Personal financial planning

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Develop a good financial plan for yourself at an early age and assure a secure future

Suppose a friend told you that he had made a 10 percent return on his investments in 1984. Is that good? Bad? Should you congratulate him or laugh at him? It all depends on what his goals were and how much risk he was willing to take. Compared to the inflation rate of 4 percent in 1984 he did well. Compared to one measure of stock market performance, the S&P 500 Index, which was up 6.3 percent, he did well. Compared to long-term government bonds, up 15.5 percent, he did poorly. Maybe his expectation was just to keep up with inflation; maybe he took an enormous risk hoping to make a big killing. Your response depends on his investment goals.

The aim of personal financial planning is to develop and implement a set of coordinated plans to achieve our financial goals both in the short and long term. All too often, though, our financial goals are ambiguous. We want to be "comfortable," or have a "nice" car or house, or have "enough" money to take a vacation to Europe every other year. An early task, therefore, is to develop in reasonable detail one's specific financial needs and goals.

The methodology of financial planning is a systems approach following these five steps:

1. Gather personal financial data.
2. Set goals and objectives.
3. Analyze one's present position relative to those goals, and considers alternative courses of action.
4. Develop and implement a plan.
5. Review and revise that plan periodically.

"Who needs it?," you ask. "I'm not a fat cat." Well, we all need it to a greater or lesser extent. If you have a large income and a substantial bank account, it behooves you to use your financial resources efficiently. If you have little income and/or a meager bank account, then you need to make every dollar count.

Failure to plan can result in high personal and financial costs. Your family may be under- or unprotected in the event of a personal catastrophe such as death, disability, prolonged unemployment, or illness. There may not be enough money set aside for your children's education or your retirement, or you may be paying more taxes than you should. Most important, failure to plan may cause your own personal goals never to be realized.

As we will see later, the time to start thinking about financial planning is now. The sooner you start, the more likely it is that you will achieve your goals. Marrying into money is the only other financial planning process I know where you can meet your lifetime financial goals. For most of us, unfortunately, that's not a reasonable expectation.

Five major components

Personal financial planning involves coordinated, realistic planning in five vital areas of your financial affairs.

- Protection against personal financial risks (death, income loss from disability and illness, property loss, claims of liability)
- Capital accumulation (emergencies, family needs, a desire for increased standard of living)
- Reducing the tax burden
- Retirement income
- Estate planning (for heirs)

The professional financial planner takes all of these issues into account when developing the strategy to be applied to a client's specific goals. Let's take a brief look at each of these issues.

Protection from Financial Risk (Insurance): Most people protect themselves against the personal financial risks mentioned above through the use of some form of insurance. Many are aware of the various forms of protection available: car, homeowner's, renter's, life, health, unemployment, liability and casualty (property) insurance.

Disability insurance, however, tends to be neglected in less-than-thorough financial plans. Most people don't realize that, prior to age 65, the probability that you will suffer a disability lasting longer than 90 days is significantly greater than death. At age 22, for example, the probability is almost seven and one-half times greater; at 42, four and a quarter times. Many employers provide disability insurance coverage, but if yours does not, you would be wise to take a look at the various policies available.

"Universal" life insurance contracts are typical of new products offering higher rates of return to the insured on that portion of the premium which does not cover the actual cost of insuring against the death benefit.

Capital Accumulation: People want to accumulate capital for a number of reasons. They include an emergency fund, for their children's education, for retirement, for building up a general investment fund to provide them with security, as well as to increase their standards of living.

Several factors need to be considered when developing a strategy to accumulate capital. These include: a) how much and when do you need it?, b) how much do you have to invest, both now and in the future?, c) what are the constraints and limitations of the various financial vehicles?, and d) is the plan one which has a reasonable chance of meeting most of your goals?

Many different financial vehicles can result in capital appreciation. These are generally categorized as fixed-dollar and variable-dollar or equity investments. Fixed-dollar investments are those in which the principal and/or income are contractually set in advance: savings accounts, bonds, preferred stocks and the cash values in life insurance policies. Equity investments have neither the principal invested nor the income guaranteed: stocks, real estate, limited partnership tax shelters (oil and gas, real estate, cattle, . . .), ownership of a business interest, commodities and collectibles (art, oriental rugs, antiques, coins, . . .) and other assets such as gold and silver.

Each one of these investment vehicles has virtues and limitations which must be evaluated as to the appropriateness of their inclusion in a financial plan. Your goals, age, income level, possible inheritances, your own assessment of the future U.S. economy, your ability to tolerate risk, knowledge of specific investments and willingness to participate in the management of these investments all have a bearing on the

0278-6648/85/1200-0020$01.00©1985 IEEE

type and distribution of investments put into a financial plan.

There is the so-called, "Orange Juice Analogy" used in financial circles, which says that no matter how you slice and squeeze it, you can get only so much juice out of an orange. Any investment vehicle also has only so much "juice." You can pour the "juice" into any or all of four glasses labeled, a) Safety, b) Cash flow, c) Appreciation, and d) Tax savings. What goes into one glass cannot also go into another. If you want a high degree of safety, you cannot also get high appreciation or cash flow or tax savings. If you want lots of appreciation, the other elements suffer.

It is the financial planner's job to recommend the proper distribution of various investment vehicles in a portfolio given his/her overall view of the client's goals and current situation.

Another issue facing you as you begin to accumulate capital is that of managing your investments and/or property.

Some people love 'playing the market' while others will not buy any stocks because they feel it's pure gambling, just like roulette. Some want professional management of their investments, e.g., mutual funds and the various types of limited partnerships. Similarly, one has the option of placing the majority of one's assets in the hands of a professional manager, be it a financial advisor (who may or may not be the financial planner), a lawyer, or trustee.

Reducing the Tax Burden: Tax Reform Act '76, Revenue Act '78, ERTA '81, TEFRA '82, Tax Reform Act '84, flat tax, modified flat tax. The Federal government uses the income tax code for social and economic purposes and changes (not simplifies) the rules as political winds change. Since taxes influence our investment decisions, the financial planning process must take into account current and possible future tax consequences.

There are four basic tax-savings techniques:

- Tax elimination (e.g., municipal bond interest)
- Long-term capital gains
- Postponing taxation (e.g., Individual Retirement (IRA))
- Shifting taxes to others (e.g., gifts of income-producing property to one's children)

There are a number of texts which explain in reasonably simple terms some techniques for minimizing taxes. Your local librarian can help you, if you are interested.

Retirement Planning: Retirement awaits us all. But at age 21, that is the furthest thing from our minds. Unfortunately, inadequate financial planning may cause unhappiness and even serious distress in retirement. I'll try to show you below how, with just a little planning (and action), you can provide yourself with some assurance of a reasonable source of funds in your later years.

The key to well-funded retirement is a concept of "the time value of money."

The time value of money is one of the most powerful forces in financial investments. The earning of interest on interest (compounding) over a long period can yield results that are surprisingly nonintuitive. The fundamental formula is a simple one which we all learned in high school algebra:

$$FV = A(1 + r)^\wedge n$$

where

FV is the future value of the original amount

A is the original amount

r is the rate of interest or investment return per period and,

n is the number of periods.

In the examples below, the 44-year period was selected since it is the number of years between the ages of 21–65.

TABLE I shows the result of depositing $2000 each year into an IRA for 20 and 44 years at different compounded interest/investment return rates. Note the effect of depositing each year's investment at the beginning of the year rather than at the end. Also, at a 9 percent compounded rate, the increased interest earned from just the first year's $2000 deposit, made at the beginning rather than at the end of that year is, by the end of 44 years, over $7300!

The Effect of the Difference in Salaries for BS/MS/Ph.D.'s: One of the questions facing the new graduate is whether to pursue a graduate degree or immediately enter the work force full time. Obviously, there are many things to consider, but let's look at the financial effect such a decision can have at the end of a career, i.e., at retirement. The calculations shown in TABLE II are based on reasonable assumptions, and I have been conservative. Also, while the numbers may look huge in today's dollars, remember that 44 years ago the cost of going to the movies was 50 cents, not five dollars. You can expect a similar relationship to hold 44 years from now.

TABLE I

Accumulation of IRA Funds with a $2000 annual investment

Annual return	6%	9%	12%
Deposited at year's end:			
Total after 20 yrs	74k$	102k$	144k$
Total after 44 yrs	400k$	963k$	2,424k$
Deposited at 1st of year:			
Total after 44 yrs	423k$	1,050k$	2,714k$

TABLE II

The Effect of Starting Salary on Lifetime Income *

	BS	MS	Ph. D.
Current (1985) Start Salary	30.0k$	34.2(**)k$	43.2(***)k$
Salary @ 20 yrs	91 k$	104 k$	131 k$
Salary @ 44 yrs	367 k$	419 k$	529 k$
Cumulative Income @ 44 yrs	5993 k$	6793 k$	8412 k$

* Six percent annual salary increase assumed
** Assumes no income first year; incremental schooling cost of $4000 borrowed at 12 percent interest, repaid with interest at end of second year
*** Assumes no income first four years; incremental schooling cost of $4000 per year, repaid after graduation in four yearly installments

Since time has such a strong effect on investment income, it is instructive to look at how an absence of income (and savings) the first year(s) affects the funds available at retirement. We saw the significant effect $2000 the first year had on the IRA after 44 years, so we can expect that the investments made the first year(s) after graduation with a BS can overcome some of the disadvantage of a lower starting and (in our simplistic example) continuing salary when compared to the MS and Ph. D. TABLE III shows the effect of investing 10 percent of one's income each year and reinvesting the proceeds of those investments.

The fraction of your salary that you save and invest each year has a large effect on the relative amounts that you get from your salary and investments in later years. The amount you save each year is more easily determined by you than the rate of return you get on your investments. Besides, a consistent savings and investment program can greatly affect the total income you receive over your lifetime.

TABLE IV shows how you can position yourself to be financially secure in your later years with relatively little impact on your early standard of living. I have been conservative in using only 3 percent investment return over inflation (9 percent vs. 6 percent). Employer-sponsored retirement/pension plans generally meet this criterion and a new employee should investigate these plans with his/her employer as soon as possible after settling in.

The return on investments obviously has a strong effect on these percentages in TABLE IV, especially after 44 years. If we assume a 15 percent compounded after-tax return instead of 9 percent, saving 10 percent of one's salary each year provides an annual income from investments of three times that of one's salary at retirement! It does take discipline, however, to consistently live 10 percent below one's "potential" standard of living.

TABLE III

Income From Annual Investments, k$*

	BS	MS**	PhD***
Investment Income:			
@ 9% return:			
@ 20 years	16.7	16.5	12.7
@ 44 years	203	214	216
Cumulative Investment Income after 44 years:	2084	2156	2045
@ 15% return:			
@ 20 years	42.4	39.6	26.1
@ 44 years	1102	1084	895
Cumulative Investment Income after 44 years:	8854	8631	6878

Note: Cumulative values are part of the 9% and 15% results.
* Six percent annual salary increase, 10 percent of salary invested yearly assumed
** Assumes no income or investment 1st year; incremental schooling cost of $4000 borrowed at 12 percent interest, repaid with interest at end of 2nd year
*** Assumes no income first four years; incremental schooling cost of $4000 per year repaid after graduation in four yearly installments; no investments made until the ninth year, after loans and interest are repaid

TABLE IV

Annual Investment Income as a Percent of Salary for Different Annual Percentages of Salary Saved and Invested*

Salary Invested	After 20 Years	After 44 Years
3%	6%	17%
5%	11%	33%
10%	18%	55%
15%	28%	83%

* Assumes annual salary increase of six percent, annual investment return of nine percent compounded.

Estate Planning: Estate planning is the art of creating and managing one's assets while alive so that their transfer to a wife, children, and others after death is done as one wishes. The financial planner advises his clients on the methods of estate transfer before and after death, the effect of different forms of ownership and various tax consequences.

Transfers of estates worth less than $400,000 by people dying in 1985 will generally not incur any Federal estate tax liability, so the only advice I will give you now is to write a will so that your estate will be distributed as you wish, rather than according to state law.

What can I do now?

Self-help: Your local library has a number of recently published books on financial planning. Several universities, Adelphi, Brigham Young, Golden Gate and the University of California, among others, provide degrees and/or adult education in this field. A recently syndicated TV program, "Financial Planning," is available in a few locales. For those interested in using a computer to help you to quantify your present and future financial situation, spreadsheet templates as well as dedicated programs are on the market, ranging from $150 to over $1000.

Professional Help: In the last few years, personal financial planning has been 'discovered' by many in the personal and financial service industry including stockbrokers, insurance companies, banks, lawyers, CPA's, investment advisors and others. Many have entered this field with a view toward enhancing the service they can provide to their clients. They consider financial planning as a tool to provide a broader view of the needs of the client and in doing so can give him/her a more personalized set of recommendations. Some, however, look at financial planning as a bandwagon to ride to simply attract more clients to their business.

You need to make sure that the person(s) to whom you trust your financial affairs is both competent and holds *your* interests above his/her own. Unfortunately, a conflict of interest is present in most interactions between a financial planner and the client. Select a planner only after you have done some homework regarding his/her professional qualifications, experience, and your comfort level in discussing issues which most people find to be very personal.

The financial planner is not a substitute for accountants, tax preparers or estate attorneys, unless that is his/her area of expertise. In particular, unless the planner is licensed to practice law, he cannot give legal advice and will refer a client to a lawyer, when appropriate.

Professional Designations: The Certified Financial Planner (CFP), a certification conferred by the College of Financial Planning (Denver), has passed a series of formal financial planning courses and examinations in the topics discussed above and has vowed to adhere to a strict code of ethics. The American College's (Bryn Mawr, PA) Chartered Financial Consultant (ChFC) is similar.

About the author

Ronald Wichner holds a BChE from the Cooper Union and a Ph. D. in Nuclear Engineering from UC-Berkeley. Until recently, he was leader of the Engineering Services Division, Electronics Engineering Department at the Lawrence Livermore National Laboratory. Dr. Wichner is now associated with Berkeley Hills Realty Corp., and is a Certified Financial Planner. ☐