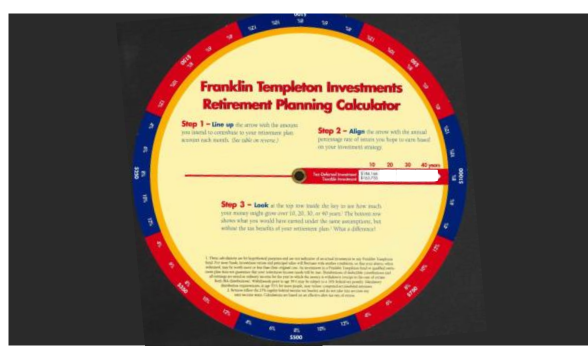
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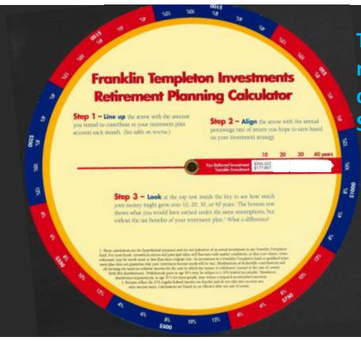


The historical rate of return of the US S&P Index

The historical rate of return of US small cap stocks

Keys to Success in Retirement Plan

- **Summary:**
- **Start as early as you can.**
  - To maximize the power of compounding
- **Maximize your retirement contribution.**
  - Dollar cost average into the market to spread the risk of entering an inflated market.
- **Maximize the rate of return.**
  - Invest in stocks.
  - Broad diversified portfolio
  - Limit expenses.
- **Invest in a Tax Deferred/ Tax Exempt retirement account**

Investing for Retirement

- **When to start? The sooner ----the better**
- **Hire your child to work for you. As Soon As Possible!**
- **Your 10 year old son is hired to file charts and you pay him $2,000 in 1 year. This is placed in a Roth IRA- where it grows Tax Free**
- **At the average stock market return of 10.7%**

  When the child is 72 y.o. the value of this one time investment is:

Investing for Retirement

What is it worth at 72 years old?

At 72yo it will be worth:

$1.1 Million

Investing for Retirement

- **Hire your child at 14 years old and have them work for 4 years until 18 y.o.**
- **Put the money in a Roth IRA and at 72yo at 10.7% it will be:**

Investing for Retirement

At 72yo it will be worth:

$4,658,651.00

Investing for Retirement

- **Hire your child at 10 years old and have them work for 8 years until 18 y.o.**
- **Put the money in a Roth IRA and at 72yo at 10.7% it will be:**

Investing for Retirement

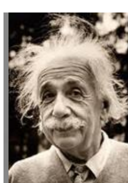
At 72yo it will be worth:
$10,731,634.00

Investing for Retirement

- IS IT TOO LATE?????
- NEVER-------START AS SOON AS POSSIBLE.
- A 26 year old Dentist wants to buy a $60,000.00 car
- And instead buys a $30,000.00 car
- And invests the remaining $30,000.00 at 10.7%

Investing for Retirement

At 72yo it will be worth:
$3.5 Million

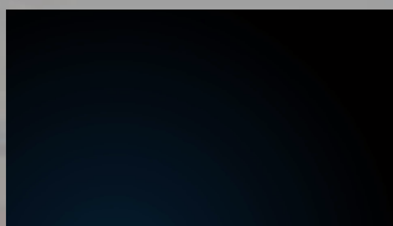


- Albert Einstein famously stated:
  - "Compound interest is the eighth wonder of the world. He who understands it, earns it... he who doesn't... pays it."

  And

  - "Compound interest is the Most Powerful Force in the Universe."

Challenges to Retirement



Planning for Retirement

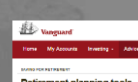
- **The first step is goal setting:**
  - How much income do you need in retirement?
    - 75-80% of preretirement income
  - What is your retirement "nest egg" goal?
    - How much AND by when?
  - What is your date to quit working?
    - Which determines how much do you need to contribute to get to your goal.
  - How much can you withdrawal per year and not outlive your "nest egg"?
    - Rule 2-4% per year of your nest egg.

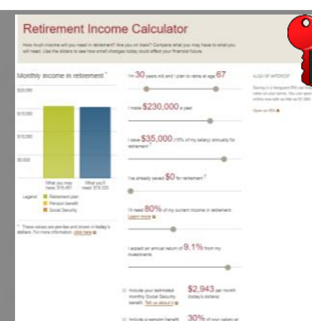
•

"If we take a late retirement and an early death, we'll just squeak by."

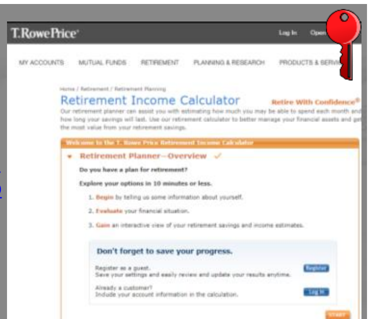
Wealth

- **How do we know how much we will need in retirement?**
- **Vanguard.com**



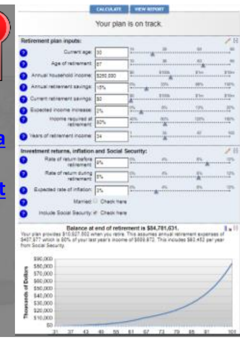


- **Retirement Income Calculator**
- **TRowePrice.com**
- **https://www3.troweprice.com/ric/ricweb/public/ric.do**



Wealth

- **Retirement Income Calculator**
- **BankRate.com**
- **http://www.bankrate.com/calculators/retirement/retirement-plan-calculator.aspx?ic_id=home_smart%20spending_global-nav_investing_retirement-plan-calculator**
-



Planning for Retirement

- **Our goal should be "financial independence":**
  - Having enough money to live and enjoy your retirement, not worrying about money and not exhausting your "nest egg"
- **How much income do you need in retirement?**
  - How much income do you need per year?
  - How many years are you planning to live?
  - Can you handle a Stock & Bond portfolio?
    - What rate of return can you get on your nest egg while retired?

Planning for Retirement

If your planning on taking out 4% per year then multiply your income by 25 (25 is the inverse of 4%)

Income to Replace	Multiplier	Nest Egg Needed	Amount able to spend each year	Income generated in retirement
$100,000	25	$2.5 million	4%	$100,000
$200,000	25	$5.0 million	4%	$200,000

Planning for Retirement

If your planning on taking out 3% per year then multiply your income by 33 (33 is the inverse of 3%)

Income to Replace	Multiplier	Nest Egg Needed	Amount able to spend each year	Income generated in retirement
$100,000	33	$3.3 million	3%	$100,000
$200,000	33	$6.6 million	3%	$200,000

Planning for Retirement

If your planning on taking out 2% per year then multiply your income by 50 (50 is the inverse of 2%)

Income to Replace	Multiplier	Nest Egg Needed	Amount able to spend each year	Income generated in retirement
$100,000	50	$5.0 million	2%	$100,000
$200,000	50	$10.0 million	2%	$200,000

Planning for Retirement

- **Commodity:**
  - A commodity is a basic good used in commerce that is interchangeable with other commodities of the same type.
  - Commodities are most often used as inputs in the production of other goods or services.
- **What is your most precious commodity?**

Planning for Retirement

- **What is your most precious commodity?**
  - YOUR TIME
  - The only things you really, really want are those for which you are willing to pay a price.
  - **The price you pay is your most PRECIOUS commodity:**

YOUR TIME = YOUR LIFE ENERGY

Your Life Energy = Income(generally)

Everything Can Be Bought!

Planning for Retirement

- Can we identify the traits in those successful at wealth creation?
- What traits do millionaires have in common?

The Millionaire Next Door
Thomas J. Stanley, PhD and William D. Danko, PhD

- Of the existing 100 million American households, 3.5 million have a net worth in excess of $1 million dollars.
- The typical millionaire is 57 years old, male and married with three children.
- The average, taxable income of the millionaire is $131,000. (This is approximately the average income for American dentists. Are most of us, then, destined to become millionaires?)

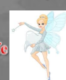
The Millionaire Next Door
Thomas J. Stanley, PhD and William D. Danko, PhD

- The average income of all U.S. families is $33,000.
- The average total income of millionaires (including investments and other unearned income) is $247,000.
- Their median net worth is $1.6 million.
- These wealthy individuals typically work 45 to 55 hours per week and dedicate an average of eight hours per month to investment matters.
- They invest 20 percent of their income on average and tend to make their own investment decisions.

Chant with me!

"I am totally and completely responsible for my life and my success."

"I am totally and completely responsible for my life and my success."

"I am totally and completely responsible for my life  success."

"I am totally and completely responsible for my life and my success."

Planning for Retirement

- How much should I have saved?
- Multiply your age by your pretax annual income and divide by 10.
- Age X pretax income / 10=
- This number is what your net worth should be.
- For example, if you are a 40-year-old dentist whose pretax income last year was $140,000, your net worth should be:
- 40 x $140,000 ÷ 10 = $560,000.
- 45 x $200,000 ÷ 10 = $900,000

The Millionaire Next Door
Thomas J. Stanley, PhD and William D. Danko, PhD

- Take a moment to complete this calculation on your own income.
- Is your net worth consistent with your age and income?
- The Millionaire Next Door predicts many doctors will fail this test.

The Millionaire Next Door
Thomas J. Stanley, PhD and William D. Danko, PhD

- The authors` studies found the relationship between education and wealth accumulation to be negative.
  - The higher one`s level of formal education, the lower one`s net worth tends to be! Why?
    - Part of the answer is the lost years of income production forfeited to schooling and the accompanying education-related debt.
    - But another significant factor is that higher education leads to an elevated lifestyle.
    - Society expects excessive spending from its "educated elite."

The Millionaire Next Door
Thomas J. Stanley, PhD and William D. Danko, PhD

- **Money consumed is no longer available for wealth accumulation**
  - Also spending increases the largest single expense - income tax.
  - Consumption = taxation. Income tax must be paid on all money spent.
- **Important part of achieving financial independence is reduction of taxation(tax-sheltered savings and investing).**

The Millionaire Next Door
Thomas J. Stanley, PhD and William D. Danko, PhD

- **The United States taxes earned income, but does not tax accumulated wealth until death in the form of estate taxes.**
- **Why do so many high, annual income-earners forfeit a chance to accumulate wealth, by indulging in the deadly combination of spending and the resultant taxation?**

The Millionaire Next Door
Thomas J. Stanley, PhD and William D. Danko, PhD

- **They trade financial well-being for social status - working, planning and sacrificing for the short-term goal of purchasing to impress others.**
- **In contrast, the greatest joys of the millionaires interviewed were not possessions, but self-satisfaction derived from their achievements and freedom from fear.**

"Don't save what is left after spending, but spend what is left after saving."

"Don't save what is left after spending, but spend what is left after saving."

.COM

The Millionaire Next Door
Thomas J. Stanley, PhD and William D. Danko, PhD

- **Attaining great wealth is difficult and involves more than inner or outer focus.**
- **Evidence exists to indicate that the key traits required to accumulate money or excel in many endeavors exist by age four.**

The Millionaire Next Door
Thomas J. Stanley, PhD and William D. Danko, PhD

- **The marshmallow test**
  - A famous psychological study can shed light on key behavioral choices that accompany achievement.
  - Preschool children were offered a marshmallow that they were allowed to eat.
  - But if they waited to consume it until the adult returned from "running some errands," they would receive a second marshmallow.
  - Their conduct during their few minutes alone with this sweet treat was filmed.

The Millionaire Next Door
Thomas J. Stanley, PhD and William D. Danko, PhD

- **The marshmallow test**
  - Many ate the marshmallow, often within a few moments of the adult`s leaving.
  - The ones who waited and "doubled their return" visibly suffered.
    - They would put their hands over their eyes, sing or walk around to delay gratification.
  - The children of this study were followed throughout their school careers.

The Millionaire Next Door
Thomas J. Stanley, PhD and William D. Danko, PhD

- **The marshmallow test**
  - The ones who earned the second marshmallow outperformed those who ate theirs by significant margins in school grades, test results - virtually every factor measured.
- **The ability to delay gratification is a key to success, including wealth accumulation. It also is an act of strength and courage.**

The Millionaire Next Door
Thomas J. Stanley, PhD and William D. Danko, PhD

- **How have you fared in your life-long battle to deny short-term pleasures, thus securing long-term gain?**
  - Do you choose immediate, transient pleasure or choosing suffering in the present to achieve significant rewards later.
  - You may measure yourself by such criteria as a tendency toward debt or savings; choosing exercise over eating;

The Millionaire Next Door
Thomas J. Stanley, PhD and William D. Danko, PhD

- **How can you change from immediate gratification to long term security?**
  - 1. Increase awareness: recognize your behavior pattern and realizing that other options do exist.
  - 2. Make a determined effort: set clear goals, such as saving before purchasing your next car or major office equipment rather than using debt.
  - 3. Monitor progress. Measure your debts as they melt away or your savings as they grow.

The Millionaire Next Door
Thomas J. Stanley, PhD and William D. Danko, PhD

- **The Millionaire Next Door authors break financial matters into two categories: 1) offense and 2) defense.**
  - Financial defenses are spending habits:
    - How well one can "defend" himself or herself against the urge to spend (delay gratification).
    - It`s not what you earn nearly as much as what you do with it that determines financial outcomes.
    - In part, due to the American tax system, savings and effective investing are more critical to wealth accumulation than is earning ability.

The Millionaire Next Door
Thomas J. Stanley, PhD and William D. Danko, PhD

- **The Millionaire Next Door authors break financial matters into two categories: 1) offense and 2) defense.**
  - Bottom line: Will you choose vanity or substance?
    - Will your life`s focus be outside (on the impression you make on others and the fleeting pleasure this provides) or
    - Will you concentrate on the inside, on lasting accomplishment, enhanced self-esteem and the substantial well-being of your loved ones.

The Millionaire Next Door
Thomas J. Stanley, PhD and William D. Danko, PhD

- **The Millionaire Next Door authors break financial matters into two categories: 1) offense and 2) defense.**
  - The good news?
    - Dentists have average incomes over four times the general population and most have the opportunity to achieve financial freedom.
  - The bad news?
    - This accomplishment requires courage, strength, persistence and determination - in other words, a two-marshmallow existence!

The Millionaire Next Door
Thomas J. Stanley, PhD and William D. Danko, PhD

- **Achieving financial freedom**
- **The Millionaire Next Door authors break financial matters into two categories: 1) offense and 2) defense.**
  - Financial offense is earning power.
    - Dentists enjoy excellent offense, with average annual earnings in the top few percentage points of American wage-earners.
    - A correlation between earned income (offense) and wealth accumulation does exist, but the relationship is not nearly as direct as one might assume

The Millionaire Next Door
Thomas J. Stanley, PhD and William D. Danko, PhD

- **The Millionaire Next Door found a common theme with the wealthy.**
  - The great majority of self-made millionaires reveal lifestyles of hard work, perseverance, planning and self-discipline.

The Millionaire Next Door
Thomas J. Stanley, PhD and William D. Danko, PhD

- **How are these values illustrated by their behaviors?**
  - Millionaires live well below their means.
  - They save a minimum of 15 percent of all income and they save first - not what`s left after spending.
  - They typically occupy the same home for years, surrounded by neighbors in similar dwellings who have lower net worth's.
  - They understand that "the opposite of frugal is wasteful."
  - Millionaires allocate time, energy and money efficiently and in ways conducive to wealth-building.

The Millionaire Next Door
Thomas J. Stanley, PhD and William D. Danko, PhD

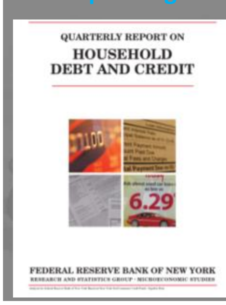
- They begin investing and planning early in life. They have a clear schedule to attain goals.
- They have clearly-defined lifetime priorities and goals that lead to wealth accumulation.
- Millionaires believe financial independence to be more important than displaying elevated social status.
- Millionaires` spouses are planners and budgeters, often more frugal than their spouses.
- Husbands and wives work as a team, sharing a common goal of wealth accumulation.

The Millionaire Next Door
Thomas J. Stanley, PhD and William D. Danko, PhD

- A colorful Texas description to define the difference:
  - 1. Someone having a big hat, but no cattle.
    - These are folks *with* luxury cars, homes, clothes, club memberships and vacations(big hats). And despite excellent incomes, often have accumulated little net worth (no cattle).


  - Millionaires typically care little for "hats," but are deeply concerned with the size and health of thei

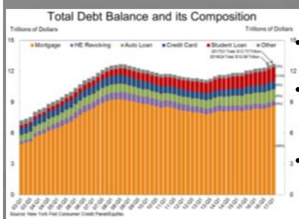
Over Spending: A Serious Threat to Wealth Creation

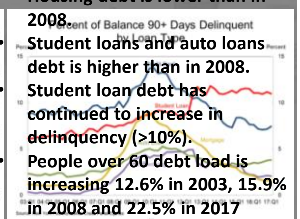

QUARTERLY REPORT ON
HOUSEHOLD
DEBT AND CREDIT

FEDERAL RESERVE BANK OF NEW YORK
RESEARCH AND STATISTICS GROUP · MICROECONOMIC STUDIES

- **March 2017 US total indebtedness was $12.73 trillion higher then in 2008.**
- **US households have $1 trillion in credit card debt.**

Over Spending: A Serious Threat to Wealth Creation





- Housing debt is lower than in 2008.
- Student loans and auto loans debt is higher than in 2008.
- Student loan debt has continued to increase in delinquency (>10%).
- People over 60 debt load is increasing 12.6% in 2003, 15.9% in 2008 and 22.5% in 2017
- The Average American couple has $5,000 saved for retirement

Federal Reserve Bank of New York City
May 2017

Challenges to Retirement

Your money in retirement isn't what it used to be — how to plan ahead

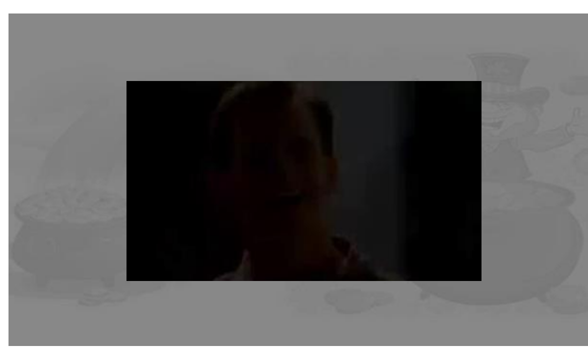
Merriman, Paul A. "10 ways to retire early — it's not easy, but it's doable" MarketWatch, March 11,2017.

Challenges to Retirement

Challenges to wealth accumulation:

- **Peer pressure to flaunt "wealth."**
- **Pensions are less frequent, and those that remain are less secure and less generous.**
- **The current administration is proposing to rescind a new law that would require financial advisors to recommend products that are in our best interests. (Fiduciary Responsibility)**

Merriman, Paul A. "10 ways to retire early — it's not easy, but it's doable" MarketWatch, March 11,2017.



Challenges to Retirement

Challenges to wealth accumulation:

- **Interest rates are flirting with all-time lows, making it all but impossible to keep up with inflation, let alone make any money, from risk-free savings.**
  - From 1980 through 1999 short term U.S. Treasury Bills compounded at about 7%.
  - From 2000 through 2016 that dropped to 1.6%.
  - Currently, T-Bills pay only 0.5%.
- **Long-term stock market returns, while always unpredictable, are widely expected to be lower in the future than they were in the past.**

Merriman, Paul A. "10 ways to retire early — it's not easy, but it's doable" MarketWatch, March 11,2017.

How to Accumulate Wealth and Plan for Retirement

1. Save more money than you ever considered.

- Do your best to save 15% to 20% of your income.
- This will likely require you to live well under your present means, and you'll have to sacrifice.
  - But this will be terrific training for when you retire, because you won't be accustomed to high living.
  - There are very few retirees who adjust easily to living on less, but most are content to spend the same in retirement as they did during their working years.

Merriman, Paul A. "10 ways to retire early — it's not easy, but it's doable" MarketWatch, March 11,2017.

How to Accumulate Wealth and Plan for Retirement

2. As you accumulate savings, do so in a methodical way by dollar-cost-averaging.

- This means investing a set amount regularly;
  - You will automatically acquire more shares when prices are low and fewer shares when prices are high.
- "Investors who use 100% mechanical portfolios in conjunction with dollar cost averaging are the most likely to consistently do better than the market."

Merriman, Paul A. "10 ways to retire early — it's not easy, but it's doable" MarketWatch, March 11,2017.

How to Accumulate Wealth and Plan for Retirement

3. Increase your savings as your income goes up over the years.

- If you cant immediately save 15% to 20% of your income?
  - Then set up an automatic savings plan that will raise your savings rate by two percentage points a year until you reach your goal.

Merriman, Paul A. "10 ways to retire early — it's not easy, but it's doable" MarketWatch, March 11,2017.

How to Accumulate Wealth and Plan for Retirement

4. Make sure your spending and borrowing don't sabotage your long-term plan.

- Make sure your spouse agrees with a long-term plan to spend less now in order to have a better lifestyle later.
- To be successfully saving over 10% a year, the spouse needs 100% commitment.

Merriman, Paul A. "10 ways to retire early — it's not easy, but it's doable" MarketWatch, March 11,2017.

How to Accumulate Wealth and Plan for Retirement

5. During the first 20 to 25 years of your working/investing life, keep your investments all in equities. Some advise to keep some in bonds; when you're young, don't do it.

- Bonds will bring short-term stability during times of market volatility.
- But their lower returns will deprive you of the long-term returns you need to build your investments.
- You can expect that every 10% of your portfolio that's in bonds will likely reduce your long-term return by 0.5 percentage points.

How to Accumulate Wealth and Plan for Retirement

6. Keep your investments focused on the equity asset classes with the best rates of return over the last 50 to 90 years.

- Don't invest in gold or other commodities.
- A well-diversified stock portfolio will get your "nest egg".
  - If you want to reach for more growth, do it by tilting your portfolio toward value funds and away from growth funds.
- Especially in your early investing years, try to adopt an attitude of welcoming the bear. Why? Because you'll be buying shares at lower prices than you'll find in bull markets.

How to Accumulate Wealth and Plan for Retirement

7. Invest in those asset classes in ways that keep your expenses as low as possible, thus preserving your stock-market returns for you.

- Most likely that will mean investing in carefully chosen index funds or ETFs.
  - You can invest in an S&P 500 index SPX, +0.15% for less than 0.1% in annual expenses, about one-tenth of the cost of the average large-cap blend fund.
  - This will put many more dollars in your pocket over a lifetime.

How to Accumulate Wealth and Plan for Retirement

8. Avoid bailing out of the market for emotional reasons during market declines.

- Understand equity investing , take the time to learn enough about what you are doing — and why you're doing it — SO you can "stay the course."
- As you get closer to retirement, add some bond funds to reduce the volatility of your portfolio.

How to Accumulate Wealth and Plan for Retirement

9. Be smart about the investment vehicles you use.

- The best options are the Roth IRA and the Roth 401(k).
  - Maximize your opportunities to use those accounts, and you'll be rewarded.
  - Under the current federal tax laws, any money you withdraw from such accounts will be tax-free.
  - When you retire you will appreciate that.
  - No RMD Required Minimal Distributions
  - Transfers to heirs and they get it tax free

How to Accumulate Wealth and Plan for Retirement

10. Don't lose faith.

- It's inevitable that your portfolio will suffer some setbacks during bear markets along the way.
  - These setbacks will hurt only if you "RECOGNIZE THE SETBACK" and sell out of fear or in search of comfort.
- Especially in your early investing years, try to adopt an attitude of welcoming the bear. Why?
  - 2001 and 2009 were good times to buy into the market because you were buying shares at lower prices than you'll find in bull markets.

Standard and Poor's 500 Index

"Be fearful when others are greedy and be greedy when others are fearful."

S & P 500 Index

Rating	Date	Closing Price	Points down	% down
#1	10/19/1987	224.84	-57.86	-20.47
#2	10/15/2008	907.84	-90.17	-9.03%
#3	12/1/2008	816.21	-80.03	-8.93%
#4	9/29/2008	1,106.42	-106.85	-8.81%
#5	10/26/1987	227.67	-20.55	-8.28
#6	10/9/2008	909.92	-75.02	-7.6

Challenges to Retirement

- **How Much Will It Take For You to Retire?**
  - Nailing down an exact number is impossible.
  - That's why there are generally accepted "rules":

AICPA, How Much Will It Take For You to Retire? Feed the Pig, 2017

Challenges to Retirement

- **The 5% Rule**
  - If you're in your 20s, you're in luck.
    - Start saving at least 5% of your income now.
      - Each time you receive a pay increase, bump up your savings until you reach the maximum.
      - Do this for the rest of your working life and you should be in a great position for retirement.
  - If you're 30 and just starting to save:
    - You need to start contributing at least 10% now and by 35, boost it to the maximum amount.

Challenges to Retirement

- **The Stock Percentage Ratio Rule:**
  - Subtract your age from 100. Put that percentage of your overall portfolio in stocks.
  - So, at age 30 that would equal investing 70% of your portfolio in aggressive, growth-oriented stocks.
  - At 33, that would decrease to 67%.
  - On your 35th birthday, rebalance that number to 65%...and so on.

Challenges to Retirement

- **The "Safe" Withdrawal Rate Rule:**
  - An annual withdrawal rate of 4% was considered the benchmark for retirees to follow.
    - An annual withdrawal of 4% should be enough to maintain a retiree's lifestyle while ensuring that he or she doesn't outlive his or her savings.
    - However, there is unaccountable variability:
      - Life expectancy, rates of returns on investments, and inflation vary.
      - These can seriously throw that number for a loop, too.

Challenges to Retirement

- **Derivation of the "Safe" Withdrawal Rate Rule:**
  - An annual withdrawal rate of 4% and then adjusted for inflation.
  - Example:
    - Year 1: $1,000,000. x 4% = $40,000
    - Year 2: $40,000 x Rate of Inflation (3%) 1.03 = $41,200.
    - Year 3 $ 41,200 x Rate of Inflation (4%) 1.04 = $42,848.

Challenges to Retirement

- **Michael Kitces preformed research to try and improve the approach using the price-to-earnings ratio as a guideline.**
  - Kitces concluded that a higher initial withdrawal rate of 5 percent per year, with inflation adjustments thereafter, would have sustained a retiree's nest egg for thirty years
  - Except during the 1903 market crash, the Great Depression, and the 1970s bear market.
- **Kitces wondered if an investor could be forewarned about rough market conditions."**

Challenges to Retirement

- **When the average ten-year P/E ratio is high:**
  - New retirees would want to play it safe with a more modest withdrawal rate, because it's likely that overvalued stocks will drop in the coming years—or appreciate at a rate less than the long-term average.
- **When average ten-year P/E ratios are low:**
  - Kitces suggests that a new retiree could safely start with a 5.5 percent withdrawal because stocks are more likely to trend upward."

Challenges to Retirement

Kitce's Safe P/E Based Withdrawal Rate

10 Year P/E Ratio	Safe Withdrawal Rate
P/E Ratio > 20	4.5%
P/E Ratio 12-20	5.0%
P/E Ratio < 12	5.5%

Challenges to Retirement

- **The Preretirement Income Percentage Rule:**
  - Some financial professionals say you'll need 70% of your preretirement income to live comfortably in retirement.
  - Others say 60%, 80% – even 100%. It really depends on your circumstances.
  - Do you see yourself retiring and living it up, or moving in with your kids?

Challenges to Retirement

- **Financial Calculators**
  - http://www.feedthepig.org/
  - http://bankrate.com

Challenges to Retirement

Challenges to Retirement

"80 is the new 65"
Meaning many will have to work longer and retire later.

Work

- **"Choose a job you love and you will never have to work a day in your life."**
  - Attributed to Confucius, Oriental Proverb, Arthur Szathmary, Harvey Mackay, or some old-timer.

What if Our Nest Egg is Not Full?
Do we get off the highway?

What if Our Nest Egg is Not Full?

- **Keep Working!!**
  - Increase Supply: Delaying retirement will keep generating income.
  - Increase Supply: Delaying retirement will add to your retirement nest egg.
  - Increase Supply: Delaying retirement will allow for more power of compounding to occur.
  - Increase Supply: Delaying retirement will increase your Social Security check.
  - Decrease Demand: Delaying retirement will decrease the number of years you have to live off your nest egg.

What if Our Nest Egg is Not Full?

- **Keep Working!!**
- **For years we've been sold on the concept that: "from the day we start working, we should plan for retirement."**
  - From birth the media, corporations (AARP, Retirement Communities) tell us to anticipate and look forward to retirement.
- **Is retirement another word for "early death."**
  - I have seen people work into their 80 - 90's.
  - The records imply that when people become inactive in retirement, their lives are drastically shortened.

The Deadly Reason Not to Rush into Early Retirement

- **Austrian Study: Andreas Kuhn and Jean-Philippe Wuellrich found that men, in particular, had an increased risk of death before age 67 when they retired early.**
  - The researchers looked at a group of blue-collar workers from Austria, born between 1929 and 1941.
  - "We find that a reduction in the retirement age causes a significant increase in the risk of premature death for males, but not for females," the researchers said.

The Deadly Reason Not to Rush into Early Retirement

- **Austrian Study**
  - "The effect for males is not only statistically significant but also quantitatively important.

    One additional year of early retirement causes an increase in the risk of premature death of 2.4 % (a relative increase of about 13.4 percent of years of life lost)."
  - They attribute to negative health habits during retirement like: smoking, drinking, unhealthy diet and limited exercise, contribute to 78 percent of casual retirement deaths, while smoking and drinking alone result in 32 percent of casual retirement deaths.

Association of retirement age with mortality: a population-based longitudinal study among older adults in the USA

Chenkai Wu[1], Michelle C Odden[1], Gwenith G Fisher[2], Robert S Stawski[3]

- **USA Study**
  - Methods: On the basis of the Health and Retirement Study, 2956 participants who were working at baseline (1992) and completely retired during the follow-up period from 1992 to 2010 were included.
  - Healthy retirees (n=1934) were defined as individuals who self-reported health was not an important reason to retire.
  - The association of retirement age with all-cause mortality was analyzed using the Cox model.
  - Sociodemographic effect modifiers of the relation were examined.

Association of retirement age with mortality: a population-based longitudinal study among older adults in the USA, Journal of Epidemiology and Community Health

Chenkai Wu[1], Michelle C Odden[1], Gwenith G Fisher[2], Robert S Stawski[3]

- **USA Study**
  - Results: Over the study period, 234 healthy and 262 unhealthy retirees died.
    - Among healthy retirees, a 1-year older age at retirement was associated with an 11% lower risk of all-cause mortality (95% CI 8% to 15%).
    - Similarly, unhealthy retirees (n=1022) had a lower all-cause mortality risk when retiring later (HR 0.91, 95% CI 0.88 to 0.94).
- **Conclusions: Early retirement may be a risk factor for mortality and prolonged working life may provide survival benefits among US adults.**

Tsai et al, "Age at retirement and long term survival of an industrial population: prospective cohort study," British Medical Journal, Oct. 20, 2005.

- **USA Study**
- **Prospective cohort study of Shell Oil employees that reviewed the survival outcomes of:**
  - 839 employees who retired at age 55 and
  - 1,929 employees who worked until age 60 and were still alive at age 65.
  - These outcomes were compared with 900 employees who retired at 65.

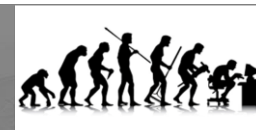
Tsai et al, "Age at retirement and long term survival of an industrial population: prospective cohort study," British Medical Journal, Oct. 20, 2005.

- **Results:**
  - 137 workers who retired by age 55 died by age 65
  - While 98 workers who retired at age 60 died by age 65
  - After adjusting for sex, the year the participant entered the study, and socioeconomic status, the researchers concluded that employees who retired at age 55 had almost double the mortality risk of those who continued working into their 60s (hazard ratio 1.89, 95% confidence interval 1.58 to 2.27).

Tsai et al, "Age at retirement and long term survival of an industrial population: prospective cohort study," British Medical Journal, Oct. 20, 2005.

- **Results:**
  - Gender made a difference. The risk of dying early was 80% greater for men than for women.
  - Employees in the high socioeconomic status category who retired at 55 had a 20% greater risk of dying (hazard ratio 1.21, 95% CI, 0.88-1.67), whereas poorer employees had nearly a 60% increased mortality risk(hazard ratio 1.58, 95% CI, 1.15-2.18).
  - Waiting until age 60 or older to retire. "Mortality did not differ for the first five years after retirement at 60 compared with continuing to work after 60" (hazard ratio 1.04, 95% CI, 0.82-1.31).

Work



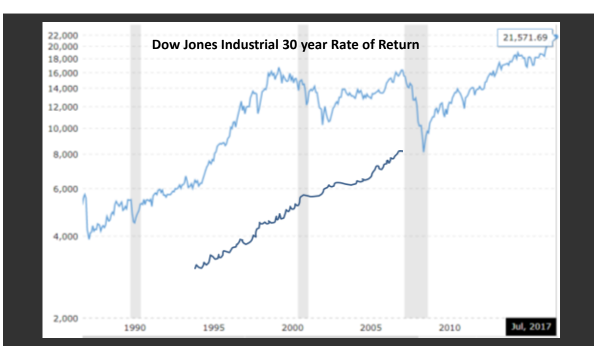
- **We should not work to retire.**
- **We should work to be fulfilled.**
- **We should work to create meaning and significance in our lives and the lives of the people we serve.**

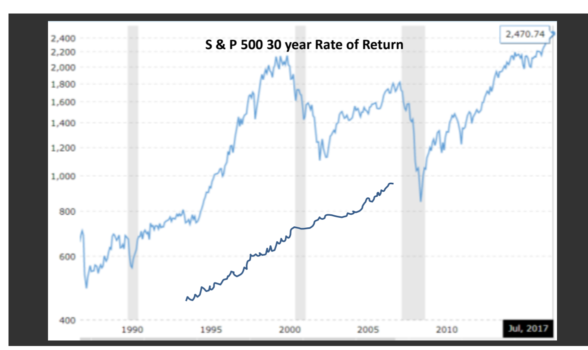
Keys to Building Your Nest Egg

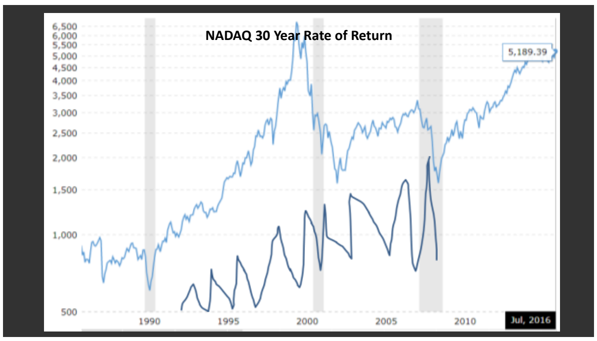
Keys to Building Your Nest Egg

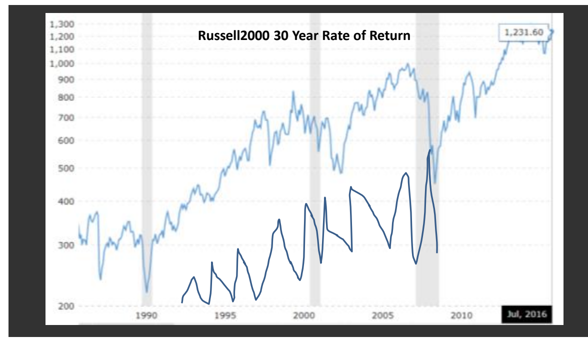
How Can We Grow Money?
Average Annual Rate of Returns since 1920.

Investment choices	Average Annual Return
US Long Term Inflation Rate	3.2 % (prior 2008 4%)
Small Capitalization Stocks	12.5 %
Large Capitalization Stocks	10.4 %
Long Term Government Bonds	5.4 %
Treasury Bills	3.7 %









Bessembinder, Hendrik;" "Do Stocks Outperform Treasury Bills?" Department of Finance W.P. Carey School of Business, Arizona State University, February 2017

- He looked at monthly and overall rates of return of all USA stocks (25,782) from July 1926 to December 2015

"Do Stocks Outperform Treasury Bills?"

- **Bessembinder summarized some of his key findings:**
  - The best-performing 4% of listed stocks accounted for the entire lifetime dollar wealth creation of the U.S. stock market since 1926.
  - Only 42.1% of all the stock returns (both monthly and for as long as a stock was listed) were even positive; by definition, the one-month T-Bill rate was always positive.
  - Less than half (specifically 47.7%) of one-month stock returns were greater than the T-Bill returns for the same month.

Bessembinder, Hendrik;" "Do Stocks Outperform Treasury Bills?" Department of Finance W.P. Carey School of Business, Arizona State University, February 2017

"Do Stocks Outperform Treasury Bills?"

- **Bessembinder summarized some of his key findings:**
  - So while the stock market DJIA created about $32 trillion in lifetime wealth over this 90 years, more than half of that came from only 86 top-performing stocks (out of nearly 26,000).
  - The reason that overall long-term positive stock returns seem so high is statistical:
    - A stock (think Apple, Google, Microsoft) can appreciate by many thousands of percentage points, while a loser like Enron or Washington Mutual can lose only 100%.

Bessembinder, Hendrik;" "Do Stocks Outperform Treasury Bills?" Department of Finance W.P. Carey School of Business, Arizona State University, February 2017

"Do Stocks Outperform Treasury Bills?"

- **Bessembinder quote:**
  - "Not only does diversification reduce the variance of portfolio returns,
  - but non-diversified stock portfolios are subject to the risk that they will fail to include the relatively few stocks that, ex post, generate large cumulative returns.
  - Indeed, the results help to understand why active strategies, which tend to be poorly diversified, most often lead to underperformance.
  - At the same time, the results potentially justify a focus on less diversified portfolios by those investors who particularly value the possibility of 'lottery-like' outcomes, despite the knowledge that the poorly-diversified portfolio will more likely underperform."

Bessembinder, Hendrik;" "Do Stocks Outperform Treasury Bills?" Department of Finance W.P. Carey School of Business, Arizona State University, February 2017

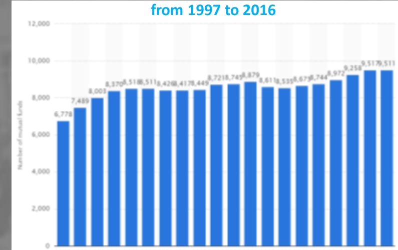
Diversification

- **Mutual Funds or Exchange Traded Funds (ETFs)?**
- **Mutual Funds:**
  - First modern-day mutual fund, Massachusetts Investors Trust, was created on March 21, 1924.
    - It was the first mutual fund with an open-end capitalization, allowing for the continuous issue and redemption of shares by the investment company.

https://www.statista.com/statistics/255590/number-of-mutual-fund-companies-in-the-united-states/

Number of mutual funds in the United States

from 1997 to 2016

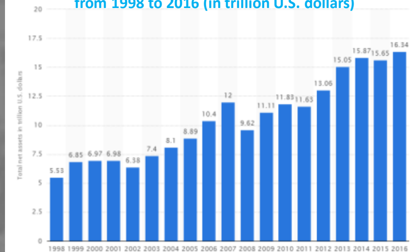


9,511 Funds

https://www.statista.com/statistics/255590/number-of-mutual-fund-companies-in-the-united-states/

Total net assets of mutual funds in the United States

from 1998 to 2016 (in trillion U.S. dollars)



16.34 Trillion

https://www.statista.com/statistics/255590/number-of-mutual-fund-companies-in-the-united-states/

Diversification: Mutual Funds or Exchange Traded Funds (ETFs)?

- **Mutual Funds: Actively Managed vs Index**
- **Actively Managed funds have an uphill battle.**
  - Not as diversified because too hard to track large portfolios
  - Actively Managed funds under preform long term due to:
    - Cash-Have to keep some in cash to make purchases.
    - Costs- Costs are high because of employees, overhead. Average 1.5% - 2%

https://www.statista.com/statistics/255590/number-of-mutual-fund-companies-in-the-united-states/

Diversification: Mutual Funds or Exchange Traded Funds (ETFs)?

- **Mutual Funds: Actively Managed vs Index**
  - Vanguard's founder John Bogle said "that over a 16 year period investors in Active Mutual Funds kept 47% of the cumulative returns after fees. While investors in Passive Index Funds kept 87% of cumulative returns after fees.
- **Actively managed mutual funds expense fee run 1.3-2+% on average 2%**
  Passive Index mutual funds expense fee runs on average .25%

https://www.statista.com/statistics/255590/number-of-mutual-fund-companies-in-the-united-states/

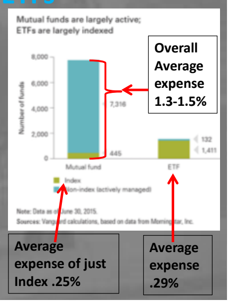
Diversification: Mutual Funds

- **Mutual Funds:**
  - Offer diversification.
  - Tax efficiency in Index Funds vs Actively Managed because low turnover.
  - No commission unlike with ETFs
  - Index funds can have Low fees unlike Active Managed and some ETF.
  - No money tied up in cash
  - Pick low cost Index Mutual Funds (.07-1.0%)

https://www.statista.com/statistics/255590/number-of-mutual-fund-companies-in-the-united-states/

Diversification: ETFs

- **Exchange Traded Funds vs Index Mutual Funds**
  - Why do people say that ETFs have lower fees?
    - They quote an average fee for an ETF at .29% and a Mutual Fund average fee of 1.3-1.5%
    - Because they are not comparing fairly
      - Majority of Mutual funds are Active which increase the average fee



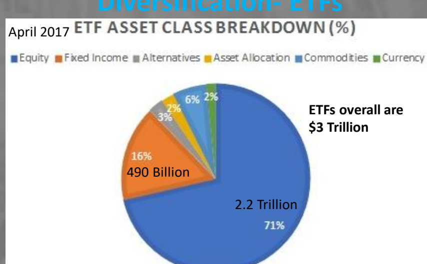
http://www.investopedia.com/

Diversification: ETFs

- **Exchange Traded Funds:**
  - An ETF, or exchange traded fund, is a marketable security that tracks an index, a commodity, bonds, or a basket of assets like an index fund.
  - Unlike mutual funds, an ETF trades like a common stock on a stock exchange.
  - ETFs experience price changes throughout the day as they are bought and sold.
  - ETFs: In 1993 there was 1 ETF now there are over 2,000 US based ETFs with over $3 Trillion in Assets

http://www.investopedia.com/

Diversification- ETFs



Diversification: ETFs

- **Exchange Traded Funds:**
  - Why not ETFs?
    - You have to purchase thru a broker and you pay a commission every time you buy or sell.
    - Like stocks there is a bid-ask spread and you will pay the ask price and the seller gets the bid price and the spread is kept by the Securities Dealer.
    - ETFs pay distributions in cash and so you would have to reinvest
    - The fees are not lower then the low fee Index Mutual Funds. Average .29%

https://www.statista.com/statistics/255590/number-of-mutual-fund-companies-in-the-united-states/

Vanguard Index Asset Allocation Rate of Return

Statistic	Portfolio			
	20/80: Low Risk	40/60: Medium-Low Risk	60/40: Medium-High Risk	80/20: High Risk

Vanguard Index Portfolio Makeup

Vanguard Portfolio	Total Stock Market Index	Total International Stock Index	Total Bond Market Index
20/80 (percent) Low Risk	14	6	80
40/60 (percent) Med-Low Risk	28	12	60
60/40 (percent) Med-High Risk	42	18	40
80/20 (percent) High Risk	56	24	20

Raw data to produce performance numbers:

Vanguard Total Stock Market Index	1993–2008: actual fund returns 1976–1992: Wilshire 5000 Index – .25% per year 1970–1975: [(0.85*S&P 500 + 0.15*CRSP Small Company Index) – .25% per year]
Vanguard Total International Stock Index	1997–2008: actual fund returns 1970–1996: MSCI EAFE Index – .35% per year
Vanguard Total Bond Index	1987–2008: actual fund returns 1976–1986: Lehman Brothers Aggregate Bond Index – .32% per year 1970–1975: CRSP Intermediate Term Government Bond Index – .32% per year

Fidelity Index Asset Allocation Rate of Return

Statistic	Portfolio			
	20/80: Low Risk	40/60: Medium-Low Risk	60/40: Medium-High Risk	80/20: High Risk

Fidelity Index Portfolio Makeup

Fidelity Portfolio	Spartan Total Market Index	Spartan International Index	U.S. Bond Index
20/80 (percent) Low Risk	14	6	80
40/60 (percent) Med-Low Risk	28	12	60
60/40 (percent) Med-High Risk	42	18	40
80/20 (percent) High Risk	56	24	20

Raw data to produce performance numbers:

Fidelity Spartan Total Market Index	1998–2008: actual fund returns 1976–1997: Wilshire 5000 Index – .25% per year 1970–1975: [(.85*S&P 500 + .15*CRSP Small Company Index) – .25% per year]
Fidelity Spartan Inernational Index	1998–2008: actual fund returns 1970–1997: MSCI EAFE Index – .35% per year
Fidelity U.S. Bond Index	1991–2008: actual fund returns 1976–1990: Lehman Brothers Aggregate Bond Index – .32% per year 1970–1975: CRSP Intermediate Term Government Bond Index – .32% per year

T Rowe Price Index Asset Allocation Rate of Return

Statistic	Portfolio 20/80: Low Risk	40/60: Medium-Low Risk	60/40: Medium-High Risk	80/20: High Risk

T Rowe Price Index Portfolio Makeup

T. Rowe Price Portfolio	Total Equity Market Index	International Equity Index	U.S. Bond Index
20/80 (percent) Low Risk	14	6	80
40/60 (percent) Med-Low Risk	28	12	60
60/40 (percent) Med-High Risk	42	18	40
80/20 (percent) High Risk	56	24	20

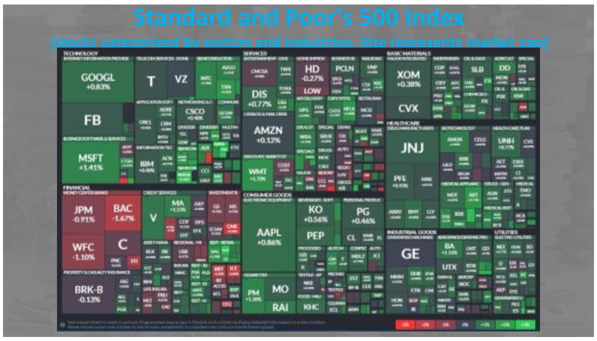
Raw data to produce performance numbers:

T. Rowe Price Total Equity Market Index	1999–2008: actual fund returns 1976–1998: Wilshire 5000 Index – .40% per year 1970–1975: [(0.85*S&P 500 + .15*CRSP Small Company Index) – .40% per year]
T. Rowe Price International Equity Index	2001–2008: actual fund returns 1970–2000: MSCI EAFE Index – .50% per year
T. Rowe Price U.S. Bond Index	2001–2008: actual fund returns 1976–2000: Lehman Brothers Aggregate Bond Index – .30% per year 1970–1975: CRSP Intermediate Term Government Bond Index – .30% per year

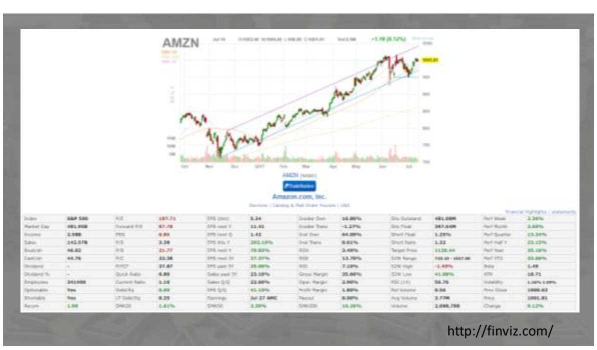
"The stock market is a device for transferring money from the impatient to the patient."

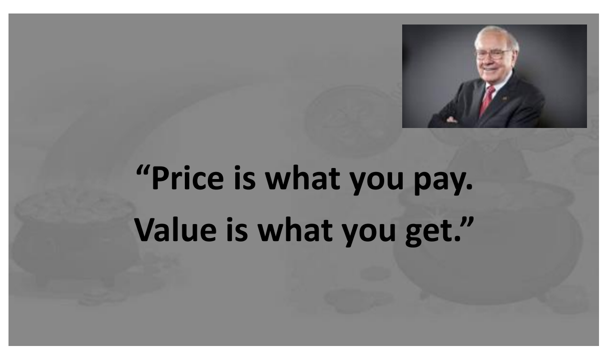
"The stock market is a device for transferring money from the impatient to the patient."

The stock market should not be like GAMBLING!


Standard and Poor's 500 Index
(stocks categorized by sectors and industries. Size represents market cap)


Stock Valuation Resources
BENJAMIN GRAHAM
THE INTELLIGENT INVESTOR
A RANDOM WALK DOWN WALL STREET
BURTON G. MALKIEL
THE MILLIONAIRE NEXT DOOR
RICH DAD POOR DAD
ROBERT T. KIYOSAKI
finviz
INVESTOPEDIA
Vanguard
T.RowePrice


AMZN
Amazon.com, Inc.
http://finviz.com/


"Price is what you pay.
Value is what you get."

Important & Useful Stock Valuation Metrics

- **P/E Ratio**
- **Earnings Growth Rate**
- **PEG Ratio**
- **Free Cash Flow**
- **Dividend Growth Rate**
- **Payout Ratio**
- **Price to Sales Ratio**
- **Price to Book Ratio**
- **Debt to Equity Ratio**

Stock Valuation Metrics: P/E Ratio

- **P/E Ratio**
  - The price-earnings ratio (P/E ratio) is the ratio for valuing a company that measures its current share price relative to its per-share earnings.
  - The price-earnings ratio is also sometimes known as the price multiple or the earnings multiple.
  - The P/E ratio can be calculated as:
    - P/E Ratio = Market Value per Share / Earnings per Share
    - Amazon P (1001.81)/ E (5.34) = P/E (187)
    - Apple P (149.04)/ E (8.55) = P/E (17.43)

Investopedia

Stock Valuation Metrics: P/E Ratio

- **P/E Ratio**
  - The price-earnings ratio indicates the **price** an investor can expect to pay in order to receive one dollar of that company's **earnings.**
  - It shows how much investors are willing to pay per dollar of earnings. If a company had a multiple (P/E) of 20, the interpretation is that an investor is willing to pay $20 for $1 of current earnings.
  - Or an investor is willing to wait 20 years to earn their initial investment back in earnings.

Investopedia

Stock Valuation Metrics: P/E Ratio

- **P/E Ratio**
  - A high P/E suggests that investors are expecting higher earnings growth in the future compared to companies with a lower P/E.
  - A low P/E can indicate either that a company may currently be undervalued or that the company is doing exceptionally well relative to its past trends.
  - When a company has no earnings or is posting losses, in both cases P/E will be expressed as "N/A."

Investopedia

Stock Valuation Metrics: P/E Ratio

- **P/E Ratio Limitations:**
  - One limitation of using P/E ratios emerges when comparing P/E ratios of different companies.
    - Valuations and growth rates of companies vary wildly between sectors due both to the differing ways companies earn money and to the differing timelines during which companies earn that money.
    - As such, one should only use P/E as a comparative tool when considering companies within the same sector.
    - Comparing the P/E ratios of a telecommunications company and a bank will be misleading and will cause incorrect assumptions.
  - Earnings are reported by companies themselves and thus are easily manipulated

Investopedia

Stock Valuation Metrics: P/E Ratio

- **P/E Ratio Key Points:**
  - The lower the P/E ratio the "cheaper" the stock is.
    - A companies P/E ratio is affected by the companies outlook for the future…….earnings growth.
      - Amazon
      - Apple
  - The average market P/E ratio will be affected by the future
  - P/E ratio for a stock between 20-25 is reasonable

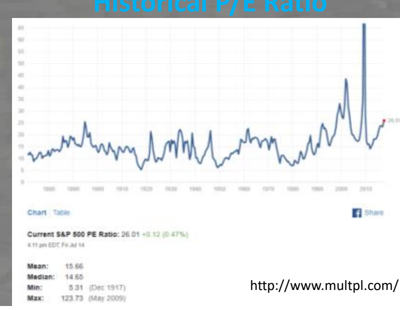
Investopedia

Stock Valuation Metrics: P/E Ratio

- **P/E Ratio Key Points:**
  - The P/E ratio use trailing earnings to get the trailing P/E ratio.
  - The P/E ratio can use estimated earnings to get the forward looking P/E ratio.
  - Generally a high P/E ratio means that investors are anticipating higher growth in the future.
  - The average market P/E ratio is 20-25 times earnings.
  - Companies that are losing money do not have a P/E ratio.

Investopedia

Historical P/E Ratio



http://www.multpl.com/

Historical P/E Ratio

P/Es & Yields on Major Indexes

DOW INDEXES

Friday, July 14, 2017

	P/E RATIO			DIV YIELD	
	7/14/2017†	Year ago†	Estimate^	7/14/2017†	Year ago†
Dow Industrial	21.00	19.68	18.41	2.30	2.50
Dow Transportation	19.49	12.47	16.67	1.31	1.45
Dow Utility	39.41	24.54	19.21	3.31	3.09

† Trailing 12 months

^ Forward 12 months from Birinyi Associates; updated weekly on Friday.

P/E data based on as-reported earnings; estimate data based on operating earnings.

Sources: Birinyi Associates; WSJ Market Data Group

http://online.wsj.com

Historical P/E Ratio

OTHER INDEXES

Friday, July 14, 2017

	P/E RATIO			DIV YIELD	
	7/14/2017†	Year ago†	Estimate^	7/14/2017†	Year ago†
Russell 2000	87.48	nil	18.98	1.43	1.59
Nasdaq 100	26.14	23.52	20.91	1.12	1.26
S&P 500	24.29	24.85	18.80	1.99	2.13

† Trailing 12 months

^ Forward 12 months from Birinyi Associates; updated weekly on Friday.

P/E data based on as-reported earnings; estimate data based on operating earnings.

Source: Birinyi Associates

http://online.wsj.com

Stock Valuation Metrics

- A way to get an estimate of the P/E ratio is to look at the P/E ratio of an exchange-traded fund (ETF), which closely follows the index in question.
- This ETF is not an exact match to the Index because of fees charged by the ETF
- But the information is easy to find.

ETF	Ticker	Index Tracked
SPDRs	SPY	S&P 500
DIAMONDS Trust I	DIA	DJIA
NASDAQ 100 Trust	QQQQ	NASDAQ 100
iShares Russell 2000	IWM	Russell 2000
MidCap SPDRs	MDY	S&P MidCap 400
Total Stock Market VIPERs	VTI	Wilshire 5000

Stock Valuation Metrics: Trailing P/E Ratio

http://finviz.com/map.ashx?t=sec&st=pe

Stock Valuation Metrics: Future P/E Ratio

http://finviz.com/map.ashx?t=sec&st=pe

Stock Valuation Metrics: Trailing Earnings vs S & P 500 Index

S & P 500 Index

Trailing 12 Month Earnings

http://www.macrotrends.net/1324/s-p-500-earnings-history

Stock Valuation Metrics: Earnings Growth

http://finviz.com/map.ashx?t=sec&st=pe

Stock Valuation Metrics: (Price/Earnings) / Growth Ratio aka PEG Ratio

- **PEG Ratio:**
  - The price/earnings to growth ratio (PEG ratio) is a stock's price-to-earnings (P/E) ratio divided by the growth rate of its earnings for a specified time period.
  - The PEG ratio is used to determine a stock's value while taking the company's earnings growth into account.
  - The PEG Ration is considered to provide a more complete picture than the P/E ratio.

Investopedia

Stock Valuation Metrics: (Price/Earnings) / Growth Ratio aka PEG Ratio

- **PEG Ratio:**
  - To determine if a low P/E ratio is good you need to consider earnings growth
    - The lower the PEG ratio, the more the stock may be undervalued given its earnings performance.
    - PEG ratio values vary by industry and by company type.
  - A broad rule of thumb is that a PEG ratio below 1 is desirable.
  - Using historical growth rates may provide an inaccurate PEG ratio if future growth rates are expected to deviate from historical growth rates.
    - Future growth rates is used to calculate "forward PEG"
    - Historical growth is used to calculate "trailing PEG"

Investopedia

Stock Valuation Metrics: (Price/Earnings) / Growth Ratio aka PEG Ratio

- **PEG Ratio Calculation:**
- **First calculate the P/E ratio of the company in question:**
  - The P/E ratio is calculated as the price per share of the company divided by the earnings per share (EPS):
    - P/E ratio = Price per share / EPS
- **Second calculate the PEG ratio's formula:**
  - PEG ratio = P/E ratio / earnings growth rate
- **Fool Ratio**: Earnings growth rate that is greater than the stock's P/E. So < 1.

Investopedia

Stock Valuation Metrics: (Price/Earnings) / Growth Ratio aka PEG Ratio

- **ACME DENTAL:**
  - Acme Dental price per share = $46
  - Acme Dental EPS this year = $2.09
  - Acme Dental EPS last year = $1.74
    - Acme Dental P/E ratio = $46 / $2.09 = 22
    - Acme Dental earnings growth rate = ($2.09 / $1.74) - 1 = 20%
- **Acme Dental PEG ratio = 22 / 20 = 1.1**
- **Analysis reveals the price is too high for the earnings growth**

Investopedia

Stock Valuation Metrics: (Price/Earnings) / Growth Ratio aka PEG Ratio

- **South Texas Dental:**
  - South Texas Dental price per share = $80
  - South Texas Dental EPS this year = $2.67
  - South Texas Dental EPS last year = $1.78
    - South Texas Dental P/E ratio $80/2.67= 30
    - South Texas Dental earnings growth rate = ($2.67 / $1.78) - 1 = 50%
- **Company B PEG ratio = 30 / 50 = 0.6**
- **Analysis reveals the price is discounted for the earnings growth**

Investopedia

Stock Valuation Metrics: PEG Ratio

http://finviz.com/map.ashx?t=sec&st=peg

Stock Valuation Metrics: Earnings Yield

- **Earnings Yield is the P/E inverted**
- **Earnings per share / Price per share**
  - Amazon 5.34 / 1001.81 = .53 %
  - Apple 8.34 / 149.04 = 5.5%

Stock Valuation Metrics: Dividends

- **Dividend:**
  - A dividend is a distribution of a portion of a company's earnings, decided by the board of directors, to a class of its shareholders. Dividends can be issued as cash payments, as shares of stock, or other property.
  - Dividend yield = Annual Dividend paid / Stock Price per share
    - Apple: Annual Dividend (2.52) / Stock Price (149.04)= 1.69%
    - Amazon: 0/ 1001= 0%
- **Dividend growth rate is important**

Investopedia

Stock Valuation Metrics: Dividend Yield

http://finviz.com/map.ashx?t=sec&st=div

Stock Valuation Metrics: Dividend Yield

- **Dividend growth rate is important**
  - The dividend growth rate is the annualized percentage rate of growth that a particular stock's dividend undergoes over a period of time.
  - The time period can be of any interval desired, and is calculated by by simply taking a simple annualized figure over the time period.
  - The dividend growth rate is necessary for using the dividend discount model.
    - Which is a security pricing model that assumes a stock's price is determined by the estimated future dividends, discounted by the excess of internal growth over the company's estimated dividend growth rate.
  - A history of strong dividend growth could mean future dividend growth is likely, which can signal long-term profitability for a given company.

Investopedia

Stock Valuation Metrics: Dividend Yield

- **Dividend growth rate is important**
  - To calculate the growth from one year to the next, the following formula is used:
    - Dividend Growth = Year X Dividend / (Year X - 1 Dividend) - 1
    - Example: Dividends per year 2011= $2.00; 2012=$2.05; 2013=$2.07, 2014=$2.11, 2015=$2.15
    - 2011 Year 1 Growth Rate = N/A
    - 2012 Year 2 Growth Rate = $2.05 / $2.00 - 1 = 5%
    - 2013 Year 3 Growth Rate = $2.07 / $2.05 - 1 = 1.9%
    - 2014 Year 4 Growth Rate = $2.11 / $2.07 - 1 = 3.74%
    - 2015 Year 5 Growth Rate = $2.15 / $2.11 - 1 = 3.6%
    - Average Growth Rate is an average of the above growth rates =3.56%

Stock Valuation Metrics: Dividend Yield

- **Growth Rate Used in Dividend Discount Model**
  - The dividend discount model is used to value a company's stock based on the idea a stock is worth the sum of its future payments to shareholders, discounted back to the present day.

Investopedia

Stock Valuation Metrics

- **Growth Rate Used in Dividend Discount Model**
  - The formula takes into account three variable to arrive at a current price, P. They are:
    - D1 = the value of next year's dividend
    - r = the cost of equity capital
    - g = the dividend growth rate
  - The dividend discount model's formula is:
    - P = D1 / (r - g)
  - In the above example, if it is assumed next year's dividend will be $2.18 and the cost of equity capital is 8%, the stock's current price per share is:
    - P = $2.18 / (8% - 3.56%) = $26.58

Investopedia

Stock Valuation Metrics: Payout Ratio

- **Payout Ratio:**
  - Is the proportion of earnings paid out as dividends to shareholders, typically expressed as a percentage.
  - The payout ratio can also be expressed as dividends paid out as a proportion of cash flow.
  - The payout ratio is used to determine the sustainability of a company's dividend payments.
  - A payout ratio greater than 100% indicates the company is paying out more in dividends than it makes in net income.

Investopedia

Stock Valuation Metrics: Payout Ratio

- **Payout Ratio:**
  - Calculation
    - Payout Ratio = Dividends per Share (DPS) /Earnings per Share (EPS)
    - Apple 2.52 /8.55 = .29
    - Amazon 0/ 5.34 = 0
  - You do not want a payout higher then 1, because this is not sustainable or they are borrowing to make the dividend payment
  - Monitoring the Payout Ratio will show if a companies earnings are not keeping up with the dividend growth.

Investopedia

Stock Valuation Metrics: Cash Flow

- **Free Cash Flow**
  - A company's earnings is rarely equal to the amount of cash it brings in.
    - That's because public companies report their financials using GAAP or IFRS accounting principles – or accrual accounting – not CASH ACCOUNTING.
    - So while a company could be reporting a huge profit for its latest quarter, the corporate coffers could be bare.
  - Free cash flow solves this problem.
    - Tells an investor how much actual cash a company is left with after any capital investments.
    - Generally speaking, an investor wants positive free cash flow.
    - As with the debt-equity ratio, this metric is all the more significant when times are tough.

Investopedia

Stock Valuation Metrics: Cash Flow

Investopedia

Stock Valuation Metrics: Debt to Equity Ratio

- **Debt-Equity Ratio**
  - Shows how a company finances its assets.
  - D/E ratio indicates what proportion of financing a company has received from debt (like loans or bonds) and equity (like the issuance of shares of stock).
  - D/E can vary from industry to industry.
  - Beware of above-industry debt/equity numbers, especially when an industry is facing tough times
    - High D/E could be a first sign that a company is over its head in debt.
  - Example: Lehman Brothers had a debt/equity ratio of over 30:1 in 2007 before its bankruptcy.
    - That means that for every dollar of equity, the bank had $30 in debt.

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Stock Valuation Metrics

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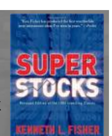
Stock Valuation Metrics: Price to Sales



- **Price/ Sales**
  - A valuation ratio that compares a company's stock price to its revenues. The price-to-sales ratio is an indicator of the value placed on each dollar of a company's sales or revenues.
  - Calculation:
    - It can be calculated either by dividing the company's market capitalization by its total sales over a 12-month period.
    - OR on a per-share basis by dividing the stock price by sales per share for a 12-month period.

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Stock Valuation Metrics: Price to Sales

- **Price/ Sales**
  - Example: South Texas Dental Quarterly Sales:

	FY1-Q1	FY1-Q2	FY1-Q3	FY1-Q4
Revenues ($million)	$100	$110	$120	$125

  - South Texas Dental has 100 million shares outstanding, trading at $10.
  - South Texas Dental's P/S ratio on a trailing 12-month basis would be calculated as follows :
  - Sales for past 12 months (ttm) = $455 million (sum of all FY1 values)
  - Sales per share (ttm) = $4.55
  - P/S ratio = $10 / $4.55 = 2.20

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Stock Valuation Metrics: Price to Sales

- **Price/ Sales**
  - Compare to similar companies, similar sectors
  - Good range is <1 to 3
  - Above 3 dig deeper

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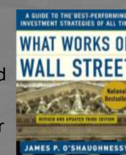
Stock Valuation Metrics: Price to Sales



- **Price/ Sales**
  - Jim O'Shaughnessy strategy:
  - Market capitalization of at least $150 million and
  - A price/sales ratio below 1.5.
  - Companies with persistent earnings growth over a five-year period,
  - Shares that have been among the market's best performers over the prior 12 months.
  - Cornerstone Value looks for large companies with strong sales and cash flows, and solid dividend yields

Stock Valuation Metrics Price / Sales

http://finviz.com/map.ashx?t=sec&st=ps

Stock Valuation Metrics: Price/Book

- **Price to Book Ratio**
  - The price-to-book ratio (P/B Ratio) is a ratio used to compare a stock's market value to its book value. Book value is what it is worth if it were sold.
  - The price-to-book ratio (or P/B ratio) is an indication of what investors are willing to pay for each dollar of a company's assets.
    - The P/B ratio divides a stock's share price by its net assets, less any intangibles such as goodwill.

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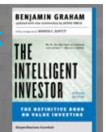
Stock Valuation Metrics: Price/Book



- **Price to Book Ratio**
  - It is calculated by dividing the current closing price of the stock by the latest quarter's book value per share.
  - Calculation: P/B Ratio = Market Price per Share / Book Value per Share
  - Book Value per Share = (Total Assets - Total Liabilities) / Number of shares outstanding

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Stock Valuation Metrics: Price/Book

- **Price to Book Ratio**
  - A Stock's **Price** (market value) is a **forward-looking metric** that reflects a company's **anticipated** future cash flows.
  - The **book value** of equity is an accounting measure that is based on the **historic cost principle**, and reflects past issuances of equity, augmented by any profits or losses, and reduced by dividends and share buybacks.
  - Therefore P/B ratio reflects the value that the investors attach to a company's equity relative to its book value of equity

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Stock Valuation Metrics: Price/Book

- **Price to Book Ratio**
  - For most stocks, a P/B of 1.5 or less indicates good solid value.
  - A P/B ratio of 2 is ok.
  - Growth stocks can trade over 100
  - A P/B under 1 says the company is undervalue
    - A low P/B ratio can also be a sign of a company in distress.
  - Commonly look at 1.5-3+ P/B ratio

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Stock Valuation Metrics Price / Book

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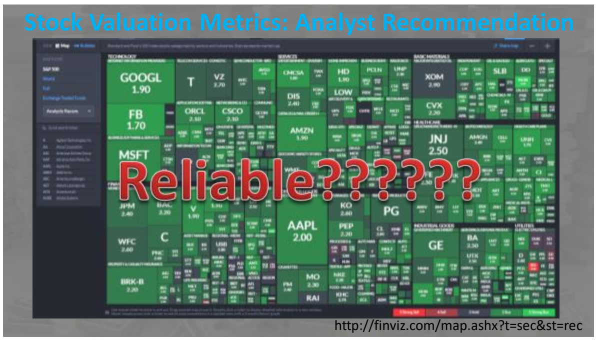

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