Active and Passive Wealth Creation

Stages of Life

Personality Type Classifications

Benefits of the IPS

- **Foundation** is seeking to accumulate wealth through a job and savings, seeking education, or building a business. Long time horizon can increase risk tolerance. But often have little wealth to risk which may reduce ability.
- **Accumulation** is when earnings or business success rise and assets can be accumulated. Demands such a house or kids' college may rise. Could be a time of maximum savings and wealth accumulation with a higher ability to bear risk.
- **Maintenance**phase often means retirement. Preserving wealth and living off the portfolio are important. Ability to bear risk is declining, but not low. Life expectancy can be long and being too conservative can decrease standard of living.
- **Distribution** stage means assets exceed needs and a process of distributing them to others can start. Might involve gifts or making plans for death. Objectives may extend beyond death so time horizon remains long and ability to bear risk could remain high.

- **Active wealth creation.** Wealth that has been accumulated through entrepreneurial activity may be the result of risk taking. Thus, this individual could have willingness to take risk. However, they may treat business risk different from investment risk.
- **Passive wealth creation.** Wealth acquired through windfall or inheritance could indicate a lack of knowledge with investment decisions. Thus, this individual may have below-average willingness to tolerate risk.

- For the client
  - Identifies and documents objectives and constraints.
  - Dynamic, allowing changes in response to changing circumstances or market conditions.
  - Easily understood, giving the ability to bring in new managers without disruption.
  - Developing helps clients learn more about themselves and investment decision making and are better able to understand investment recommendations.
- For the advisor
  - Greater knowledge of the client.
  - Guidance for investment decision making.
  - Guidance for resolution of disputes.

- **Cautious investors**
  - Have strong desire for security.
  - Prefer safe, low-volatility investments with little potential for loss.
  - Do not like making their own investment decisions but are difficult to advise.
  - Portfolios have low turnover.
- **Methodical investors**
  - Diligently research markets, industries, and firms to gather information.
  - Decisions tend to be conservative.
  - Rarely form emotional attachments to investments.
  - Seek confirmation of decisions and constantly on the lookout for better information.
- **Individualistic investors**
  - Do their own research and are confident in their ability to make decisions.
  - When faced with contradictory information, will devote time to reconcile.
  - Have confidence in their ability to achieve long-term investment objectives.
- **Spontaneous investors**
  - Constantly adjust portfolios in response to changing market conditions.
  - Fear failing to respond to changing market conditions will negatively impact portfolios.
  - Acknowledge lack of investment expertise, but also doubt advice.
  - Have high turnover and trading costs.

Return Objective

Risk Objective

Time Horizon Constraint

Tax Constraint

- **Ability to take risk** is the ability to sustain losses with jeopardizing goals. How much volatility the portfolio can withstand and still meet expenditures. Significantly affected by time horizon and relative size of expenditures.
    - As time horizon increases, ability to take risk increases.
    - Large relative expenditures, reduce ability to take risk.
    - As the importance of an expense increases, ability to take risk decreases.
    - If a goal or amount can be changed, the client has flexibility, increasing ability.
    - If still working or has other assets, this increases the ability.
    - Liquidity needs can reduce ability.
- **Willingness to take risk** is subjective and determined by analysis of a psychological profile. Rather than accept the client's statement, you should look for confirming or contradicting evidence.

Often can be divided in to desired and required components. Required is what is necessary to meet critical goals. Might be living expenses, education or healthcare. Desired might be buying a second home or travel.

Some managers distinguish between income and growth sources, but this is suboptimal to a total return approach. As long as sufficient return is earned over the long run, funds can be available to meet needs.

Return objective should specify whether it is nominal (including inflation) or real, and pretax or after-tax.

- **Tax defferal.** Minimize potentially compounding effect of taxes by paying them at the end of the investment period. Strategies focus on long-term capital gains, low turnover, and loss harvesting.
- **Tax avoidance.** Invest in tax-free securities. Special savings accounts and tax-free municipal bonds are examples of securities with tax-free returns.
- **Tax reduction.** Invest in securities that require less direct tax payment. Capital gains may be taxed a lower rate than income. Annual taxes should be reduced through loss harvesting, when available.
- **Wealth transfer taxes.** Minimize transfer taxes by planning the transfer without utilizing a sale. Often quite specific to the jurisdiction. Considering the timing of the transfer is also important.

Important because it affects ability to bear risk. Most basically, it is the expected remaining years of life. Total number of years the portfolio will be managed to meet the investor's needs. Fifteen years or more is long-term, and short-term is three years or less.

Many horizons are multistage. A stage is indicated by changes in circumstances or objectives significant enough to require evaluating the IPS and reallocating the portfolio.

Liquidity Constraint

Legal and Regulatory Constraint

Unique Circumstances Constraint

Monte Carlo Approach to Retirement Planning

Trusts are formed legal devices for transferring personal wealth to future generations. In a revocable trust, the grantor retains ownership and control over the assets and is responsible for taxes. Often manages the assets personally or hires a manager.

In an irrevocable trust, the grantor confers ownership of the assets to the trust. The assets are considered immediately transferred and can be subject to wealth transfer taxes. The trust is a taxable entity and will file tax returns and pay any taxes due. The original grantor no longer has control of the assets and is not taxed on them.

Family foundations are another vehicle, similar to an irrevocable trust, used to transfer assets to future generations. Family members frequently remain as managers of the foundation's assets.

- Ongoing needs for distributions such as living expenses.
- Emergency reserves for unanticipated distributions if agreed to in advance. Otherwise they create cash drag.
- One-time or infrequent negative liquidity events requiring irregular distributions should be noted.
- Positive liquidity events not due to assets should also be noted.
- Illiquid assets, restricted from sale or causing a large tax bill on sale, should be noted.
- Ownership of a home is generally an illiquid asset and could be noted.

- Advantages
  - Considers path dependency.
  - More clearly displays tradeoffs of risk and return by ranking paths.
  - Properly models tax analysis, which considers actual tax rates as well as account types (taxable or tax-deferred).
  - Clearer understanding of short-term and long-term risk.
  - Superior in assessing multi-period effects. Can model the stochastic process where return over time depends on the starting value of the period as well as additions and withdrawals.
- Disadvantages
  - Simplistic use of historical data for inputs. Returns change and have major effects on projected future values of the portfolio.
  - Models that simulate the return of asset classes but not the actual assets held.
  - Tax modeling that is simplistic and not tailored to the investor's situation.

- Special investment concerns (e.g., socially responsible investing).
- Special instructions (e.g., gradually liquidate a holding over a period of time).
- Restrictions on the sale of assets (e.g., a large holding of a single stock).
- Asset classes the client specifically forbids or limits (e.g., position limits on asset classes or totally disallowed asset classes).
- Assets held outside the investable portfolio (e.g., a primary or secondary residence).
- Desired bequests (e.g., the client intends to leave his home or a given amount of wealth to children or charity).
- Desired objectives not attainable due to time horizon or current wealth.

Types of Taxes

Characteristics of Tax Regimes

Accrual Taxes

Capital Gains Taxes

Tax Regime	*Ordinary Income Tax Structure*	*Favorable Treatment for Interest Income?*	*Favorable Treatment for Dividend Income?*	*Favorable Treatment for Capital Gains?*
Common Progressive	Progressive	Yes	Yes	Yes
Heavy Dividend Tax	Progressive	Yes	No	Yes
Heavy Capital Gain Tax	Progressive	Yes	Yes	No
Heavy Interest Tax	Progressive	No	Yes	Yes
Light Capital Gain Tax	Progressive	No	No	Yes
Flat and Light	Flat	Yes	Yes	Yes
Flat and Heavy	Flat	Yes	No	No

- **Taxes on income**
  - Paid by individuals, corporations, and other legal entities on income including wages, interest, dividends, and capital gains.
- **Wealth-based taxes**
  - Paid on the value of assets held and on wealth transferred.
- **Taxes on compensation**
  - Sales taxes paid by the consumer.
  - Value-added taxes paid at each intermediate production step according to value added at the step. Ultimately borne by the consumer.

$$\mathrm{FVIF}_{\mathrm{CGT}} = (1+R)^N(1-T_{\mathrm{CG}}) + T_{\mathrm{CG}}B$$

where:

$$\begin{aligned}
\mathrm{FVIF}_{\mathrm{CGT}} &= \text{future value interest factor after capital gains tax}\\
R &= \text{before-tax investment return}\\
T_{\mathrm{CG}} &= \text{tax rate on capital gains}\\
N &= \text{number of investment periods}\\
B &= \text{ratio of cost basis to current market value}
\end{aligned}$$

- $\mathrm{TD}_{\%} = T_{\mathrm{CG}}$
- As time horizon increases, $\mathrm{TD}_{\$}$ and $\mathrm{TD}_{\%}$ are unchanged.
- As return increases, $\mathrm{TD}_{\$}$ and $\mathrm{TD}_{\%}$ are unchanged.
- As time horizon increases, value of the tax deferral increases.
- As return increases, value of the tax deferral increases.

$$\mathrm{FVIF}_{\mathrm{IT}} = (1+R(1-T_{\mathrm{I}}))^N$$

where:

$$\begin{aligned}
\mathrm{FVIF}_{\mathrm{IT}} &= \text{future value interest factor after investment income tax}\\
R &= \text{before-tax investment return}\\
T_{\mathrm{I}} &= \text{annual tax rate on investment income}\\
N &= \text{number of investment periods}
\end{aligned}$$

- $\mathrm{TD}_{\%} > T_{\mathrm{I}}$
- As time horizon increases, $\mathrm{TD}_{\$}$ and $\mathrm{TD}_{\%}$ increase.
- As return increases, $\mathrm{TD}_{\$}$ and $\mathrm{TD}_{\%}$ increase.

Wealth-Based Taxes

Future Value Interest Factor Considering All Taxes

Accrual Equivalent Tax

Tax-Deferred Account

Start with annual return after taxes.

$$\begin{aligned} R_{\text{ART}} &= R(1 - \text{realized tax rate}) \\ &= R(1 - (P_{\text{I}}T_{\text{I}} + P_{\text{D}}T_{\text{D}} + P_{\text{CG}}T_{\text{CG}})) \end{aligned}$$

where:

$$\begin{aligned} R_{\text{ART}} &= \text{annual return after realized taxes} \\ R &= \text{before-tax investment return} \\ P_{\text{X}} &= \text{proportion of total return from X, taxed at } T_{\text{X}} \end{aligned}$$

We can find the effective capital gains tax rate, T_{ECG}.

$$T_{\text{ECG}} = T_{\text{CG}} \frac{1 - (P_{\text{I}} + P_{\text{D}} + P_{\text{CG}})}{1 - (P_{\text{I}}T_{\text{I}} + P_{\text{D}}T_{\text{D}} + P_{\text{CG}}T_{\text{CG}})}$$

Finally, we have the future value interest factor considering all taxes as well as cost basis.

$$\text{FVIF}_{\text{T}} = (1 + R_{\text{ART}})^N (1 - T_{\text{ECG}}) + T_{\text{ECG}} - (1 - B)T_{\text{CG}}$$

$$\text{FVIF}_{\text{WT}} = ((1 + R)(1 - T_{\text{W}}))^N$$

where:

$$\begin{aligned} \text{FVIF}_{\text{WT}} &= \text{future value interest factor after wealth-based tax} \\ R &= \text{before-tax investment return} \\ T_{\text{W}} &= \text{wealth-based tax rate} \\ N &= \text{number of investment periods} \end{aligned}$$

- $\text{TD}_{\%} > T_{\text{W}}$
- As time horizon increases, $\text{TD}_{\$}$ and $\text{TD}_{\%}$ increase.
- As return increases, $\text{TD}_{\$}$ increases and $\text{TD}_{\%}$ decreases.

Contributions reduce current taxes, and returns on the contributions accrue tax fee. They are taxed when withdrawn from. They have front-end loaded tax benefits.

$$\text{FVIF}_{\text{TDA}} = (1 + R)^N (1 - T_N)$$

where:

$$\begin{aligned} \text{FVIF}_{\text{TDA}} &= \text{future value interest factor for a TDA} \\ R &= \text{before-tax return on the account} \\ T_N &= \text{tax rate in effect at the time of the withdrawal} \end{aligned}$$

The accrual equivalent tax return is the annual return that produces the same terminal value as the taxable portfolio.

$$R_{\text{AE}} = \left(\frac{\text{FV}_T}{\text{PV}}\right)^{\frac{1}{N}} - 1$$

The accrual equivalent tax rate is the tax rate that makes the pre-tax return equal to the accrual equivalent after-tax return.

$$T_{\text{AE}} = 1 - \frac{R_{\text{AE}}}{R}$$

Tax-Exempt Account

After-Tax Investment Risk

Tax Alpha

After-Tax Returns of Investor Types

If investment returns are taxed solely as income at the rate of T_{I} and the pre-tax standard deviation of returns is σ, the after-tax risk is $\sigma(1 - T_{\mathrm{I}})$.

If the investment is held in a tax-exempt account, the investor bears all the investment risk. This is also true for TDAs prior to withdrawal because annual returns are not subject to taxes.

Contributions are made with after-tax funds and do not reduce the current tax bill. Funds are withdrawn tax-free, and so they have back-end loaded tax benefits.

$$\mathrm{FVIF}_{\mathrm{TEA}} = (1 + R)^N (1 - T_0)$$

where:

$\mathrm{FVIF}_{\mathrm{TEA}}$ = future value interest factor for a TDA

R = before-tax return on the account

T_0 = tax rate in effect at the time of the contribution

- **Traders.** Due to frequent trading, traders forgo the tax advantages associated with equity. All gains are short-term and taxed annually.
- **Active investors.** Trade less frequently than traders so many gains are longer term and taxed at lower rates.
- **Passive investors.** Buy and hold equity so that gains are deferred long term and taxed at preferential rates.
- **Exempt investors.** Hold all their stock in tax-exempt accounts, thereby avoiding taxation altogether.

Value created by the effective tax management of investments. From a tax-management standpoint, an investor should locate heavily taxed assets in tax-advantaged accounts and lightly taxed assets in taxable accounts.

In most countries, the strategy would be to put equities in taxable accounts because their current income is lower and capital gains can be deferred. Bonds, with higher current income, would be placed in a tax-protected account.

Tax Loss Harvesting

Highest-In First Out Tax Lot Accounting

Holding Period Management

When allowed, investors can generate significant tax savings by using HIFO accounting to liquidate positions with the highest cost basis. Total taxes over time are unchanged with HIFO, but it allows tax savings to be reinvested earlier, creating a tax alpha.

If tax rates are not expected to be constant, the value of HIFO can vary. If tax rates are expected to rise, it could be beneficial to use LIFO accounting and associate the higher gain with the lower rate.

Volatile security prices have the most potential for creating tax alpha.

Though excessive trading can create tax inefficiencies, a limited amount of trading can be beneficial when capital losses can be harvested.

The practice of using investment losses to offset investment gains or income and thus avoid the associated taxes. Government may place limits on the amount of losses that can be recognized or the type of gains that can be offset.

Although it saves current taxes, it generally does not save on cumulative taxes as it usually raises future tax bills.

Ideally, the efficient frontier should be viewed on an after-tax basis. Because the tax status of an investment depends on the account it's in, it could appear on the efficient frontier in both taxable and non-taxable forms.

The mean-variance optimization should optimally allocate assets and determine the optimal asset location for each asset. Accrual equivalent after-tax returns would be substituted for before-tax returns, and risk on an after-tax basis would be substituted for before-tax risk.

- Patient traders win out over rapid traders.
- Rapid trading would require a much higher pre-tax return to break even.
- If a sale is being considered near the tax year end, make the sale
  - Before year end if it is a loss in order to place the loss in the current tax year and offset gains this year. This will lower taxes this year, but raise taxes next year.
  - After year end if it is a gain. This will defer the gain and tax until next year's tax return.
- If tax rates are going to change, the analysis could become more complicated.

Probate

Gifts and Bequests

Ownership Rights

- **Gifts** are referred to as lifetime gratuitous transfer or inter vivos transfers and may be subject to gift taxes. Whether the gift is taxed and who pays the tax is determined by the taxing authorities.
- **Bequests** are referred to as testamentary gratuitous transfers and can be subject to estate taxes, paid by the grantor, or inheritance taxes, paid by the recipient.

A legal process that takes place at death, during which a court determines the validity of the decedent's will, inventories the decedent's property, resolves any claims against the decedent, and distributes remaining property according to the will.

Involves considerable costs which are borne by the decedent's estate. If the decedent leaves no will, or if the will is deemed invalid, the decedent is said to have died intestate and the distribution of the assets is determined by the court.

Assets solely owned by the decedent must be transferred by a will through the probate process. This can avoided through joint ownership with rights of survivorship, living trusts, retirement plans, and life insurance.

- **Forced heirship** means children have a right to a portion of a parent's estate, regardless of the location of the child vis-à-vis the parent, their relationship, or the parents' relationship.
- **Claw-back** provisions add gifts and external accounts back to the decedent's estate before calculating the child's share. If the estate isn't sufficient to meet the child's entitlement, in some cases he can legally seek the difference from those who received the gifts.
- **Community property rights** regime means each spouse is entitled to half of the estate earned during the marriage. Gifts and inheritances received before or during the marriage may be held separate. Assets not distributed under community property rights are distributed according to the will.
- **Separate property rights** regime means each spouse owns and controls his or her property. Each spouse may, barring forced heirship rules, bequeath assets as they wish.