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A Note on Economic Principles and Financial Literacy

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Finance is a branch of economics that deals with *budgeting*, *saving*, *investing*, *borrowing*, *lending*, *insuring*, *diversifying*, and *matching*. In setting standards of financial literacy we ought to make sure they are consistent with the basic principles taught in economics courses. In section I of this note I list four of the economic principles I believe can and should serve as a firm conceptual foundation for setting standards of financial literacy and for framing financial decisions. In section II, I illustrate how those principles can and should be applied to personal finance.

I. General Principles

1. In making financial decisions, one should always bear in mind the "Law of One Price" and the dynamics of market arbitrage which enforce the law. This is a version of the economic principle that there is no "free lunch" in competitive markets.
2. Frame decisions about personal saving and investing in terms of a model of rational lifetime resource allocation: maximize welfare subject to the constraint that the present value of lifetime consumption cannot exceed the present value of lifetime labor earnings adjusted for bequests of wealth.
3. Frame decisions about insuring against risks and portfolio selection in terms of a rational model of maximizing expected welfare. The two main methods of dealing with uncertainty are the matching of assets to desired goals and pooling and subdividing risk (a.k.a. diversifying).
4. Take account of taxes and transaction costs. Many decisions that may seem optimal before taxes and transaction costs, may not be optimal after taking account of taxes and transaction costs. But rarely is a decision optimal if it is motivated solely by the desire to minimize taxes payable.

I believe that these four principles ought to be integrated into economics courses in the schools and in adult education seminars. Unfortunately some of the so-called "educational" materials distributed by financial firms and professional advisors (and even by regulatory agencies) are not consistent with these principles. In particular, their approach to portfolio selection relies exclusively on diversification and excludes matching assets to desired goals. They promote the fallacious concept of "time diversification"-- that in the long run investing in stocks dominates investing in inflation-protected bonds because it lowers risk without lowering expected return. From this fallacious notion that there is a free lunch to be had in the long run, they derive guidelines that can be hazardous for certain classes of individuals, exposing them to far more risk than they would accept if well informed.

II. Applying Principles of Economics to Personal Finance

1. Budgeting

Budgeting means making a financial plan. Budgeting typically starts with an analysis of your past spending patterns. Such an analysis can reduce waste and thereby improve your standard of living. A long-term financial plan must satisfy the constraint that the present value of lifetime consumption spending cannot exceed the present value of lifetime labor earnings adjusted for bequests of wealth. Labor income can be “lumpy” and unpredictable. Plan to “smooth” income over time to achieve a higher level of welfare.

Example: Save more during high earning years, especially if you are not sure about how long the high earnings will last. If you experience a financial “windfall”(e.g., you win a lottery), don’t spend it all immediately.

2. Saving

Saving means not spending current income on consumption; it is measured as the difference between your income and your consumption spending. Your saving can be used to reduce your debt or increase your assets. In some cases it is not clear whether you should treat a particular outlay as consumption or as saving. For example, if you spend money on acquiring more education to increase your earning

power in the future, you ought to consider it saving. But it is usually treated as consumption.

Note that in much of the popular "educational" material on personal finance "saving" is mistakenly defined as putting money into safe assets such as bank saving accounts. It is then contrasted with "investing," defined as putting money into risky assets, such as stocks. But a basic principle of measurement in economics is that in any period new investment for a household, a business, or any other organization, always equals its new saving. Thus measured saving and investing are two sides of the same coin.

3. Investing

In personal finance, investing means deciding how to allocate your assets along the spectrum from safe to risky. But an asset that is safe for one person may be risky for another. For example: A long-term bond can be a safe investment if you are investing for the long run, but risky for the short run. If you want to maintain your standard of living, then inflation-protected bonds are safer than ordinary bonds. Buying a house is safe if you intend to live in the same neighborhood for a long time, but risky if you plan to move far away in a couple of years. Stocks are risky no matter how long your time horizon.

When investing, always bear in mind the "Law of One Price" and the powerful force of market arbitrage which enforces the law. This is the financial version of the economic principle that there is no "free lunch" in competitive markets. Market prices of assets reflect the information available to *all* market participants. It only takes two well-informed competitive bidders to cause the price to accurately reflect intrinsic value. If an investment seems like a "bargain," it almost surely has high risk.

4. Borrowing

Access to credit is valuable because it allows you to smooth your consumption over time. If you want to purchase a house, a car, or invest in your own business, you may have to borrow. Make sure you know how much you owe and what interest rate you are paying on your debt. Credit card debt is usually very expensive, so always consider other types of borrowing first. Mortgage loans are

usually the cheapest form of debt because the lender has your house as collateral for the debt. Leasing an asset for a long time is like buying it with borrowed money and paying it off over time. Embedded in the lease payment is an interest rate on the borrowed money.

5. Lending

Before lending money to anyone always consider the risk that it might not be repaid due to circumstances beyond anyone's control. Taking collateral is a way to control the risk of default. Receiving a higher interest rate is a way to compensate you for this risk. Often lending does not involve money, but rather consists of letting someone use an asset you own (e.g., an apartment). In that case, consider the potential loss in value of the asset that might occur during the period of the loan.

6. Insuring

Insuring means buying a contract to compensate you for a loss that is much larger than the insurance premium. Insuring can be a very cost-effective way of protecting yourself against certain risks. Instead of insuring, you can save to build up a reserve of assets as a precaution to help you withstand a possible loss. But if the potential loss is very large and its likelihood relatively low, insuring will be far more efficient than precautionary saving. On the other hand, insurance policies often contain optional features that increase their price. It is wasteful to pay for protection against hazards that you do not face.

7. Diversifying

Diversifying means reducing your exposure to risk by not "putting all your eggs in one basket." Instead of investing in the stock of a single company, split your investment among the stocks of different companies in different industries. Because some of the gains will cancel some of the losses, the riskiness of the portfolio of stocks will be lower than the risk of an investment of equal size in a single security.

Note that diversification only reduces your risk when applied to different stocks or other risky assets; it does *not* work over different time periods. You do not necessarily reduce your risk exposure by investing for many periods rather than for a single period.

8. Matching

To eliminate the risk of falling short of a savings goal at a specific future date, you must match the maturity of your investment to the goal. This cannot be done when you invest in stocks or in mutual funds that have no specific maturity date.