Personal Finance Principles: A Guide for Principles of Microeconomics Students

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1 Introduction

When many of your classmates signed up for Principles of Microeconomics they really wanted to learn how to manage their money. When asked what "economics" makes them think of, people typically say "money". Yet, few principles classes mention how to manage your finances in any concrete way. Many Principles professors write this off as "not my job" - and, to be fair, it isn't, traditionally. Principles of Microeconomics is about supply and demand, competition and monopoly, with a few other topics (like taxes and price controls) thrown in for good measure. But, students leave the class feeling let down. They wanted to learn how to get rich, and - as they often do - the professor disappointed. The purpose of this reading is to provide you with some information to get you started in managing your finances. A lot of the details here are admittedly missing. If you really want the details, take a course in Personal Finance, or read some of the recommended readings at the end of this reading. But, I hope what you have in this reading is enough to get you started in the right direction.

2 Big Picture Principles

The principles of personal finance are not that difficult - nor are they particularly surprising. In fact, we can sum them up in just two short sentences.

1. Spend less than you earn.
2. Avoid debt.

These twho principles are naturally related. If you spend less than you earn, you will naturally avoid debt. In fact, it's almost as true as $1 + 1 = 2$! The real "trick", though is putting these principles into practice. After all, people who run into financial trouble don't do so because they don't know these principles. Rather, they run into trouble because they have difficulty successfully applying these principles in a way that is workable for them. So, the real question is: what can you do to help you follow these principles?

2.1 Develop a Spending Plan

The most important step that you can take in taking control of your finances is to actually make a spending plan (sometimes called a "budget"). Tradeoffs are a basic reality of economic life. If you spend a dollar on something you are giving up spending that dollar on something else (or giving up free time to earn that dollar). Whether you live "on a budget" or not, this is reality. So, the question we face is: should we live our lives taking reality into account, or should we try to deny it? Obviously, if we take reality into account, we're going to be more successful. A spending plan is a way of taking that reality into account, and making conscious decisions. Remember: if you don't have plans for how to use your money, someone else surely does!

So, how do you make a spending plan? First, it's best to classify all the uses of your money into three broad categories: "Must-Haves", "Wants", and "Saving".

A "Must-Have" is a use where there are serious consequences from not putting your money toward that use. For example, if you don't pay your rent or make your mortgage payment, you will be facing eviction or foreclosure. If you don't buy food, you will starve. If you don't pay your utility bills, your electricity or gas may be turned off. If you don't buy gas, you won't be able to come to school or go to work - resulting in failing your classes and losing your job. All of these are serious consequences. So, these expenses are unavoidable to some degree.

A "Want" is pretty much any other way you can spend your money. The key to a want is that it is something that you can live without, and you don't face serious consequences from giving it up. For example, buying songs on iTunes is a want, as is going to the movies. For most people, cell phones are a want (assuming your job doesn't require you to have one).

"Saving" is money that is set aside for the future. There are three broad categories of savings. Emergency Fund savings (also called "Security Fund" savings) are set aside for unforeseen circumstances. This is the money that you have set aside for when your car breaks down, or for when you unexpectedly lose your job. Retirement Fund savings are set aside for when you plan to retire. Finally, Major Purchase savings are for big-ticket items - trips to Disney World, a child's college education, and so on. In many ways Retirement Fund savings is a special case of Major Purchase savings. The key difference is that Retirement Savings are supposed to support your whole life while Major Purchase Savings are supposed to support a handful of well-defined items.

A good first step would be to write down the following information: Your monthly income (if it varies, just guess at an average - and then round down a bit, to be safe), and your various expenses and any money you put into savings. Dave Ramsey's website offers a good budget form for you to make sure that you're not forgetting anything. (At this writing, if you Google "Dave's Budgeting Forms", you can get his forms from the first link. They give reasonably good instructions there, too.) Classify your expenses as "Must-Haves" or "Wants". This gives you a first glance at what your finances look like.

So, what *should* your finances look like? Dave Ramsey would give you a list of percentages for each of his categories. These percentages are broad to give you some flexibility. However, I disagree with this approach. The percentages that Dave (or pretty much any financial guru) gives are largely arbitrary, and can create an impression of inflexibility. Instead, I follow the advice of Elizabeth Warren and Amelia Warren Tyagi that they outlines in their book *All Your Worth*. They propose a 50/30/20 budget. No more than half your budget should be spent on "Must-Haves". Thirty percent or so should be spent on "Wants", and twenty percent should be placed into savings. Why break things down this way? If your must-haves are only half of your budget, that gives you a lot of flexibility when "things happen". Sometimes unexpected expenses come along that you have to save for rapidly - if only half of your income is going toward unavoidable expenses, then the other half is available for whatever those unexpected needs are. Also, most people face a point in their lives where they have no income and they failed to plan specifically for that. If your Must-Haves are only fifty percent of your normal budget, that means you can lose half your income and still be able to pay for all your must-haves - thereby avoiding the serious consequences of missing payments on any of these. The twenty percent for savings comes from a couple facts: first, if people start reasonably early (before 35), then saving 10 percent of their income for retirement is about "right", in terms of being able to maintain their standard of living during retirement. So, half of the savings is for retirement. The other half is for two purposes: "Dreams" (that is Major Purchases) and Debt Reduction (paying debts down ahead of schedule). We'll talk more about these later on. The main point: twenty percent seems to be about right for covering the major points of savings that give people some degree of financial security. That leaves thirty percent for "wants". The great thing about this: wants can be anything you want as long as they don't create serious consequences. I know, payments on that Ferrari are a "want" - but once they're *payments* you open up the risk of repossession - that makes transforms something that should be a "want" into a Must-Have! So, what qualifies as wants? Trips to the zoo, certainly. Subscriptions that you can easily cancel count. Entertainment counts (though cable bills are sketchy - depends how easily you can get out of the contract). Clothes are typically a want. (If you don't buy new clothes, you typically will just wear the old ones a bit longer. Not a *serious* consequence!)

Notice: this is very flexible! While arbitrary budget percentages might force you to have a mediocre apartment and a mediocre car, this system allows you to have a nice apartment - as long as you're willing to drive a clunker. Or, you can do the opposite and live in a puny, cheap apartment but drive a new convertible. As long as the "Must-Haves" add up to fifty percent or less, you're fine! Similarly, for your "Wants", no one is going to tell you that five percent have to go toward clothes and ten percent toward entertainment. If you love clothes, then buy new clothes all the time. That's fine. If you don't mind wearing clothes you've been wearing for half your life, then spend your wants money on trips to the movies. The only thing that really matters is the totals.

Now, run the calculations. Divide your "Must-Haves" spending by your

Income. Did you get more than 0.5 (or "fifty percent")? If so, you need to find a way to cut back on your must-haves. I know, that sounds confusing. The point was that these are things that you "MUST" have, right? Yes and no. For example, it might be that you need an apartment. But, it's not true that you need the apartment that you're living in right now. If your must have are more than 0.5, then you may want to consider looking for an apartment that is more affordable for you - and then not renewing your lease. Or maybe you should reconsider how you spend your food money. Maybe you should shop around for cheaper car insurance. It's amazing how much you can save by doing this. When I shopped around a few years ago, I managed to save myself $400 a year on car insurance, just be checking with a different company. That comes to almost $35 a month. For a poor graduate student making just over the minimum wage, that was about three percent of my income! For more ideas on how to cut back on Must-Haves, check out Warren and Tyagi's book *All Your Worth*.

But, maybe your unusual. Maybe your Must-Have expenses are well under control, but your Wants expenses are far too high. The good news: that's something that you can bring down with few consequences! The bad news - people with this problem have often developed bad money habits that are difficult to break! Often, people in this category either don't realize how much they're spending or have a hard time telling themselves "no". Fortunately, there are strategies for breaking these habits and for helping your rational, forward-thinking side discipline your impulse buyer side!

2.2 Controlling Spending

2.2.1 Cut up the Credit Cards

Credit cards are great. They make it easier than ever before to spend your money. Which, of course, is the problem. Often, when people use credit cards it doesn't register with them psychologically that they are spending *money*. Instead, you swipe this card and you get stuff - almost like it's free! Then, you end up shocked at the end of the month when the Visa bill comes. How do you owe them so much? The answer: you spent the money before you *realized* you were spending money.

One of the simplest, most effective methods for controlling wants spending is to cut up your credit cards. Now, some of you might have a credit card for "emergencies". But, we all know what happens: we decide we "really need" pizza, and pizza ends up on our "emergency" credit cards! So, cut it up. If you think you might need it for a legitimate emergency, then freeze it in a block of ice in your freezer. Only use the credit card after the ice melts. This will prevent many emergency Papa John's deliveries. I know, I know. You have your spending under control. You use your credit card "responsibly" and keep track of every dime. The fact remains: people spend more money when they use credit cards than when they use cash. McDonald's did a study and found that the use of credit cards is associated with people spending about fifty percent more on their orders than if they use cash. Yes, I know, you get five percent cash back. But, if you spend fifty percent more to get five percent back, that still counts as a bad deal! So, avoid using credit cards for anything where you have some discretion. To be honest, I think there are two categories where using credit cards is "safe": paying rent and buying gas. Assuming that you shopped for your apartment, the amount of rent you pay isn't going to be affected over the course of your lease. Assuming you buy gas like I do, you always fill the tank. So, paying cash isn't particularly helpful in restraining spending there. One area where I was surprised that paying cash did make a difference: buying groceries. My wife and I had been using our credit card for groceries. After all, we shop from a list, so we figured that paying cash wouldn't make a difference. When we switched to cash, our grocery bill fell by thirty percent. So, try an experiment: pay cash for everything for a month, and see where it makes a difference.

2.2.2 The Rule of Seven

Credit cards can lead people to spending money without realizing it. There's another marketing trick that businesses pull that lead you to spend money unnecessarily: they create a false sense of urgency. This tactic prevents the buyer from being able to take their time to make a rational decision about their purchase. So, we end up with a lot of impulse purchases and buyer remorse. To fight impulse buying, follow the rule of seven. The rule is simple: **If it costs more than $7, wait 7 days before you buy it.**

Does the rule work? Absolutely. Most impulse buys are things we don't need - in fact, they're things that we don't even think about needing until we happen to see them on sale or in an ad. If we make ourselves wait seven days, we often find that we don't really want the thing. We were just caught up in the moment. By waiting, we allow the moment to pass so that we can really think about whether the item is worth it.

What about temporary sales/clearance/etc.? Let's face it: things don't usually go on sale because they're selling well. So, here's the rule: if you've already been waiting to buy the thing for a while, and it goes on sale, go ahead and buy it. You've waited your seven days. If you only learn about the thing because it is on sale, wait seven days. In that time, three things can happen: (1) the sale ends - in this case the price goes back up to normal, and you've missed your opportunity. But, in all likelihood, the "opportunity" was to spend money that you didn't really need to spend, so it's not a big loss. (2) the sale continues - in this case, you've lost basically nothing by waiting. (3) the sale deepens - we've all seen it happen. An item doesn't sell well, so it ends up on a "40 percent off" rack. It still doesn't sell, so it goes to "70 percent off". In this case, you've had time to figure out if the thing was worth it and you get to benefit from the deepening of the discount.

Let me tell a quick story: In December of 2010, I decided that I might want to subscribe to The Economist magazine. They had sent me an advertisement where I could get the "professional rate" which was a significant discount off the news stand price. So, I decided I would think about it, and posted on my

Twitter account that I was considering subscribing. One of my friends told me about a deal he had found (on SlickDeals) that was a significant discount even compared to the professional rate. It came to about $1 per issue, which looked quite good. But, it was still $50 for the year, so the Rule of Seven kept me from buying the magazine at first. So, I waited seven days. At that point, I had decided that I would be willing to pay $50 for the subscription - but that the professional rate was too high to be worth it. So, I went and checked the SlickDeals website. Unfortunately, the deal had ended, so I'd have to pay the professional rate, which I knew I wasn't willing to do. But, I didn't let it end there. I figured that there would probably be another, similar deal before long. And, sure enough, I was right. A matter of a week or two later, Slick Deals had a similar deal up again. So, I subscribed. What did I lose? Well, I had to wait a couple weeks to start my subscription, but that was about it.

At this point, we should have our spending under our own control, using a 50/30/20 budget. We have a sense of what we need to do to keep our "Must Have" 50 under control, and how to keep control of that 30 percent on wants. But, what should we do with the 20 percent in savings? Here, I turn to Dave Ramsey.

3 Warren and Tyagi's Steps

These steps tell you want you should do with your savings at various stages in your financial life. First, in brief:

1. $1000 in an Emergency Fund
2. Debt Snowball (for all debts except the mortgage)
3. 3-6 months of expenses in the Emergency Fund
4. (Technically "4a") 10% for retirement
5. (Technically "4b") 5% for "Dreams"
6. (Technically "4c") 5% for Pre-paying Mortgage

3.1 $1000 in Emergency Fund

The first thing you need to do is get $1000 set aside in an emergency fund. This money should be accessible - but not too accessible. Use a standard Savings Account or Money Market Fund. Both of these are safe and pay some (admittedly small) interest. Your emergency fund should be thought of as a "security blanket", so you don't want it to tear! Keep it simple. Keep it safe.

Dave Ramsey suggests that you go all out to get this $1000 as fast as you can - preferably in less than one month. It might mean selling some stuff you don't need (try eBay - as a seller!). It might mean taking on a second (or third) job for a bit. Maybe it just means cutting back on your Wants. Anyway, get this fast.

So, why do you want this $1000 in an Emergency Fund? The reason is simple: we want to avoid situations that will plunge us into debt. Suppose that you don't have an emergency fund and that your car breaks down. What do you do? Some people find a way to make do without the car. Most will get the car repaired and use their Visa to pay for it. (I'm certainly in the second group!) The point of the $1000 Emergency Fund is to give you some room to have unexpected expenses without having to make your debt load heavier. $1000 will cover most emergencies that we might face. True, it won't pay for cancer treatments or for losing your job. But, it will get you through relatively normal bumps in the road.

Now, some of you already have $1000 in savings, but you might not have it in a savings account. If that's the case *move it to a savings account.* Remember, you don't want to lose it. The point of the emergency fund is that it's there when you need it. Stocks, for example, have a suspicious tendency to fall in price exactly when you need to take your money out of them. Stocks are good long-term investments (more on this later), but they're not a good place for your emergency fund!

Some of you might already have $1000 in savings in a savings account, and also have that earmarked for emergencies. GREAT! Move on to the next step.

3.2 Debt Snowball

Okay, you have your $1000 in an emergency fund. Now, your goal is to start eliminating debt. Don't get me wrong, some debts are useful - in moderation. I'd say there are two that are acceptable for most people: a home mortgage and student loans. The interest rates on these tend to be relatively low, and these debts are used to finance investments that are typically reasonably good - within limits. What are those limits? I'll talk more about home mortgages in a bit, but for student loans there is a great rule of thumb: Your total student loans should not exceed the salary you expect to earn in your first year out of college. Naturally, this is somewhat dependent on your major. So, make an informed guess about your probable salary after graduation, and that's your limit. Quick note: even though mortgage and student loans are "acceptable" debts, you're still better off if you can avoid them or pay them off as soon as possible! The point is: don't let the fact of debt - in itself - prevent you from going to college or buying a house.

So, what debts are we looking to eliminate? Anything other than the mortgage. This includes car loans, student loans, credit cards, medical bills that are on payments. After you have your $1000 in your emergency fund, you should turn your twenty percent "savings" part of the budget toward debt elimination.

Wait - you're taking your savings and using it to pay Visa? Does that make sense?

Absolutely. Financially, paying off a debt is suspiciously similar to "saving", with two big exceptions: (1) When you pay off a debt, the rate of return is usually guaranteed. (2) When you pay off a debt, the rate of return is usually higher. Think of it this way: If I'm paying 18.99% interest to Visa, when I lower my Visa balance by $1, I'm avoiding paying them that 18.99% interest. So, compared to where I would be if I didn't pay off that balance, I'm earning 18.99% interest on my money, guaranteed. Hard to beat that!

So, how do you pay off these debts? The idea of the debt snowball is to focus your efforts on one debt at a time. So, make minimum payments on all your debts (technically, these are "must-have" expenses, as failure to pay creates serious consequences!). The twenty percent savings goes toward paying down a single debt until that debt is gone. So, which one do you focus on? There are three schools of thought on this:

1. Pay off the highest interest debt first. (Typical advice)
2. Pay off the smallest debt first. (Dave Ramsey)
3. Pay off the debt that bothers you the most first. (Warren/Tyagi)

Personally, I lean toward the last two options. Technically, the first option will save you the most money, but it also tends to be difficult to maintain discipline with this plan, as it tends to give few and infrequent psychological "wins". The second option is my favorite, as it ensures that you get psychological wins continuously.

One thing: during your debt snowball, you're probably going to be "saving" more than 20 percent of your income for most of it. This is okay - it just means you get out of debt faster - which means you end up paying less interest on those debts. The basic idea of the "snowball" is that you total up how much you're paying on your debts to start. (Remember to exclude your mortgage!) It should basically be "minimum payments + 20 percent of your income". After paying all the minimum payments on the debts, apply the rest of this to the smallest debt (or whatever debt you chose). After that debt is paid off, you *don't* decrease the total number of dollars going toward paying off debt. You just add those dollars to paying off the next debt.

Let's do a simple example: Suppose that you have two debts: a $5,000 car loan with a 7% interest rate and a $3,000 credit card debt with a 15% interest rate. The minimum payments on the credit card are $60 a month, and the payment on the car loan is $100 a month. If you only make the minimum payments, you're going to have your car debt for five years, and your credit card will be paid off in about six and a half years. In total, you'd pay $6,000 for your car and $4,680 on your Visa - a total of $10,680.

Now, let's suppose that you're following the Warren/Tyagi 50/30/20 plan, and that you make $1,000 a month after taxes. By Warren/Tyagi's plan, you'd devote $200 of this toward savings, and apply that $200 toward paying down your smallest debt first. So, your total debt payments are $360 total. $100 is from the car payment, $60 from the monthly minimum on the Visa, and $200 from the savings portion of your budget. Ramsey suggests that this $200 should go toward the credit card - which is the smaller debt. So, you're writing a $100 check each month the auto finance company, and a $260 check to Visa. At this rate, the Visa is paid off in just over one year - for a total of just about $3,260. Then, you take that $260 that you used to pay to Visa and start paying it toward your auto loan - for a total of $360 going toward that. At that rate, you'll pay off your car about a year after you pay off your Visa - having paid a total of about $5,640 for your car loan. Overall, then you paid $8,900 to pay off your two debts and got out of debt in about two years. If you had only made your minimum payments, you'd have been in debt for about six and a half years and would have paid an extra $1,780 in interest! Remember, I'm assuming you're making $1,000 a month - so you just saved yourself about two months work!

Also notice: once the snowball starts "rolling" from one debt to another, it "speeds up". It took a year to pay off your credit card bill - and then only took a year to pay off the larger auto debt. This happens because the amount "extra" that you're paying increases with each "roll" of the "snowball". On the first debt, you were only paying $200 extra. On the second, you were paying $260 extra. That's because the minimum payments you make on the smaller debts become part of the "snowball" as you pay those debts off.

How long does the debt snowball take? Well, that depends on your situation. Some people have virtually no debt to start with. That's great! When my wife and I were trying to get out of debt, we really only had one debt - and it was my wife's reasonably small student loans. We devoted about 30 percent of our after tax income to paying them off, and got them paid off in about 11 months - while they would normally have taken **10 years**. My wife and I did this with her working a mid-range wage position at our public library and me working part-time as a teaching assistant while I was in graduate school. If we can do it, I'm sure you can, too!

Alright, so you paid off all your debts apart from your mortgage, what now?

3.3 3-6 months Emergency Fund

The next stage is increasing the size of your emergency fund. You already have $1000 in there, in case your car breaks down. But, what if you lose your job? In that case, $1000 probably won't get you through! So, it's time to start saving more. There are two ways to think of the size of your emergency fund: one is to think in terms of your total expenses. The other is to think in terms of your Must-Haves alone. Either way works. If you use the first way, look at your total expenses (including savings), and multiply by three. That's how much you want in your emergency fund. Alternatively, look at your Must-Haves and multiply by six. If your money is in balance, these two numbers should be roughly equal. So, save this up. How long should this take? It depends on the interest rate, but you're looking at a process that should take about 15 months for most people on a 50/30/20 budget. If you want, you can always speed it up! After all, remember, your "wants" money can be spent on anything you want - and if you want to be done with this phase sooner, you're welcome to put some of that "30" toward your emergency fund!

Alright, after the third step you've made fantastic progress. You have your debts (except your mortgage) paid off, which is minimizing your interest expenses. You also have 6 months of "Must-Have" expenses in a savings account. That can get you through a normal unemployment spell. So, what happens if you "lapse" at this point? What happens if an emergency happens and your emergency fund falls? Simple: REFILL IT! Don't expect to be done with these steps forever. They might happen again! That's okay, and that's normal. The big point is that, when you hit a financial "bump" in the road, you're ready for it, and you know how to recover from it.

3.4 Save 10(-15)% for Retirement

The first three steps happen one at a time. The next three happen all at the same time. While steps 1-3 were a chronological sequence, steps 4-6 are in order of *priority*. That is: make sure that you do step 4 before you think about doing step 5 - but once you have step 4 happening, you can look at step 5 and then step 6.

Step 4 is where you start saving for retirement. This money should be in a tax-advantaged account (like a 401(k), IRA, or Roth IRA). Here, there is some disagreement. Warren and Tyagi think that saving 10% or so is sufficient for those that start under the age of 35. Dave Ramsey suggests that everyone save 15%. Personally, I think it depends what kind of retirement you have in mind and how early to start saving. Some people start early and just want to take the time to relax at home and spend time with family. These people probably don't need to save more than 10%. If, on the other hand, you want to tour the world or you don't start saving until late in your career, you might want to save the 15%. It's really up to you. Naturally, if you're closer to retirement when you start, you should probably lean more toward Dave Ramsey's number than Warren and Tyagi's.

3.5 Save 5% for "Dreams"

Warren and Tyagi suggest setting aside about 1/4 of your saving (that is 5 of the 20 percent) for "Dreams". What do these "dreams" look like for you? Naturally, that's up to you! Some people have always wanted to have a boat. Some people want to have a more lavish retirement, so the extra 5% should go toward that. Some people want to pay for their kids to go to college, so they can use this money for that. (As an aside, if you set aside $200 per month per child from the time the child is born, you'll save up about $100,000 for college expenses for each child by the time they turn 18. This goes a long way toward paying for college!) Some people want to leave an inheritance or make a large donation to something. Any of these are possible dreams.

3.6 Save 5% for Prepaying Mortgage

Warren and Tyagi suggest that about 1/4 of your savings money should go toward pre-paying your mortgage. This can make a huge difference. Let's say that you got a 30 year mortgage with a loan value of $100,000 and an interest rate of 6%. Payments on this mortgage would be about $600 a month. Over the course of the 30 years, you'd pay $180,000 for the mortgage loan and interest. (Remember: when you use a 30 year mortgage, you pay for your house twice! Once for the loan and a second time for the interest!) Now, suppose that you're earning about $3,000 a month after taxes. In that case, you should be saving $600 a month. One fourth of that is $150. So, suppose you pay $750 a month on your mortage rather than $600. In that case, you'd pay your home off in about eighteen and a half years - saving you a full decade being in debt. Also, your total payments are now just under $165,000. So, you saved $15,000 in interest. (That's equivalent to five months' salary!)

Dave Ramsey isn't quite as defined. He just says "put any extra money you have toward your mortgage". If you're doing a 50/30/20 budget, and 15 percent toward retirement, then the "extra money" is the one-fourth that Warren and Tyagi suggest. (Isn't it great when things work out like that?)

3.7 A Note on Buying a Home and Mortgages

One thing that got left out of the above discussion: any discussion of being a first-time homebuyer. So, I'll mention it here.

First, before you even think about buying a home, you should have completed step 2 at least - and preferably step 3. Then, it's okay to start setting money aside for a down payment. The fact is that the US seems to idolize home ownership. To be honest, I don't know why, and think it might be some acceptable form of fetishism. Moralizing aside, many people want to own their own home. Here, I should focus on convincing you to do so only when you're ready. And that means having a significant emergency fund. As is painfully familiar as I write this, if you're not ready to lose your job, you might end up losing your house. If, however, you have a substantial emergency fund that can make your mortgage payments for you, then you substantially decrease your risk of foreclosure. So, save yourself the stress and have an emergency fund before you buy a house.

Second, before you buy a home, you need to make sure that buying a home is right for you. Here, there's a simple rule of thumb: Are you reasonably confident that you will live in the house for at least five years? If the answer is "yes", then you might be a candidate for buying a home. If the answer is "no", then don't buy a home. The fact is that housing prices do fall (as we've learned recently), and if you're not planning to stay in the home for a long time, you can get caught with a huge loss on your home. So, once again, save yourself the stress. Only buy if your life is financially and geographically stable. Also, take into account what you have to do as a homeowner. Lots of people are enamored with buying a house buy don't take into account what that actually means. That means if the roof leaks, you have to do something about it - you can't just call the landlord. If your well stops working, YOU have to call to get it repaired (and have to pay for the repair!). You're in charge of the yard work. And so on. And so on. Is homeownership rewarding? I honestly can't say. I've never owned a home. (I rent the one I'm in now.) What I do know: homeownership carries a lot of responsibility with it.

Okay, so you're ready to buy a home. What do you do? A big key: remember the 50/30/20 budget. All of your housing expenses are "Must-Haves". You have to pay the mortgage, property taxes, and homeowner's insurance. You may have to pay private mortgage insurance as well. Also, be sure to account for all the utilities. Utilities for a house are often different than for an apartment, so be careful to account for everything. The payments for all these things need to fit in your "Must-Haves" budget, and still leave room for you to eat, drive to work, and pay for any medical expenses. *Don't trust bankers.* The mortgage broker or bank might tell you that you can afford something that you cannot afford. They know that you're going to try to make your payments. They know that you'll probably be willing to work overtime to keep up with your house payments. So, it's in their interest to convince you to get as big a mortgage as possible. They want to push you to the edge of what you can afford. (Same goes for realtors, as far as that goes. Even your realtor is paid as a percentage of the sale price. No one is looking out for homebuyers except the homebuyers themselves!) So, do your own math. Does the house fit into your 50 percent for "Must-Haves" if so, you have the "go ahead" - under one additional condition. Other condition: you have a 10% down payment. There are three important numbers for down payments: 10%, 20%, and 100%. A 10% down payment can typically help you avoid being treated as subprime. This can get you lower interest rates. A 20% down payment will typically allow you to avoid private mortgage insurance, which lowers your monthly payment. A 100% down payment eliminates all need for a mortgage. This is called "buying with cash". This is very rare in the US nowadays. But, the cases where I hear of it are all inspiring. Imagine NEVER making a mortgage payment. Not even once. To me, that is exciting.

So, you know how much of a payment you can afford. You have a 10% down payment. Now what? Here's what you want to at least consider: a 15 year fixed rate mortgage. Suppose you buy a house and have a child around the same time (something that is not unusual). If you have a 15 year mortgage, your mortgage will be paid off in time for you child to go to college - which means that you'll have lots of money to use to pay for their tuition (or books, or Ramen, whatever). The fact is that 15 year mortgages are standard around the world. The 30 year mortgage is an American aberration created by Fannie Mae and Freddie Mac. 30 year mortgages cost you more along three lines: first, because the payments are lower when a mortgage is 30 years rather than 15, people tend to buy bigger houses with 30 year mortgages. This increases the size of your mortgage, and therefore the amount you pay for your house. Second, because the mortgage is longer, you have to pay more interest on it - the longer the loan, the more interest you pay. Third, because the mortgage is longer, you make more payments on it. All of these work against you as a borrower. I'm not saying that 30 year fixed rate mortgages are "stupid" or "evil" - there are certainly cases where they make sense (I actually plan on getting one, but paying it off in 15 or fewer years). I'm just saying that you're financially better off buying a smaller house and getting out of debt faster.

Now, there are mortgages that are "stupid" from the borrowers' perspective. First, avoid adjustable rate mortgages. This is the lesson of the 2008-2009 financial crisis. Adjustable Rate Mortgages (ARMs) are just what they sound like - the interest rate adjusts. Here's the trick though: adjustable rate mortgages make sense for borrowers when rates are unusually high - because rates will probably fall in the future, and bring payments down. Adjustable rate mortgages make sense for banks when rates are unusually low - because rates will probablly rise in the future, and bring payments up. When do you think banks will offer the "best deals" on adjustable rate mortgages? Yes - when they are in the borrowers' worst interest. If it comes down to it, you can always refinance a high-interest fixed rate mortgage at a lower rate in the future. So, even when adjustable rate mortgages might help you, they're still not necessary.

So, why do ARMs exist? They exist to shift risk from the bank to the homeowner. When interest rates rise, banks would traditionally get "squeezed". Since interest rates on traditional fixed rate mortgages don't rise, the banks' incomes stay the same. But, interest rates on savings and short-term CDs - interest that the bank *pays* does rise. So, when interest rates go up, banks end up in worse financial shape. In the late 1970s, interest rates had skyrocketed, so banks were looking for a way to protect themselves. They invented the ARM. Since the interest rate on ARMs adjusts, interest rates (and payments) rise on ARMs when they rise on other things - so banks' revenues and expenses rise and fall together. This decreases the riskiness of the banks' profits. But, the fundamental risk doesn't vanish - it's just shifted from the bank to the borrowers who now have to face increases in their mortgage payments.

ARMs are a bad idea. They are risky for you, the borrower, and are a great way to lose your house. But, there are even easier ways to lose your house. One is an interest-only loan. In this loan, for the first several years, you only pay the interest. So, the payment is much lower than on traditional mortgages. But, then the surprise comes: one of two things happens. Either you make a "balloon payment" - which is a huge payment for you to "catch up" on all the principal you've not been paying. Or, if you're lucky, you just have a huge increase in your mortgage payment. Neither one is good for you. If the interest-only loan isn't bad enough for you, maybe you should try the negative-amortization mortgage. While with the interest-only loan, you only pay the interest for the first several years - so the mortgage doesn't "shrink" over time, with the negative-amortization loan, you don't even pay all the interest for the first several years - so the mortgage actually gets bigger over time. Then - WHAM! - you get slammed with a huge balloon payment or with MUCH higher monthly payments. You want to lose your house? A negative-amortization loan is the loan for you! Avoid these. Remember, these will make a LOT of money for the people lending you money - and that money they're making is coming from *you*.

4 Economics and Investing

The big question facing you at this point: what should you do with your retirment fund savings (and with the education fund saving for your kids). Here, economics provides us with a few guiding principles.

4.1 Principle 1: Don't pick individual stocks.

Let's look at a few key facts.

Fact 1: Some people are very good investors.

These people should go out and pick individual companies (or stocks) to put their money into. They have a skill at seeing where markets are headed, so they can outperform the market.

Fact 2: Most people are not very good investors.

The fact is that the group that Fact 1 applies to is very small. While professional money managers do "beat the market", they do so by a very small margin (about one percentage point).

Fact 3: People are, on average, overconfident in their investment abilities.

So, do you think you're one of the special few who is an awesome investor? Odds are good that you're deluding yourself. Behavioral economists find that overconfidence in investing is systematic - and they don't find evidence of underconfidence. So, maybe you should look at the odds and accept that you're probably not better at investing than a professional money manager is. So, don't try to pick individual stocks. Odds are that you'll do worse than the market, on average.

4.2 Principle 2: Stocks outperform on average.

One of the "puzzles" of economics is called the "equity premium". Here's what it means: stocks, on average, give a higher return than other investments - and this return more than compensates for the higher risk associated with stocks.

Let me put it another way: typically, economists (and others) agree that "The higher the risk, the higher the reward". This appears to be true, on average. However, we also have a sense that there should be some proportionality between the two. (VERY roughly speaking: twice the risk =¿ twice the reward). The reason the equity premium is a puzzle is because that proportionality is lacking. Put very roughly: stocks are a *little* bit riskier than other things - but offer a *much* higher return. So, where should you put most of your money? Easy, stocks.

4.3 Principle 3: Diversification lowers risk without lowering returns.

I'm not going to prove this right here. So, let me give you a quick example to make the point. Enron. If you don't get the point, look it up on Wikipedia.

The nice thing: you can diversify inside of stocks very easily. Just buy an "index fund". (Personally, I like the ETF version of this.) These funds buy a broad selection of stocks, so when you buy shares in the fund you are, in effect, buying shares in dozens or hundreds of different companies. This is diversification.

There are also two other points I'd make here: (1) Don't be too focused in your employer's stock. (2) Don't buy only US stocks.

Often companies like to have their employees buy stock in the company. The reason for that is simple: if you're a shareholder, you have an interest in making the firm profitable. So, it makes sense for companies to offer stock purchase programs (perhaps with matching) to their employees. My advice: take the match - but sell the stock as soon as you can. The reason? Enron. What the Enron example proves: when things go bad at the company, you're likely to lose your job AND the value of your investment in the company's stock. This is very risky. So, invest in companies you don't work for. It's much safer, as if your company goes under you may lose your job - but odds are good that other companies - and therefore your portfolio's stocks - are doing okay.

The recent worldwide recession is unusual. Most of the time, recessions are small and regional - which means that it's a good idea to hold stocks outside your region. The principle is basically the same as for not being too focused on your employer's stock. If the US enters a recession, you don't want to lose your job and have your investments tank at the same time. Investing part of your funds outside the US will provide you with some stocks to see you through the tough times.

4.4 Note on Asset Allocation

So, you're not picking individual stocks. You're just buying index mutual funds. Good. What kinds of funds should you buy?

Here, there are two schools of thought: one is the "asset allocation" school. This school says that you should buy a number of different kinds of funds - for example, you should buy a stock fund, a bond fund, and a real estate investment trust. the other school of thought is the "pure stock" school. Personally, I use asset allocation - but I think that pure stock has merit.

Both have a common thread, though: you decide what percentage of your portfolio you want to have in each asset type, and then "rebalance" your portfolio to keep the proportions "right". One easy way to do this: say you want 10% of your investment in cash, and 90% in stocks. Say you start with $100,000. Put $90,000 in stocks and keep $10,000 in cash. Suppose that stocks had a good year, so that at the end of the year your portfolio is worth $110,000. Now, you need to "rebalance". Your stocks are worth $100,000, but should be only $99,000 by your allocation. So, you sell $1,000 of stock and hold that in cash. Similarly, if your stocks crash, you'll move cash into the stock market. The great benefit of this is that you're buying when the market is low and selling when it is high - which is exactly how you make money in the stock market. And, this all happens "automatically" as a result of your strategy. You don't have to make a guess when the market is "low" or "high". The performance of the market itself tells you. Cool, no?

5 Conclusion

Personal finance is an issue that we all have to face. Like so many tasks, if it is done "right", it shouldn't take up much of your time or effort. But, if it takes up none of your time and effort now, it most assuredly will in the future! So, make the investment every month. Plan your budget. Know where every dollar is going (Must-Haves, Wants, Savings), and keep things in balance as best you can. If you do, you'll have fewer sleepless nights. And, trust me, that's something worth working for.

6 Recommended Reading

Elizabeth Warren and Amelia Warren Tyagi. *All Your Worth.* This book is probably one of the best that I have read in personal finance. It is clear, practical, and well-researched. (If you are interested in their research, look at their book *The Two-Income Trap.*) Most of this reading is drawn from their work. However, they go into much more detail than I do. They also lay out when it might be a good idea to consider options like bankruptcy.

Dave Ramsey. *Financial Peace University.* Technically not a "book", but a program. Search for one that is offered locally. The cost usually runs somewhere around $100 - but it will pay itself back in the first year, if you follow it. Dave also gives great, practical advice on how to deal with finances inside a family. His advice helped my wife and I solve some of our money-related conflicts, and our house is more "financially peaceful" as a result.

Robert Kiyosaki. *Rich Dad, Poor Dad*, *The Cashflow Quadrant.* Kiyosaki is one of the more controversial personal finance writers out there (yes, there is such a thing!). His definitions are... well... "nonstandard". So, don't trust them for an accounting test. But, when it comes to how to think of things, he does well. Generally, I find his style to be more "inspirational" than "informative". So, don't think you're going to get anything like specific steps you should take from his books. His writing generally feels vague. However, *The Cashflow Quadrant* provides a good start in thinking about how your personality impacts your choice of career. (Should you start a business or look for a job?) He's especially worth a read for someone who is possible going to start their own business.

Burton Malkiel. *A Random Walk Down Wall Street.* This book is a bit more academic - and more difficult - than the others, but lays out a lot of the details behind the way that economists view investing. He also lays out a detailed asset allocation plan based on the reader's age and risk-tolerance. So, it might be worth reading those chapters alone, just to get a handle on that information as an alternative to the "all stock" plan detailed here. (What I do is actually much closer to what Malkiel suggests. But, what I describe here should work, too.)