Module 20: Topics in Wealth Management

20.1 : Approaches to Taxes

Main categories of taxes

1. Income tax
2. Cap gain tax
3. Wealth / Ownership Tax
4. Stamp duties (purchases) : Tax on purchase price of real estate or financial assets

Investment Income

Double taxation : earnings first taxed in the corporation then paid out as dividend and taxed again

Qualified Dividends : dividends from shares in corporations where the investors has owned the shares for over a certain amt of time.

When investing internationally, MUST CONSIDER Withholding Taxes.

Cap Gain

general equation :

net sales price - tax (cost) basis = cap gain / loss

Real Estate Tax

EXAMPLE: Cross border investing issues

Cecile is a citizen of the Philippines and lives in the Philippines. She is thinking of investing in property in the United States. Outline the various implications to Cecile of the various options based on U.S. taxation.

Option 1: Owning property directly in nonresident individual name

- Disadvantage: Withholding tax may apply to gross, not net, rental income.
- Disadvantage: U.S. estate tax must be paid upon death.

Option 2: Owning property indirectly via U.S. corporation (U.S. corporation is owned by Cecile or a non-U.S. corporation)

- Advantage: Withholding tax may apply to net rental income.
- Advantage: Upon death, U.S. corporation shares go directly to Cecile's beneficiaries.
- Disadvantage: Upon death, if U.S. corporation is liquidated, any capital gains are subject to higher corporate taxes than individual taxes.

Option 3: Owning property indirectly via non-U.S. corporation

- Advantage: Income is generally not subject to U.S. taxation.
- Advantage: Upon death, not subject to U.S. estate tax. Shares go directly to Cecile's beneficiaries.

EXAMPLE: Examining taxes under territorial vs. worldwide investment portfolios

Home country investment portfolios

- With both tax regimes, investment portfolios in the home country are subject to taxes in the home country.
- Check relative tax rates on capital gains, dividends, and interest and reallocate more (less) investments to those types with lower (higher) tax rates.

Foreign country investment portfolios

- If there is no tax treaty, withholding taxes on gross income may be required.
- If there is a tax treaty, there may be a reduction in withholding tax rates for one or more types of investment income (e.g., interest and dividends).
- Whether there is a treaty or not, to maximize after-tax return, check for any advantageous provisions in the foreign country where:
  - Investment income (e.g., capital gains) on investments held by foreign investors is not taxed in the foreign country, and
  - Investment income (e.g., interest, dividends) is not subject to withholding taxes.

Wealth and estate taxes

- Check for any estate taxes and what items are included/excluded as that may impact investment allocations and/or investment holding structure (e.g., establish a non-U.S. company to hold U.S. investments to avoid U.S. estate tax).
- Check for any estate tax treaties that may allow for an estate tax exemption in the foreign country. However, in some instances, obtaining the exemption may require disclosure of full net worth to the foreign country tax authorities.

EXAMPLE: The Common Reporting Standard and Foreign Account Tax Compliance Act

To avoid tax leakage arising from tax evasion, automated tax information exchange between countries is becoming much more widespread. The focus is on banks, investment managers, and wealthy families with international investments.

The Common Reporting Standard (CRS) was facilitated by the OECD and involves information exchange between more than 100 jurisdictions. The CRS is also referred to as the Standard for Automatic Exchange of Financial Account Information.

The Foreign Account Tax Compliance Act (FATCA) originated in the United States as a means for U.S. taxpayers to pay tax on investment income earned outside of the country. The FATCA applies to all financial institutions who have U.S. investors.

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Types of Investment A/Cs

taxable a/c = taxed @ the relevant rates for each type

tax-free a/c = taxed at withdrawal.

tax-exempt a/c = taxed free,

20.b

Types of tax system

Tax haven

Terretorial tax system

Worldwide tax system

20.c : Tax Efficiency

4 Metrics of tax efficiency :

1. **After-tax holding period return**
   - Relevant taxes are computed and deducted when investments are disposed of
   - A/C for interest income, dividend income, realized G/L
2. **After-tax post-liquidation return**
   - an extension of 1 but there is an assumption of overall portfolio disposition after a specific period
   - also accounts for unrealized G/L.
3. **After-tax excess return**
   - either 1 & 2 compared to a BM value
4. **Tax-efficiency ratio**
   - pretax vs. post tax annualized return

After-Tax Holding Period Return

$$R' = [(\text{value}_1 - \text{value}_0) + \text{income} - \text{tax}] / \text{value}_0$$

or,

$$R' = R - (\text{tax} / \text{value}_0)$$

EXAMPLE: Calculating monthly after-tax return

Assume the portfolio value is $825,000 on April 1 and $5,000 of interest is received on April 15. Assume that the tax rate on interest income is 25% and the monthly pretax overall portfolio return is 1.20%.

$$1.20\% - [0.25(5000)] / [825{,}000 + 5000(30-15)/30]$$
$$= 1.05\%$$

After-tax Post-liquidation return

$$R_{PL} = [(1+R'_1)(1+R'_2)\ldots(1+R'\ ) - (\text{liquidation tax} / \text{final value})]^{1/n} - 1$$

$$\text{liquidation tax} = (\text{final val.} - \text{tax basis}) \times \text{tax rate on cap gain}$$

EXAMPLE: After-tax post-liquidation return

A portfolio has the following returns:

	Pretax	After-Tax
Year 1	5.3%	4.8%
Year 2	–3.3%	–2.7%
Year 3	6.9%	6.0%
Cumulative	8.85%	8.09%
Annualized	2.87%	2.63%

The portfolio has embedded gains equal to 5% of the ending value with capital gains taxes paid at a rate of 15%.

Compute the annualized post-liquidation return of the portfolio over three years.

liquidation tax $= (105 - 100) \times 15\% = .75.$

Portfolio value after tax $= 1.0809$

Tax liability from unrealized gain $= 15\% \cdot 5\% = .75\%$

Portfolio value net of tax on unrealized gains ×

$= 1.0809 - 0.0075 = 1.07279.$

Annualized post-liquiduation return =

$1.07279^{1/3} - 1 = 2.37\%$

After-tax excess return

$$X' = R' - B'$$

$$\alpha_{tax} = X' - x$$

x = pretax excess return

x' = posttax excess return

B' = BM after-tax return

Tax-efficiency ratio

$$TER = R'/R$$

MODULE QUIZ 20.1

1. An investor is evaluating various assets and strategies for her portfolio. Based solely on tax effects, which type of investment would *most likely* be favored in a country with high tax rates on interest, dividend, and realized gains?
   A. Growth stocks with moderate turnover.
   B. Bonds with periodic payment of interest.
   C. Value stocks held for a moderate period of time.
2. A portfolio generates a total return of 15%. The tax rates on interest, dividend, and capital gains are 35%, 20%, and 20%, respectively. The proportions of the portfolio return from interest, dividends, and realized capital gains are 10%, 25%, and 35%, respectively. Using the information provided, the net return after all taxes is *closest* to:
   A. 11.25%.
   B. 11.50%.
   C. 12.68%.

1. C A Some of the gains for growth stocks will be deferred each year, value stock & bond will pay more heavily dividend.

2. $[10\% \cdot (1-35\%) + 25\% \cdot (1-20\%) + 35\% \cdot (1-20\%) + 30\%] \cdot$
$= 12.675\%$ C ✓

Module 20.2: Tax Location

taxable a/c : $FV = (1+R')^n$

tax-free a/c : $FV = (1+R)^n$

tax-exempt a/c : $FV = (1+R)^n(1-t)$

> **EXAMPLE: Comparing future after-tax amounts in different accounts**
>
> Assume that an investor lives in a country with a 35% flat tax rate on all investment income and returns. $100,000 is invested in each of three accounts:
> 1. A taxable account earning 9%, subject to annual tax.
> 2. A tax-deferred account (TDA) earning 9%.
> 3. A tax-exempt account (TEA) earning 9%.

Important: TEA is using post-tax contributions, TDA uses pre-tax contribution

e.g. An investor has $100 & is in $30 tax bracket
⇒ 100 can be contributed to TDA
(100 - 30) can be contributed to TEA.

Asset Location

Decumulation Strategies

Charitable Giving Strategies

20.e: Portfolio Tax Management Strategies & application

Tax Management Strategies

Investments held in a manner to minimize taxes

- Allocating more to tax-exempt a/c. than taxable a/c
- Holding investments long enough to be subject to lower cap gain tax rate

Deferring Income recognition

- limiting disposition to earn from tax-free compounding
- wait for marginal tax rate to fall when income levels are lower
- Tax Loss harvesting

Investment Vehicles

- Partnership
- Mutual Funds
- ETFs
- Seperately managed accounts (SMAs)

Tax Loss Harvesting

- selling off securities to offset gains w/ embedded losses

Will need to consider timing. make the sale:

- Before year-end if its a loss
- After year-end if its a gain

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Quantitative Tax Management

- idea: minimize tracking error & trading costs as well as minimize realized gains & maximize realized losses

MODULE QUIZ 20.2

1. An investment of $1,000 earns an annual interest of 5% (no capital gains). Assuming annual taxation at a 30% rate, the expected after-tax value of the investment in 10 years is *closest* to:
   A. $1,035.
   B. $1,140.
   C. $1,411.
2. Assume $100,000 is invested in a tax-deferred account. The expected after-tax balance that can be withdrawn from the account after 20 years, assuming a tax rate of 30% and a pretax return of 10%, is *closest* to:
   A. $386,968.
   B. $470,925.
   C. $672,750.
3. Assume $100,000 is invested in a tax-exempt account. The expected after-tax balance that can be withdrawn from the account after 20 years, assuming a tax rate of 30% and a pretax return of 10%, is *closest* to:
   A. $386,968.
   B. $500,925.
   C. $672,750.
4. An investor has $800,000 of equity securities in a tax-deferred account and $600,000 in bonds in a tax-exempt account. Assuming a tax rate of 40%, the after-tax asset allocation is *closest* to:
   A. 44.4% equity; 55.6% bonds.
   B. 57.1% equity; 42.9% bonds.
   C. 31.0% equity; 69.0% bonds.
5. Which of the following assets would be the *most appropriate* asset to locate in a tax-deferred account rather than a taxable account?
   A. Tax-exempt bonds.
   B. High-growth stocks.
   C. Corporate bonds.
6. An investor has a realized capital gain of $80,000 and is subject to a capital gains tax rate of 30%. The investor can sell another stock with a cost basis of $140,000 and a current market value of $90,000. The tax savings from harvesting the loss is *closest* to:
   A. $9,000.
   B. $10,000.
   C. $15,000.
7. For the previous question, assume the investor may either:

   Strategy 1: Sell the stock now and recognize the loss in the current year.

   Strategy 2: Hold the stock now and sell it at the end of the second year.

   In either case, the old or new stock is sold at the end of the second year after earning a 10% return for that year. Any current tax savings is immediately reinvested in a very similar stock (ignore any wash sale rules). Which of the strategies provides the highest future accumulation?

   A. Strategy 1.
   B. Strategy 2.
   C. The strategies provide the same future after-tax accumulation.

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1. C $1{,}000 \cdot (1 + 5\% \cdot (1 - 30\%))^{10} = 1{,}411$

2. B $1.1^{20} \cdot 100{,}000 \times (1 - 30\%) = 470{,}925$

3. C $1.1^{20} \cdot 100{,}000 = 672{,}750$
4. A
5. B C Corporate Bond income is generally taxed. High-growth stocks pay small dividend & provide most of the gains from cap gains.
6. C $(14{,}000 - 90{,}000) \times 30\% = 15{,}000$
7. A

Module 20.3: Concentrated Positions

20.f: risk & tax objectives in managing concentrated single-asset position

Definition of concentrated position:
- inability to create diversified portfolio w/ low tax basis
- have company-specific risk
- could be subject to iliquidity & high transaction cost.

Factors to consider when choosing a strategy:
- Lv. of concentration
- Tax basis
- Tax rate
- Liquidity
- Time horizon

Various strategies manage (20.f).

20.g: strategies for managing concentrated position in public equity

Staged Diversification Strategy

done over multiple years to dispose of the position

Completion Portfolio

- select the rest of the assets w/ low correlation such that the total portfolio better tracks BM returns

Equity Monetization, Collars & Call Writing

Monetization is a 2-step process:

Step 1: Hedge a large part of the risk of the position assuming a robust or liquid derivatives market

Step 2: Borrow using the hedged position as collateral.

Common way to lower initial cost: giving up some stock upside w/ zero-cost collars

if a perfect hedge is used & removes all risk, it may be taxed as a sale (e.g. a constructive sale)

Covered call writing is a profitable strategy in stable market if the stock price remains within a specific range

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Tax-Free Exchange
build on exchange with other investors w/ concentrated position in another single stocks => owns diversified portfolio & defer tax events

Charitable Remainder Trust. (CRT)
makes an irrevocable donation & receives tax deduction
From the donation, the CRT as a tax-exempt entity can sell those shares

20.h strategies for managing concentrated position in privately owned businesses & rea estate

Privately Owned Businesses
Personal line of credit secured by company share
Leveraged Recapitalization
Employee Stock Ownership Plan (ESOP)

Real Estate
Mortgage Financing
Donor-Advised Fund (DAF) or charitable trust

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MODULE QUIZ 20.3

1. For which individual would reducing specific risk be *most appropriate*?
   A. An owner who holds 100% of a private business and the position is 40% of his total assets.
   B. An executive who owns shares of her employer's company and the position is 40% of her total assets.
   C. A spouse who inherited a real estate investment and the position is 10% of the spouse's total assets.
2. Which of the following owners of a concentrated position would *most likely* wish to retain control of the position as part of a monetization strategy?
   A. The owner of a rental apartment property.
   B. The owner of a warehouse who leases the building to a private company he owns.
   C. Young children who inherit a concentrated position in private stock of the company founded by their father.
3. The primary issue for a manager advising the holder of a concentrated position in a private company versus a public company is:
   A. determining the investment's value.
   B. determining the relevant tax rates to apply.
   C. evaluating the impact of currency values.

1. A
2. C B Using the building for a business the warehouse owner also owns gives him a reason to retain control.
3. B A With the public company, the share price should be quite easy to determine.

Module 20.4: Gift & Estate Planning

Key objectives include:

- ensure adequate liquidity & ongoing Income
- Control over assets
- Asset Protection

  if the system has forced heirship rules, children have a right to a portion of a parent's estate.
- Tax-effective transfer of assets
  - 2 main means of transferring assets: gifts & bequests.
  - Gifts are subject to gift tax.
  - bequests (transfer after death) may be subject to estate taxes paid by the grantor / transferor or inheritance taxes paid by the recipient.
  - in absence of generation-skipping transfer taxes (GSTT), transferring directly to a third generation avoids double toxation.

- Maintain Family Wealth
- Business succession
- Charity

EXAMPLE: Forced heirship

Hope and Larry have been married for 40 years. They have two married children, Emma, age 32, and Toby, age 34. The forced heirship regime under which the family lives entitles a surviving spouse to 30% of the total estate, and the children are entitled to split 30% of the total estate. Assume Larry passes away with a total estate of €1,800,000.

Under the forced heirship rules, **determine** the amount Hope and each child will inherit. Will Larry be able to leave his sister €800,000?

No. Hope ⇒ 1,800,000 × 30 % = 540,000

Two children ⇒ 1,800,000 × 30% ÷ 2 = 270,000

remaining = 720,000

20.j. General Estate Planning

Lifetime Gifts & Testamentary Bequests

Giving away asset b4 death (i.e. lifetime gratuitous transfer) is often good estate planning.

Giving away asset upon death (i.e. testamentary bequest / testamentary gratuitous transfer).

EXAMPLE: Inheritance tax (flat rate)

Ernestine, a widower, recently died. She was a resident in the country of Mosario at the time of her death and had a total estate valued at MOS 5 million. Her children are the beneficiaries of her estate. Mosario imposes an inheritance tax on estates worth over MOS 2 million at a flat rate of 25%. How much inheritance tax must be paid by the children?

$(5-2) \cdot 25\% = 0.75$ MM

EXAMPLE: Estate tax (progressive rates)

Martin, who was single, recently died. He was a resident in the country of Karene at the time of his death and had a taxable estate of KAR 1.8 million. Martin was eligible for KAR 0.4 of exemptions.

An excerpt from Karene's progressive estate tax rates is as follows:

Taxable estate (KAR)	Tax rate (%)
Up to 500,000	5
500,001 to 1,000,000	7
1,000,001 to 1,500,000	12
1,500,001 to 2,000,000	15

How much estate tax is payable upon Martin's death?

$1.8 - .4 = 1.4$ available for taxation

$0.5 \cdot 5\% + 0.5 \cdot 7\% + 0.4 \cdot 12\%$

$= 0.025 + 0.035 + 0.048$

$= 0.108$

Charitable Gratuitous Transfers.

3 benefits of charitable gifts (e.g. appreciated securities):

- Donor usually don't have to pay tax.
- Donor immediately receives a tax deduction for the gift
- The charity is usually tax-exempt

Efficiency of Lifetime gifts vs. Testamentary Bequests

if gifted now

if bequested @ death

$$RV_{\text{tax-free gift}} = FV_{\text{gift}} / FV_{\text{bequest}}$$

r_g, t_g = pretax return & applicable tax rate on those earnings for assets held by gift receiver

r_e, t_e = pretax return & applicable tax rate on those earnings for assets held by gift gifter

T_e = estate tax rate, paid from the estate.

T_g = gift tax rate, paid by receiver.

$$FV_{\text{gift}} = [1 + r_g(1 - t_g)]^n$$

$$FV_{\text{bequest}} = [1 + r_e(1 - t_e)]^n (1 - T_e)$$

RV of a tax-free gift

$$\frac{FV_{gift}}{FV_{bequest}} = \frac{[1 + r_g(1-t_g)]^n}{[1 + r_e(1-t_e)]^n (1-T_e)}$$

RV of a taxable gift, T_g, paid by the receiver,

$$\frac{FV_{gift}}{FV_{bequest}} = \frac{[1 + r_g(1-t_g)]^n (1-T_g)}{[1 + r_e(1-t_e)]^n (1-T_e)}$$

EXAMPLE: Gifting now vs. a bequest

Mary Jane is considering making a gift now or a bequest upon death. The assumptions are:
1. Life expectancy is an additional 20 years.
2. The pretax return and investment tax rate are 8% and 35%, respectively, for both Mary Jane and the receiver.
3. The gift tax rate and estate tax rate are 25% and 40%, respectively.

Scenario 1: Assuming the gift is not subject to gift taxes, **compute** the relative attractiveness of a gift or bequest and recommend the best approach.

Scenario 2: Assuming the gift is subject to gift taxes and the taxes are paid by the receiver, **compute** the relative attractiveness of a gift or bequest and recommend the best approach.

$r_g, r_e = 8\%$
$t_g, t_e = 35\%$
$T_e = 40\%$
$T_g = 25\%$

Scenario 1:

$$FV_{gift} = [1 + 8\%(1-35\%)]^{20}$$
$$FV_{bequest} = [1 + 8\%(1-35\%)](1-40\%)$$

$$RV = FV_{gift} / FV_{bequest} = 1.67.$$

Scenario 2:

$$FV_{gift} = [1 + 8\%(1-35\%)]^{20}(1-25\%)$$
$$FV_{bequest} = [1 + 8\%(1-35\%)](1-40\%)$$

$$RV = FV_{gift} / FV_{bequest} = 1.67.$$

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MODULE QUIZ 20.4

1. The main objectives of estate planning are to minimize taxes and:
   A. achieve effective diversification.
   B. transfer assets to heirs or others.
   C. maximize returns.
2. When investors make charitable gifts of appreciated securities, they are usually able to:
   A. avoid capital gains taxes but are not able to take a deduction for the gift.
   B. take a deduction in an amount designed to exactly offset the capital gains tax.
   C. deduct the market value of the gift and avoid capital gains taxes.
3. Jan Jones has excess capital and is only concerned with maximizing the value of funds passed onto her heirs. She has an assumed after-tax return of investments of 8.5% with a tax rate on investments of 33%. Her heirs have an assumed pretax return on investments of 8% with a tax rate on investments of 25%. Gift and estate tax rates are 40% and 30%, respectively.
   A. If the gift would fall within the gift tax exclusion amount, **discuss** whether it is better to gift now or make a bequest.
   B. If the gift would exceed the gift tax exclusion amount, **discuss** whether it is better to gift now or make a bequest.
   C. **Discuss** any nonmonetary considerations in deciding whether to make a gift versus a bequest.

1. B ✓

2. C ✓

3A. make a gift.

The giver can earn a higher after-tax return of 8.5% vs. 6% for the receiver ($8\% \cdot (1-25\%) = 6\%$) Note that the return for the giver is in after-tax terms while the return for the receiver is given in pretax terms. This favors waiting to make a bequest at death if the investment is held in the estate long enough & compounding @ the higher rate of 8.5%. But giving now avoids any estate tax that could lower the return to less than 6%, making giving now more beneficial

The relevant equation:

$$FV_{gift} / FV_{bequest} = [1 + r_g(1-t_g)]^n / [1 + r_e(1-t_e)]^n (1 - T_e)$$

Until the time period (n) is known, the optimal solution of gifting now vs. making a bequest is unknown

B. make a bequest

C. Gifting now gives up control & the assets cannot be recovered if the giver changes their mind or needs the funds. This may create a reason to wait & make a bequest.

Module 20.5: Estate Planning & Family Governance

Trusts: a settlor (grantor) can transfer assets to beneficiaries outside of the probate process. The trustee (manager of the trust)

Types of trusts:

- revocable trust (settlor can rescind/revoke the trust & resume ownership of the trust)
- irrevocable trust (settlor relinquishes ownership & control)
- fixed trust (patterns of asset distribution to beneficiaries is predetermined by settlor).
- discretionary trust

Several reasons for using trust:

- Avoid giving control of assets to beneficiaries who would not manage properly
- Allow settlor to direct the assets for specific uses.
- Avoid dilution of ownership interest in a private business in countries where there's joint ownership & division of assets acquired during marriage.

- Avoid probate
- (potentially) lower tax rate

Foundations

Life Insurance

Companies : a controlled foreign corporation (CEC) is set up in a country outside of the investor's home country to avoid taxation until the dividends are paid or shares are sold.

Family Governance : mechanism for families to maintain of increase their wealth over the long run.

Governing Bodies within the family
- Board of directors (BOD)
- Family Council
- Family Assembly
- Family Office
- Family Foundation

Family conflict resolution

Business Succession

- Passing the business on to the next gen
- Disposition of the business
- Time of the disposition
- Choosing trustees

After the disposition

Planning for the unexpected
Divorce

Incapacity

MODULE QUIZ 20.5

1. For estate planning purposes, investments in privately held companies are usually:
   A. tax efficient because gains realized are usually taxed at long-term rates.
   B. tax inefficient because it is difficult to determine fair market value; therefore, the correct amount to be taxed cannot be determined.
   C. tax efficient because they can be transferred from an estate using a valuation discount.
2. Jim Johnson is a widower and has a large amount of excess capital. He can either (1) make a very large gift now or bequest at death to his children or (2) make a gift now or bequest at death to his grandchildren.

   A. **Discuss** any financial or nonfinancial considerations that will determine if he disposes of the assets directly to his children or his grandchildren.

   B. **Discuss** how a trust might be used if he has reservations about the ability of his grandchildren to manage the money. **Recommend** and **explain** why a fixed or discretionary trust is likely to be best.

1. B C Usually tax efficient from an estate planning perspective b/c they can be transferred after taking a valuation discount, which reduces the basis on which the transfer tax is calculated. The discount relates to uncertainty of true values. as well as lack of liquidity & sometimes control.

2A) financial : tax.

nonfinancial : management, financial litercay. X

The primary financial consideration is generation-skipping transfer taxes (GSTT)

The primary nonfinancial issue is to consider whether his children need some of the funds, in which case, some of the money will need to go to them.

B) Place the fund in the trust so the trustee can manage the assets on behalf of the beneficiary. discretionary trust might be best b/c trustee can make decisions on how to distribute the assets.