PEARSON



金融学

(第二版)

FINANCIAL ECONOMICS

(Second Edition)



Financial Principles

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What is finance?

Finance is the rational allocation of limited resources over time. It includes:

- Budgeting
- > Saving
- > Borrowing
- Lending
- **►**Insuring
- **►** Investing
- ➤ Portfolio selection

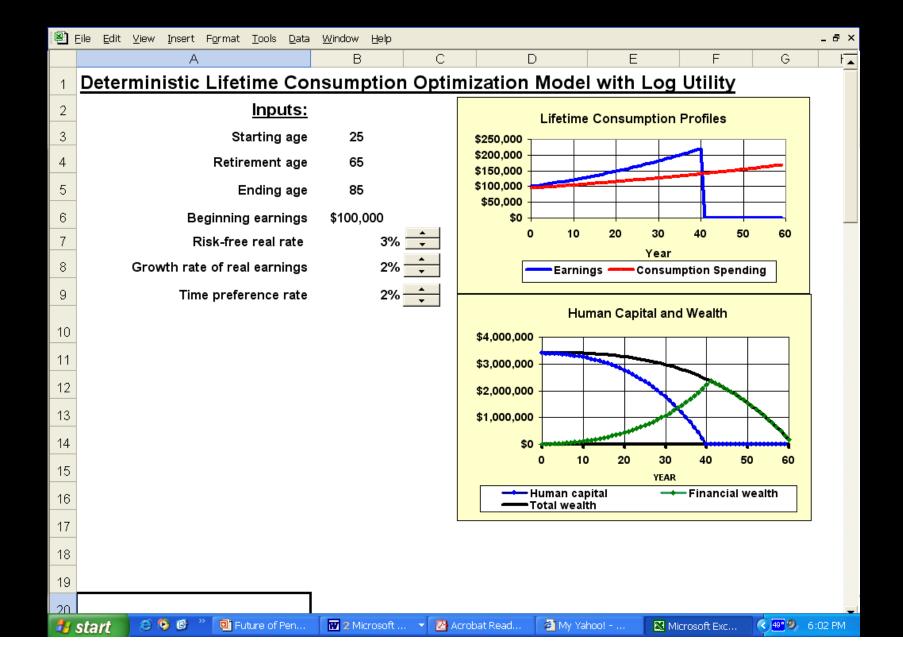
10 principles

- 1. Frame choices in terms of objectives and constraints.
- 2. Don't waste resources.
- 3. Don't be fooled by inflation.
- 4. Distinguish between saving and safe investing.
- 5. Don't judge the risk of an asset in isolation.
- 6. Stocks are not safe even in the long run.
- 7. A security's price is a fair estimate of its value.
- 8. Beware of survivorship bias in evaluating investment managers.
- 9. Take account of taxes, fees, and other transaction costs when evaluating investments.
- 10. Seek expert advice from impartial sources.

1. Frame choices in terms of objectives and constraints

- Rational choice is about achieving objectives subject to resource constraints.
 - Example: Maximize welfare subject to a wealth constraint.
- Welfare derives from consumption of goods and leisure over time.
- Wealth is the present value of lifetime resources, including human capital.

Example: Retirement planning



Feasibility and optimality

- A feasible consumption plan is one that can be achieved. It satisfies the wealth constraint.
- An *optimal* plan is the best among all feasible plans. It maximizes welfare.

2. Don't waste resources

- Undertake an action only if the present value of the marginal benefit exceeds the present value of the marginal cost.
- Buy only those product features you want, and do not pay for extras you do not want.

Examples

- If you have credit card debt at 16% interest and a savings account at 5%, use the money in your savings account to pay off your credit card balance.
- Refinance your mortgage at a lower interest rate only if the present value of the reduced mortgage payments exceeds the up-front costs of refinancing.
- Don't buy an annuity with a death benefit if you have no dependents.

3. Don't be fooled by inflation

- Distinguish between nominal and real cash flows and rates of return.
- Guaranteed real rates of interest can be low and can even be negative.

Example

It is common for people to compute projected retirement income based on an assumed rate of return on investments that is not adjusted for expected inflation. When they add it to projected Social Security benefits, they get an unrealistically high projected retirement income. The higher the expected rate of inflation, the worse this bias becomes.

4. Distinguish between saving and safe investing

- Saving is often taken to mean investing in safe assets such as an insured bank account. But in economics, saving means not consuming part of your income. So deciding how much to save is the flip side of deciding how much to consume.
- Saving increases your net worth either through asset accumulation or reducing indebtedness.
- Safe investing means choosing a portfolio that minimizes the uncertainty of your consumption plan.

Example

If your goal is to pay for your grandchild's college tuition 15 years from now, the safest asset is a default-free <u>tuition-denominated</u> <u>security</u> that matures 15 years from now.

- 5. Don't judge the risk of an asset in isolation
- Assess risk in the context of all your assets and liabilities.
- Diversify. The fluctuations in value of one asset may offset those of another asset or liability.

Examples

- Investing in a diversified stock index fund is less risky than investing in a single stock.
- Investing in the stock of the company that employs you is risky because you already have an exposure to it by virtue of your job.
- ➤ Buying your own home is not a risky investment if you intend to live in it for a long time.

6. Stocks are not safe even in the long run.

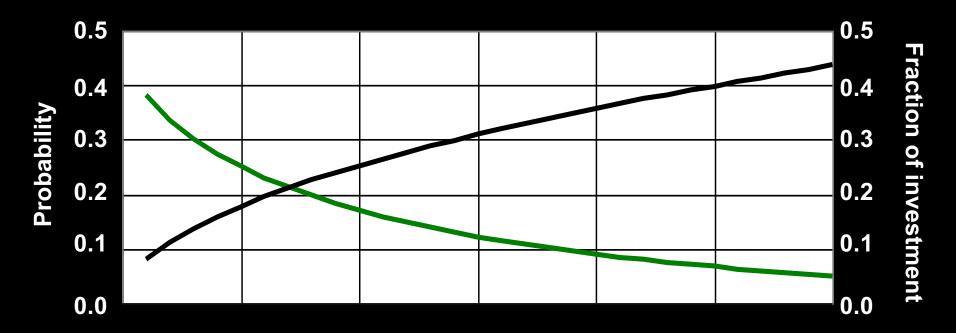
- You cannot reduce the ex ante cost of achieving a future objective by investing in stocks. There is no "free lunch" in the long run.
- You can have a long time horizon and be very averse to risk. If so, you will prefer to invest in safe assets that have a long maturity, such as TIPS and I-Bonds. <u>Click here for Risk Tolerance</u> <u>Quiz</u>.

Examples

- ➤If you want to achieve a certain level of retirement income for sure, then you must save a certain amount based on the risk-free rate of interest.
- If you save less and invest in stocks, then you may achieve your desired level of retirement income, but there may also be a shortfall.
- There is no "free lunch" in the risk-reward tradeoff.

The fallacy of time diversification

Probability of shortfall vs. cost of shortfall insurance



— 6% risk premium — Cost of shortfall insurance

7. A security's price is a fair estimate of its value.

- Prices of publicly traded securities reflect assessments of informed investors. It only takes two competing bidders who are well-informed for prices to accurately reflect available information.
- If a deal looks too good to be true, it is probably not as good as it looks. Sometimes an asset seems like a bargain to you only because you are unaware of some risk that better informed investors know about.

- 8. Beware of survivorship bias in evaluating investment managers.
- It is hard to distinguish between luck and skill.
- Survivorship bias occurs naturally in reported results of profit-making firms.

Example

Investment companies that have existed for a long time are likely to appear to have superior performing funds because the funds that performed badly no longer exist. A firm's track record can be misleading if no correction is made for the funds that did not survive.

9. Take account of taxes and transaction costs when evaluating investments.

Pay careful attention to the tax status of investments and to how much you are being charged in fees, expenses, and bid-asked spreads.

Examples

- Saving bonds and passive index funds are likely to be your most tax and cost-efficient investments. Although their *gross* return may be lower than some alternatives, their *net* return may be higher.
- Many tax-deferred annuity contracts charge fees and expenses that exceed their tax savings.

10. Seek expert advice from impartial sources

- Many professional advisers are paid commissions by financial firms, thus creating an incentive for them to steer you towards products that might not be in your best interest. NAPFA is an organization of fee-only financial planners.
- Check the credentials of those offering you advice at these websites:
 - SEC
 - NASAA
 - NASD
- Be aware that some <u>organizations</u> claiming to be impartial and non-commercial, may be promoting the interests of a particular industry or trade. Be skeptical of their advice.

The popular literature can be misleading

Popular literature	<u>Science</u>
Saving is for the short run. Investing is for the long run.	Saving means income minus consumption; investing means selecting your portfolio of assets.
Stocks become safe in the long run due to "time diversification."	Stocks are never a safe way to achieve a specific inflation-protected target at any future date.
The only way to reduce risk is to diversify.	The simplest way to reduce risk is to hold safe assets.

So whom can you trust?

- Your best protection is knowledge of the basics.
 See AICPA website.
- Members of NAPFA are committed to not accepting commissions.
- Ask the advisor what she thinks of safe financial products that are free of sales commissions, such as <u>I-Bonds</u> and other investments at <u>Treasury</u> <u>Direct</u>. If the advisor is either unaware of them or tries to talk you out of them, seek advice elsewhere.