**Pessimist's Guide to Investing**

**How to Do it & What to Expect**

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## 1.0 Executive Summary

This is not a Guide in economics, and although many of the issues have economic nuances, they will not be discussed here.

If you are looking for a rock to turn over and discover a winning Lotto ticket, this is not for you. You should spend time deciding on the field containing the rock containing your future fortune.

If you have a coupla’ bucks in your pocket and are trying to decide whether to spend it, save it, or invest it, then this Guide may be something of interest. The Guide doesn’t choose for you but does give a spectrum of choices for you to choose for yourself.

It is a guide for pessimists. It doesn’t look at success, it looks at failure. Looking for a rock containing Lotto tickets under it looks to success. If found, it takes care of itself. No help needed. Looking for a means to grow your income through investments looks at the difference between loss and gain; minimizing loss while maximizing gain. Minimizing loss is back looking and is the pessimists way of saying that before you leap, look for a place to land.

Which brings up an interesting point. You are looking for income. You are not looking for making the big hit and spending all the money gained. Instead, you are looking for the more gradual approach to wealth, the ability to maintain yourself in the standard you have become accustomed to forever.

Let’s suppose your investments suddenly give you $50,000. The optimist would say “spend it”. Tomorrow we will get another $50,000 so spending it now means little except comfort. And after it is all gone, you have nothing except the optimist dream of doing it again.

The pessimist says “don’t spend it”. At a 6% investment growth rate you get $3,000 / year in income plus the possibility of leveraging the money to get a better investment return. We sacrifice the pure, hedonistic, pleasure of getting something now for the future expectation of constant income and the possibility of another windfall. We look for a place to land.

But, sacrifice forever is an unpalatable meal. If spending is deferred there has to be a reason for deferral. We choose deferral of present spending for a comfortable retirement. When we retire we would like to spend at least as freely as when we work, to live in comfort and to have the ability to travel and to enjoy life. Retirement, for us, is the longest vacation we will ever have. And like every vacation before it, we would like it to be enjoyable. So that’s the goal. To retire in comfort. To delay spending on things we want now so that when we retire we will not be penurious (broke and needy). The question is, how can this be done?

The focus of this Guide is to explore what is needed to retire in comfort, the impediments which stand in the way of this retirement, and how to gainfully invest before and during retirement.

The Guide is divided into the following sections:

1. Executive Summary. This section.
2. Goals. What are you trying to do and how do you retire.
3. Retirement. What do you need to retire. How to retire gracefully.
4. Money. Money’s funny. It’s not like other things. It is not ‘wealth’ but ‘money’ that is discussed.
5. Investment Vehicles. These are containers to put your hard earned dollars into.
6. Investing Strategies. How to make a million without losing a million.

## 2.0 Goals

Investing consists of goals, what you should be striving for, how you should achieve your goals, and spending. Yes. Spending. Unless your sole purpose is to accumulate vast amounts of wealth and live under a bridge, spending is part of what you do. This preamble will give an outline of what you should want to do, how to do it, and what to spend. This will not be the do all and end all. This is just a light introduction to the rest of your life.

**Nightmare**: Social Security is no longer available. Pensions have been withdrawn. No Medicare, you are responsible for your own care. The only thing between you and living in poverty is your savings, we’ll just use the shorthand “savings” rather the longer “savings and investments”. This is a real possibility not just an imaginative scenario to motivate behavior. As I write this GE is reducing pension payments in order to reduce debt, and if you remember 2007-2009, the auto industry cut their retirees short on both pensions and health insurance. The Government controls Social Security and Medicare, and if you’ve been listening you will hear half-truths and utter balderdash about costs to justify terminating or substantially changing both benefits. But unless the Government does something by about 2039, all Social Security recipients will receive about 75% of their accumulated benefit. If you were supposed to get $3,000/mo you now get $2,000/mo. Medicare has a similar problem in 2028. So, there are issues that you must factor into all of your retirement goals.

**Goals**: You are investing and saving for retirement. This discussion centers around your retirement goals. Now take head, when you work you pay for things with a paycheck. When you do not work, you pay through your savings, pensions and Social Security. Your paycheck is renewable. Every so often you get a new one. Your savings are not, unless you take a deliberate effort to ensure that you have enough.

I**nvestment Goals:** This is the expected growth of your savings. How much should you expect your investment to grow each year. When do you ‘cheer’. When do you ‘boo’. A reasonable rate of growth is

about 6%/year on average. This should be achievable without investing a great deal of time and gives a nice comfortable return (over time). If your goal is greater than 6% then you will find difficulty. It is possible to get more than this amount with effort. But, the effort grows with the expected rewards. So, if your goal is 10% then you will be spending a considerable amount of time each day looking at your investments, determining future investments, and making buy/sell decisions. Further, the higher your goal the more at-risk your investment. You must be tolerant of loss and understanding of gain. The gain part is easy.

**Investments**: Really, more on this later. The upshot is that stocks form an ideal way to invest, but note, stocks also can have a severe downside (invest everything/lose everything). But, with 8,696 stocks there is always a good investment to be had. Always. Even in the most bitter of times. Mutual funds tend to leverage things a bit – let's someone else make decision for you. I have found that mutual funds never perform as good as the general market, and when the market tanks, mutual funds tank. However, in the long term it is not that difficult to get a 6% return. Oh, with stocks it is not that difficult to get a 10 – 20% return, but of course, there is the downside.

**Retirement Income**: Pay for your retirement with Social Security and pensions supplemented with investment income. Retirement is expensive. Medicare costs, Social Security and 401(k)s are taxed, Inflation will strike differently when you retire and the Social Security COLA doesn't account for retirees actual inflation rate. And, the Republicans have been trying to eliminate Social Security since 1938 and Medicare since 1964. In 2003 or so, Bush tried to privatize Social Security, giving billions to brokers and not one dime to you. I don't know when Medicaid became an issue. Any 'improvement' that is passed will cost you. Be aware that your retirement security is at risk.

One thing to keep in mind. The dollar thresholds, dollar caps, filing deadlines and etc. change in time. You must get documents from the Internal Revenue Service, Social Security Administration and Medicare to be current. All thresholds, caps and deadlines in this document are for illustration. The general rule seems to be, where a change thresholds benefits you, it is late in coming. When a change in thresholds is to your detriment, it arrives early. This puts stress on your investment return requirements.

**Spending**: Ah, we come to the nub of the thing. The idea is to save for retirement, not trips to the spa. At retirement you are expected to have enough money to live comfortably. And now the rub, retirement is expensive. When you work, you pay for things with your paycheck. When you retire, you pay for things with your savings. The difference is that when you work you get a paycheck to replace your spending. When you retire you replace spending with investment gain. A really big difference. You have to plan spending after your retirement. There is a caution that you have to prepare because you don't get a paycheck.

And now for some of my biases. You can take them for what they are worth.

1. Professional advisors (brokers, money managers, etc.).
   a) There are two types:

- Fiduciary: Thee before me.
- Non-Fiduciary: Me before thee.

b) The purpose of an advisor is to make money for themselves. You are always secondary. The advisor keeps in your good graces by making money for you. But whether you gain or lose, the advisor makes money. Keep that in mind.

c) I have never met a Fiduciary advisor.

d) I have tried non-Fiduciary advisors three times. I have used their advice twice and lost money twice. The advice the third time was so bizarre that it was difficult to see how anyone would follow it. I didn't and am for it. I don't believe in paying for poor service .

2. I invest in stocks. They are scary. Before I invest I spend some time determining the expected gain. I do not 'gamble'. I do not speculate. I do get good gains (10 -20%) .
3. I invest in mutual funds. I suffer their low total performance but am satisfied in the long term. Remember that my investments must earn 6% and mutual funds seem to be able to do this.
4. I invest in ETFs (Exchange Traded Funds) with somewhat better results than mutual funds.
5. Inflation takes a big bite out of everything. You must plan for inflation, and you must include it in all your calculations. Not doing this will eventually lead you down a rat hole.
6. You will never be able to replace the principal you spend. Do not take out too much or there won't be enough left to grow and live on.

   Example:
   With 6% growth, $1,000,000 yields $60,000/year and $10 yields $0.60/year. The more you spend, the closer you get to $10 and there aint a whole lot you can do with $0.60.
7. It takes more to replace money than to spend it. Suppose you have $1,000,000 and spend 10% ($100,000). To get back to $1,000,000 from $900,000 takes 11%. With a 6% growth it will take about two years to get to were you started **providing** you spend no money. In bad times all bets are off.

Before I go on I'd like to discuss what you need at retirement and how to spend money. Both topics deserve oodles of words but you only get a few.

## 2.1 Tax Impact on Goals

The Government (Federal, State, Local) takes a direct interest in your earnings. When you have a dollar in your pocket you don't look for pimples; you just spend the buck. The Government takes a more nuanced view. That single dollar is spliced and diced until a tax picture is developed. This tax picture will be superficially presented. Since taxing is pervasive, the future tax consequences of the decisions you make to have a nest egg for retirement should not be neglected.

These are the tax categories we will discuss:

1. Income. Working income, Social Security, Pensions, and Before-Tax Traditional IRA or 401(k) RMD.
2. Dividends, a.k.a., yield. A company distributed percentage of income earned.
3. Capital Gains Distribution:
   a) Short-term Capital Gains. Sale of stocks held less that 12 mo.
   b) Long-term Capital Gains. Sale of stocks held longer than 12 mo.

Now all the terms, limits and whatnot are controlled by Congress and interpreted by the IRS and state and local taxing authorities. That being said, everything said below can change both in substance and in effect. Before you leap, do your homework.

One other thing. There is a difference between your total tax rate, the amount you pay in taxes divided by the total amount comprising the taxable amount, and the marginal tax rate. The marginal tax rate is the amount of tax charged on the last dollar taxed. As a rough example, there is no tax paid for the first \$9,700 earned. If this is all you earned then your total tax rate is zero (0). Suppose you make \$19,400. Then the marginal tax rate is 12% of all earnings from \$9,700 to \$19,400 and the total tax rate is 6%. $\frac{(.12*(19{,}400-9{,}700))}{19400}$ . We have assumed throughout that the marginal state and Federal tax combined is 20%. This rate can be wildly low,

**Income**: About what you'd expect, this is your salary. If you are still working then income, 75% of Social Security and all pensions are added together to get your gross income. If you are either receiving a Required Minimum Distribution (RMD) or doing a withdrawal from a Before-Tax tax advantaged plan, the amount withdrawn gets added to whatever else is being declared as income. This is not your total tax liability. It is only your income tax liability. Keep this in mind.

**Dividends**: Dividend distributions are taxed separately from income. Traditionally Congress has elected to tax this income at a lower rate than your marginal income tax rate. Historically this has been about 15%, or \$15 / \$100 of dividend. Since Congress 'owns' this there have been attempts to change this rate because it gives a tax break to the heavily wealthy.

**Short-term Capital Gains**: I believe that (check this out) Short-term Capital Gains are taxed as income. This can be a heavy load because income is actually the highest tax rate table used.

Long-term Capital Gains: A preferential tax treatment is given to assets held longer than 12 months. This rate is lower than the marginal tax rate.

When you file your taxes there are two tax rates calculated. One, as given above, consists of income as defined by Congress and interpreted by the Internal Revenue Service (IRS), and another meant to enforce taxing on the wealthy, called the Modified Adjusted Gross Income (MAGI). The MAGI is

different from the normal tax tables in that some income which is excluded from taxation, and other items included but whose taxation favors the wealthy, are included in the MAGI or the tax rate thresholds are changed. You pay the larger of the two taxes depending on the income thresholds you reach.

Let's look at a little history.

Way back in the 60's it was an issue that although the mega-rich and the working slobs both followed the same rules and paid the same percentage of their income (we're going to ignore describing what 'income' is – just use your imagination) in taxes, somehow the mega-rich got a big share of benefit while the working slobs got bubkas (nothing).

This works out like this. Suppose our working slob and the mega-rich both follow all the rules and both pay 20% in taxes. If the slob makes $100,000/year the taxes are $20,000 and the remaining $80,000 are for living expenses. The mega-rich makes $1,000,000/year the taxes are $200,000 and the remaining $800,000 are for living expenses. This was deemed unfair. The solution was the MAGI where items otherwise excluded from being taxed at the prevailing income tax rates (think tax free muni's , dividends and long-term capital gains) are now included and subject to 'special' taxes, providing some thresholds are reached.

Initially the MAGI was not inflation adjusted, and all of a sudden, the sinews of Democracy were strained when the MAGI ogre began requiring that the middle class pay the MAGI amount instead of the smaller income tax rate. This had nothing to do with the middle class being extremely wealthy. It dealt with the fact that normal, garden variety inflation, pushed the middle class over the MAGI thresholds established in the 60's. Well, I think that the thresholds were altered, and they may even have an inflation escalator (a Cost of Living Adjustment or COLA).

Now, this all applies to working people. If you don't work and are retired, you might fall into the MAGI trap just because your investment growth is greater than the Government COLA. Let's say the COLA is adjusted every year according to the non-volatile Consumer Price Index (CPI). Right now it's about 2.2%. But you are saving mightily to both keep up with inflation and to provide retirement income, so your goal is to make 6% on your investments. Your investment 'growth' is almost three times the MAGI COLA. Well, sooner or later you may be a MAGI prisoner.

Now I'm not going to let you get away so easily. There is one tiny little topic left. I know your going to enjoy this one. Well, some of your benefits are Means Tested. That means, you get a benefit or cost according to your taxes. Let's name these things (once named they can't be feared):

- Means Tested Benefit: If your income is within some threshold, you receive a benefit.
- Means Tested Cost: If your income is within some threshold, you are given a cost.

So there you have it. It’s better to have a MAGI income for a benefit and a non-MAGI income for a cost.

Depressing isn’t it.

## 2.2 Inflation Impact on Goals

Taxes reduce the income received. When the Government taxes, it takes money from you and gives it to itself. Inflation is something like Government taxing. Inflation takes money from you, but doesn’t give it to the Government. Further, the Government doesn’t control inflation (let’s not argue the point here that the Federal Reserve plays a part). It just happens and when it does, pffft, there goes part of your income.

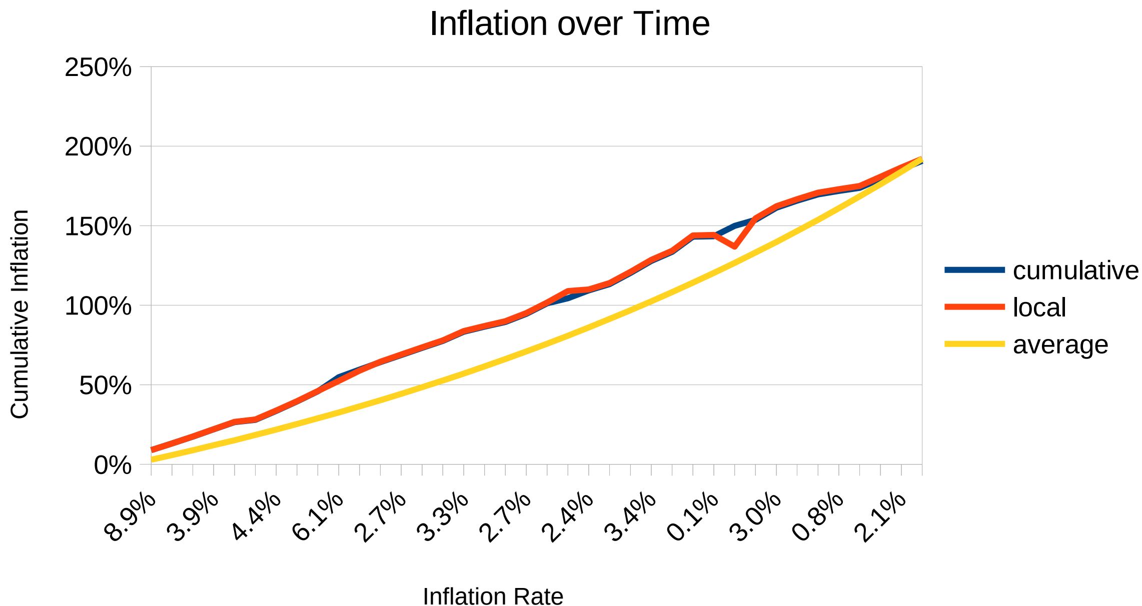
How does inflation work. Well, because it takes ‘money’ from you in a sneaky way, it doesn’t work in the open. Rather it works in the interstices of our institutions to reduce the value of your income. Suppose you have $100 in hand today. If inflation is 10% then next year this same $100 will be able to buy only about $90 of goods. Putting it another way, to buy $100 of goods next year you need $110. Sneaky, huh.

Because it is ‘hidden’ it won’t be found. If you are not observant you might well say that given that I have $100 I haven’t lost anything. Hidden from us, until we try to buy something, is that the value of this $100 has been reduced. Which brings up another point. If you have $100 this year and $100 next year, you have lost money. Or in economic terms, purchasing power.

This loss in purchasing power is a driving influence on everything that we do for retirement and everything we do after. In order to not lose ‘purchasing power’ we have to plan for making up the loss due to inflation. This includes estimating our expenses, and includes both the investments we should make and how to balance these investments.

Oh, you say. That’s nonsense (because I have $1,000,000 now and having $1,000,000 tomorrow still makes me very comfortable). Well, nice of you to bring this up. From 1981 to 2018 the purchasing power has been reduced by 191% because of inflation. Your $1,000,000 can now buy about $563,000 in goods. If you needed and expected to buy $1,000,000 with your $1,000,000, you lose. You need to make up for the lost purchasing power at the same time as you have no income from employment (remember, your retired).

Inflation is not constant. It varies from year to year, and this variation has an effect over time. Here is a graph showing three ways of calculating inflation.




The start year for all our calculations is 1981. This provides an adequate 'historical' perspective in understanding how inflation is expected to affect you.

This is the little math part. It really doesn't have much to do with the main tenor of the remarks but does provide you a means to calculate some things about inflation.

From the figure, calculating inflation is done by:

1. Cumulative (Cumulative Inflation Rate). This is a standard metric. The rate of inflation of the current year is used to multiply the rate of inflation for the previous year. This is a measure of the cumulative effect of inflation, that is, the impact of inflation over time. It is a standard measure of the 'cost' of losing purchasing power.

   Cumulative = $\coprod_{i=year_1}^{year_n} (1+inflation\,rate)^i$ (1+inflation rate) $^{year1}$ * … * (1+inflation rate) $^{yearn}$

   The graph shows that there is a large effect of inflation over time, even though there appears to be only a small change in the inflation rate for any given small time period.

2. Local (Local Accumulative Inflation Rate). This is provided just for a basis of comparison. There is no economic justification for it. The question is, suppose we take the average inflation rate over some period of time and calculate the expected total inflation rate. That is (sorry about the math)

Local Cumulative = $e^{(k+1)\ln\frac{(\sum_{1981}^{1981+k} Inflation\,rate)}{(k+1)}}$

We take the average of the last 'k' inflation rates and then calculate the effective inflation rate at 1981 + k.

3. Average (Average Inflation Rate). The assumption is that the inflation is constant over time, and hence, the average inflation rate is a good measure for the inflation seen. The average inflation rate from 1981 to 2018 is 2.86%. Using this as a starting point we get:

Inflation rate at year n = 1981 + k = $\prod_{1981}^{1981+k} 1.0286 = 1.0286 * 1.0286 * ... * 1; .0286$

At the end of any time period, our

Purchasing Power = $\frac{initial}{\prod_{year\,1}^{year\,n}(1+inflation\,rate)} = \frac{initial}{Cumulative}$ .

If our Initial Amount is $1,000,000 in 1981 can buy only $593,000 in 2018.

There are just a few other points to note. Notice that using the average inflation rate, and doing the math, gets us to the final inflation rate OK, but when we look at the Cumulative Inflation Rate we see that it understates the inflation cost for every intervening year from 1981 to 2018. In other words, the expected loss of purchasing power between 1981 and 2018 is not accounted for, even though the total loss of purchasing power in 2018 is correct. This is important because between these two endpoints you are trying to earn a living, and if you're not careful, you will be losing ground.

Each Government agency offering a benefit or having a cost can elect to use its own COLA to adjust year over year (YoY) amounts, subject to legislative approval. None of the COLA's need be, or are, coordinated. And none need bear any relationship to the actual inflation. In substance this means that in time you will pay more to receive less.

The inflation rate and cost estimation used by Social Security and pensions understates the actual inflation rate experienced by retirees. When you retire your spending pattern changes and the effect of inflation on each part or your expenses changes, but this change is not accounted for in adjusting your income (Social Security and pension). This means that after the first year that you retire you will begin to lose spending power unless you take direct measures to account not only for general inflation, but your inflation. So here's the catch. Look at the inflation rate and add to it something to account for miscounting. From 1981 to 2018 the average inflation rate was 2.86%. Let's add 0.14% as a margin to make it an even 3% and call this our inflation rate.

The takeaway is that inflation affects your retirement needs and if you don’t account for it, you lose, you have plenty of ‘money’ but everything costs too much. Or, a million dollars isn’t what it used to be.

## 2.3 Social Security Impact on Goals

Full Social Security benefits are given when you reach the Social Security Retirement Age (SSRA) and have payed into Social Security for 35 years (420 months). The SSRA varies between 65 years old and 67 years old. In this document SSRA will be 67. The 35 year contribution requirement need not be continuous, and it is affected by work in non-Social Security funded employment,

It is possible to start taking Social Security at age 62. The penalty for taking it is 6%/year pro-rated each month between your SSRA and the start date of receiving your benefit. The effect is to your income, that is, comfort for the rest of your life. Suppose you begin taking Social Security 3 months after your 63rd birthday. Then you can expect that your benefit will be reduced by:

24% = 4 yrs * 6%

If you continue working and are taking an early Social Security benefit then your benefit is a Means Tested Cost until your Social Security Retirement Age (SSRA). If you are below a dollar threshold you will get the full benefit. If you fall above the threshold, the benefit amount will be reduced.

If you defer taking your benefit until you are 70 then you increase your benefit by 8%/year prorated to the month of taking. For example, suppose that you begin taking Social Security when you reach 70 then your lifetime benefit will be increased by:

24% = 3 yrs * 8%

And to this let me add that the benefit you receive is subject to the Social Security COLA. In the case of the early taking, your benefit is affected for each year you receive it. In the case of the later taking, the Social Security amount deferred is subject to the COLA. For the deferred taking this means that your eventual benefit amount = $1.24 * (1 + \text{inflation rate})^3 * \text{benefit amount}$.

And now the depressing fact. The COLA is less than the actual inflation rate for retirees and is not locale dependent. In other words, for every year that you receive Social Security, the purchasing value of the benefit you receive is reduced. This means that every year you use more of your investment return to make up for the lost purchasing power of Social Security, which implies that your investment strategy must include an inflator for inflation. This affects your planning.

Social Security is subject to a Means Tested Benefit. If your working salary and contributions to Social Security is less than some dollar threshold, you get more money as a percentage of total contributions than those who have been more fortunate than you.

## 2.4 Medicare Impact on Goals

At age 65 you are required to have Medicare or to have a Medicare approved employer sponsored plan. If you do not have an employer sponsored plan, you are required to pay for Medicare, and if you are getting Social Security, the payments are deducted directly from the Social Security benefit.

Medicare consists of four separate parts:

A) Part A: Hospital Insurance. No Medicare premium.

B) Part B: Medical Insurance. A Means Tested benefit.

C) Part C: A voluntary Medical Advantage Plan. A non-Government plan. Premiums vary.

D) Part D: Drug coverage. A non-Government plan. Premiums vary.

Medicare is a Means Tested Cost. If your MAGI income is below some dollar threshold, you pay nothing. If it is above this minimum threshold, you pay a monthly premium. And if it exceeds another threshold, you pay an increased premium for Medicare Part B and a separate premium for Medicare Part D. And the premiums keep increasing for additional thresholds.

The odd thing is that the premiums for a Medical Advantage Plan, run by a non-Government company, is separate from Medicare Part B and D premiums. The increase or decrease in a persons Medicare premiums are unrelated to the premiums paid to a Medical Advantage Plan. When planning for Medicare expenses, you plan for Medicare premium changes separately than planning for Medical Advantage premium changes.

Now that wasn’t too bad, was it? Well now it gets a little bit tacky. Medicare is one of the Periodic Expenses in your retirement calculations. Medicare premiums charged to you are dependent on the MAGI which is different than your income tax.

Here’s a little (unrealistic) example: (uses 2019 thresholds and premiums)

> Suppose your income (Social Security + pensions + dividends + ..) is $120,000 and you have $1,000,000 in a 401(k) with an initial RMD of $36,496 with $14,000 in dividends from tax free muni’s. Your taxes are based on your income and your RMD, but not the dividends from tax free muni’s, and so for income tax purposes your income is $156,496. Medicare considers the muni income in it’s calculations, so for Medicare your income is $170,496. For incomes below $170,000 your Medicare premiums are $135/mo. For incomes above $170,000 your premiums are $189.60 for Part B plus another $12.40 for Part D. As a minimum, your premiums have increased by $67/mo per person, $134/mo for two people.

So, good fortune has its downside. Take a look at Medicare Premium Calculation.

## 3.0 Retirement

The purpose of investing is to enable you to live a good life during retirement. It is not to secure the immediate pleasure of spending money while you are working. That is what your salaries do.

Retirement money is for you to retire on.

Let's assume that you have a home and two (2) cars. So, what do you need to retire. What will your expenses be and how do you satisfy them. Let's start with the good news first. In order for you to live, and enjoy life, just as you do now you need at least as much take home income as you have now. as long as you are healthy.

To evaluate your needs you need to understand that you can not have a mortgage at retirement, you can not owe for cars, and other than rotating monthly credit card debt, you can not have any outstanding debt. If you do, you can't retire. Your retirement income will not be able to sustain debt.

Suppose you make $5,500/mo, before you retire, and your mortgage is $1,200/mo, your outstanding vehicle loans are $500/mo/vehicle and you are paying $700/mo for loans, school debt and so on. This means that you're take-home income is $2,600/mo (= 5,500 – 1,200 – 1,000 – 700) less taxes. In order to retire you need your Social Security, pension and savings to be able to support $2,600/mo less taxes to live just as you do now. And, lest we forget, 75% of Social Security is federally taxed, all of your pensions and income from some investments are taxed, and depending on the state you live in, you might be taxed again. Oh, since you no longer have a mortgage your taxes will be higher. You pay more to be old.

Well, that's the really good news. Inaccurate, to say the least, but a smiley face look at retirement. Let's dig a little deeper to see what snakes lie on the bottom.

When you retire you get Medicare. Current costs (minimum) are about $135/mo taken directly from your Social Security check by the Government. You must get a Medicare Advantage Plan from an insurance provider or former employer. Suppose you buy a reasonable supplementary plan on top of Medicare for $230/mo. Then your monthly medical insurance expenses are $365 for yourself and another $365 for your spouse. This forces you to either reduce your income or increase your savings, but the $2,600/mo you thought you needed to retire on has changed. You either live on $1,870/mo or you need $3,330/mo ($730 insurance cost for spouse and yourself). And your taxes have just gone up. K-ching!

Cost of living, a.k.a, Inflation Impact on Goals. There is more than one way to calculate the cost of living and rather than address the actual measures, let's look at the effect. If all goes correctly you need about $3,330/mo when you retire to live just like you live now. But inflation increases the amount you need, so let's call the $3,330/mo the present value and see if we can calculate the future value needed. The average rate of inflation from 1981 to 2018 was 2.86%. In 20 years you will need $5,800/mo. Call

this figure the future value. Every year while retired the future value needed will increase and your taxes may increase with it.

## 3.1 Spending

Before we go on let's took about some "good time" myths. These are popularly held beliefs that make you feel comfortable, and without guilt, in spending money. The only thing is, they are utter nonsense, and although you feel great happiness in spending, when you have nothing you sort of feel unhappy. Well:

- When I die I will have nothing in the bank. The "spend, spend, spend" retirement plan. When are you going to die? If you live one day later then it's "living in a cardboard box" because you're broke.
- I know when I'm going to die. The Mortality Table tells me that I can expect to live until I'm 80, so I'll spend, spend, spend. The Mortality Table says that 50% of all people born when you were are dead. If you're reading the table you're still alive. What the Mortality Table does not say is when you are going to die. Remember that there are oodles of people older than 80, even though according to 'your' reasoning, they should be dead.
- Let me spend as much as I can when I'm young, just retired, because later I won't be able to get around as much and, by gosh, won't need as much money. Well put that one in the scrap heap. Because of health concerns you will need more, further, if you are still amblin' about you will want to go places and do things. No money, no do.
- I have this all figured out. I looked at all the figures, calculated all the values, and I know what I have and what I can spend. I'm going to spend it. Yeah, right. You forgot the unexpected, and probably inflation, and haven't prepared for either. Good luck rover.
- I'm smarter than you and I know what I'm doing. You (that is, me) are a relic and your advice may be good for you but it clearly doesn't apply to me. Ok, have at it. It's your money.
- I'll win the Lotto.

What are we really trying to do? Well, with $1,000,000 in the bank we have found that we 'make' $60,000 per year, we need $30,000 per year to cover inflation, and we have $30,000 to spend. What we are trying to do is get more spending money without jeopardizing our future. What we are finding out is that this is hard because we have expenses. Before anything, let's really look at what we can expect at retirement and how to plan for it. Now this is going to be ugly.

At retirement we have the following future issues in expenses:

- Planned Expenses Things that we 'know' are going to happen but we just don't know when. So we plan to spend.

- Periodic Expenses: Things that we pay for now but which we have to account for in our future planning.
- Unexpected Expenses: Something happens and you need money. Some of these you can expect, some just come out of the woodwork.
- Health Care Costs: This is a real mood killer. You will, not may but will, have health care costs. They can be very expensive, and unless you want to be dumped in a sewer, you probably should give some thought to  how they will be covered.

#### *3.1.1.1 Stealing from Principal*

Let's assume that you are sitting on $1,000,000. That is your nest egg. You've saved your entire working life for retirement, and now you have a retirement bundle. Whoopee. Time to consider the cost of retirement.

Well, ya' got $1,000,000 in the bank. Time to spend! Whoa buddy. Before you spend let's take a look at the landscape. We'll get more into this later but plan on earning about 6%/year on average over an extended period of time. That is, some years you will lose money, some years you will make more than Midas. But on average, your goal is 6%. That's $60,000/year (for the first year).

Well, let's buy a toy. Your toy costs $100,000. You've got a million dollars so $100,000 is a sneeze. Let's take the money, buy the toy and live on the remaining $900,000. Good idea. And this is what it means. You've reduced your total future retirement investment income by $6,000/year. If you intend to restore your spending to it's original $1,000,000 then, although you've spent 10% on your toy, you need to recover 11% to restore the principal, a.k.a., income base. Remember the 6% long-term investment growth figure? Well, if you spend no money for two years that's 12% which brings your principal to about $1,080,000, enough to cover the decreasing cost of money because of inflation (about $30,000 @ 3% inflation) plus a little cushion, but you've lost about $9,000 in income. Every 7 – 10 years there is a recession and you lose about 10% of your principal, and if a recession occurs before you recover from your spending, you never will. You have just mortgaged your entire future comfort to buy your toy.

Using the above example, what happens when you withdraw from principle (your initial base savings plus inflation):

1. The withdrawn money no longer 'earns' money. You lose $6,000/year in lost investment growth (remember the 6%). This is the money that you depend to live on, and all of a sudden, you've lost it. You've taken a pay cut.
2. $3,000 of the $6,000 is involved in covering the cost of inflation. Not having it means that you can't account for inflation adequately. And I've mentioned that inflation takes a big bite out of your pocket book.

3. Projecting that you can recover the money over time is a lost talent. You've already made a decision that says you don't care, and odds are that you won't care in the future. It's gone.
4. Even if you plan to not spend anything for a couple of years, expecting that this will somehow make up for the taking, is probably wishful thinking. You can't see the future or you'd be rich. Most likely during this period of restraint something will happen making it attractive for you withdraw from principle again. So instead of having to make up $100,000 you will have to make up more. Sooner or later you will give up the "make up" part and concentrate on the spend part.
5. You can always generate a need for money. Not a problem. The problem is generating a plan and suppressing the need. To make this somewhat tangible, you have wants and needs. Needs are something that you must have, such as food. Wants are something that you like, like a bigger car. Your car breaks down and you need a new one, that's a need. You buy a Lamboghini ($200,000 for a cheap one), that's a want.

Now I can go into all kinds of numbers and show why and how reducing your principle is foolish, but, well, it would just irritate you. So let me say that resisting the impulse to deplete your only source of income sufficient to care for inflation, unexpected expenses, health insurance and just plain comfort is not the way that I'd go. And, it's a hard road because you are tempted.

At retirement the savings you have are all the savings you will ever get. You do not have a separate means to earn income (a paycheck for instance) so that you can continue to save. What you have you have, and it's supposed to last for the rest of your natural life. Once that bit of edge is gone, you have no backup.

### 3.1.2 Planned Expenses

The expenses that can be anticipated but whose time frame can not be predicted. Let's suppose you own a home and two cars and see what can be expected in the future. We'll list the expenses and estimate the costs in current dollars, that is, we will not take into account inflation.

For this examples, the cars travel 15,0000/year.

| **Item** | **Total Cost** | **Lifetime** | **Yearly 'Cost'** |
|---|---:|---:|---:|
| House roof | $20,000 | 20 years | $1,000 |
| House Painting | $3,000 | 5 years | $600 |
| Furnace | $1,750 | 15 years | $100 |
| Air Conditioner | $5.000 | 20 years | $250 |
| Carpeting/rugs | $8,500 | 20 years | $425 |
| **Car Brakes (2)** | $240 | 6 years | **$40** |

| Item | Total Cost | Lifetime | Yearly 'Cost' |
|---|---|---|---|
| **Car (2) 30,000 mile** | $1,600 | 2 years | **$800** |
| **Car (2) 60,000 mile** | $2,400 | 4 years | **$200**[1] |
| **Car(2) Battery** | $250 | 5 years | **$50** |
| **Car(2) Tires** | $1,600 | 5 years | **$320** |
| **Total** | | | **$3,785** |

What we have here is that in order to prepare for future costs and not deplete our starting principle we have to somehow 'save' $3,785. Per year. Indexed for inflation. Now where are we going to get that money. Remember the $30,000 of investment gain you pocketed? You know, you took 3% of the 6% increase in your investments. Well, you really can't take that $30,000 and spend it yet. You have to reinvest it so that when the need arises you will have the money and won't need to deplete your savings. You now have $26,215 (= $30,000- $3,785). Pretty ugly, but lack of planning means an early and miserable trip to future lodgings under a bridge. Oh, if you can do any of this while you are still working then that gives you some leeway, but you still have to put the money away.

The problem is that even with the savings plan you still have an issue. You don't know when your roof will leak, your furnace or air conditioner will need replacement. So, when the expected happens you may not have saved enough to do the repairs without impacting your savings. What do you do? Do the repairs and continue with the plan. You really don't have a choice.

### 3.1.3 Periodic Expenses

You already know what this is. This is your existing budget. Yep. We're going to spell this out for you. The money allocated here is what you can expect to pay out each month to live where you live like you are now living. The issue is that (again) when you work, this money comes from your paycheck. When you retire it comes from your savings (pension, Social Security, etc.). If you don't have at least this money, either don't retire or reduce your obligations by selling things.

Costs are not even approximate. You have to fill out actual amounts from your own records.

| **Item** | Sub-Item | **Monthly Cost** | **Yearly 'Cost'** |
|---|---|---|---|
| Utilities | | | |
| | gas | $15 | $180 |
| | electricity | $70 | $840 |

1 The Car 60,000 checkup is partially covered by the 30,000 checkup savmgs.

| **Item** | Sub-Item | **Monthly Cost** | **Yearly ‘Cost’** |
|---|---|---|---|
| | water | $65 | $780 |
| | phone | $90 | $1,080 |
| | cable | $120 | $1,440 |
| | Netflix | $10 | $120 |
| Vehicle (2) | | | |
| | Maintenance | $13 | $150 |
| | Insurance | $160 | $1,800 |
| | Gas | $390 | $4,680 |
| Home | | | |
| | Property Tax | $533 | $6,500 |
| | Insurance | $100 | $1,200 |
| | Maintenance | $50 | $600 |
| Medical Ins. (2) | | $730 | $8,760 |
| Groceries | | $477 | $5,720 |
| Entertainment | | $212 | $2,548 |
| Credit Cards | | $700 | $8,400 |
| Clothing | | $27 | $320 |
| **Total** | | $3,720 | $44,640 |

Hey, notice no mortgage, car payment or long-term debt. If you have any of these then rethink retirement. Your retirement income is jeopardized if these are not payed off.

Believe it or not, this is the rosy picture. We haven’t included the effect of taxes on income. Your ‘take home’ income is reduced by the amount of tax you pay, and you will be paying income taxes. Depending on the state you may also be paying state income tax, and depending on the county or city you may be paying county and/or city tax. Aint retirement grand.

So let’s suppose your total tax burden is 20% State and Federal. Then you need $55.800 / year or $4,650 / month to keep to your spending schedule. That is, you have to pay 20% in taxes which means you have to ‘earn’ those taxes to pay them. Remember the $60,000 in investment income? That has to be accounted for also (I think we will get into this in more detail later). If this is not in an IRS tax free account, you have to pay taxes on this money also. I mean, give me a break. You have ugly taxes.

For a mere $4,650/mo you can live just as you live now. No change. Since these are monthly periodic expenses they should be coming from your monthly income, not from savings. If you don't have the money and think that you can take the needed funds from savings, think again. As your savings principal gets depleted there will be a time that the earnings (investment income) will not be sufficient to support expenses. At that point you are quite doomed. Each dollar you take out after this threshold will not be replaced and will be a loss in principal and future income, which can never be made up. After that, the money flows out quite fast until there is nothing left. This means that you have to plan, and you have to plan well, for retirement. Just saying.

### 3.1.4 Unexpected Expenses

What do you do with the unexpected? You plan for it. Things break or have to be changed or repaired and for which there is no adequate knowledge before hand. That doesn't mean that you can't anticipate an unexpected expense, but it does mean that you don't have enough knowledge ahead of time to anticipate it's cost.

Up to this point we really haven't covered the cost of owning a vehicle. Although this should have been covered when we discussed Planned Expenses. An occasional transmission and changing things, such as struts or hydraulic cables. We don't know when these will occur and we really haven't costed them out, but we do know that sooner or later they will occur and their expenses have to be covered. Well, this is where you 'guess'. You guess at the cost, and just like the Planned Expenses, you budget for it. Since you don't know when the actual costs will occur the budgeting is an issue. But, you just set up a bogey and cost to that bogey.

Suppose some yo-yo drives a car into the side of your home. There is no way you can anticipate this. Who woulda' thought that some numb nuts would drive their car into your home. You can't anticipate either cost or when. But, you can leave some amount of money in your investments to cover the unexpected. And you must. When you are retired you don't have the flexibility that a paycheck gives you. You have to plan. So, pick a figure and stash that away. Unlike planned expenses, when the dollar figure is reached, stop saving. You have mitigated some of the effects of the unexpected . Be happy, have a beer.

### 3.1.5 Health Care Costs

Ah, this is the sad news. When the Limited Lifetime Warranty on your body parts begin to expire, you need care, and that care is expensive and you either pay or die. The grim case is that your spouse dies first, and left all alone, you must take care of yourself, or your spouse is still alive and well but you must be hospitalized or put into a long-term care facility. What do you do?

Let's look at Medicare Impact on Goals (which by now you have). Medicare will step in to help pay expenses if and only if all other resources are exhausted. Putting it bluntly, when you are broke, Medicare will help. But not too much. One thing is that Medicare will not force a facility to care for

you, so good facilities, ones that you would like to be in, may not accept Medicare. You have to go to what’s left, and this may not be what you want.

What do you do? Well, it costs a certain amount of money to be cared for. You must have that amount of money Remember that your ‘income’ comes from investments and Social Security and pensions. If your income is large enough then they can be used to pay for the care you need. And don’t even think that you will ‘die’ soon. Forget that idea. You might live to be 110 in a long-term care facility, and for each year you live there your income has to be sufficient to cover the cost. Or else.

How much does long-term care cost? Well, I don’t really know. The bogey I use is $60,000/ year (remember the 6% of $1,000.,000) plus whatever is left from pensions and Social Security. But that’s the good news. Suppose that you have dementia/Alzheimer’s or some other mental disorder which does not allow you to make financial decisions (remember that your spouse has passed away). Now the court must appoint someone, unless you provide a trustee as part of your will or trust. And that’s an issue. The function of any court appointed caretaker seems to be to use your money until none is left, then abandon you. So you must plan to be non compus mendes and you must plan to have a trustee of your choice take care of your physical and financial well-being. Just to say that health care and the consequences of aging are part of your retirement planning.

If this looks unattractive then consider this. Being young and full of piss and vinegar you take care of your home and yourself by yourself. At 90 this might be problematical. As you get older the need to get gardeners, carpenters, plumbers and tradesman to care for you and your home increase, not decrease. And sad as it is, you need money. You can no longer do the repairs so you have to hire someone to do them for you. And those costs add up.

There are tons (at least one or two) other scenarios which identify age related expenses, but these set the tone. The upshot is that at some time after you retire you will have added expenses just because you are unable to do the same things that you could do when younger. You have to prepare for this. The casual statement that “well, I won’t care” won’t work. You will care. Just as an observation, the young give their life easily, the old with reluctance. You will care and you won’t want to spend the end of your days in care, worry and sorrow.

Call the above the “End of Life” Scenario. It’s the good news. No really. It only gets worse from here.

I know, I know. This is a very brief, probably inaccurate, view of your obligations, but aint it great? You can plan.

## 3.2 Lotto Bankruptcies

Now this is an interesting one. We have talked about spending and savings and all sorts of things, but we haven’t talked about what happens when you actually buy something. You buy something and then what?

For small items, I just bought a pot or pan or pair of pants or .., nothing. You are done. You made your purchase and that’s it. But for large purchases, a car or house, things change. You have purchased an obligation. After you make your purchase, you have to have sufficient funds to pay the obligation.

Let’s talk about a house. You buy a new house with your fortune – depleting your principal and the expected investment return in the process. The house is beautiful, everything you always wanted. You love walking in it room to room, cooking in it, having friends over and just living. Only, your insurance has increased, your property taxes have increased, your utility bills have increased, and your maintenance costs have increased. What has not increased is your income (investment return, Social Security, pension).

Then the bills come due. You find that you have insufficient income and must use your investment principal in order to continue living in this beautiful house, until finally, you no longer have sufficient funds from any source to pay your new insurance, maintenance and property tax obligations. You declare bankruptcy and sell and downsize, and since you’ve spent your principal, you live only on Social Security and pension income.

Same thing happens with a vehicle or other large purchase. You buy without thinking of the cost, and you go broke. You have just entered the Lotto Bankruptcy where most Lotto winners end up. I mean, with all that money why can’t I enjoy it – because you have haven’t thought of the bad side of buying, the obligation to pay for it.

There you have it. Before you buy think about what you can afford.

## 4.0 Money

Ah, the thing you have. Let’s talk a minute about money. Just money. Money has many friends, but makes none. Money is different from everything else you know. It has a life of its own, and inhabits a different place.

If you buy a gallon of milk, no one cares. If two dimes are jiggling in your pocket, everyone listens. If people think you have money then your opinion is sought and attended to even though when people thought you did not have money these same opinions are disparaged and ignored. Don’t let money go to your head and make you the (idiot) savant of your friends and neighbors.

Without regard to the actual amount of your investments, only that you have achieved some sobriety and contentment, consider:

1. Don’t tell anyone you have money. Don’t tell your BFF. Don’t tell your relatives. Don’t tell acquaintances. Don’t brag that you have it. don’t brag that you don’t. You are in a very special class of people, one that easily generates envy and ire. You will have the following issues (remember, everyone will say, “Oh, you have plenty of money”):

- You will be criticized for getting something.
- You will be criticized for not getting something.
- People will agree that you should get something.
- You will be expected to pay more for drinks, tips and food (remember you have plenty of money).
- You will be given advice.
- You will be given investment tips. Whether you take them or not, if they were good tips you will be expected to reward the tipper. If they were bad, no one will remember.
- You will be asked for advice. If it was good and followed, you won’t be remembered. If is was bad, you won’t be forgotten.
- You will be asked for loans. If you commit the loans to paper, you will be criticized. If you ask for interest, you will be shunned. The expectation is that a loan from you will be payed at the convenience of lender, or not at all.
- If you get wealthier, you will be envied.
- If you go broke, you will be blamed.

2. Money has to earn its keep. If it does not grow by the rate of inflation plus a bad times margin, then you will lose everything in time.
3. Never spend more than you have, that is, don’t borrow on money that you don’t yet have. The income flow from investments is not constant. If you plan on it being steady, you will lose.
4. Don’t love money. Money has a purpose, and that purpose is not for you to grow immensely wealthy.
5. Be generous. Family and friends in distress may be helped with what you have. Remember them before you.

## 5.0 Investment Vehicles

An Investment Vehicle is a container containing your investments and cash. Different containers serve different purposes and have different benefits, and liabilities I might add. This section zeroes on the container properties and identifies some of the issues involved with each container. We’ll call the containers “Investment Vehicles” because that sounds more ‘official’ and makes it look like I know something. But they’re just containers holding assets.

What should you invest in, more accurately, what resources do you have to maximize the effects of your investment. How do you leverage tax advantaged products and use them to generate the amount needed when you finally retire, and how do you organize your monies to pay for day-to-day expenses. Remember the purpose of your investments is to be able to retire in comfort, without need and want, until such time as your final sleep (see Shakespeare). But before your final sleep you have to do the hefty work of paying your bills.

So what should you do? Well, there are several Investment Vehicles available, and here I’d like to distinguish Investment Vehicles” from “how to invest”. This is not the ”how do I make money” part of this document. That comes later.

There are more Investment Vehicles than that listed below, but these are the ones that I feel most comfortable with and the ones that I think that you’d most likely be involved in. They come in two varieties, the tax leveraged kind Roth IRA and Traditional IRA/401(k), and non-tax advantaged, brokerage and banks. The tax advantaged vehicles are best for long-term planning and the brokerages/banks are best for paying day-to-day expenses.

## 5.1 Brokerages/Banks

Brokerages and banks have no tax advantage. Any income earned in these accounts are taxed. Any selling of investments (mutual funds, ETFs and stocks) are subject to a capital gains tax. Dividends are taxed, and if the various Government agencies have anything to say about it, your tax will probably be taxed. There is no tax advantage to these accounts which makes them a bad choice for long-term investments unless desperate or cornered.

The type of asset’s in these account’s primary purpose is to be a money pit for funds needed to pay for day-to-day expenses. In our terminology, Periodic Expenses. Funds needed to pay these expenses are paid through a bill-pay app, checks provided by the institution, or cash. There is no tax on withdrawing cash, so let’s just call these accounts our cash accounts.

You fund these accounts with your pension and Social Security payments and your 401(k) Required Minimum Distribution (RMD), plus whatever other payments you receive. The cash on hand in this account must be enough to cover your Periodic Expenses plus enough cushion to cover some unexpected expenses. Just enough, mind you. If you put too much into cash you may be losing an investment opportunity.

Any excess over the minimum needed to pay bills is available for investment, but there are cautions to observe. Since investments take time to mature and may also be immature enough to lose money, any investment must have some guarantee of good behavior so that it will be available when needed. And remember, an investment sold is a taxable event. If you are lucky enough to be loaded, you have to check on your tax status before you sell an investment. Remember, if you are really lucky and really retired you just don’t want to be taxed to death.

There are three possibilities for investments, bonds, stocks and mutual funds (who woulda’ guessed). Let’s look at them in the context of a cash account. At least we’ll look at them very briefly.

Bonds may be subject to a tax, depending on whether they are muni’s (State, County or City issued) bonds, and I believe in whether tax revenue pays the bond holder. Bonds which are not subject to State Taxation are not subject to Federal Taxation. Some bonds free from Federal Taxation may be subject to

State Taxation. And to make matters somewhat worse, bond dividends are a factor in calculating your Medicare premium. But, tax-free bonds can be placed into brokerage accounts and banks with little fear of financial retribution. If they are not tax-free (such as corporate bonds) then there is a disadvantage to having them here.

Stock dividends are taxable. This motivates our investment options to include stocks with little or no dividend distributions. Surprisingly these are called growth stocks. They do not distribute a dividend, and the sole purpose of being in your portfolio is that their value grows in time without you incurring a taxable burden. But alas, they can also lose value, and since this is investing and not wishful thinking, you may need to sell them. And selling incurs the distinct disadvantage of being a taxable event.

And then our little friend, mutual funds. Mutual funds contain a market basket of stocks, bonds, and sometimes, other mutual funds. The performance is typically not as good as your stock choices, but then again, you don’t make buy or sell decisions. The issue with mutual funds, other than the expectation of increase of value, is that many of them have a periodic dividend distribution or capital gains distributions. And these can be quite hefty and they are taxable (although there are mutual funds without a tax burden, they usually have very low performance). This is a good choice but you have to check the tax consequences by looking at the distributions.

Cash accounts are used to hold cash required to pay bills. Their use as an investment vehicle is secondary and must be looked at with respect to taxes.

### 5.2 Tax Advantaged Investment Vehicles

Tax advantaged investment vehicles forgo paying taxes forever (Roth IRA and After-Tax 401(k)) or defer taxes until sometimes in the future (Before-Tax 401(k), Traditional IRA). That means that anything you put into them, buy or sell is tax free. They are not cash accounts and should not be used as a means to pay day-to-day expenses. They are primarily long-term investment opportunities for your future (or present) retirement comfort.

The taxable disadvantage of using a Brokerage Account or Bank disappears. You are free to use muni’s, growth investments, income investments or no investments. No one cares.

Other than the discretion of investment choices, both accounts share some common traits.

- If you withdraw any money from either account before 59½ you will face a 10% penalty and with taxes this can become 55%. You will substantially reduce the National Debt all by yourself. There are some hardship withdrawals which are allowed, but I think that even these have some sort of penalty associated with them.
- You can only contribute to these plans if you have work related income. If you don’t work, you can’t contribute. Social Security, pensions, dividends and capital gains distribution don’t count.

- You can not contribute to these funds after you are 70½ with earned income. Check with your employer concerning any 401(k) restrictions which may apply.
- You can not contribute more than you make. If you make $1,000 / year you can only contribute $1,000 / year. Depending on the plan, there are maximums you can contribute up to regardless of income. Roth IRA contribution limits are established by Congress. 401(k) plan limits are established by the plan.

Roth IRA and After-Tax 401(k)'s differ from Before-Tax 401(k)'s in two important ways. In a Before-Tax 401(k) you must begin withdrawing money at age 70½ and all withdrawals are taxable as income. In the other accounts there is no requirement for withdrawal and any withdrawal is tax free. As a further fillip, the percentage withdrawal for the mandated withdrawals, in the Before-Tax 401(k) increase each year.

There are arguments to be made on which plan is better for you during your working years. But let me be clear that I see no long-term advantage to the Before-Tax 401(k). Your tax liabilities at retirement can grow most unfavorably, and they affect not only the taxes paid but your Medicare payments. I encourage you to not consider funding a Before-tax 410(k).

This is where you will make your 6% investment growth. There is no penalty if you do, you don't pay taxes on investment sale, dividends or capital gains distributions. Only, you better not need the money you put into these accounts until you are older than 59½. Consider these types of accounts as an essential ingredient to your living on a beach and drinking those funny drinks with an umbrella on top.

### 5.2.1 Roth IRA/After-Tax 401(k)

You must pay taxes on the money you invest at the time of investment, but there are no taxes on the money you take out. Withdrawn money's are not counted as income for purposes of Medicare.

If you (could) put $1,000,000 into this type of account and if your return was 6% ($60,000) and you withdrew $60,000 you would have no tax burden. The money is yours. Note that if you then invest it in a Brokerage Account then you have all the liabilities of such an investment, it's just that the original withdrawal is tax free.

That of course is the good news. Congress has established a maximum dollar value that you can contribute. It is currently $6,000 before age 50 and $7,000 after age 50 (see Back-Door Roth IRA Rollover). But, Congress can change this at any time and you have to make an effort to check the current maximum amounts.

Now, I did say this was After-Tax money, if you plan on contributing $7,000, then you need to earn $8,750, at a 20% marginal Federal and state tax rate, and give the Government $1,750. But at a 6% growth rate, after 20 years this grows to about $22,450. If you contribute $7,000 per year for 20 years

with a growth rate of 6%, then after 20 years you will have about $257,499. Of course the bad news is that you paid $35,000 ($1,750/year) to get this, but then again, you do have a $222,499 gain over expense. And since your withdrawals are tax free, you can start on your journey to that little Caribbean island.

The tax free part of this argument has another important aspect. Now I know, I've said this once and will probably say this again, but your contributions to Medicare are income sensitive (see Error: Reference source not found). After (currently) $170,000 in income Medicare recognizes you as being a very special person, and without any increase in any benefit, will charge you more. And the charges can get rather outrageous.

Now don't you even think that this $170,000 is such an outrageously high figure that you are never likely to, ever, get there. Think again. If you have even a modest income and a well-packed 401(k) then, in time, you might well reach this refuge of the insanely wealthy. But not with a Roth IRA. You pay no taxes on withdrawal of funds!

One of the problems at retirement is taxes. The Government insists on getting their hands into your pocket at the time you are most vulnerable. This investment vehicle avoids their efforts, but, there is a front-end cost so look at your own tax picture and figure out what you can do.

### 5.2.2 Before-Tax Traditional IRA/Before-Tax 401(k)

The Before-Tax Traditional IRA is opened by you at the financial institution of your choice. The Before-Tax 401(k) is an employer sponsored plan. In either case, the operation of the plan from inception to termination is the same. The difference is that when you open an individual plan, you have direct control over investments, but in an employer plan, the plan provides you a limited choice in investments. (See IRS Pub 590-A and IRS Pub 590-B)

At termination from a company, the company may allow you to maintain your 401(k). If the plan does not allow this, or if you elect to take direct control over your investment decisions, you can rollover the company 401(k) into a Traditional IRA, called a "self-directed IRA". This has no effect on the 401(k) restrictions or requirements. The rollover transfers all assets from the employer plan to a Traditional IRA account of your election. It is important, but not critical, that you do an "institution to institution" transfer of assets. This means that your hands never touch the money. If you elect to do the transfer yourself then you have 60 days in which it must be done. On the 61sst day you will be subject to penalties and taxes. You can expect that the penalties and taxes will be less than 55% of the total amount withdrawn, unless this new income raises your marginal tax rate to the "oh my God" level.

The ability to rollover a 401(k) plan to a Traditional IRA while still working for the same employer is at the plan election. I have never heard of any plan offering this as an option, but, well, you never know.

You can not restore money once removed from these accounts. This applies before and after retirement. Once it's out, it's out. If you are working then you can continue to contribute to these accounts subject to IRS requirements . But, you can not withdraw money when convenient and then expect to restore it at a later time. You can borrow against these accounts while still working but this is an extremely unwise decision.

In all these topics there are distinct differences between a Before-Tax 401(k) and an After-Tax 401(k), but a Traditional IRA is a Traditional IRA. The differences and corresponding liabilities are discussed below.

#### *5.2.2.1 Back-Door Roth IRA Rollover*

A backdoor Roth IRA is not an official type of retirement account. The substance is that a (Before-Tax) Traditional IRA is opened and stuffed with money. At sometime after opening, the money in the Traditional IRA is rolled over into a Roth IRA. Then the IRS collects taxes on the amount transferred. Brokerages that offer both traditional IRAs and Roth IRAs provide assistance with the strategy, which basically involves moving assets from the (Before-Tax) Traditional IRA to a Roth IRA.

Using a Back-Door Roth IRA Rollover allows contributions which exceed the maximum allowed contribution to a Roth IRA. This is the only mechanism available to persons who do not have access to an employer provided 401(k) or to individuals who are income restricted to contributing to such a plan.

Every investor is eligible to do one Roth IRA conversion a year.

## 5.3 Investment Vehicle Impacts

Two cars come streaming towards each other, neither driver seemingly caring about which side of the road they are on. Then *CRASH*, the drive is over.

Sorry. I just couldn't help myself.

This section is really juicy. It tells you of the impact of your various decision choices in gory detail. The "wave your hand and hope for rain" discussion, above, gives an overview of the various options and a little bit about what they mean. This is the heavy lifting section. Full of grime, gore, and grisly remains. The hand waving will be fleshed out (sorry, I just can't help myself) and the monetary value of the choices will be presented.

### 5.3.1 Before-Tax 401(k)

A Before-Tax 401(k) allows contributions to be made prior to taxing, with the effect that each dollar you contribute serves to reduce the income earned for that year. Taking as our example a $7,000 contribution and assuming that this amount is subject to a 20% tax, then by reducing your income by

$7,000 you reduce your tax obligation by $1,400. In other words, the Government 'gives' you a tax bonus. Rather than needing $8,750 to buy into a $7,000 Roth IRA, and paying $1,750 in taxes, you are instead given a net reduction of $1,400 in taxes. Your $7,000 'costs' you $5,600 after taxes. What a bargain!

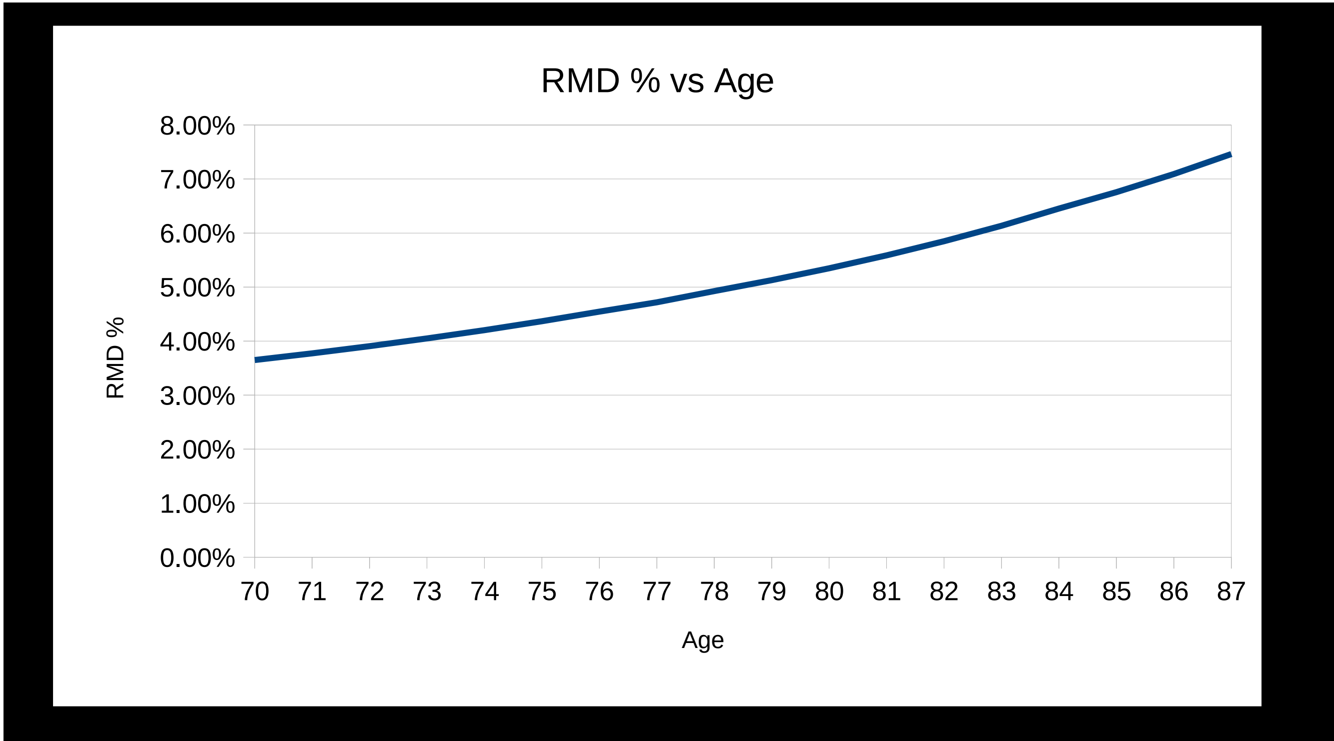
Well, yes and no. What the Government gives, the Government takes. There is a poison pill in this giveaway. At 70½ you must begin to take a Required Minimum Distribution (RMD). That is, you must take a certain amount of money from your Before-Tax 401(k) and move it into a taxable account. Each dollar you remove becomes income and is taxable at your (now retired) tax rate. The Government only 'lent' you the use of this money and now it wants it back.

Alas, that is the good news. The RMD percentage increases each year. There is a strong possibility that the RMD will put you into a higher tax bracket in time. This means that the 20% we've assumed is your tax rate is actually low. And by low, I mean way low. You and your spouse are each getting Social Security (taxed for each of you at 75% of the value received) plus, if your lucky, a pension and now your getting a pocket full of money which you may not want or need. But you must take it.

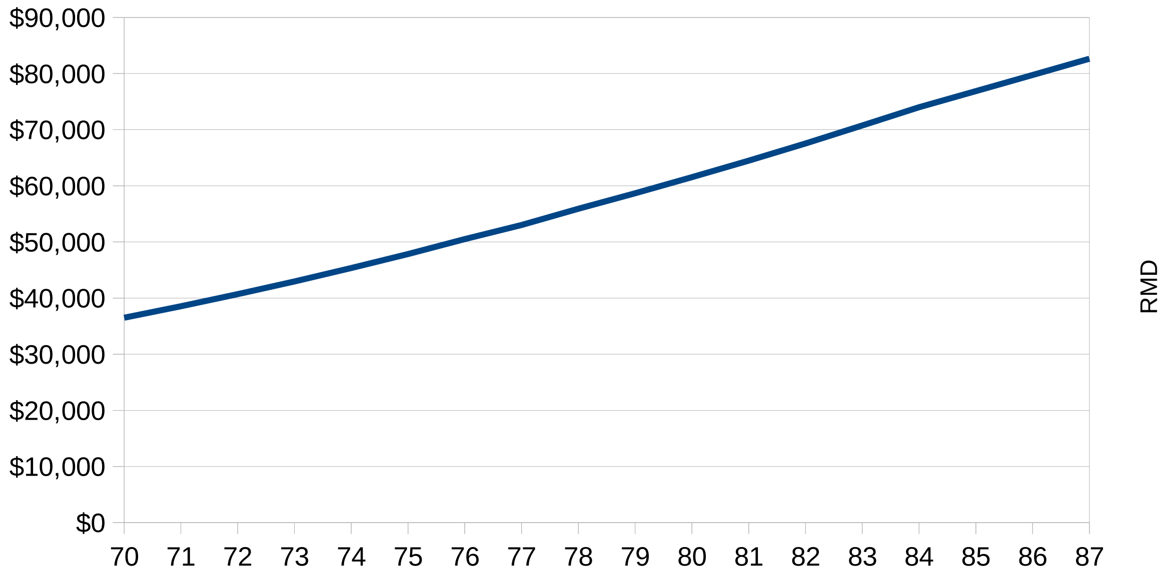
Since the RMD is offered by your employer the maximum amount that you put into the RMD is not limited to $6,000 (or $7,000 if over 50 years of age). So you might be putting, let's say $15,000/ year into this plan. Not only does this add a sizable amount of chump change to your retirement, it reduces your yearly taxes by a whopping amount. But at the end, you pay and pay.

Let's look at how the RMD increases in time. We start with the notion that we have $1,000,000 in our 401(k), earn 6%/year in investment growth (shielded from taxation) and transfer our RMD dollars from the 401(k) to some taxable account. We will neglect that you can invest this money and just assume that your a spendthrift.

The RMD % vs Age chart shows the percentage RMD requirements. The percentage is the amount (n percent) that must be taken from the total amount that is in the 401(k). Although not a really thrilling figure, notice that at age 82 you will be removing 6% from the 401(k), roughly the amount that you expect to earn. At that age you will no longer be able to generate enough income to recover the RMD, and the sheltered income principal will start to disappear. Although you can still invest the RMD amount removed, it is not sheltered and subjects you to taxes and an increase in your tax rate. Investing and the RMD combine to unfavorably leverage your retirement funds.




That was refreshing. The RMD vs Age chart shows actual dollars (based on a starting principal of $1,000,000). Hey look. Our first RMD at age 70½ is $36,496 and this grows to $67,673 at age 82. You started with needing $56,000 at retirement, and assuming that is what you have at 70½ , your RMD pushed this up to $92,500. Now I’m not a tax guy but it looks to me like you probably increased your tax liability. The 20% figure is not reliable at this point.




But, alas, there are some other points. Remember Medicare? You pay for it is based on your MAGI. So, if one person pays more, both pay more, and at 82 with a $67,673 RMD you may find yourself sneaking up to a 222% increase in Medicare. And if that doesn't frost you, at 82 you have no place to run.

Let's take another look at Medicare, this time consider a 3.5% inflation rate. After 20 years your income need changes from about $56,000 to $111.500. You need $111,750  to just live like you do now. Assuming that you have $1,000,000 in savings and that your first RMD is $36,500 then this gets you close to $147,000 as your income. Now I'd say that you really have a problem because in the next year, accounting for inflation, you will have over $170,000 n income. Now some of the effects are mitigated by a COLA adjusted rate structure. But, it is questionable whether this adjustment is sufficient to keep you below the Medicare Premium rate thresholds.

I have a bias against a Before-Tax 401(k) and the reasons are given above. You incur a future liability at a time when you are most vulnerable, and must depend on Congress to not allow inflation overcome reason. And don't even think that at 82 you won't care.

### 5.3.2 After-Tax 401(k)

My bias is to using the After-Tax 401(k). At the front-end, when you invest, you need to pay taxes. And the tax rate is whatever your rate is. But, at the back-end, money is money. There is no RMD. You have

no withdrawal schedule and money removed is removed tax free. If you withdraw money you can not restore it.

If you want to roll your After-Tax 401(l) over into a self-directed investment account, then note that the After-Tax and Before-Tax 401(k) accounts go to different destinations. The After-Tax 401(k) goes to a Roth IRA not to a Traditional IRA.

This type of account is like gold. All those fancy charts and words in the previous section do not apply here. Use of the money does not even cause a quiver in your Medicare costs and does not change your taxable income. At any age, the money is yours. But there is that darn front-end cost.

I have heard that some employers sponsor an After-Tax 401(k) and some do not. If you are interested you should check with your employer.

### 5.3.3 Roth Conversion **of a Before-Tax 401(k)**

Well, you say. I screwed up. The cost of Before-Tax 401(k) after retirement is too high. What do I do now? Well, you do have an out but it's expensive. It appears that in the long run you win, that is, ultimately converting funds from a 401(k) to a Roth IRA is a net gain. But while you are doing it, it's really painful.

The process of conversion is called "Roth Conversion" and must be done by trustee to trustee. You can not fund this conversion yourself you must instruct your trustee, the brokerage or employer sponsored management firm to convert for you.

You have a tax burden when you convert. For each dollar converted from your 401(k) to your Roth IRA you must pay taxes, and get this, each dollar is added to your income. This effects your tax rate, your Medicare benefits, if you are on Medicare, and any means tested plan you are in. It just isn't cheap in the short-term.

The question is, is it worth it. I think that it is. The short term pain is more than made up for by the tax free money you have at retirement, and the lack of an RMD, and the lack of an RMD percentage which increases with increasing age. But, you are in the cat seat.

There are the following age related issues to consider:

1. < 59½. Check IRS Pub. 590-A. I don't know if it is possible for a conversion to be made without penalty if you are less than 59½. If you can't withdraw, you can't convert.
2. 59½ < 70½. You can withdraw money from your Before-Tax 401(k) without penalty. That means you can do a dollar for dollar conversion. But, each dollar that you convert you have to pay taxes on. There is nothing for nothing.

3. > 70½. The age of your income decline. You have a requirement to withdraw your RMD. No part of your RMD can be converted to a Roth IRA. You must withdraw other money from your 401(k) to convert. The RMD money can only go to a non-tax deferred account such as a bank or brokerage, or can be used wholly or in part to pay taxes.

Because of the nature of the withdrawals and the liabilities incurred we should talk about some strategies. I don’t know anything about Case 1 above so I can’t address it. But for the remainder, the issue is that you want to convert but you don’t want to increase your tax bracket and you don’t want to either lose or increase any means tested benefit (Medicare comes to mind). This means that you have to plan your conversion, perhaps plan it over several years. You convert just enough each year so that your taxes are not extraordinarily high and that you do not exceed thresholds for benefits or change tax brackets, or at least change brackets minimally.

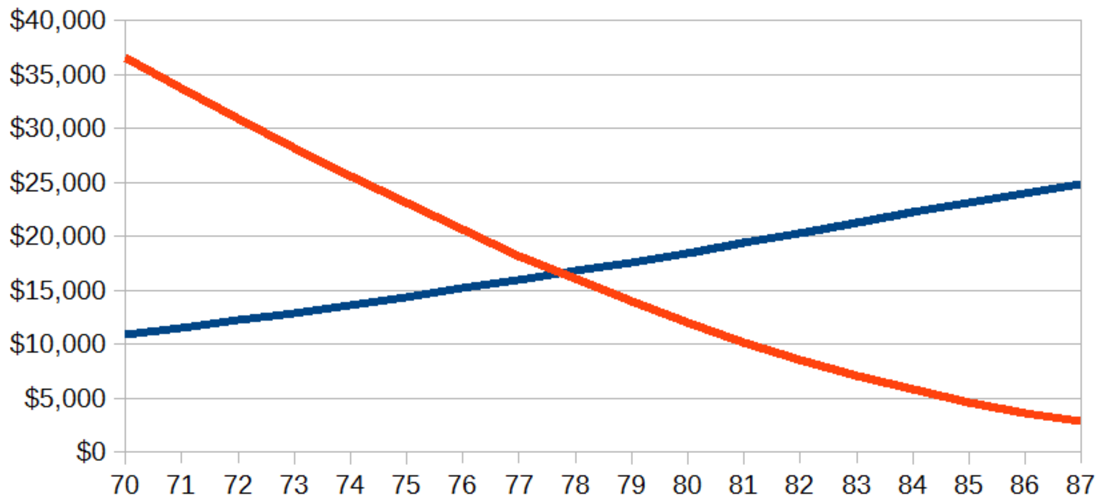
If your combined income plus withdrawal exceeds $2525,000then you are considered rich. This loses some tax benefits. If you are retired and your combined income plus withdrawals exceeds $1725,000then your Medicare expenses increase by 222% (and up depending on the tax bracket you end up in).

The other issue is, how do  you pay for taxes. Well, if you are working you can pay it with your salary. If you are in Case 2, then you remove both your tax liability and the amount you are converting from the 401(k), but please be aware that the entire sum is taxable, not just the amount you are converting. And, in Case 3, you can use the RMD to fund your taxes on the amount you withdraw for conversion. Seems a pity really, you get no use from your RMD.

Remember that this entire process is not done in isolation. If you do want to convert you have to look at your retirement picture to ensure you can, and to ensure that you are not cash poor at the time that you need it most. Everything is interlinked at retirement.

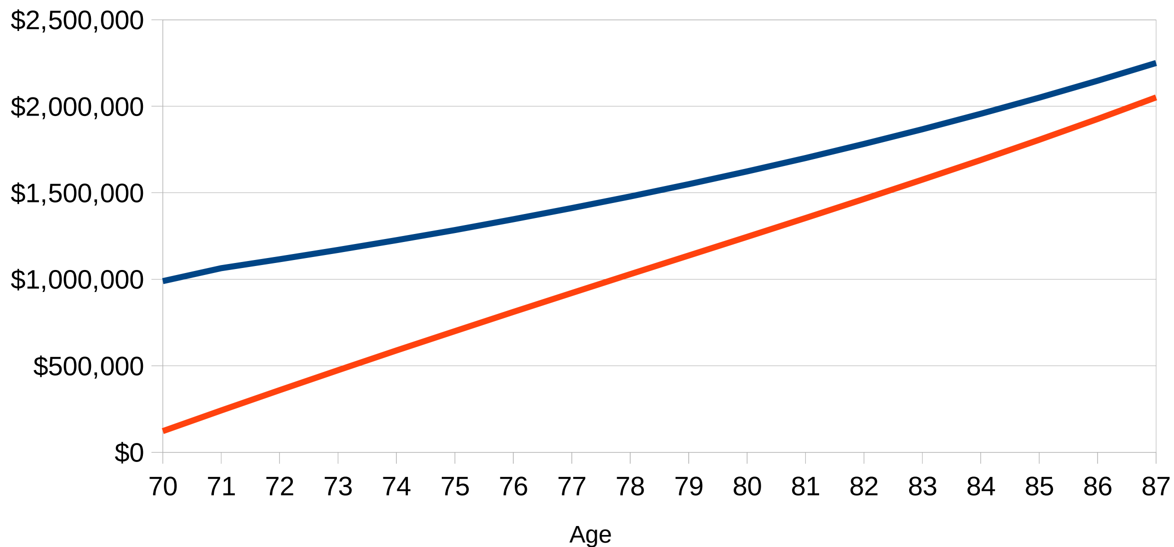
One other thing. You might have several 401(k)’s not just one. This may affect planning to some extent, but it doesn’t affect results. Each plan has the same withdrawal policy, but, in Case 3 you have multiple RMDs. For our purpose they can be combined into a single sum and all calculations can be made on this sum.

I do want to show you the taxes that you will pay for both plans. Remember that we start with $1,000,000 and we have a 6% growth and we never use the money. No joy in mudville.




The blue line represents the taxes that you pay on your RMD, the orange line are the taxes that you pay for your conversion, using the RMD as the total tax liability. Notice that in time, the total you pay in taxes due to your conversion drops because the amount of your RMD is reduced after conversion. Not noticed is that you are not using your RMD for personal needs, you are using it to pay taxes. And also not noticed, is that the 401(k) RMD starts to push your income to the point where it starts to cross some thresholds, the RMD chart is in the Before-Tax 401(k) Section. So although the figure is absolutely accurate, it is not totally truthful.

Taxes have been reduced, how about the investment values? Glad you asked.




The blue line represents the 401(k) and the orange line the Roth IRA. Notice that at the end of the day, the 401(k) is more than the Roth IRA but that the Roth is increasing fast enough to surpass the 401(k). But this doesn't include thresholds and taxes. If we include them (previous chart) then the 401(k) puts us in jeopardy but the Roth does not. Any withdrawal from the 401(k) has a tax consequence but no withdrawal from a Roth has one. So at the end of the day the Roth will save you money and the 401(k) will cost you money. Just saying folks.

You might notice that the growth in the 401(k) is starting to taper off, good observation. The RMD percentage grows each year and retards overall investment growth. At the point where the RMD percentage begins to exceed the 6% investment growth figure, investment growth is insufficient to show a year-over-year increase. At that point growth tapers. But, for the Roth IRA, this never happens. And if you look at the growth curve you will see that it is always greater than for the 401(k). It always returns a profit.

Let's try to figure out how much we can convert using the RMD. Well, there is an issue. The RMD must be withdrawn by Dec. 31 of any given year. At this time we don't have a complete picture of our finances. The various mandated IRS documents (1099, 5498, Broker, etc.) have not arrived. We need this in order to anticipate our total tax liability and income. If we guess too low a figure and as a result convert too high a figure we have double jeopardy. We pay more taxes and may exceed really ugly IRS/ Medicare thresholds.

We do have, at least, a way of getting some of the figures. We are interested in all sales of investments (mutual funds, stocks, etc.) and any capital gains/loss associated with those sales, and we need to know all interest and dividend income. Although a bore and tedious, that is the function of your monthly statements. Although you don't have your December statement, you can guess at that, you do have statements for the entire year. This is the time to look at them so that you can make some tax related decisions.

Assuming that this has been done and that you can use the entire RMD as tax for your conversion, then with a little algebra we've got it covered.

Our tax rate (20%) is convenient for calculations but a little low. Let's assume that you are in beautiful, downtown California and that the State Income tax for you is 5%. Your total tax rate is 25%. Let's use this.

In words, 25% of the total amount withdrawn from your 401(k) is equal to your RMD, and this entire amount is going to be distributed to the IRS and the California taxing authority. Now the total amount that you will withdraw consists of both the amount you are going to convert plus the RMD. Got it. Let's put some ribbons and algebra around this and see what happens:.

RMD = 25% of Total Amount Withdrawn
RMD = $36,496 (for the first year)
Total Amount Withdrawn = $36,496 /.25 = $145,984
Conversion Amount = $145,984 - $36,496 = $109,488

Now that's a lot of money. You'd better check to see if it crosses some threshold (for sure it exceeds the $170,000 Medicare threshold but you better be careful you don't exceed the $250,000 IRS threshold).

Well, what about taxes. Well we get:

Total Tax = $36,496
Total Tax Rate = 25% = 20% IRS + 5% State
Total IRS Rate = 20%/25% = 80% of Total Tax = $29,196.80
Total State Rate = 5%/25% = 20% of Total Tax = $ 7,299.20

And there you have it. It's pretty ugly, and expensive, but you made a choice when you were working. Oh, I will just add that if you don't convert you will have a sorry time sitting down after you turn 78 or so. I mean you will be taxed to within an inch of your life. And don't think that you can avoid it or that you won't care. Nah ah. You will care. You're going to be so wealthy that the Pentagon will be coming over to see if they can borrow money. The only bright note is that you will be able to brag that you have more money than Midas.

## 6.0 Investing Strategies

You’re Going To Lose Money!

> This Guide is about minimizing the loss and recovering from it afterwards. Even if this Guide provides the best strategies possible, as circumstances change the strategies will not work. What is offered are a collection of methods to achieve the best results in the long term. You must be adaptable to short term events which require a change.

Don’t invest more than you can afford to lose.

> You just lost some money. Your stocks tanked, your mutual funds are about to be flushed, and the general markets seem to be going down, way down where you don’t want to be. This Guide tries to minimize the loss and tries to provide enough ‘cushion’ so that you can recover. A loss is not fatal to your future unless you have bet the farm and have no available funds to invest. That is, if you lost on the stock market you must be prepared to gain on the stock market.

How to make money for a lifetime and not lose it all at once. Well, you got a bunch of money, now what do yo do with it? At the end, you should get some appreciation for what ‘money’ is and how best to deploy it. Or not.

What can we say, well:

1. No matter what you do the economy and stock market will dominate. When the stock market goes up, the value of your portfolio goes up. When the stock market goes down, the value of your portfolio goes down. Your job is to seek to maximize the upside and minimize the downside.
2. This section is how to make money by investing. If you’re socially conscious you may elect to invest in a certain type of company. If you think companies should support small carbon footprints, you will invest in another. This section is none of that. This section is only how to make money by investing. You take care of the other issues on your own.
3. The purpose of investing is to make money. It is not about friendship or affection or love of a company or hate of a company. It’s just about making money. If you love a company and it does not make money and you hate a company and it does, buy stock in the company you hate.
4. No investment strategy works all the time. You will need to change and adjust your strategy periodically.
5. Always look at the downside. The upside takes care of itself. The downside will kill dreams of glory. This is the analytical side of pessimism. When you analyze investments prepare for things to go wrong, and prepare to prevent the consequences of things going wrong.

6. Why invest. Because you’re not idiots. Your money has to make money, just like you have to do when you work. If your investments do not make money, then you are spending your future. Inflation alone will eat you up. Remember that if at the beginning of one year you have $1,000,000 and if at the end you have $1,000,000 then you have lost money. Pretty soon, no money, no future.
7. Real good guys, now how much should you ‘make’? Your goals are to make at least 3% over the rate of inflation. If the short term inflation rate is 2%, then you should make at least 5%, but note that the long-term rate of inflation is 3.5%. My goal is make a long term average of 6% / year.
8. You are wasting your money when you buy an investment vehicle which doesn’t yield as much as the short-term rate of inflation.
9. Don’t invest in CD’s. They are worthless. Now why would I say something like that. Look, a CD may yield something like 2.5% APY (see Glossary). You can find any number of good mutual funds and stocks of solid reputation and long-standing reputation which will give you a higher return in their dividends, and if you include price growth, considerably higher.
10. If you did not make the rate of inflation (shame on you) don’t spend a dime.
11. How much can I spend. You’ve satisfied the spending requirements of Spending and you have reinvested for inflation and you find you have a pile of bucks in your hand. Reserve some of that pile for market reversals and spend the rest.
12. The market goes up and down. What should you do. When the market goes up, prepare for it to go down. When the market goes down, prepare for it to go up. This translates to not investing so heavily that when things go sour you lose everything (the market changes from up to down) or not having enough money on hand to invest (the market goes from down to up).
13. Don’t put all of your seashells in one basket. Never, I mean, NEVER, be so sure of an investment that you will put in more than you can lose. And by lose I mean you lose everything. And this is not an unlikely event! So, invest a little in everything. If you win, you win. If you lose, lick your wounds and go about your business.
14. Diversify. Don’t concentrate on a given industry, industrial sector, country or business to the exclusion of everything else. Everything has cycles. What you are trying to do is to mediate those cycles, through your investments, to your advantage.
15. Identity politics and identity finance will not work. People just ‘like’ you are as much a scoundrel or fool as people not like you. So, choose wisely.

And now that the homilies are done, to the crux of investments. This section will tell you about investments, investment strategies and how to accumulate wealth. The basics are good, but they are not absolutes and circumstances will change them, and change them again. Sooner or later you will back to where you began.

## 6.1 Stocks, Bonds and Mutual Funds

I don't know anything about bonds. They will not be covered.

As a general strategy, investment decisions are made based on the history of success of a given stock or mutual fund. If there is no history, then there is no basis to evaluate performance. You are buying something based on it's 'name' and what other people have said about it.

A major element is to reduce risk. In avoiding risk we hope to achieve steady gain. This means that those heart leaping moments where a stock jumps from worthless to worth millions will not be there. A major part of reducing risk is to look at history and to evaluate performance based on past performance and current market conditions. If the investments has a good history when the market sours and a bad history when the market is strong, buy it in poor market conditions and sell it in good market conditions.

Do not gamble and do not speculate. This isn't a guessing game. To invest requires that you spend time studying. If you look at an asset and say "well, I like the name so I'll buy it" then you have made a foolish move. If you look at an asset and say "I wonder what other evaluators think of this, and how has it been doing in the last few years and what can I expect it to do now" you are starting an investigation. But many times the experts are wrong. You need to put some skin into the game.

If an investment you did not buy increases by a g'zillion percent you have lost nothing and the increase could not be predicted. I have never regretted not buying an investment, although I many times regretted doing the opposite.

For a point of context, stocks represent company ownership. A stock represents a fractional ownership of a company. When the company prospers you expect the stock value to increase, and when the company founders, you expect the stock price to decrease. In reality neither condition is absolute. A stock can be bid up (or put down) as a result of speculation, having nothing to do with company well-being. So although you own a piece of a very valuable company, it is not always true that that value is reflected in the stock. And in same fashion if you own stock in a worthless company, that stock may be worth more than the company.

This is the big league. Time to put your toys and playthings away and get serious.

### 6.1.1 Stock Investing

Before you select a brokerage to be 'yours' ensure that all fees are reasonable and the stock screeners allow you to chose stocks according to your preferences. Ensure that additional corporate and evaluator information is available to allow you to investigate the company. In short, compare brokerages for suitability before you choose one for use.

Since we are not gambling or speculating, do not buy an IPO. Let me say this again, do not buy an IPO. All IPO’s have business plans which says that they will make a lot of money. The problem is that they have no history. Without an established track record there is no way to determine financial viability – whether the company will indeed produce a profit. If you buy into one of these things, you buy into risk. You are living in that dream world which says “everything will work just as I want”.

These are the steps to purchasing stocks:

1. Stock Screening. Use a stock screener to find a list of candidate stocks.
2. Elimination. Eliminate stocks which seem non-viable immediately.
3. Evaluation. Analyze the remaining stocks and eliminate those which are non-viable.
4. Purchase stock in one or more of the remaining companies.
5. Selling stock. Decide on a selling strategy.

Oh, one little thing. Choosing a given company(ies) to buy stock in can take several days. Don’t hurry. The object is not to be quick but too make money (remember that little speech?). If you are quick, you are likely to be careless, and if you are careless you are likely to lose money, and if you lose money you are likely to go broke. So, take your time. Think over what you have and what you want, and then pounce like a panther to get it. Just saying.

That’s it folks.

Well, almost. Let’s look at some of the details and see what snakes we find.

### 6.1.2 Stock Screening

Stock screening is the process of finding companies to evaluate. The objective is to find enough companies so that there is a choice. During any screen there can be a few or a few dozen companies, to hundreds.

We are looking to find those companies likely to show something in the order of 10 – 20% gain to cover the risk of investing in stocks, and we want this to be the average gain overall for all stocks purchases, not just of a single stock. We do not want speculation, we do want investment. The two are different.

One important point is to understand stock evaluation. If you focus on stock price change you are a “growth investor”. If you focus on dividends you are a “value investor”. If you focus on both growth and dividends then you are a “total performance” investor. The current strategy is based on total performance. We want a 10 – 20% growth in total performance.

There are over 8,696 stocks traded on U.S. stock markets. There is always a good buy.

Stay away from international stocks. The reason is that foreign taxes on purchase and sale, and taxes on dividends, are often very high and tend to minimize the investment return. The end result seems to be that after the tax burden is deducted, the stocks perform about the same as U.S. harbored companies, so why bother.

Do not purchase company stock from authoritarian countries. There is no guarantee that the financial and legal system in the country at question provides good oversight against bad behavior, or provides adequate financial instruments to make reliable judgment calls, leading into question the validity in assessing company stock performance.

In your stock strategy you have an 'event time horizon'. You expect performance to be acceptable within a certain time after stock purchase or you consider a sale. In any stock screen you must consider whether the stock return will fall within your event time horizon. If it is not in the event horizon then is there another reason to consider the stock for purchase.

As an aid in Elimination and Evaluation, consider putting some or all of the resultant stocks into a spreadsheet.

There are a number ways that screening can be done. I'm going to mention a few, but with some thought on your part, you can find others.

1. Select a known company and look at competitors. For example, select Home Depot (HD) and look at Lowes (LOW). Selecting a number of known companies, their competitors and their competitors competitors allow collection of companies of known provenance.
2. Look at the list of companies owned by mutual funds. Pick the ones of interest and continue your research. The mutual fund does not have the same event time horizon as you, and the stocks in it can suffer some loss without the fund being concerned. But you might be.
3. Use a brokerage stock screener. A list of candidate stocks will be returned using the brokerage criteria. Determine if the screener focuses on growth stocks, value stocks or total performance stocks.

   The selected candidates are never hidden jewels. They are consensus candidates which the brokerage firm criteria have selected and are shared with all clients.
4. Use a brokerage stock screener and select competitors to the selected choice. This give you a wider selection field.
5. Use a customized stock screener. Brokerage firms which do not allow you to construct a customized stock screener fail your economic interests.

Remember you are not looking for love. You would love to find a company yielding a million a minute, but you need steady growth, solid performance, and since stocks are risky, a greater than 10% return. However you choose your initial set of candidates, you want more than just a couple.

#### *6.1.2.1 Customized Stock Screener*

The screener consists for four filters, total performance, P/E ratio, dividends and ownership. Specifying a duration allows accumulation of an historical perspective. We filter past performance with our expectation that it will be indicative of current performance.

There can be more filters provided in your screener. But I have found that these are sufficient. Most particularly, since the event time horizon is so short there is no effort to be spent in predicating the future. How the company performs at some time beyond our event time horizon is of no interest. The additional filters may provide a measure of future performance, but we are uninterested in it.

The underlying measure of ‘worth’ is total performance. The filters focus on getting useful data from the past to help determine the total performance in the present. We are interested in a 10% growth in stock total performance over a relatively short time.

Assume that each filter can accept a range, low value and high value. Where there is a time selection available, it is normally YTD, 1, 3, and 5 years. The YTD value is not normally interesting. The 1, 3, 5 year averages give historical information useful in evaluating a stock.

The filters and rationale are:

1. Total Performance: Our goal is > 10%. This is the Total Performance, Price Growth + Dividends. Using multi-year averages gives an historical view of whether the stock is “on a roll” and going up. Reducing the historical perspective drives the analysis towards local (YTD) conditions. In times of strong market moves it is often more useful to reduce the historical averages more towards the YTD since long-term averages may be deceptive.
2. P/E ratio: Our goal is 7 – 24. Current Price over TTM earnings. Another way of looking at this is that it is the number of years at the current earnings rate that it will take to equal the current Price.

   If the P/E ratio is very high we get into stocks which can show large fluctuations in price and, I believe, are a risky investment, In general, low P/E ratios filter financial stocks and higher ratios center on other industries.

   The current average P/E ratios in the following markets are:

| Market | Ave. P/E |
|---|---|
| NASDAQ | 26 |

| S & P | 24 |
|---|---|
| DJIA | 21 |
| Russell 2000 | 42 |

3. Dividends: This allows filtering by companies which put more or less ‘skin’ into the stock. It is an estimate of how much profit you want to distribute. The higher the dividend distribution the more likely the stock is from the financial sector. The lower the dividend the more likely growth dominates the Total Performance. For tax advantaged vehicles the choice is a matter of personal desire. For brokerage vehicles a low to zero dividend distribution avoids taxes paid no dividends.

   Dividends are annualized by taking the last dividend payout and multiplying it by the expected number of dividend distributions in a year. In the U.S. dividends are usually distributed 4 times/year, so the effective calculation is 4 * last dividend payout. This is a deceptive measure since the last payout may not be indicative.

   Everything else being equal,, the lower the dividend filter the more stocks pass the filter and the closer the stock is to a growth stock.

4. Institutional Ownership: <= 30%. Institutional ownership identifies the percentage of the company stock owned by mutual funds. The issue with institutional ownership is that the funds buy/sell decisions are computer generated and they may be contrary to the actual viability of the company as a candidate. That is, the buy/sell decisions by mutual fund companies may work against you. The other issue is that “hidden jewels” are undiscovered treasures. Undiscovered means that mutual fund companies have not yet invested in the company, so it may be a hidden treasure.

Putting this all into a convenient table:

| Screen | Value | Years |
|---|---|---|
| P/E | 8 – 24 | 5 |
| Total Value | > 10% | 2 |
| Dividends | 0 – 3% | 2 |
| Ownership | <= 30% | N/A |

There are many ways to look and measure companies. The Screen Measures above are not exhaustive, but they are simple and, in the past, have proven effective. One major advantage is that the list of filters is small enough so that you can see the effect of a little personal tuning. Chaining the filter values, and hence the assumptions underlying the values, allows exploration of a range of stocks.

It is important to understand that the investment effort is spent on minimizing risk as well as gaining investment value. Changing the filter values can increase risk.

### 6.1.3 Elimination

The goal of Elimination is to wean down the stocks from the screener into a manageable subset. The screener is a broad brush filter of stocks. In its operation it uses the half-truths and fictions given by averages to search stocks offered on U.S. exchanges based on the given filters. Some of the returned stocks fail to be viable for selection and it benefits us to quickly reject them. It takes time to evaluate a company and this time is wasted on companies which can not be included into a final collection of choices.

The elimination procedure uses an ad hoc set of conditions to separate the stocks for further consideration from those which bear no interest. The set of ad hoc conditions is context dependent. What will be presented is some part of the total collection of quick analysis tools that are useful. T

1. Sort the stock list by Total Performance.
2. Eliminate stocks whose price is too high. This is equivalent to not putting all of your eggs into a single basket. For example, 100 shares of Google (GOOG) costs about $120,000. If you invest I this single stock there may not be enough left to invest in anything else and your entire portfolio becomes dependent on the performance of a single company.
3. Research the stock price history:
   a) Eliminate if the price decline history is unusual. Unusual means a decrease inconsistent with past declines.
   b) Eliminate if the price decline history is consistent with past declines but which does not appear to have bottomed out.
   c) Eliminate if the price history shows an unexpected increase. This may be a temporary bump and not a permanent increase. Steady 'up' reduces risk. Sudden 'up' increases risk.
4. Research earnings history:
   a) Eliminate if earnings history in decline.
5. Research dividend history
   a) Eliminate if dividends in decline.
   b) Reserve if dividends show a sudden increase. If this increase is a one-time, only-time then it should be ignored.
6. Research P/E
   a) Eliminate if too high or too low
   b) Eliminate if there is a considerable difference from year to year.

This is a superficial look and reasonably fast. We are trying to reduce personal risk (where have I heard that before) while achieving good gain, and are trying to eliminate non-candidates as quickly as possible.

## 6.1.4 Evaluation

Here's the unfortunate part. Everything is related. Somehow. There is no magic way to get an answer, it requires hard work. It requires fitting pieces together to see if they make sense. It requires some subjective judgment. Remember, nothing works all the time, and some things don't work at all. What you will not see is a definitive answer, something like, do this and you will always be successful. Sorry. That's investing.

The final cut. We are trying to find something to buy. Like as not, we don't have enough to buy everything, so we try to find the juiciest morsels to chew on. The companies have to be looked as being potential cash cows and investments in the companies as being an overall benefit.

You are looking for stability, steady growth and not much wobble. Which brings us to the point of saying that we are looking at the past to predict the future.

And now for the 80% - 20% rule. There is no way on this Earth to predict exactly when the stock is highest in value or lowest in value. You win if you sell stock when it reaches 80% of its highest point or you buy it when it is 20% over it's bottom. The 60% in the middle is your margin.

### *6.1.4.1 Charting*

The objective of investigating the price chart is to discover long-term and short-term behavior of the stock being analyzed. The behaviors form a basis for further consideration. If it can be seen that either the behaviors are uncertain of that they are definitely going in the wrong direction, then the stock should not be considered for a short-term gain. That is, if it doesn't fit in our event time horizon it doesn't serve any use.

The behaviors being looked at are stock cycles, general trends, and very short-term trends. In turn:

1. A cycle is when the stock goes between high and low points, where the duration of the cycle is fairly long. Typically the cycle may be for several months, where the stock achieves some high point and then gradually decreases to some low point before again increasing in value.
2. General trend. Between some start-time and the final entry in the price table, is the start-time lower than the end-time (an increasing trend) or lower (a decreasing trend). The start-time can be changed to observe detailed performance over selected periods.
3. Very short-term behavior. How has the stock performed in the last 1 – 3 mo. If the very short-term behavior shows a stock increase then this may be a candidate for purchase. If there is a

negative trend over a long period of time, or if this is in the downward part of a cycle, this upward 'blip' can be capitalized on to our advantage, but there is a requirement that the stock be frequently looked at to see if it should be sold. If all of the cyclic behavior, the general long-term trend, and the short-term behavior indicate that the stock price is increasing or should increase, then this is a candidate for selection.

In a word, the very short-term behavior dominates our purchasing considerations. The longer term behavior determines whether the stock price can be bought and forgotten or bought and worried about.

With this information we assess the price stability of the stock. Is our expectation that in the near-term (looking forward) will the stock price increase and will this increase be steady or haphazard. We would like a steady increase, or in the case where Total Performance is heavily oriented to yield, we would like the price to have only a small fluctuation around the current price. Of course, we are in heaven if there is both a large dividend and a price increase.

## Cyclic Behavior

A cycle defines a period of time in which we can expect the stock price to go up then go down (or vica versa). We can expect that the cycle will have some wobble in it, that is, in each time period the value will not show a steady up or down but will show a general trend up or down, with price changes in opposing directions during this time. That is, it is not a straight line behavior.

When there is a cycle then there is a time period between the high (low) point and the next high (low) point. This time frame allows a judgment as to not only what the short-term behavior is but how long it will last. For example, suppose the cycle averages about 3 mo. and the very short-term behavior, e.g., 2mo., shows that the stock price is increasing. If the stock holds true to form, the stock price will begin the decrease in 1 more month. This is not a candidate for purchase.

## Price Stability

What we'd like is for there to be a constant change in stock price. For example, one day the price is $10.00, the next $11.00, the next $12,00 and so on. This never happens. There is always a little bit of flutter from day to day, where the value of the stock in a single day is not an absolute determinant of the stock price in succeeding days. Instead we focus on trend lines (and cyclic behavior) and recognize that there will be some fluctuation. In particular, on the day after we purchase a given stock there is no guarantee that we will see the price increase. You have to have nerves of steel and iron in your blood to invest.

We're not even close to being done. The upshot of above is to not buy into a company which is losing value. If the trends go down, look further to see if they might go up but abandon them if there is any doubt. You are not speculating! You are buying stock to make money not to win at blackjack.

#### *6.1.4.2 Stress Testing*

If the charts, and no doubt the stars, indicate that this company is a good buy (price trend up, dividends good, nothing seen on the horizon). How does the stock do under stress conditions. Looking at Long-Term trends, when the market goes down does the stock follow, and if it does, when the market goes up does the stock follow (with or without a delay). If it goes down, when the market goes down, and up, when the market goes up, by what percentage. If the market goes down by 10% does it go down by 8% or 12%. Same for the market going up. Essentially, how sensitive to market conditions is the stock, and does that lead or follow. There are statistical tools to support getting this but we are going to eyeball it.

1. Lead Sensitivity: If the stock price precedes a change in the market then the company is predictive. When the stock price falls, the market falls later, and when the stock price rises the market rises later. If you see this then this affects the behavior of your portfolio.
2. Immediate Sensitivity: The stock price rises/falls at about the same time as the market as a whole. This is the casual fate of most stocks. It predicts nothing and just says your stock follows the market, but not, if the percentage change in value is less on the downside and more on the upside then you may have a winner.
3. Follow Sensitivity: The stock price rises/falls after a market change. The market change can be used to trigger a buy/sell decision. Otherwise this has little predictive value.

Your best choice is if the stock has lead sensitivity and if the stock change is more, when the market is going up, and less, if the market is going down. If the stock passes all the other tests, then this is a candidate.

#### *6.1.4.3 Dividends*

If you have chosen dividends in your search then dividends have to be looked at. Either the dividend satisfies your dividend profile or you look elsewhere for a buy. What is your dividend profile and how do you evaluate it.

1. U.S. companies typically distribute dividends every quarter (4 times a year) according to the company fiscal calendar. The first distribution can be in January, February or March.
2. Annualized dividends are reported as the four (4) times the last dividend distributed. That is, looking at the annualized dividends in a company report the amount given is four times the last distribution. This is deceptive in that if the last distribution is much larger or much smaller than previous distributions the amount seen is wrong.
3. The annual percentage distribution is given as the annualized dividend divided by the last stock price. This can be wholly wrong for a company heading to the dumpster. The last stock price is liable to be very low (dumpsterville) and as a result, the percentage very high. This gives the false impression that the company is good given the percentage dividend is so high. Don't buy dumpster stock.

4. Investigate dividends over a two year period (8 distributions). If the distribution amounts are consistent, either all the same or growing, great. If the latest distribution is OK but there is one bad one, consider this an outlier and ignore it. But if there is a missing distribution, the distributions are wildly different, or the distribution amounts are tending lower, don’t buy the stock.
5. Dividends should be looked at with the price chart to see how the company is doing and to get an idea of what the actual percentage distribution is. If you compute the dividend percentage distribution for actual values, this will give you and idea of the dividend involvement in the stock. The calculation should be (add last 4 dividends)/(price at earliest dividend).
6. Dividends are part of Total Performance. When you look at dividends keep an eye on the Total Performance to get a complete picture. You are not only buying a dividend when you by a stock, you are buying both a dividend and a stock price. You should consider both.

#### *6.1.4.4 Total Performance/Total Value*

Total Performance is the sum of the stock price and the dividends. The stock gain/loss means that both the price and dividends participate. Rather than confusing the issue further by presenting more facts, the upshot is that a picture of the company is given by both these components. What you are interesting in is not a single dimension growth, but a whole company growth and this is as close as it gets.

It is useful to plot both the dividends and the price (think spreadsheet), and to consider what trends there are and if you are comfortable with them. If the dividends are decreasing and the price is increasing and the Total Performance is constant, then the stock is tending towards are growth stock and the price dominates. If dividends are increasing and price is decreasing then the first thought is is this a stock not to buy. A decreasing price indicates a lack of collective agreement that the company is good. This may be one to avoid. In the other cases if the Total Performance is what you want, then this is one to consider.

To digress, in a spreadsheet we need 3 columns; Dividend, Price at dividend data, and calculation $(d_1 + d_2 + d_3 + d_4)$/price @ $d_4$, where di is the dividend. Plotting Column 3 gives you an idea of the annualized dividend % over price.

I like a company to put a little skin in the game so I typically require a > 3% annual dividend.
I insist on that a company be fruitful, so I typically require a > 10% total performance return.
I like to investigate the past so I usually choose a 3 year period. The feeling is that if the company grows for three years, it’s not going to fall now, but see below.

There are four scenarios to consider (3 years – 4 scenarios):

1. All three years are about the same (> 10% + some delta). It’s a clear candidate for a buy.
2. Two or more years show a decline, including the latest year. Do not buy.

3. Two years show a decline, this year shows either an increase or a close value to its last year. A potential candidate, but if your candidate list is full, pass this one up.
4. Either the performance is "up, down, up" or the performance is "down, up, down". It both these cases you can not predict what next year will be. I'd pass this one up.

I think that this is the most valuable metric I have for choosing a buy.

#### *6.1.4.5 Analyst Recommendations*

Lets look at Analyst Bias first. Analysts focus on growth, not on dividends or Total Performance. This leads to a bias in recommendations, where results from our stock screener show clear wins and analyst recommendations are less than sterling. For us a clear win may be an excellent dividend and dividend history with modest growth, for an analyst a clear win is excellent growth, ignoring dividends.

And note that if we select a low institutional percentage then there will be few analysts. The dearth of opinions becomes and issue in our evaluation. Not enough companies are interested in investing analysis resources.

The second issue with analyst recommendations is the period covered. An analyst attempts to predict corporate viability for a year in advance. Your time frame is 3 months. In the analyst predictions they can not see short term fluctuations. You pay attention to short term stock variability in periodically changing your investment portfolio to maximize the average investment increase over a 3 month period.

This means that you have to use judgment when looking at analyst recommendations. If you are looking at growth stocks then they have more credibility than when you are looking at stocks containing a mixture of growth and dividends. In either case, be sensitive to the difference between the analyst time frame and yours.

Analyst recommendations more than two months old are pretty useless. If that's all you have then it's worth reading, but if there are younger ones then ignore them. It's old history.

I have found that analysts just aren't that good. I'd say between 25% and 50% of the recommendations shouldn't be followed. They just aren't up to the high standards of making money.

So why pay attention. They give you a 'feel' for the company and a 'feel' for what others think of the company. You might reflect, and should, if I buy this stock and the analysts say it's a bad idea, will I win or lose. And, you will look further to see if there is corroboration for your buy.

For example, an analyst(s) says a stock is bad. You look at the dividend and price chart and you notice that both show growth. Whose right. Well, suppose the analyst true meaning is that he company won't

do well by end of a year. You are interested in a 3 month period, and I’m guessing, if both dividend and price growth are any indication, you will achieve this.

Research Reports show you in detail what the company is, what it does, and how well it performs. An in-depth look at where your going to spend your money. Well worth the few moments it takes to read in whatever brokerage you have.

At the end of the day the analyst opinions are advice, but they are not an order to buy or not buy. Your judgment decides on the buy.

#### *6.1.4.6 Company Size*

Large companies are more sluggish, in normal times, than small companies. The dynamics of growth in companies of different sizes are different, and their impacts on investments changes depending in what part of the business cycle you are in. In general, large companies are for multi-year investments where the end-result is modest investment gain. As you go down the size scale you get more into the cowboy world where sudden market changes can cause large price changes.

During periods of market stress, both large and small companies collapse, and they collapse with a sudden and final “clang”. So don’t expect the size of a company to protect your investment. It won’t.

Coming out of a crash, small companies do better. Then, as the market stabilizes, large companies start to do better. Look at Total Performance and whatever it says to do, I do. Just saying.

### 6.1.5 Stock Purchase

AMZN $1780.60, 100 shares cost $178,000. This is 17% of (our) $1,000,000. The impact of any change in Amazon on your entire investment strategy would be huge if we bought 100 shares. The lesson is, although the company is sound it’s cost of ownership may be prohibitive. Do not put more into a stock than you can afford to lose, and do not buy a stock that will distort your investment strategy. Amazon and it’s ilk are not for you.

You have a pot of money and you have a list of companies you are interested in. Use the money to invest in as much of the list as you can. You purchase more of a company if you are confident in its prospects, you purchase less if you are less confident. You don’t purchase more of anything if that will cause you distress in any future planning. Never. Not once. Not even if you” know” that its going to make you a billionaire. Or you are quite literally doomed.

Remember that not all of your stock selections will grow. Some will show a loss and some will show growth too slow to measured with the human eye. Buying stock is not the same as making money. Buying and selling stock is. Know when to sell and what to do with the proceeds.

I always redirect my dividend distributions to stock purchases in the company with the distribution. This leads to compounding of the dividend, and over time, can be a good boost to who you want to be when you grow up.

### 6.1.6 Stock Selling

Why would you sell stock? The knee-jerk reaction is that you sell because you are losing money (negative growth). But this is not the true story. You are selling to increase the average growth to meet your goals. But, when you sell you must buy. Selling alone does not help.

Let's give an example. Suppose that you have two stocks of equal value. One is growing by 10% and one by 2%. Your goal for investment growth is 10%.
Average growth 6% = (10% + 2%)/2 before the sale, and
Average growth 5% = (10% + 0%)/w after the sale.

Just selling does not improve performance. Further, selling stocks which are losing value is not the complete story. To improve performance a sale has to be coupled with a buy. And here there is a note of caution. Overbuying the stock with 10% growth may leverage you entire investment portfolio so that it depends on this one stock. When the stock goes down, everything goes down. So strange as it may seems, you must think about the consequences of shunting your money to the stock(s) that show most hope of achieving your goals against buying into a stock that you do not already have and which may be better or worse. You just don't know at the outset what this 'new' stock will do other than the historical perspective you get from your stock screener and price chart, and to rub salt in the wound, you have already done this and lost.

And, before we quit, look at one final point. The stock growing by 2% is making money for you. It's not as if it's losing anything. So you are selling a stock showing positive growth in favor of potentially buying an unknown stock which may, just may, perform well. Giving up the certainty of something for maybe nothing. That's called investing, by the way.

Evaluating sell decisions is not all that easy. You can expect that within a two week period of purchasing a stock that the stock values will fluctuate in unknown directions. Sometimes showing a loss, sometimes a gain. The immediate time frame surrounding a stock purchase is uncertain. But, if the damn thing is a real mistake don't think that you have to wait to sell it and try again. Buy into your loss before it becomes a disaster.

Suppose that the stock is meandering about, showing a modest nothing. When should you reevaluate your position and consider adjusting your portfolio. Well, I'm an impatient dude. I figure if the things not going to make me a millionaire in three (3) months, its time to dump it. Three months because my goal is to meet my yearly investment growth, and if I wait a year all that I see are skidmarks of where I have been. I've made no progress. But if I evaluate my position every three months then there is a

chance that I can change the average growth to be more in line with my expectations. And let me be very, very clear. This is the average Total Performance, not just the increase in the price of the stock.

This is not the only scenario but after this point things get a little technical and off the easy track of making money. Remember, this is not love. You are not looking for a romance of a lifetime to last a lifetime. You will buy and sell stocks based on local considerations, am I making money in this three months or am I not making money.

Suppose that I meet my goals, i.e., 10 – 20% growth, what now? Well, you have a sell decision to make. Looking at the price chart and dividends of the company you have to determine (‘guess’) whether the growth trend will continue or whether now is a good time to get out and try another stock. Remember, what goes up, comes down. And you don’t want to be on the down side. It will be sudden. It will be painful. And you’re 10% gain becomes a loss. So look really carefully at what you have, what sector the company is playing in, and how well the economy is doing. And then either keep the stock, or sell it and buy something else.

Suppose that there is a market crash. You can buy into your lose (by selling everything) and hope you can see the bottom so you can buy before the market goes up, or you can keep your knickers on and wait. I’ve done both and found that holding seems to work best (for me). But I have to tell you it can be very painful just like getting old.

And one last little note. This may not be for you. If you consistently choose wrong and your principal consistently loses money, don’t do this. This, being investing in stocks, takes time and thought. If you have neither, get an investment counselor.

### 6.1.7 Stock Investment Pragmatics

Really, how do you practically buy stocks, I think the description of selling stands on it’s own, but buying has a lot of decision points. Let’s ignore all the information and give a truncated version of purchase. The thoughts and research proposed above should be done while you are learning. Really. They do serve a purpose. This version avoids a lot of research and thought.

But I do the following – always:

1. Get a list of stocks to look at, see Stock Screening. Normally this consists of using a stock screener, adjusting the filters to suit my current whims. Sometimes I see other opportunities in the news or on other financial sites, but I always go back to my brokerage research tools to consider what to do next. Being a greedy bastard, my Total Performance is typically > 10%. More risk requires more gain.
2. From this list I research the top performers to select the companies to buy. Since the goal is to maximize investment growth, spending time looking at lower performing stocks doesn’t have much meaning.

Then I do research:

a) My filter gives uses three (3) years of Total Performance. I look to see if there is a steady growth within some delta value, or whether it is sporadic. Now this is not a political statement. although it may appear to be. Trump's mismanagement of the economy has effected this evaluation so in looking at the Trump years you have to be very careful about what conclusions you draw. However, if the stock shows a consistent and steady Total Performance then it is a candidate buy.
b) I look at the price chart to see if there is anything kinky. I look for cycles, sudden dips or gains, how long the current growth has been going on (if this is a growth stock), or what growth there is (if this is a value stock).
c) I look at dividends to see if they are steady or jump around (in value) or are missed. And here I often defer to the Total Performance to make my final decision.
d) Because I'm incredibly lazy, I don't spend much time of SEC filing, Research reports or analysis opinions. In the past, when trying to learn what to do, I spent a great deal of time on these things. I recommend that you spend time now to learn what you need later.

3. Based on the above research, I have a candidate list of stocks to buy. And this is what I do:
   a) No matter how attractive the Total Performance is, I do not, let me repeat, I do not put all of my money into one basket.
   b) I select which stocks are attractive purchasing based mostly on what I can expect from the Total Performance, then allocate money to purchase each stock until the money runs out.
   c) And, I do not buy into a stock so expensive that it distorts my ability to make stock buy/sell decisions.
   d) If there is a stock which looks interesting, but I keep saying "well, I don't know" then I'm likely to buy a small number of shares and just see what happens.

I look at the US and World economy and I look at events which affect the economy and daily lives. Based on this I try to find a stock which has most benefit given current US and world conditions.

Let me give a recent example. There have been hurricanes here and there. Hurricanes involve fixing, and fixing requires supplies. A lot of fixing supplies come from the beloved companies Lowes (LOW) and Home Depot (HD), so I looked at these dudes. It turns out that HD performance is better than LOW. Now remember my goal is 10% growth per annum, and that I defer most of my decisions to the stock screener. Well, neither LOW or HD appear on the stock screener. On a whim I bought HD, the price chart (and I believe analyst opinions) showed it outperforming LOW. Now some four months later I have a 13% gain (not including dividends). The lesson, not that I am great – trust me I'm not even good – but that there are opportunities to be had but you have to look for them. And you have to think.

## 6.2 Mutual Funds

This section should more properly be called “Brokerages and Mutual Funds”, but, in keeping with the section title, let’s just call this Mutual Funds and agree that some of the discussion concerns the companies selling the mutual funds and some the mutual funds themselves.

There’s a lot of mythology surrounding mutual funds and the companies selling them. In part it is our believing what we want to hear, in part it’s not hearing what the companies are telling us. A few of these things will be explored before we actually discuss mutual funds themselves, their choice, breeding, benefit, and how they fit in your investment goals.

Here are some overall things that we can say about mutual funds and the companies which market them.

1. Mutual funds are not short term investments, 3 months in our case. That does not preclude a review every 3 months but it does say that the intent of purchasing a mutual fund is to see year over year (YoY) growth and not a focus on 3 months.
2. Let’s talk about the companies that market mutual funds. They make money from you. You buy something, they charge something. There is a management fee, and sometimes a 12b-1 fee. This is the advertised fee, is taken as a percentage of the amount in your fund. It is taken if the fund makes money or losses money.
3. When a mutual fund company ‘gives’ you a benefit which costs them money, somewhere in the woodwork that benefit is paid for, and it comes from your pocket. You do not get a mutual fund for nothing. The brokerage company gets something from you, and that ‘something’ is damned hard to find out.

   Do you need to be concerned? No! Not usually. Your goal is to achieve some level of investment growth. As long as the mutual fund you purchase achieves that level of growth then you should be content.
4. Mutual funds will not offer you the same growth possibilities as direct stock purchase. But, with a reasonable choice of funds you can expect a steady growth. Note, “reasonable choice”. Typically if you have a collection of mutual funds in your account, when the market goes up by 1% you can expect somewhere between a. .33% and a .5% gain in the mutual funds on average. That is, if you have 10 mutual funds in your portfolio then the average gain will be between .33% and .5% for a 1.0% growth in the market as a whole, with some being better and some worse.
5. There is a common myth that mutual funds offer you more protection against loss than direct stock purchase. This is only marginally true. When you purchase a stock you bear the possibility of losing your entire investment. But if you purchase a mutual fund and a single company fails, the entire mutual fund is not in jeopardy.

Mutual funds consist of assets that are part of the stock market. When the market crashes, the mutual fund crashes. One question is, does the mutual fund crash as deep as the stock market when it crashes, and when to stock market grows, does the mutual fund grow as much. There is no supplied statistic that shows this clearly, but, there are indirect ways to get a ‘feel’ for this. Research the growth of $10,000 which mutual funds provide.

6. Mutual funds select stocks (or other funds) for membership into the fund according the fund prospectus. The prospect spells out the market or economic sector that the fund is to represent, the type of growth/gain/income to be expected, the stocks currently owned and the turnover rate, number of stocks bought/sold annualized by year.

   A very brief list of types of funds – look to your fund company for a more comprehensive list and the different characteristics of the funds. We will not elaborate on this further. See your fund purveyor for more information.

   a) Balanced Fund: stocks and bonds to return growth and income.
   b) Bond Funds; bonds from different entities, such as corporate, treasury notes, municipalities.
   c) Growth Funds: stocks chosen to emphasis fund growth over income.
   d) Income Fund: stocks (and bonds) chosen to emphasis income over growth.
   e) Index Fund: Stocks chosen to directly reflect some index, such as the Dow Jones, S & P, Nasdaq, Russell 2000, or Wilshire 5000. All stocks or bonds in the funds are given in the same proportion as in the underlying index.
   f) International Funds: stocks from international companies.
   g) Sector Funds: stocks are chosen from a given economic sector, such as aerospace, finance.

7. Churning is the rapid buying and selling of a fund. Fund companies have difficulty in providing good returns to fund holders if some owners buy and sell rapidly. The difficulty comes from the need to keep high liquid assets (cash) which are not free to invest, or to sell stock at a perhaps unfavorable time. Fund companies therefore restrict the ability to sell and then buy or to sell a fund within a given time from purchase. The restrictions can be local to a fund or global to the brokerage. You have to check.

   The restrictions on selling can add a cost to the selling decision. If you chose to sell a fund before the anti-churning time-period then you may be required to pay a premium on the sale or be restricted from repurchasing the same fund for a period of time. This ‘cost’ effects your return and your ability to moderate your funds during periods of economic stress or gain.

8. The Net Asset Value (NAV) is the mutual fund equivalent of the stock price. It is calculated once a day after the stock market(s) close and is the weighted average of all assets in the mutual fund.

9. All buy/sell/distribution decisions are made after the NAV is calculated, after the close of the stock market(s). Effectively, a buy/sell decision at 9:00 AM ET is not executed until after 4:00 PM ET (the close of the New York exchanges).

10. Fund Purchase/Selling fees. Certain funds require you to pay a fee on purchase or a fee on sale. These fees are called the Front-End Load or the Back-End Load. Of the two, the Back-End Load is more expensive because you are paying a fee on the investment gain as well as the initial purchase price.

    The use of fees is to secure you the advantage of someone managing the fund. That is, the funds are called “Managed Funds” and there is a mythical management team whose functions is to ensure that the best possible investment decision is always made. Unfortunately, all funds have a management team and all funds use computer programs to direct this management team to make the right investment decision.

    Buying into a managed fund wastes your money. It has been shown many times in the past that these funds perform no worse and no better than funds that do not have any Front-End Load or Back-End Load. Do not ever buy them! Instead buy funds which have no Load.

### 6.2.1 Mutual Fund Investing

Our goal is to select a market basket of mutual funds which will yield at least a 6% investment growth year over year. Remembering that we don’t put all of our eggs into one basket, a selection of funds should be chosen to reduce risk and return a suitable yield.

The issue is that the information on each fund is not as focused as that for stocks. You don’t get the same screeners, level of technical detail, or performance data. You get an historical chart showing the growth of a $10,000 over time, you may get a chart overlayedd with the same growth applied to benchmark marked indices, you get the prospectus for the fund and some statistics about the fund itself and about the fund in comparison with other funds (Morningstar rating for example).

### 6.2.2 Mutual Fund Screening

The goal is to find a collection of mutual funds which will achieve an average performance of 6% or more. The rationale is that there is less risk with multiple funds then there is with one. It can be freely seen that with multiple funds, each performing according to its own metric, none will stand out as being so sterling that it will overcome the rest.

The information on mutual funds is sparse. The equivalent to the stock NAV chart is the growth of a mythical $10,000 over 10 years or so. The good news is that dividends are folded into the graph, and hence are compounded. The bad news is that fund fees are not subtracted, so the figure is too high.

Always include indexed funds as part of the funds you consider. Indexed funds consists of stocks in direct proportion to some index, such as the Nasdaq-100, Nasdaq, S & P 100, S & P 500, Russell 2000, Wilshire 5000 and so on. Note that index funds often exceed performance of any other type of mutual fund in the long term and often in the short term, and should always be considered as a candidate purchase.

The screens are very simple:

1. Moderate to low risk.
2. High dividends/growth.
3. Good ratings by a rating company, such as MonningStar.

Since I don't much care about economic sectors, I usually ignore this as part of the screening. It is worth noting that very high yields/growth are most often accompanied by high risk and an uneven performance. I am intolerant of loss, that is, I break out into a cold, clammy sweat when I begin to lose money, so I usually stay away from these products. And in general terms, I want to achieve my little 6% growth without too much agony. I don't want to sit through at 6% loss followed by a problematic 25% growth.

### 6.2.3 Mutual Fund Elimination

In evaluating a fund the following things should be looked at (Fidelity.com FBALX and FAGIX):

1. The 10 year $10,000 growth chart. Look for consistency of growth, especially in times of economic stress, and the amount of growth. If the funds jumps all over tarnation then it's probably not a good one to buy based on reducing risk. Funds are long-term investments and too much jumping provides an issue, compounded by anti-churning restrictions.
2. Look at the expense ratio. Avoid all funds whose expenses are greater than .9%. You are not trying to make the fund company rich, you are trying to make yourself rich. Keep in mind that a low fee fund does not mean a good return. It just means that you pay less.
3. Look at the Morningstar Ratings (or rating of some other agency), and find out what those rating represent. Morningstar gives a 1-4 rating, choose 3, which gives both 3 & 4. This provides some cushion between an outside agencies recommendation and your need for sustained performance.
4. Look at the performance data. Normally there is a chart or listing of performance over some period of time. Look at dividends, capital gains distribution and NAV change.

   Especially look at performance close (in time) to your purchase to see if the 'local' performance will likely be to your benefit. If the local performance shows instability or shows a negative value for the NAV then consider this fund undesirable.
5. Look at the risk. In this regard it is possible to get low risk funds with excellent yields. Avoid high risk funds (because the goal is not to gamble).
6. Look at (economic) sectors which are performing well now and are likely to perform well within the anti-churning time frame penalty of the fund. If there is long-term NAV instability but the local outlook shows good results then consider the fund for purchase. But note that

sector funds means as the sector fails, the fund fails, and sector funds may not be sensitive to the overall market conditions.

7. Compare fund performance to index fund performance for the index used as a benchmark. If both are below the 6% goal then consider not buying the fund. If the fund exceeds both the 6% goal and the benchmark then consider buying the fund. If the fund is over 6% then consider buying it.

So what do you eliminate: uncertainty. If the NAV chart shows some wobble near to the purchase time, or shows really bad performance when things go sour, don’t buy the fund. If the risk is high and the gains are low, avoid it like the plague. If it is a sector fund and the sector is going south, or you expect it to go south, eliminate the fund. Or if you can tolerate risk and loss, then buy funds which are otherwise poor choices.

### 6.2.4 Mutual Fund Buying

After you eliminate the “do not buy” funds, sort the remaining funds by yield/growth and buy from the mutual fund list starting at the best return going down to the worst return. Portion your money for fund purchase according to some strategy, such as in inverse proportion to risk and direct proportion to return. Look at your funds and select dollar values to spend on each fund, then have fun buying

### 6.2.5 Mutual Fund Selling

If the market tanks, or for sector funds, the sector tanks consider selling, but remember that this is a long-term investment and the question is whether in some reasonable time whether the fund will recover from its loss. If the selling period is subject to an anti-churning penalty then you must consider the cost of the penalty as against the gain is selling before the fund NAV is reduced further.

Remember that for high dividend funds the NAV is not the only criteria. In considering a sell, consider the yield. If the yield remains good, but the NAV is going down, then this can be a net gain for yield reinvestment into the fund. Reinvesting dividends means that you are buying more fund shares at a reduced value. Remember that fund purchases are longer term than stock purchases so the consideration of selling under adverse conditions should include a time frame for the market, and fund, to reverse itself. In other words, keep your head about you and think of the alternatives and whether they are strong enough to hold the fund even though the short term shows a loss.

Under normal circumstance the priority consideration is to sell funds which are under performing your goals (6% annual total growth). and to use the money generated to purchase another fund which appears better able to give the returns you require. The rationale here is the same as for stocks, average performance increase over time. But, do not sell until after the anti-churning period is over.

## 6.3 Summary

The overarching guideline is that the principal (plus inflation) never be touched. Since we don't know when we are going to die, planning to exhaust the principal before death will not work. Plan to live forever.

General principals: (or, this is the pain-in-the-ass section).

1. Assume an inflation rate of 3.5% not 2.86%, giving yourself a monetary cushion for hard times. Let your total principal grow at 3.5% per annum. Any growth above this amount is available to be spent. For example, suppose that you have a million dollars ($1,000,000) and it grows by 6% ($60,000). You can use $25,000 for your personal use, less taxes and other expenses, but should leave $35,000 to cover the cost of inflation and some growth for emergencies when the market turns sour.

   Why is this so important (you say). Well, the average rate of inflation from 1978 – 2015 was 3.5%/year. If you had $100,000 at the start then after 10 years you can buy what used to cost $65,000 and after 20 yeas you are down to $30,000. So even if you still had $100,000 you couldn’t buy squat. This means, you have to ensure that your savings grows at least at the rate of inflation.

2. Assume an annual growth of 6% / year and try to do better.
   a) Try to avoid mutual funds which yield less than 6% / year because they will damage you profoundly.
   b) Stocks either have a total performance of between 10 – 20% or they are sold. Remember that companies don’t last forever and stock prices change. Be prepared to buy, and be prepared to sell. (See the long term price of General Electric, GE, one of the largest companies in the US.)
   c) Remember that the current 'good times will end and that it will be hard to get even 6%, so plan for the long haul and save for the bad times. (What goes up comes down.)
   d) When bad times strike, don’t spend money. This requires that when good times are about, spend in moderation and borrow only what you can afford to pay back.

3. Learn to use the research tools at your brokerage.

4. Remember that the only person who should put their hand in your pocket is you, and you have to be smart. Remember that nothing is for nothing.

5. When it comes to money, if it aint on paper, it don’t exist. Never, never accept any verbal promise, and even if it is on paper, write a summary of the discussion which lead up to whatever agreement you have.

6. Use the following precedence to withdraw funds if money is needed:
   a) Bank accounts. There is no penalty for withdrawing money.

b) Brokerage accounts. If its money its money. If you sell something then you have capital gains and this is taxable.

c) Any Before-Tax 401(k). You will pay taxes on the whole amount of the withdrawal as if it were income, and your first withdrawal must be for the entire Required Minimum Distribution (RMD), which is an issue. If the RMD is $20,000and you need $10, you have to withdraw $20,000. Once money is withdrawn it can not be returned. An RMD does not apply until 70½ and you can withdraw without penalty after 59 ½.

d) Any After-Tax 401(k) or Roth IRA. The Roth IRA is like gold. There is no burden on growth, dividends, interest or withdrawals. It is gold. This should be the last resource to be used.  Once money is withdrawn it can not be returned. This applies only after you are 59½.

7. Do not keep much of your monetary assets in cash, keep them invested.

# Appendix A
# Glossary of Terms

**Table 1 Glossary**

| **Term** | **Description** |
|---|---|
| 12b-1 fees | Junk fees that mutual fund companies can charge. |
| APR | Annual Percentage Rate: non-compounded rate of return. |
| APY | Annual Percentage Yield: compounded rate of return. |
| Anti-Churning | Brokerage barriers to churning. |
| Annualized | Current value of, e.g., dividend extended over a full year. |
| Capital Gains | Mutual Fund distribution separate from a dividend. |
| Churning | Rapid buying and selling of the single mutual fund. |
| COLA | Cost of Living Adjustment. Inflation adjustment to income. |
| Compounded | |
| Deflation | Year over year decrease in the cost of "market basket" goods. |
| Dividend | Income distributed by the company. |
| Equity | Stocks, but it is context dependent and takes on different meanings. |
| DJIA | Dow Jones Industrial Average. The daily price of 30 stocks. |
| ETF | Exchange Traded Funds. Collection of stocks which can be bought and sold like stocks. |
| ex-Dividend | All stock holders on this date will receive a dividend distribution. |
| GDP | Gross Dependent Product. A measure of the economies strength. |
| Growth Stock | Growth in the stock price. Note that yields are not included. |
| Inflation | Year over year increase in the cost of a "market basket" of goods. |
| Institutional Ownership % | Percentage of the outstanding stock owned by mutual funds. The stock (often) moves as the mutual fund software dictates. |
| Large Cap | Large Capitalization. Company worth greater than $6,000 million. |
| MAGI | Modified Adjusted Gross Income used in calculating Medicare Premiums. |
| Marginal Tax Rate | The income tax rate paid on your last dollar. Assume a 20% Fed & State rate.****** |
| Market | Average percent change in the Dow Jones, S & P 500, Nasdaq and Russell 2000. A representation of market performance. |
| Market Basket | A collection of goods and services used to assess consumer expenditures. |
| Market Correction | A 10 – 20% decrease in value in stocks in a short duration (less than a month). |

| Term | Description |
|---|---|
| Market Crash | A somber, deep, and extended loss in stock value. Typically greater than 20%. |
| Means Testing | A cost or benefit based on income. |
| Muni’s | Tax free bonds issued by states, counties and municipalities. |
| Mutual Funds | Collection of stocks and/or bonds sold in a package. |
| Mutual Fund Assets | Stocks, bonds and cash. |
| Nasdaq | The average price of  all stocks traded on the Nasdaq stock exchange. |
| Nasdaq-100 | The average price of 100 high capitalization stocks on the Nasdaq stock exchange. |
| NAV | Net Asset Value. The ‘price’ of a mutual fund. |
| No Transaction Fee | (NTF). Mutual funds without a front-end or back-end load or any purchase fee. |
| Non-voting Stock | Stock ownership without the right to vote on company matters. |
| P | Stock Price. |
| P/E ratio | Stock Price divided by the annualized earnings per share. |
| Preferred Stock | Company stock with special attributes. |
| Recharacterize IRA | Move funds from a Traditional IRA or 401(k) to a Roth IRA. |
| RMD | Required Minimum Distribution from a Before-Tax 401(k). |
| Rollover | Transferring assets from an Employer Sponsored 401(k) to a Traditional IRA. |
| Russell 2000 | The average price of 2000 small cap stocks traded on U.S stock exchanges. |
| S & P 100 | Standard & Poor. the average price or a 100 high capitalization stocks. |
| S & P  500 | Standard & Poor. the average price or a 500 high capitalization stocks. |
| Sector Funds | Mutual funds which only contain stocks for a given economic sector. |
| Small Cap | Small Capitalization. Company worth between $300 – $2,000 million. |
| Total Performance | Stock Price Growth + Stock Price Yield given as a percentage. |
| TTM | Trailing Twelve Month. The last twelve months starting at the current month. |
| Turn Over Rate | The rate that mutual funds buy/sell stocks in their portfolio. |
| Value | Dividends. |
| Value Stock | Growth in yield emphasized over growth in price. |
| Value Investor | An investor who invest in value yielding stocks. |
| Voting Stock | Stock in which a stock owner can vote their shares in corporate meetings |

| **Term** | **Description** |
|---|---|
| Yield | Dividend. |
| Wilshire 5000 | The average price of 5,000 stocks traded on US stock exchanges. |