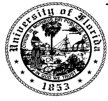

UNIVERSITY OF FLORIDA

IFAS EXTENSION

FE 154

Investing for Fun, Family and Retirement[1]

P.J. van Blokland[2]

The paper emphasizes that a major proportion of an individuals retirement fund must come from that individuals efforts rather than his/her reliance on employer pensions or social security. The best vehicle is probably the tax-deferred annuity.

Saving and investing are separated into two categories. Saving is accomplished by meticulous budgeting, while investing is accomplished through a series of investment triangles. These triangles present declining proportions of investments matched with increasing risk. The paper emphasizes that the length of time an individual invests is more important than the returns obtained.

Purpose

The paper will show how to save and invest. Three things are emphasized: (1) the simplicity of the process of saving and investing, (2) the necessity of saving and investing regularly and (3) the rewards of long-term investment.

So what do you need? You do not need to use a broker — you can do it all yourself. What you need is personal discipline and a bit of research. You will set the amount you can save, select the things in which you will invest and provide the patience necessary to await your rewards. The methodology of saving and investing, and perhaps some advice will be provided by this paper.

Author's Biases

I do not know where the market is going but I do know where it has been. Because the trend has been up for the past 18 years, I believe that it will be a lot higher 10 years from now. I do not believe in market timing or in hot tips, but I do believe that the only way to succeed is to buy regularly and invest for a long time. I know that, in the past 75 years, the market has had an annual average growth rate of nearly 12 percent. Using the rule of 72, your money will double every six years. That is why I like equities. I do not like risk. And I do not like bonds much, except for current income, because they have averaged less than four percent annually over the same period, so it takes 18 years for your money to double.

I love compounding, and I love long-term investment. If you invest $1 per day at 8 percent per year for 20 years, you end up with $18,000. Invest for 40 years, you get $107,000. Invest $3 per day for 20 years at 8 percent and receive $54,000. For 40 years,

1. This document is FE 154, one of a series of the Food and Resource Economics Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Original publication date March 15, 2000. Reviewed June 2003. Visit the EDIS Web Site at http://edis.ifas.ufl.edu.
2. P.J. van Blokland, professor, Food and Resource Economics Department, Indian River REC--Ft. Pierce, FL; Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, Florida.

The Institute of Food and Agricultural Sciences (IFAS) is an Equal Employment Opportunity - Affirmative Action Employer authorized to provide research, educational information and other services only to individuals and institutions that function without regard to race, creed, color, religion, age, disability, sex, sexual orientation, marital status, national origin, political opinions or affiliations. For information on obtaining other extension publications, contact your county Cooperative Extension Service office. Florida Cooperative Extension Service / Institute of Food and Agricultural Sciences / University of Florida / Larry R. Arrington, Interim Dean

receive $322,000. So the length of time that you invest is really more important than the amount that you invest. Can you afford more than $3 per day? If you can, then you need to start saving and investing now.

Saving

What is Saving?

Saving is regularly setting some money aside so that we cannot spend it. Savings should go directly into a money market account (MMA) and not into a bank account. This is because a money market account (MMA) pays better than a bank account. Do not use your bank's MMA. You need to have a different financial institution to avoid putting all your eggs in one basket and also because, if the MMA is with your own bank, it is too easy to withdraw.

Introducing Money Market Accounts

An MMA is simply a pool of money from lots of small savers that is invested mainly in U.S. Treasury bills (T-bills), bonds with a few days to go before maturity and certificates of deposit. You can open an MMA using an 800 number. There is rarely any opening fee, and you do not need a broker. The account usually requires a minimum initial deposit, typically between $50 and $1,000. Subsequent additional deposits are much lower, typically $25 to $50.

MMAs are nice because they are liquid and you can transfer money quickly to your investments by Web, by phone or by letter. Costs are very low, unlike a bank. MMAs can be selected from recommendations in *Kiplingers Personal Finance Magazine* or from weekly comments in *The Wall Street Journal*. They involve little more risk than that involved with holding a U.S. T-bill.

The MMA is simply a holding device for your forced savings. Once you have enough to invest, you remove the money and buy the investment. For example, you decide to buy an S&P 500 mutual fund. The initial investment is currently $3,000. So wait until your MMA accumulates this sum, and then buy the fund.

How Do You Save?

You save by setting aside a regular sum or a percentage of your monthly income and placing it automatically in your MMA. This is called *forced saving*. It should be done via a bank transfer, instead of by you personally because chances are you will not do it — you will spend it! Saving must be treated as a bill in your household budget just like your mortgage and car payments.

Your spending can be divided into fixed and flexible expenses. Fixed expenses are those you cannot do much about now and flexible expenses are those you can do something about now if you so choose. Fixed expenses include mortgage, rent and other household charges, utilities, insurance, taxes and debt payments. Flexible expenses include food, drink, household supplies, personal care, clothing, transportation and related expenses, entertainment, vacations, education, medical and charitable contributions. Your savings can only come from your flexible expenses. You must give up part of one or more of these flexible expenses in order to save. There is no free lunch.

The Budget

Calculate your monthly incomes and fixed and flexible expenditures. Add the expenditures together, and subtract their sum from your incomes. After the shock, do it again until you can see how much you can save. Put this amount into your fixed expenses and check your numbers again. Then phone your bank and tell them to send this forced saving each pay period to your MMA.

Suppose that you get $2,500 per month and decide that you can save $250 of it. So, instead of spending $2,500 on your fixed and flexible expenses, you can now only spend $2,250. But you can spend this freely knowing that you have taken care of your savings. Your savings has become a regular bill just like the mortgage. This is the best, and perhaps the only, way to save. If you do not touch it, you can save it. Touch it, and it is spent. A budget worksheet (Figure 1) is provided below.

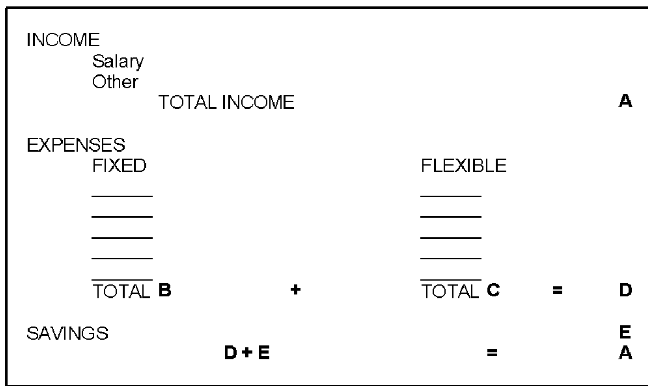

Figure 1. The Budget.

Once you get going, you will probably change the amount you save. The simplest solution is to save a regular percentage of your income. Whether it is two percent or 20 percent really does not matter in the beginning. What matters is making savings a habit and starting now.

Investing

What's Investing?

Investing is buying something that you believe will (1) earn you income or (2) appreciate in value so that you can sell it later at a profit or (3) both appreciate and earn income. This presentation will only consider investments traded in the stock, bond and mutual fund markets. There are, of course, other investments.

The Methodology

An investment triangle should facilitate your understanding of investments. The concept of an investment triangle is shown in Figure 2.

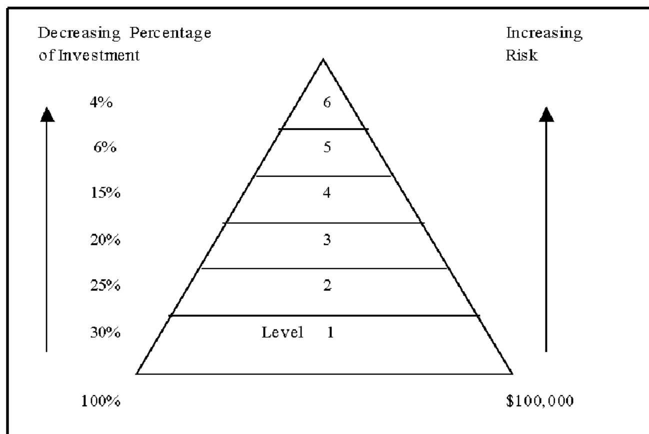

Figure 2. The Investment Triangle.

Ascending the triangle illustrates two vital things. One is that the riskiness of your investments increase, and two is that the proportion of your investments decrease. The triangle itself can be divided into any number of levels. This one has six levels. More than 10 levels are probably unnecessary, and fewer than four are not sufficiently diversified. As you begin, you will probably have only one level because you will not have enough money to fill all the levels that you would like to fill. The essential point is that the largest proportion of your investments will be on the lowest levels, and the smallest proportion will be on the higher levels. You begin your investment program by filling the lowest levels first.

Risk and Reward

The higher the risk, the greater the reward, and the greater the chance of loss. Risk is an individual thing. We all have a different tolerance for risk. Some people love risk, and some hate it. You must vary the risk of your investments, but you can do this commensurate with your own concept of risk. For example, probably the lowest investment risk today is the purchase of a U.S. T-bill.

Let us assume that we have invested $100,000. Thirty percent of our investments, or $30,000, are in what we call safe stuff on Level 1 of Figure 2. Level 2 has $25,000, or 25 percent of our investments, in stuff a little more risky than Level 1 but still not very risky. And so on. Levels 5 and 6 have $6,000 and $4,000, respectively, in items that are relatively high risk.

How Do We Measure Risk?

Mutual funds are presented in *Kiplingers Personal Finance*, with volatility measures ranging from 1 to 10, with 1 having the lowest volatility or risk. So we could use these volatilities to build our triangle entirely from mutual funds with the volatilities increasing as we ascend the triangle.

Stocks are generally graded for risk using beta, where beta is the movement of the market. So, if a stock has a beta of 1, its price moves the same amount as the market does. For example, if the market rises one percent, its stock price rises one percent. If a stock has a beta of 2 and the market falls one percent, its price will fall two percent. If a stock

has a beta of 0.5 and the market rises two percent, the price of the stock will rise one percent. Thus, the higher the beta, the higher the risk. So, we can fill our triangle with stocks with gradually ascending betas. The beta of any stock can be found on the Web or in company reports.

Bonds are graded from AAA to DDD, with Bs and Cs in between. AAA is about as safe as Treasury paper, and DDD is worse than DOA. AA is more risky than AAA; A is more risky than AA; and BBB is more risky than A, and so on. Typically, any bond graded BB or higher is considered to be investment grade and, therefore, a relatively low risk. Below BB are the junk bonds. So, the triangle could also be filled with bonds of increasing risk. *The Wall Street Journal* lists bond grades as does the company or government that lists them. The Web and *Kiplingers* list them as well.

The Complete Model

Figure 3 illustrates the entire procedure. There are three triangles. Unless you have enough money to run all three simultaneously, you should start with the retirement triangle and then with the family triangle. When these two triangles are functioning properly, then start the fun triangle. You can use the same or different investments in each triangle. You can have the same number of levels or vary them. The concept is the same. Perhaps the main difference among the triangles is that the retirement triangle is the least risky while the fun triangle is the most risky.

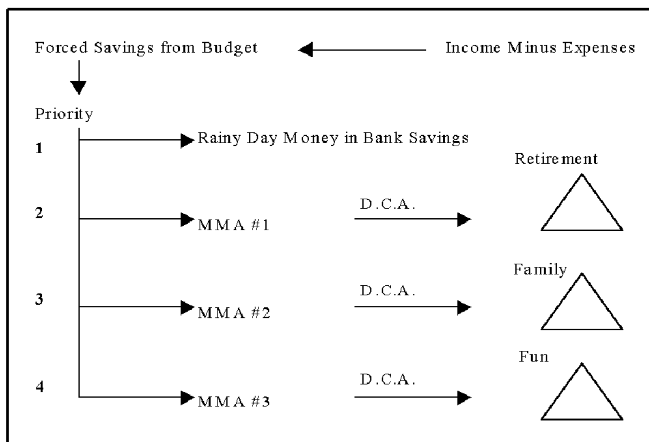

Figure 3. The Complete Savings and Investment Model.

The model includes a *rainy day* pool. This is money that should be set aside in a bank savings account to cope with emergencies. The equivalent of two months' gross income is recommended as a reasonable sum. The bank account is a good place for the *rainy day* funds because a sizable account shows the bank that you are a frugal sort of person. Banks like people like this.

Note that there are three MMAs. This is because you have three triangles, and it is easier to have a pile of money for each triangle than to separate one pile into three destinations. You decide how to allocate your savings to each triangle. Assuming that you are running all three triangles, I would suggest something like 50 percent of your savings for retirement, 35 percent for family and the remaining 15 percent for fun.

The model works like this. When we have enough money in the MMA to buy the minimum additional investment of $250 in the S&P 500 mutual fund, we place it in the fund. DCA means *dollar cost averaging*; this is continually buying, regardless of the price of the investment. Thus we will buy more when investments are cheap and less when they are expensive. It is the best and most widely recommended way to accumulate wealth. We cannot guess what the market will do, but we believe that the value of our investments will have grown when we eventually tap into them.

Retirement Triangle

Introduction

Most of us have three sources of income for our retirement. One is social security. While it is a bit of a joke, it will provide some income, certainly enough for food, household supplies and personal care. It will not disappear. The second is a pension fund from our employer. But neither will be enough for the good life that we want when we retire. The third is a tax-free annuity that we must do for ourselves. If we think that others will do it for us, we deserve what we will get.

A child born today in America should live to the age of 100. Most of us will survive to our mid-80s. Suppose we retire at age 65, have 20 more years to live and inflation stays at about three percent. If we want an income of $35,000 per couple, we will need about $910,000 in our retirement nest egg. Those who

are beginning work today should aim at $2 million from their tax-free annuity alone.

The Concept of Tax-Free Annuities

All of the investments we are discussing here may be placed into a tax-free annuity. So what is a tax-free annuity? Under current law, we are allowed to set aside some money tax-free for our retirement. The private-sector program for employees is the 401(k), and the program for public-sector employees is the 403(b). Small business owners have a choice of a Simplified Employee Pension (SEP), a SIMPLE retirement plan or a Keogh plan. (See IRS publication 560.) All of these programs apply to an owner and to employees in that business. The annual amount that individuals can save in these programs varies, depending on a lot of things. I will use an example of an annual tax-free annuity of $10,000.

Assume that the taxable income on your IRS 1040 tax form is $35,000. You will then pay tax at 15, 28, 31, 36 or 39.6 percent. For example, if you are in the 28-percent bracket, you will pay $35,000 x 0.28 = $9,800 in tax to the IRS. But, if you put $10,000 into a tax-free annuity, your taxable income falls to $25,000, and the tax you owe is now $25,000 x 0.28 = $7,000. This annuity has saved $2,800 in tax. Lower tax rates save less, and higher brackets save more. In this case, every dollar that you put in the annuity will save you 28 cents in income taxes.

Your annual contributions and the earnings accumulated by the annuity over its life are not taxed. You will only be taxed as it is withdrawn. So, if you withdraw $10,000 of it during your first year of retirement, this $10,000 is considered income on your IRS 1040 tax form, and you will work through this and other income sources on the form to calculate your taxable income.

Family Triangle

This triangle essentially covers your children's college education. A child born today will probably require $150,000 for college at a public university and perhaps nearly $500,000 at a major private university. This is quite a lot to finance out of cash flow.

Zero coupon bonds are highly recommended for the funding of children's education. These bonds are issued by both governments and companies and are purchased at a deep discount. For example, if you want $25,000 for the first year of your one-year-old child's college expenses, you can probably buy this bond for $6,000 today. It will be guaranteed to mature 19 years later at $25,000. There is no interest. It gradually increases its face value every year, and you unfortunately should pay tax on the annual increase.

Fun Triangle

This is the triangle that we use to practice our investing expertise. If we win, then we should draw out a percentage of our winnings and enjoy it. Say that we invested $2,000 in something and decided to sell it when it reached $4,000. Take 10 percent of the gain of $2,000 or $200 and have a good night out. Reward yourself if you win.

What do You Put in the Triangles?

The amount that you place in triangles is, of course, up to you. However, here are a few suggestions. Your first investments should all be equity mutual funds until you have about $60,000 invested. Then add $20,000 in individual stocks, through DRIPs. Next, add $20,000 in investment grade bond, mutual funds. Only after this initial $100,000 is invested should you buy individual stocks.

Everyone should own the following mutual funds: (1) S&P 500, (2) Extended Index 4500, (3) a global international equity fund, (4) a utility fund and (5) a balanced fund. These are in order of increasing risk, and none of them are particularly risky. This is where you should start before you do anything else. These investments will work in all three triangles and should definitely be a major part of your retirement triangle.

Conclusion

In conclusion, concentrate on four main things: (1) start now, (2) invest for the long haul, (3) reduce investment costs and taxes by doing things yourself and (4) save as much as you can. You can then look

forward to a great retirement, educated children and sophistication in using financial markets.