

Chapter 3 Tax Planning Strategies and Related Limitations

SOLUTIONS MANUAL

Discussion Questions

- (1) [LO 1] “The goal of tax planning is to minimize taxes.” Explain why this statement is not true.

In general terms, the goal of tax planning is to maximize the taxpayer’s after-tax wealth while simultaneously achieving the taxpayer’s nontax goals. Maximizing after-tax wealth is not necessarily the same as tax minimization. Specifically, maximizing after-tax wealth requires one to consider both the tax and nontax costs and benefits of alternative transactions, whereas tax minimization focuses solely on a single cost (i.e., taxes).

- (2) [LO 1] Describe the three parties engaged in every business transaction and how understanding taxes may aid in structuring transactions.

There are three parties involved in virtually every transaction: the taxpayer, the other transacting party, and the government (i.e., the uninvited silent party that specifies the tax consequences of the transaction). Effective tax planning requires an understanding of the tax and nontax costs from the taxpayer’s and other party’s perspectives because tax and nontax factors also influence the other party’s preferences. Understanding these preferences will allow the taxpayer to identify an optimal transaction structure.

- (3) [LO 1] In this chapter we discussed three basic tax planning strategies. What different features of taxation does each of these strategies exploit?

The timing strategy exploits the variation in taxation across time – i.e., the “real” tax costs of income decrease as taxation is deferred; the “real” tax savings associated with tax deductions increase as tax deductions are accelerated. The income shifting strategy exploits the variation in taxation across taxpayers. Finally, the conversion strategy exploits the variation in taxation across activities.

- (4) [LO 2] What are the two basic timing strategies? What is the intent of each?

The two strategies are deferring taxable income and accelerating tax deductions. The intent of deferring taxable income recognition is to minimize the present value of taxes paid. The intent of accelerating tax deductions is to maximize the present value of tax savings from the deductions.

- (5) [LO 2] Why is the timing strategy particularly effective for cash-method taxpayers?

The timing strategy is particularly effective for cash-method taxpayers because the deduction year for cash-method taxpayers depends on when the taxpayer pays the expense (which the taxpayer controls).

- (6) [LO 2] What are some common examples of the timing strategy?

The timing strategy is an important aspect of investment planning, retirement planning, and property transactions. It is also an important aspect of tax planning for everyday business operations (e.g., determining the appropriate period to recognize sales income – upon product shipment, delivery, or customer acceptance). Some common examples of the timing strategy include accelerating depreciation deductions for depreciable assets, using LIFO versus FIFO for inventory, accelerating the deduction of certain prepaid expenses, etc.

- (7) [LO 2] What factors increase the benefits of accelerating deductions or deferring income?

Higher tax rates, higher interest rates, larger transaction amounts, and the ability to accelerate deductions by two or more years increase the benefits of accelerating deductions. Likewise, higher tax rates, higher interest rates, larger transaction amounts, and the ability to defer revenue recognition for longer periods of time increase the benefits of income deferral.

- (8) [LO 2, LO 3] How do changing tax rates affect the timing strategy? What information do you need to determine the appropriate timing strategy when tax rates change?

When tax rates change, the timing strategy requires a little more consideration because the tax costs of income and the tax savings from deductions will now vary. The higher the tax rate, the higher the tax savings for a tax deduction. The lower the tax rate, the lower the tax costs for taxable income. *All things being equal, taxpayers should prefer to recognize deductions during high-tax-rate years and income during low-tax-rate years.* The implication is that before a taxpayer implements the timing strategies (accelerate deductions, defer income), she should consider whether her tax rates are likely to change. Increasing tax rates may actually result in taxpayers preferring to *accelerate* income and *defer* deductions. To determine the appropriate timing strategy when tax rates change, you need the taxpayer's after-tax rate of return and the amount of the tax rate increase.

- (9) [LO 2, LO 6] Describe the ways in which the timing strategy has limitations.

Timing strategies contain several inherent limitations. Generally speaking, whenever a taxpayer is unable to accelerate a deduction without also accelerating the cash outflow, the timing strategy will be less beneficial. Tax law generally requires taxpayers to continue their investment in an asset in order to defer income recognition for tax purposes. A deferral strategy may not be optimal if the taxpayer has severe cash flow needs, if continuing the investment would generate a low rate of return compared to other investments, if the current investment would subject the taxpayer to unnecessary risk, etc. The constructive receipt doctrine, which provides that a taxpayer must recognize income when it is actually or constructively received, also restricts income deferral for cash-method taxpayers.

- (10) [LO 3] The concept of the time value of money suggests that \$1 today is not equal to \$1 in the future. Explain why this is true.

Assuming an investor can earn a positive return (e.g., 5 percent), \$1 invested today should be worth \$1.05 ($\$1 \times (1+.05)^1$) in one year. Hence, \$1 today is equivalent to \$1.05 in one year.

- (11) [LO 3] Why is understanding the time value of money important for tax planning?

Taxes paid are cash outflows, and tax savings generated from tax deductions can be thought of as cash inflows. With this perspective, the timing of when a taxpayer pays tax on income or receives a tax deduction for an expenditure obviously affects the present value of the taxes paid (i.e., a cash outflow) or tax savings received (i.e., a cash inflow).

- (12) [LO 3] What two factors increase the difference between present and future values?

The rate of return and the investment period.

- (13) [LO 4] What factors have to be present for income shifting to be a viable strategy?

Income shifting requires: (1) a legitimate method of shifting income that will withstand IRS scrutiny and (2) either (a) related parties, such as family members or businesses and their owners, who have varying marginal tax rates and are willing to shift income for the benefit of the group or (b) taxpayers operating in multiple jurisdictions with different marginal tax rates.

- (14) [LO 4] Name three common types of income shifting.

Income shifting from high tax rate parents to low tax rate children; income shifting from businesses to their owners; taxpayers shifting income from high-tax jurisdictions to low-tax jurisdictions.

- (15) [LO 4] What are some ways that a parent could effectively shift income to a child? What are some of the disadvantages of these methods?

Parents who own a business may shift income to their children by employing them to work for the business. Because this is a related-party transaction, it is important for the substance of the transaction to be justifiable, not just the form of the transaction. One disadvantage of this method is that it requires the children to actually perform services for the parent's business, which may or may not be a positive factor given the skill set of the children and the ability of the family to work together in harmony. Parents may also shift investment income to their children by transferring the underlying investments to the children. The disadvantages of this strategy are somewhat obvious—many parents may not be able to afford to transfer significant wealth to their children or would have serious reservations about doing so. The “kiddie tax” may also apply when parents shift too much investment income to children. The kiddie tax restricts the amount of a child's investment income that can be taxed at the child's (lower) tax rate instead of a higher tax rate.

- (16) [LO 4] What is the key factor in shifting income from a business to its owners? What are some methods of shifting income in this context?

To shift income from the corporation to the owner, the transaction must generate a tax deduction to the corporation. Compensation paid to employee-owners is the most common method of shifting income from corporations to their owners. Compensation expense is deductible by the corporation and is generally taxable to the employee. Having the business owner rent property to the corporation or loan money to the corporation are also effective income shifting methods, because both transactions generate tax deductions for the corporation and income for the shareholder. Because corporations do not get a tax deduction for dividends paid, paying dividends is not an effective way to shift income. Instead, paying dividends results in “double taxation”—the profits generating the dividends are taxed first at the corporate level, and then the dividends are taxed at the shareholder level.

- (17) [LO 4] Explain why paying dividends is not an effective way to shift income from a corporation to its owners.

Because corporations do not get a tax deduction for dividends paid, paying dividends is not an effective way to shift income. Instead, paying dividends

results in “double taxation”—the profits generating the dividends are taxed first at the corporate level, and then the dividends are taxed at the shareholder level.

- (18) [LO 5] What are some of the common examples of the conversion strategy?

In Chapter 7, we consider investment planning and the advantages of investing in assets that generate preferentially taxed income. In Chapter 9, we explain the basic differences between business and investment activities and what characteristics result in the more favorable “business” designation for expense deductions. In Chapters 12 and 13, we discuss compensation planning and the benefits of restructuring employee compensation from currently taxable compensation to nontaxable or tax deferred forms of compensation, such as employer-provided health insurance and retirement contributions.

- (19) [LO 5] What is needed to implement the conversion strategy?

To implement the conversion strategy, one must be aware of the underlying differences in tax treatment across various types of income, expenses, and activities and have some ability to alter the nature of the income or expense to receive the more advantageous tax treatment.

- (20) [LO 5] Explain how implicit taxes may limit the benefits of the conversion strategy.

The concept of implicit taxes suggests that the demand for tax advantaged activities increases the costs associated with these activities, thereby reducing the pretax returns of these activities and the advantages of the conversion strategy. For example, implicit taxes may reduce or eliminate the advantages of tax-preferred investments (e.g., municipal bonds, or investments taxed at preferential tax rates) by decreasing the pretax rate of returns for these investments.

- (21) [LO 5, LO 6] {Planning} Clark owns stock in BCS Corporation that he purchased in January of the current year. The stock has appreciated significantly during the year. It is now December of the current year, and Clark is deciding whether or not he should sell the stock. What tax and nontax factors should Clark consider before making the decision on whether to sell the stock now?

Tax factors:

Clark should consider the rate at which the gain will be taxed. If he sells the stock in December of the current year, the gain is a short-term gain that will likely be taxed at his marginal ordinary income rate. If he waits until he has held the stock for more than a year, the gain will be taxed at a maximum of 0/15/20% (depending on income).

Clark should also assess his other capital gains and losses incurred during the year. The gain he recognizes on the sale will enter the netting process. Thus, if he has a large short-term capital loss, he may want to sell the stock this year to absorb the loss.

Nontax factors:

If Clark decides to hold the stock, there is risk that the value will decline. Likewise, the stock may appreciate in value if Clark decides to wait to sell. Clark should assess his risk of loss and appreciation potential of the stock before selling.

- (22) [LO 5] Do after-tax rates of return for investments in either interest- or dividend-paying securities increase with the length of the investment? Why or why not?

After-tax rates of return do not increase for interest- or dividend-paying securities with the length of the investment period because they are both taxed annually.

- (23) [LO 5] Cameron purchases stock in Corporation X and in Corporation Y. Neither corporation pays dividends. The stocks both earn an identical before-tax rate of return. Cameron sells stock in Corporation X after three years and he sells the stock in Corporation Y after five years. Which investment likely earned a greater after-tax return? Why?

The gain from the sale of the Corporation Y stock should earn a greater after-tax return because the tax was deferred for 5 years while the tax on the gain from the sale of Corporation X stock was deferred for 3 years. The longer the tax is deferred, the less it costs on an after-tax basis. The lower the tax cost, the higher the after-tax return, all else being equal.

- (24) [LO 5] Under what circumstances would you expect the after-tax return from an investment in a capital asset to approach that of tax-exempt assets (assuming equal before-tax rates of return)?

The after-tax return from capital assets approaches the after-tax return of tax-exempt assets (assuming equal pre-tax rates of return) the longer the taxpayer holds the capital asset. The longer the taxpayer holds the capital asset before selling, the less the tax costs in present value terms. In the extreme, a taxpayer who holds an appreciated capital asset until death escapes income tax on the gain entirely. In this circumstance, the pretax and after-tax return on the capital assets would be the same just as it is with tax exempt assets.

(25) [LO 5] {Planning} Laurie is thinking about investing in one or several of the following investment options:

- Corporate bonds (ordinary interest paid annually)
- Dividend-paying stock (qualified dividends)
- Life insurance (tax-exempt)
- Savings account
- Growth stock

- a. Assuming all of the options earn similar returns before taxes, rank Laurie’s investment options from highest to lowest according to their after-tax returns.
- b. Which of the investments employ the deferral and/or conversion tax planning strategies?
- c. How does the time period of the investment affect the returns from these alternatives?
- d. How do these alternative investments differ in terms of their nontax characteristics?

Investment	Part a AT RoR Rank	Part b Tax planning strategy	Part c Time period	Part d Nontax characteristics
Corporate Bonds	4	None	No effect	Rate higher than savings but may be more risky.
Dividend Paying Stock	3	Conversion	No effect	Consistent income stream. Equity investment subject to market risk.
Life Insurance	1 (if held until death)	Conversion	No effect if policy held until death of insured. Otherwise returns increase with holding period.	High commissions and fees.
Savings Account	5 (likely wouldn’t earn same	None	No effect	Safe investment; likely low

	return as other investments)			before-tax return.
Growth Stock	2	Deferral and conversion.	Returns increase with holding period.	Typically involves risk; therefore, should diversify.

- (26) [LO 5] What is an “implicit tax” and how does it affect a taxpayer’s decision to purchase municipal bonds?

The price of tax-advantaged assets like municipal bonds is bid up in competitive markets relative to the price of similar assets, like corporate bonds, without tax advantages. The higher price paid for tax-advantaged assets reduces the rate of return on these assets relative to other similar assets without tax advantages. This difference in rates of return represents an “implicit tax” on tax-advantaged assets.

A taxpayer would have to calculate whether her implicit tax rate is greater than or less than her individual marginal tax rate (explicit rate) before deciding to purchase municipal bonds. If her explicit tax rate exceeds her implicit tax rate on municipal bonds, she will prefer municipal bonds over taxable bonds all else being equal.

- (27) [LO 6] Several judicial doctrines limit basic tax planning strategies. What are they? Which planning strategies do they limit?

The constructive receipt doctrine, which provides that a taxpayer must recognize income when it is actually or constructively received, restricts income deferral for cash-method taxpayers (i.e., the timing strategy).

The assignment of income doctrine requires income to be taxed to the taxpayer who actually earns the income. The assignment of income doctrine implies that, in order to shift income to a taxpayer (i.e., the income shifting strategy), that taxpayer must actually earn the income.

The business purpose doctrine allows the IRS to challenge and disallow business expenses for transactions with no underlying business motivation. The step-transaction doctrine allows the IRS to collapse a series of related transactions into one transaction to determine the tax consequences of the transaction. Finally, the substance-over-form doctrine allows the IRS to consider the transaction’s substance regardless of its form, and where appropriate, reclassify the transaction according to its substance. The IRS uses each of these doctrines where they expect taxpayer abuse. They can be used to void income shifting, conversion, and timing strategies.

- (28) [LO 6] What is the constructive receipt doctrine? What types of taxpayers does this doctrine generally affect? For what tax planning strategy is the constructive receipt doctrine a potential limitation?

The constructive receipt doctrine limits income deferral (i.e., the timing strategy) for cash-method taxpayers. Unlike accrual-method taxpayers, cash-method taxpayers report income for tax purposes when the income is received (in the form of cash, property, services, etc.). The cash method affords taxpayers some leeway in timing when to recognize income because, to some extent, taxpayers can control when they receive income (e.g., by accelerating or deferring billing their clients). The constructive receipt doctrine provides that a taxpayer must recognize income when it is actually or constructively received. Constructive receipt is deemed to have occurred if the income has been credited to the taxpayer's account or if the income is unconditionally available to the taxpayer, the taxpayer is aware of the income's availability, and there are no restrictions on the taxpayer's control over the income.

- (29) [LO 6] Explain the assignment of income doctrine. In what situations would this doctrine potentially apply?

The assignment of income doctrine requires income to be taxed to the taxpayer that actually earns the income. Merely assigning income (e.g., someone's paycheck or dividend) to another taxpayer does not transfer the tax liability associated with the income. The implication of the assignment of income doctrine is that to shift income to a taxpayer (i.e., to employ the shifting strategy), the taxpayer must actually earn the income.

- (30) [LO 6] Relative to arm's-length transactions, why do related-party transactions receive more IRS scrutiny?

In arms-length transactions, each transacting party negotiates for his or her own benefit. In contrast, taxpayers engaged in related-party transactions are much more willing to negotiate for the common good of the related parties and to the detriment of the IRS. Accordingly, the IRS pays special attention to related party transactions.

- (31) [LO 6] Describe the business purpose, step-transaction, and substance-over-form doctrines. What types of tax planning strategies may these doctrines inhibit?

The business purpose doctrine allows the IRS to challenge and disallow business expenses for transactions with no underlying business motivation. The step-transaction doctrine allows the IRS to collapse a series of related transactions into one transaction to determine the tax consequences of the transaction. Finally, the substance-over-form doctrine allows the IRS to consider the transaction's substance regardless of its form, and where

appropriate, reclassify the transaction according to its substance. The IRS uses these doctrines where they expect taxpayer abuse. They can be used to void income shifting, conversion, and timing strategies.

- (32) [LO 7] What is the difference between tax avoidance and tax evasion?

Tax avoidance is the legal act of arranging one's affairs to minimize taxation. It has long been endorsed by the courts and Congress. In contrast to tax avoidance, tax evasion (willful intent to defraud the government) falls outside the confines of legal tax avoidance. In many cases there is a clear distinction between avoidance (e.g., not paying tax on municipal bond interest) and evasion (e.g., not paying tax on \$1,000,000 game show prize). In other cases, the line between tax avoidance and evasion is less clear. In these situations, professional judgment, the use of a "smell test," and consideration of the business purpose, step transaction, and substance-over-form doctrines may prove useful.

- (33) [LO 7] What are the rewards of tax avoidance? What are the rewards of tax evasion?

The rewards of tax avoidance include maximizing the taxpayer's wealth. The rewards of tax evasion include civil and criminal penalties, including large monetary fines and sentencing to federal prison.

- (34) [LO 7] "Tax avoidance is discouraged by the courts and Congress." Is this statement true or false? Please explain.

False. The courts have often made it quite clear that taxpayers are under no obligation to pay more taxes than required by law. As an example, in *Commissioner v. Newman*, 159 F.2d 848 (2 Cir., 1947), which considered a taxpayer's ability to shift income to his children using trusts, Judge Learned Hand included the following statement in his dissenting opinion.

"Over and over again courts have said that there is nothing sinister in so arranging one's affairs as to keep taxes as low as possible. Everybody does so, rich or poor; and all do right, for nobody owes any public duty to pay more than the law demands: taxes are enforced exactions, not voluntary contributions. To demand more in the name of morals is mere cant."

Problems

- (35) [LO 2] {Planning} Yong recently paid his accountant \$10,000 for elaborate tax planning strategies that exploit the timing strategy. Assuming this is an election year and there could be a power shift in the White House and Congress, what is a potential risk associated with Yong's strategies?

Changes in the control of the White House and Congress may result in a fundamental shift in tax policy. Tax rate changes are rather frequent as lawmakers use them as an integral part of fiscal or economic policy initiatives (e.g., to raise revenue, stimulate the economy, etc.). The risk to Yong is that the newly elected officials will change the tax system in a way that eliminates the benefits of his tax planning strategies (e.g., increasing tax rates in the future may reduce or eliminate the benefits of income deferral).

- (36) [LO 2, LO 3] {Planning} Billups, a physician and cash-method taxpayer, is new to the concept of tax planning and recently learned of the timing strategy. To implement the timing strategy, Billups plans to establish a new policy that allows all his clients to wait two years to pay their co-pays. Assume that Billups does not expect his marginal tax rates to change. What is wrong with his strategy?

While this plan defers the taxation on the co-pays, it also delays Billups' receipt of the co-pays. Assuming that Billups doesn't charge his clients any interest on their delayed payment, this plan will reduce the present value of taxes paid on the co-pays and the present value of the co-pays. The decrease in the present value of the co-pays will exceed the decrease in the present value of the tax paid on the co-pays (not a good thing). In addition, by delaying payment, Billups may increase the likelihood that many of his clients will not pay their co-pays. In summary, this is not a good plan.

- (37) [LO 2, LO 3] {Planning} Tesha works for a company that pays a year-end bonus in January of each year (instead of December of the preceding year) to allow employees to defer the bonus income. Assume Congress recently passed tax legislation that decreases individual tax rates as of next year. Does this increase or decrease the benefits of the bonus deferral this year? What if Congress passed legislation that increased tax rates next year? Should Tesha ask the company to change its policy this year? What additional information do you need to answer this question?

The decrease in the tax rates increases the benefits of the bonus deferral. If Congress instead passed a tax rate increase, the benefit of deferral may be reduced or eliminated. To determine if Tesha should request the company to change its policy this year (i.e., to pay bonuses in December), you need to know the amount of the tax rate increase and Tesha's after-tax rate of return.

- (38) [LO 2, LO 3] {Planning} Isabel, a calendar-year taxpayer, uses the cash method of accounting for her sole proprietorship. In late December she received a \$20,000 bill from her accountant for consulting services related to her small business. Isabel can pay the \$20,000 bill anytime before January 30 of next year without penalty. Assume her marginal tax rate is 40 percent this year and next

year, and that she can earn an after-tax rate of return of 12 percent on her investments. When should she pay the \$20,000 bill—this year or next?

Option 1: Pay \$20,000 bill in December:

\$20,000 tax deduction x 40 percent marginal tax rate = \$8,000 in present value tax savings.

After-tax cost = Pretax Cost – Present Value Tax Savings

$$= \$20,000 - \$8,000 = \$12,000$$

Option 2: Pay \$20,000 bill in January:

\$20,000 tax deduction x 40 percent marginal tax rate = \$8,000 in tax savings in one year.

Present Value of Tax Savings = \$8,000 x .893 (Discount Factor, 1 Year, 12 percent)

$$= \$7,144$$

After-tax cost = Pretax Cost – Present Value Tax Savings

$$= \$20,000 - \$7,144 = \$12,856$$

Paying the \$20,000 in December is the clear winner. Accelerating her payment from January to December will increase the present value of the cash outflow by a few days. Thus, there is a minor present value cost associated with accelerating her payment.

(39) [LO 2, LO 3] {Planning} Using the facts from the previous problem, how would your answer change if Isabel's after-tax rate of return were 8 percent?

Option 1: Pay \$20,000 bill in December:

\$20,000 tax deduction x 40 percent marginal tax rate = \$8,000 in present value tax savings.

After-tax cost = Pretax Cost – Present Value Tax Savings

$$= \$20,000 - \$8,000 = \$12,000$$

Option 2: Pay \$20,000 bill in January:

\$20,000 tax deduction x 40 percent marginal tax rate = \$8,000 in tax savings in one year.

Present Value of Tax Savings = \$8,000 x .926 (Discount Factor, 1 Year, 8 percent)

$$= \$7,408$$

After-tax cost = Pretax Cost – Present Value Tax Savings

$$= \$20,000 - \$7,408 = \$12,592$$

Paying the \$20,000 in December is the clear winner. Accelerating her payment from January to December will increase the present value of the cash outflow by a few days. Thus, there is a minor present value cost associated with accelerating her payment.

(40) [LO 2,LO 3] {Planning} Manny, a calendar-year taxpayer, uses the cash method of accounting for his sole proprietorship. In late December he performed \$20,000 of legal services for a client. Manny typically requires his clients to pay his bills immediately upon receipt. Assume Manny's marginal tax rate is 37 percent this year and next year, and that he can earn an after-tax rate of return of 12 percent on his investments. Should Manny send his client the bill in December or January?

Option 1: Send \$20,000 bill in December:

\$20,000 taxable income x 37 percent marginal tax rate = \$7,400 in present value tax

After-tax income = Pretax income – Present Value Tax

$$= \$20,000 - \$7,400 = \$12,600$$

Option 2: Send \$20,000 bill in January:

\$20,000 taxable income x 37 percent marginal tax rate = \$7,400 in tax in one year.

Present Value of Tax = \$7,400 x .893 (Discount Factor, 1 Year, 12 percent)

$$= \$6,608$$

After-tax income = Pretax income – Present Value Tax

$$= \$20,000 - \$6,608 = \$13,392$$

Sending the \$20,000 bill in January is the clear winner. Delaying the invoice to January will decrease the present value of the cash inflow by a few days. Thus, there is a minor present value cost associated with delaying the income.

- (41) [LO 2, LO 3] {Planning} Using the facts from the previous problem, how would your answer change if Manny's after-tax rate of return were 8 percent?

Option 1: Send \$20,000 bill in December:

\$20,000 taxable income x 37 percent marginal tax rate = \$7,400 in present value tax

After-tax income = Pretax income – Present Value Tax

$$= \$20,000 - \$7,400 = \$12,600$$

Option 2: Send \$20,000 bill in January:

\$20,000 taxable income x 37 percent marginal tax rate = \$7,400 in tax in one year.

Present Value of Tax = \$7,400 x .926 (Discount Factor, 1 Year, 8 percent)

$$= \$6,852$$

After-tax income = Pretax income – Present Value Tax

$$= \$20,000 - \$6,852 = \$13,148$$

Sending the \$20,000 bill in January is the clear winner. Delaying the invoice to January will decrease the present value of the cash inflow by a few days. Thus, there is a minor present value cost associated with delaying the income.

- (42) [LO 2, LO 3] {Planning} Reese, a calendar-year taxpayer, uses the cash method of accounting for her sole proprietorship. In late December she received a \$20,000 bill from her accountant for consulting services related to her small business. Reese can pay the \$20,000 bill any time before January 30 of next year without penalty. Assume Reese's marginal tax rate is 32 percent this year and will be 37 percent next year, and that she can earn an after-tax rate of return of 12 percent on her investments. When should she pay the \$20,000 bill—this year or next?

Option 1: Pay \$20,000 bill in December:

\$20,000 tax deduction x 32 percent marginal tax rate = \$6,400 in present value tax savings.

After-tax cost = Pretax Cost – Present Value Tax Savings

$$= \$20,000 - \$6,400 = \$13,600$$

Option 2: Pay \$20,000 bill in January:

\$20,000 tax deduction x 37 percent marginal tax rate = \$7,400 in tax savings in one year.

Present Value of Tax Savings = \$7,400 x .893 (Discount Factor, 1 Year, 12 percent)

$$= \$6,608$$

After-tax cost = Pretax Cost – Present Value Tax Savings

$$= \$20,000 – \$6,608 = \$13,392$$

Paying the \$20,000 in January is the clear winner. Delaying her payment from December to January will decrease the present value of the cash outflow. Thus, there is also a minor present value benefit associated with delaying her payment.

- (43) [LO 2, LO 3] {Planning} Using the facts from the previous problem, when should Reese pay the bill if she expects her marginal tax rate to be 35 percent next year? 24 percent next year?

If the tax rate next year is 35 percent instead of 37 percent, Option 2 changes as follows:

Option 2: Pay \$20,000 bill in January:

\$20,000 tax deduction x 35 percent marginal tax rate = \$7,000 in tax savings in one year.

Present Value of Tax Savings = \$7,000 x .893 (Discount Factor, 1 Year, 12 percent)

$$= \$6,251$$

After-tax cost = Pretax Cost – Present Value Tax Savings

$$= \$20,000 – \$6,251 = \$13,749$$

Paying the \$20,000 in December would be preferred. Accelerating her payment from January to December will increase the present value of the cash outflow by a few days. Thus, there is a minor present value cost associated with accelerating her payment.

If the tax rate next year is 24 percent instead of 37 percent, Option 2 changes as follows:

Option 2: Pay \$20,000 bill in January:

\$20,000 tax deduction x 24 percent marginal tax rate = \$4,800 in tax savings in one year.

Present Value of Tax Savings = \$4,800 x .893 (Discount Factor, 1 Year, 12 percent)

$$= \$4,286$$

After-tax cost = Pretax Cost – Present Value Tax Savings

$$= \$20,000 - \$4,286 = \$15,714$$

Paying the \$20,000 in December would be preferred. Accelerating her payment from January to December will increase the present value of the cash outflow by a few days. Thus, there is a minor present value cost associated with accelerating her payment.

(44) [LO 2, LO 3] {Planning} Hank, a calendar-year taxpayer, uses the cash method of accounting for his sole proprietorship. In late December he performed \$20,000 of legal services for a client. Hank typically requires his clients to pay his bills immediately upon receipt. Assume his marginal tax rate is 32 percent this year and will be 37 percent next year, and that he can earn an after-tax rate of return of 12 percent on his investments. Should Hank send his client the bill in December or January?

Option 1: Send the \$20,000 bill in December:

\$20,000 taxable income x 32 percent marginal tax rate = \$6,400 in present value tax

After-tax income = Pretax income – Present Value Tax

$$= \$20,000 - \$6,400 = \$13,600$$

Option 2: Send the \$20,000 bill in January:

\$20,000 taxable income x 37 percent marginal tax rate = \$7,400 in tax in one year.

Present Value of Tax = \$7,400 x .893 (Discount Factor, 1 Year, 12 percent)

$$= \$6,608$$

After-tax income = Pretax income – Present Value Tax

$$= \$20,000 - \$6,608 = \$13,392$$

Sending the \$20,000 bill in December is the clear winner. Accelerating the invoice will also increase the present value of the cash inflow slightly. Thus, there is a minor present value benefit associated with accelerating the income.

- (45) [LO 2, LO 3] {Planning} Using the facts from the previous problem, when should Hank send the bill if he expects his marginal tax rate to be 35 percent next year? 24 percent next year?

If the tax rate next year is 35 percent instead of 37 percent, Option 2 changes as follows:

Option 2: Send the \$20,000 bill in January:

\$20,000 taxable income x 35 percent marginal tax rate = \$7,000 in tax in one year.

Present Value of Tax = \$7,000 x .893 (Discount Factor, 1 Year, 12 percent)

$$= \$6,251$$

After-tax income = Pretax income – Present Value Tax

$$= \$20,000 - \$6,251 = \$13,749$$

Sending the \$20,000 bill in January would be preferred. Delaying the invoice to January will decrease the present value of the cash inflow by a few days. Thus, there is a minor present value cost associated with delaying the income.

If the tax rate next year is 24 percent instead of 37 percent, Option 2 changes as follows:

Option 2: Send the \$20,000 bill in January:

\$20,000 taxable income x 24 percent marginal tax rate = \$4,800 in tax in one year.

Present Value of Tax = \$4,800 x .893 (Discount Factor, 1 Year, 12 percent)

$$= \$4,286$$

After-tax income = Pretax income – Present Value Tax

$$= \$20,000 - \$4,286 = \$15,714$$

Sending the \$20,000 bill in January would be preferred. Delaying the invoice to January will decrease the present value of the cash inflow by a few days. Thus, there is a minor present value cost associated with delaying the income.

- (46) [LO 3] Geraldo recently won a lottery and chose to receive \$100,000 today instead of an equivalent amount in ten years, computed using an 8 percent rate of return. Today, he learned that interest rates are expected to increase in the future. Is this good news for Geraldo given his decision?

This is good news for Geraldo's decision. If Geraldo chose to defer the \$100,000 at an 8 percent interest rate, the increase in interest rates would have reduced the present value of the lottery winnings. The equivalent amount in 10 years at 8 percent is approximately \$216,000. If this amount was discounted back to present value at 10 percent (instead of 8 percent), the present value would be only about \$83,000.

- (47) [LO 3] {Planning} Assume Rafael can earn an 8 percent after-tax rate of return. Would he prefer \$1,000 today or \$1,500 in five years?

\$1,500 in five years is worth \$1,021.50 today ($\$1,500 \times .681$ (Discount Factor, 5 Year, 8 percent)). Thus, \$1,500 (worth \$1,021.50 today) in five years should be preferred over \$1,000 today.

- (48) [LO 3] {Planing} Assume Ellina earns a 10 percent after-tax rate of return, and that she owes a friend \$1,200. Would she prefer to pay the friend \$1,200 today or \$1,750 in four years?

\$1,750 in four years is worth \$1,195.25 today ($\$1,750 \times .683$ (Discount Factor, 4 Year, 10 percent)). Thus, paying \$1,750 (worth \$1,195.25 today) in four years should be preferred over \$1,200 today.

- (49) [LO 3] {Planning} Jonah has the choice of paying Rita \$10,000 today or \$40,000 in ten years. Assume Jonah can earn a 12 percent after-tax rate of return. Which should he choose?

\$40,000 in ten years is worth \$12,880 today ($\$40,000 \times .322$ (Discount Factor, 10 Year, 12 percent)). Thus, paying \$10,000 today should be preferred over paying \$40,000 (worth \$12,880 today) in ten years.

- (50) [LO 3] {Planning} Bob's Lottery, Inc., has decided to offer winners a choice of \$100,000 in ten years or some amount currently. Assume that Bob's Lottery, Inc., earns a 10 percent after-tax rate of return. What amount should Bob offer lottery winners currently, in order for him to be indifferent between the two choices?

\$100,000 in ten years is worth \$38,600 today to Bob ($\$100,000 \times .386$ (Discount Factor, 10 Year, 10 percent)). Thus, Bob should offer lottery winners \$38,600 today for him to be indifferent between the two choices.

(51) [LO 4] {Planning} Tawana owns and operates a sole proprietorship and has a 37 percent marginal tax rate. She provides her son, Jonathon, \$8,000 a year for college expenses. Jonathon works as a pizza delivery person every fall and has a marginal tax rate of 15 percent.

- a. What could Tawana do to reduce her family tax burden?
 - b. How much pretax income does it currently take Tawana to generate the \$8,000 (after-taxes) given to Jonathon?
 - c. If Jonathon worked for his mother's sole proprietorship, what salary would she have to pay him to generate \$8,000 after taxes (ignoring any Social Security, Medicare, or self-employment tax issues)?
 - d. How much money would the strategy in part (c) save?
- a. **Tawana could reduce her family's tax burden by employing her son in her sole proprietorship, thus shifting income taxed at 37 percent (Tawana's marginal tax rate) to 15 percent (Jonathon's tax rate).**
 - b. **It currently takes Tawana \$12,698 of pretax income to generate the \$8,000 after-taxes given to Jonathon.**

After-tax income = Pretax income \times (1 – marginal tax rate)

$$\text{\$8,000} = \text{Pretax income} \times (1 - .37)$$

$$\text{Pretax income} = \text{\$8,000} / (.63) = \text{\$12,698.}$$

- c. **If Jonathon worked for Tawana's sole proprietorship, she would only have to pay him \$9,412 to generate \$8,000 after-taxes.**

After-tax income = Pretax income \times (1 – marginal tax rate)

$$\text{\$8,000} = \text{Pretax income} \times (1 - .15)$$

$$\text{Pretax income} = \text{\$8,000} / (.85) = \text{\$9,412.}$$

- d. **This strategy will save Tawana \$3,286 pretax (i.e., \$12,698 - \$9,412). The analysis of the after-tax savings from this strategy is as follows:**

Tawana pays her son (\$9,412). This saves Tawana \$3,482 in taxes because the payment is deductible ($\$9,412 \times 37\%$).

Her son receives \$9,412. This costs her son (\$1,412) in taxes because he must pay tax on the compensation ($\$9,412 \times 15\%$). Total savings is

\$2,070 (\$3,482 - \$1,412).

The after-tax savings are the result of shifting \$9,412 of income from Tawana to her son. Consequently, the family unit is paying taxes on the \$9,412 at 15% instead of 37%. $\$9,412 \times (40\% - 15\%) = \$2,070$ after tax savings.

- (52) [LO 4]{Planning} Moana is a single taxpayer who operates a sole proprietorship. She expects her taxable income next year to be \$250,000, of which \$200,000 is attributed to her sole proprietorship. Moana is contemplating incorporating her sole proprietorship. Using the single individual tax brackets and the corporate tax rate, find out how much current tax this strategy could save Moana (ignore any Social Security, Medicare, or self-employment tax issues). How much income should be left in the corporation?

Assuming Moana's goal is to minimize her current federal income tax exposure, one can compare the single individual and corporate tax rate schedules to achieve this goal. Since Moana has \$50,000 of taxable income not related to her sole proprietorship, she is currently in the 22 percent tax bracket. The task is to allocate the \$200,000 between Moana and her corporation to minimize her current liability. The corporate tax rate is 21 percent and is lower than Moana's marginal tax rate of 22 percent. To take advantage of the 21 percent corporate tax rate, all of the expected \$200,000 in profits should be retained in the corporation. Any income shifted to Moana would be taxed at a rate higher than the corporate tax rate of 21 percent.

This strategy will save Moana \$14,250.00 calculated as:

(a) The tax on \$250,000 of taxable income reported by Moana assuming that she operates her business as a sole proprietorship.	\$63,189.50
Less:	
(b) The tax on \$50,000 of taxable income reported by Moana assuming that she incorporates her business	– \$6,939.50
and (c) the tax on \$200,000 profits retained in the corporation	– <u>\$42,000.00</u>
	<u>≡ \$14,250.00</u>

- (53) [LO 4]{Planning} Ori and Jane, husband and wife, operate a sole proprietorship. They expect their taxable income next year to be \$450,000, of which \$250,000 is attributed to the sole proprietorship. Ori and Jane are contemplating incorporating their sole proprietorship. Using the married-joint tax

brackets and the corporate tax rate, find out how much current tax this strategy could save Ori and Jane. How much income should be left in the corporation?

Assuming Ori and Jane’s goal is to minimize their current federal income tax exposure, one can compare the married filing joint and corporate tax rates to achieve this goal. Since Ori and Jane have \$200,000 of taxable income not related to their sole proprietorship, they are currently in the 24 percent tax bracket. The task is to allocate the \$250,000 between Ori and Jane and their corporation to minimize their current liability. The corporate tax rate is 21 percent and is lower than Ori and Jane’s marginal tax rate of 24 percent. To take advantage of the 21 percent corporate tax rate, all of the expected \$250,000 in profits should be retained in the corporation. Any income shifted to Ori and Jane would be taxed at a rate higher than the corporate tax rate of 21 percent.

This strategy will save Ori and Jane \$19,800 calculated as:

(a) The tax on \$450,000 of taxable income reported by Ori and Jane assuming that they operate their business as a sole proprietorship. \$108,879

Less:

(b) The tax on \$200,000 of taxable income reported by Ori and Jane assuming that they incorporate the business – \$36,579

and (c) the tax on \$250,000 profits retained in the corporation – \$52,500

= \$19,800

- (54) [LO 4] {Planning} Hyundai is considering opening a plant in two neighboring states. One state has a corporate tax rate of 10 percent. If operated in this state, the plant is expected to generate \$1,000,000 pretax profit. The other state has a corporate tax rate of 2 percent. If operated in this state, the plant is expected to generate \$930,000 of pretax profit. Which state should Hyundai choose? Why do you think the plant in the state with a lower tax rate would produce a lower before-tax income?

Hyundai should choose to operate the plant in the state with the 2 percent tax rate. Operating the plant in this state would generate \$911,400 of profits after state taxes (i.e., \$930,000 – (2 percent x \$930,000) = \$911,400) versus \$900,000 of profits after state taxes (i.e., \$1,000,000 – (10 percent x \$1,000,000) = \$900,000) in the state with the 10 percent tax rate.

The state with a lower tax rate produces a lower pretax income because the demand for workers, services, property, etc. in the low-tax rate state jurisdictions has most likely increased the costs associated with operating a

business in this state. These increased costs are considered implicit taxes and reduce the tax advantages of operating in the low tax rate state.

- (55) [LO 4, LO 6] {Planning} Bendetta, a high-tax-rate taxpayer, owns several rental properties and would like to shift some income to her daughter, Jenine. Bendetta instructs her tenants to send their rent checks to Jenine so Jenine can report the rental income. Will this shift the income from Bendetta to Jenine? Why or why not?

Merely sending the checks to Jenine is not sufficient to shift the rental income from Bendetta to Jenine under the assignment of income doctrine. To shift the rental income to Jenine, she must earn the income. In this case, this means that Jenine must actually own the rental property to report the rental income.

- (56) [LO 4, LO 6] {Planning} Using the facts in the previous problem, what are some ways that Bendetta could shift some of the rental income to Jenine? What are the disadvantages associated with these income-shifting strategies?

Bendetta could employ her daughter to work for the rental business, and thus, shift income via compensation paid to Jenine. The disadvantage of this strategy is that Jenine must actually perform services for the rental business, and the compensation must be reasonable (which limits the amount of income that can be shifted). Alternatively, Bendetta could transfer ownership of the rental properties to Jenine (e.g., via gift). The disadvantage of this strategy is that most taxpayers would prefer to maintain their wealth and may have serious reservations about transferring significant wealth to their children.

- (57) [LO 5] {Planning} Daniel is considering selling two stocks that have not fared well over recent years. A friend recently informed Daniel that one of his stocks has a special designation, which allows him to treat a loss up to \$50,000 on this stock as an ordinary loss rather than the typical capital loss. Daniel figures that he has a loss of \$60,000 on each stock. If Daniel's marginal tax rate is 35 percent and he has \$120,000 of other capital gains (taxed at 15 percent), what is the tax savings from the special tax treatment?

If Daniel sells both stocks, he will generate tax savings as follows:

	Special stock	Normal stock	Explanation
(1) Loss	(\$60,000)	(\$60,000)	Given in problem
(2) Ordinary tax savings	17,500	n/a	\$50,000 limit x 35% MTR

(3) Capital loss tax savings	1,500	9,000	Special stock: \$10,000 remaining loss x 15% capital rate Normal stock: \$60,000 x 15% capital rate
(4) Total tax savings	\$19,000	\$9,000	Sum of (2) and (3)
Additional savings on special stock	\$10,000		Difference in (4) between special stock and normal stock.

(58) [LO 5] {Planning} Dennis is currently considering investing in municipal bonds that earn 6 percent interest, or in taxable bonds issued by the Coca-Cola Company that pay 8 percent. If Dennis' tax rate is 22 percent, which bond should he choose? Which bond should he choose if his tax rate is 32 percent? At what tax rate would he be indifferent between the bonds? What strategy is this decision based upon?

Dennis' after-tax rate of return on the tax exempt bond is 6 percent (i.e., the same as its pretax rate of return). The Coca-Cola Company bond pays taxable interest of 8 percent. Dennis' after-tax rate of return on the Coca-Cola Company bond is 6.24 percent (i.e., 8 percent interest income – (8 percent x 22 percent) tax = 6.24 percent). Dennis should invest in the Coca-Cola Company bond.

If Dennis' marginal tax rate is 32 percent, his after-tax rate of return on the Coca-Cola Company bond would be 5.44 percent (i.e., 8 percent interest income – (8 percent x 32 percent) tax = 5.44 percent). Dennis should invest in the tax exempt bond in this situation.

Dennis would be indifferent between the two bonds if his marginal tax rate is 25 percent.

After-tax return = Pretax return x (1 – marginal tax rate)

6 percent = 8 percent x (1 – marginal tax rate) = 8 percent – (8 percent x marginal tax rate)

8 percent x marginal tax rate = 2 percent

marginal tax rate = 2 percent / 8 percent = 25 percent

This example is an illustration of the conversion planning strategy.

(59) [LO 5] {Planning} Helen holds 1,000 shares of Fizbo Inc. stock that she purchased 11 months ago. The stock has done very well and has appreciated \$20/share since Helen bought the stock. When sold, the stock will be taxed at capital gains rates (long-term rate is 15% and short-term rate is the taxpayer's

marginal tax rate). If Helen's marginal tax rate is 35%, how much would she save by holding the stock an additional month before selling? What might prevent Helen from waiting to sell?

The gain on the sale of the stock would be \$20,000 (1,000 shares x \$20/share appreciation). If she waits, she will pay a tax of \$3,000 (\$20,000 x 15%); whereas if she sells immediately, she will pay a tax of \$7,000 (\$20,000 x 35%). Her tax savings from waiting the additional month would be \$4,000 (\$7,000 - \$3,000).

Helen bears additional risk if she holds the stock for an additional month. The stock price could decrease substantially if there is market volatility or if the company encounters financial difficulties. In addition, Helen may be selling the stock to generate cash flow for which she may be unwilling to wait.

- (60) [LO 5] Anne's marginal income tax rate is 32 percent. She purchases a corporate bond for \$10,000 and the maturity, or face value, of the bond is \$10,000. If the bond pays 5 percent per year before taxes, what is Anne's annual after-tax rate of return from the bond if the bond matures in one year? What is her annual after-tax rate of return if the bond matures in 10 years?

Anne's after-tax rate of return from the corporate bond is 3.4% or $5\% \times (1 - .32)$. Because interest from the bond is taxed annually and her rate is assumed to be constant, the after-tax rate of return doesn't depend on her investment horizon. Thus, her annual after-tax rate of return remains at 3.4% if the bond matures in ten years.

- (61) [LO 5] {Planning} Irene is saving for a new car she hopes to purchase either four or six years from now. Irene invests \$10,000 in a growth stock that does not pay dividends and expects a 6 percent annual before-tax return (the investment is tax deferred). When she cashes in the investment after either four or six years, she expects the applicable marginal tax rate on long-term capital gains to be 25 percent.

- a. What will be the value of this investment four and six years from now?
 - b. When Irene sells the investment, how much cash will she have after taxes to purchase the new car (four and six years from now)?
- a. **Her investment will be worth \$12,625 or $\$10,000 \times (1+.06)^4$ after 4 years; and \$14,185 or $\$10,000 \times (1+.06)^6$ after 6 years.**
- b. **After 4 years, Irene will pay taxes of 25 percent on her investment returns of \$2,625 leaving her with investment returns after taxes of \$1,969 or $[(1-.25) \times \$2,625]$. This, combined with her original \$10,000 investment, will leave her with \$11,969 to purchase the car.**

After 6 years, Irene will pay taxes of 25 percent on her investment returns of \$4,185 leaving her with investment returns after taxes of \$3,139 or [(1-.25) X \$4,185]. This, combined with her original \$10,000 investment, will leave her with \$13,139 to purchase the car.

- (62) [LO 5] {Planning} Komiko Tanaka invests \$12,000 in LymaBean, Inc. LymaBean does not pay any dividends. Komiko projects that her investment will generate a 10 percent before-tax rate of return. She plans to invest for the long term.
- How much cash will Komiko retain, after-taxes, if she holds the investment for 5 years and then she sells it when the long-term capital gains rate is 15 percent?
 - What is Komiko's after-tax rate of return on her investment in part (a)?
 - How much cash will Komiko retain, after-taxes, if she holds the investment for 5 years and then sells when the long-term capital gains rate is 25 percent?
 - What is Komiko's after-tax rate of return on her investment in part (c)?
 - How much cash will Komiko retain, after taxes, if she holds the investment for 15 years and then she sells when the long-term capital gains rate is 15 percent?
 - What is Komiko's after-tax rate of return on her investment in part (e)?

<p>a. $\\$12,000 \times (1.10)^5 =$</p> <table style="margin-left: 20px; border-collapse: collapse;"> <tr><td style="text-align: right;">\$19,326</td><td></td></tr> <tr><td style="text-align: right;"><u>(12,000)</u></td><td></td></tr> <tr><td style="text-align: right;">\$7,326</td><td></td></tr> <tr><td style="text-align: right;"><u> × 15</u></td><td></td></tr> <tr><td style="text-align: right;">= 1,099</td><td></td></tr> </table>	\$19,326		<u>(12,000)</u>		\$7,326		<u> × 15</u>		= 1,099		<p>amount received</p> <p>basis in stock</p> <p>long-term capital gain</p> <p>percent</p> <p>tax on gain</p>
\$19,326											
<u>(12,000)</u>											
\$7,326											
<u> × 15</u>											
= 1,099											

Cash retained = \$19,326 – 1,099 taxes = \$18,227

b. $(\$18,227/12,000)^{1/5} - 1 = 8.72$ percent

<p>c. $\\$12,000 \times (1.10)^5 =$</p> <table style="margin-left: 20px; border-collapse: collapse;"> <tr><td style="text-align: right;">\$19,326</td><td></td></tr> <tr><td style="text-align: right;"><u>(12,000)</u></td><td></td></tr> <tr><td style="text-align: right;">\$7,326</td><td></td></tr> <tr><td style="text-align: right;"><u> × 25%</u></td><td></td></tr> <tr><td style="text-align: right;">= \$1,832</td><td></td></tr> </table>	\$19,326		<u>(12,000)</u>		\$7,326		<u> × 25%</u>		= \$1,832		<p>amount received</p> <p>basis in stock</p> <p>long-term capital gain</p> <p>tax on gain</p>
\$19,326											
<u>(12,000)</u>											
\$7,326											
<u> × 25%</u>											
= \$1,832											

Cash retained = \$19,326 – 1,832 taxes = \$17,494

d. $(\$17,494/12,000)^{1/5} - 1 = 7.83$ percent

<p>e. $\\$12,000 \times (1.10)^{15} =$</p> <table style="margin-left: 20px; border-collapse: collapse;"> <tr><td style="text-align: right;">\$50,127</td><td></td></tr> <tr><td style="text-align: right;"><u>(12,000)</u></td><td></td></tr> <tr><td style="text-align: right;">\$38,127</td><td></td></tr> </table>	\$50,127		<u>(12,000)</u>		\$38,127		<p>amount received</p> <p>basis in stock</p> <p>long-term capital gain</p>
\$50,127							
<u>(12,000)</u>							
\$38,127							

$$= \frac{\times 15\%}{\$5,719} \quad \text{tax on gain}$$

Cash retained = \$50,127 – 5,719 taxes = \$44,408

f. $(\$44,408/12,000)^{1/15} - 1 = 9.11$ percent

(63) [LO 5] {Planning} Alan inherited \$100,000 with the stipulation that he “invest it to financially benefit his family.” Alan and Alice decided they would invest the inheritance to help them accomplish two financial goals: purchasing a Park City vacation home and saving for their son Cooper’s education.

	Vacation Home	Cooper’s Education
Initial Investment	\$50,000	\$50,000
Investment Horizon	5 years	18 years

Alan and Alice have a marginal income tax rate of 32 percent (capital gains rate of 15 percent), and have decided to investigate the following investment opportunities.

	5 Years	Annual After-Tax Rate of Return	18 Years	Annual After-Tax Rate of Return
Corporate bonds (ordinary interest taxed annually)	5.75%		4.75%	
Dividend-paying stock (no appreciation and dividends are taxed at 15%)	3.50%		3.50%	
Growth stock	Future Value is \$65,000		Future Value is \$140,000	
Municipal bond (tax-exempt)	3.20%		3.10%	

Complete the two annual after-tax rates of return columns for each investment and provide investment recommendations for Alan and Alice.

Considering after-tax rates of return alone, the computations below suggest that Alan and Alice should invest in growth stocks to save for the vacation home and invest in a qualified tuition program for their son’s education. Before making a final decision, they should also consider relevant nontax factors including differences in risk across the investments.

	5 Years (home)	Annual After Tax Rate of Return	18 Years (education)	Annual After Tax Rate of Return
Corporate Bonds	5.75%	3.91%	4.75%	3.23%
Dividend-Paying Stock, pref. rate 15% (no appreciation)	3.50%	2.975%	3.50%	2.975%
Growth Stock	FV is \$65,000	4.65%	FV is \$140,000	5.30%
Municipal Bond	3.20%	3.20%	3.10%	3.10%

Growth Stock Calculations:

FV of Growth Stock After-Tax in 5 Years: $65,000 - [.15 \times (65,000 - 50,000)] = \$62,750$

Annual After-tax rate of return= $[(\$62,750/50,000)^{1/5} - 1] = 4.65\%$

FV of Growth Stock After-Tax in 18 Years: $140,000 - [.15 \times (140,000 - 50,000)] = \$126,500$

Annual After tax rate of return= $[(\$126,500/50,000)^{1/18} - 1] = 5.3\%$

- (64) [LO 7] Duff is really interested in decreasing his tax liability, and by his very nature he is somewhat aggressive. A friend of a friend told him that cash transactions are more difficult for the IRS to identify and, thus, tax. Duff is contemplating using this “strategy” of not reporting cash collected in his business to minimize his tax liability. Is this tax planning? What are the risks with this strategy?

This is not tax planning. Instead, this strategy is tax evasion. The rewards of tax evasion include stiff monetary penalties and imprisonment.

- (65) [LO 7] Using the facts from the previous problem, how would your answer change if instead, Duff adopted the cash method of accounting to allow him to better control the timing of his cash receipts and disbursements?

This strategy would fall within the confines of legitimate tax planning, and thus, Duff should not be subject to the potential risks associated with tax evasion.

- (66) [LO 2, LO 4, LO 5] {Planning, Research} Using an available tax service or the Internet, identify three basic tax planning ideas or tax tips suggested for year-end tax planning. Which basic tax strategy from this chapter does each

Solutions Manual - *Essentials of Federal Taxation*, by Spilker et al.

planning idea employ?

The answers to this question will vary by student but should incorporate the basic strategies of timing, income shifting, and conversion.

- (67) [LO 7] {Research} Jayanna, an advertising consultant, is contemplating instructing some of her clients to pay her in cash so that she does not have to report the income on her tax return. Use an available tax service to identify the three basic elements of tax evasion and penalties associated with tax evasion. Write a memo to Jayanna explaining tax evasion and the risks associated with her actions.

IRC Sec. 7201 states that tax evasion is a felony punishable by a fine of not more than \$100,000 (\$500,000 in the case of a corporation), or five years' imprisonment, or both.

The three elements to the crime of tax evasion are (1) willfulness, (2) an attempt to evade tax, and (3) additional tax due. Jayanna's actions would satisfy each element. There are numerous court cases that describe these three elements and any tax service can be used to locate relevant cases. For example, see *U.S. v. Friedberg, David*, (1953, CA6) 44 AFTR 549, 207 F2d 777, 53-2 USTC ¶9632, aff'd (1954, S Ct) 46 AFTR 954, 348 US 142, 99 L Ed 188, 54-2 USTC ¶9713, reh den (1955, S Ct) 46 AFTR 1361, 348 US 932, 99 L Ed 731.

- (68) [LO 7] {Research} Using the IRS Web site (www.irs.gov/uac/The-Tax-Gap), how large is the current estimated "tax gap" (i.e., the amount of tax underpaid by taxpayers annually)? What group of taxpayers represents the largest "contributors" to the tax gap?

The estimated annual tax gap is approximately \$458 billion, most of which is attributable to underreporting of income by individual taxpayers.