29. Retirement 3: Understanding Employer-Qualified Plans

Introduction

Employer-qualified retirement plans, also called employer-sponsored retirement plans, are the second source of income you should consider when planning for retirement. You can think of the payouts from these plans as a series of delayed payments you will receive during retirement for work you performed prior to retirement. There are many varieties of employer-qualified retirement plans; these plans can be an important part of your overall retirement plan.

A qualified retirement plan is a retirement plan that allows a company to make tax-deductible contributions to employees through either a defined-benefit plan or a defined-contribution plan. Some of these plans require no employee contributions, and some require employee contributions that are employer matched. Employer-qualified retirement plans provide free money, which should be the highest priority for your retirement and investment funds.

Objectives

When you have completed this chapter, you should be able to do the following:

A. Understand employer-qualified retirement plans
B. Understand defined-benefit plans
C. Understand defined-contribution plans
D. Understand plans and strategies for employer qualified plans.

Understand Employer-Qualified Retirement Plans

There are many reasons why companies offer qualified retirement plans, including a desire to be competitive. Since most companies offer a qualified retirement plan, a company that does not is at a disadvantage. Most companies must offer benefits to attract and retain qualified personnel.

Money set aside in qualified plans has specific tax advantages. These tax advantages make retirement plans especially attractive to companies. Companies may be motivated to offer qualified retirement plans because the company owner may wish to use them to save money for retirement in a tax-efficient manner. These funds offer tax advantages to the company and may be tax-deferred for the employee as well.

Concern for employees may also be a reason that companies offer qualified retirement plans. Companies may reason that the better prepared for retirement employees are, the better the employees will perform their work.

There are two main types of employer-qualified retirement plans: defined-benefit plans and defined-contribution plans. Defined-benefit plans provide a predetermined payout based on specific employee data, such as years of employment and annual salary. With defined-benefit plans, the company bears most of the risk associated with funding a specific amount each year. Defined-contribution plans are investment plans in which both the employee and the employer contribute funds to the plan; the amount contributed by the employer is generally fixed. With defined-contribution plans, the employee bears most of the risk involved in funding the plan. Table 1 lists the major types of defined-benefit and defined-contribution plans.

Table 1. Retirement Plan Characteristics

Characteristic	Defined-Benefit	Defined-Contribution
Employer's contribution	Actuarially determined	Specified by formula
Benefit amount	Certain	Uncertain
IRC limit applicable	Maximum	Contributions
Types of benefits funded	Defined-benefit Cash balance	Profit sharing ESOP Stock bonus Target benefit Money purchase Employee contribution

Because of the tax advantages, there are limits to the amounts of money that may be contributed to defined-benefit and defined-contribution plans. These limits are set forth in Code 415 of the Internal Revenue Code. See Table 2 for the Code 415 contribution limits for 2018.

Table 2. Internal Revenue Code Limits in 2019

Plan Type	Participant Limit	Employer Limit
Defined-contribution:	100% or $56,000 (indexed) if less	25% of participant's total compensation
Defined-benefit:	100% or $225,000 (indexed) if less	Amount necessary to fund compensation
Profit-sharing:	100% or $56,000 (indexed) if less	25% of participant's total compensation

There are also limits to the types of retirement plans that can be used by different types of business entities. For a list of types, see Chart 1.

In recent years, there has been a significant shift away from defined-benefit plans and toward defined-contribution plans. Even companies that continue to offer defined-benefit plans have tried to reduce their risk by reducing benefits. This change suggests that companies are shifting the responsibility of retirement planning onto individual employees. Because of this change, it is critical that you understand qualified retirement plans and make retirement planning an important part of your personal investment plan.

Chart 1. Business Forms and Retirement Plans

	Defined Benefit Plans		Defined Contribution Plans								
			Discretionary Contribution			Fixed Contribution		Employee Contribution			
Entity	Defined Benefit	Cash Balance	Profit Sharing	Stock Bonus ESOP	Money Purchase	Targt Benefit	Thrift Savings	Section 401k Provisions	TSA 403B	457 Plan	SIMPLE and SEP-IRA
C Corp.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
S Corp.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes
Prof. Corp.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Partnership	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes
Sole Prop.	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes
Tax-exempt	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Public School	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes
S/L Govt.	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	Yes	Yes

Explain Defined-Benefit Plans

A defined-benefit plan (DBP), also called a pension plan, is a retirement plan funded entirely by an employer; the employee does not contribute to this type of plan. At retirement, the employee is promised a specific payout amount that is calculated using a formula set by the company.

Advantages and Disadvantages

One advantage of defined-benefit plans is that they often pay out a large percentage of an employee's final salary—as much as 30 to 50 percent—thereby making a significant contribution to that employee's retirement plan. Since you as the employee do not contribute to the plan, you bear no investment risk. Sometimes the benefits of these plans can even be extended to a spouse, depending on the type of retirement payout you choose.

There are also disadvantages of defined-benefit plans. One disadvantage is that the payout benefits are considered taxable income, and taxes can significantly diminish your net benefit. Another disadvantage is that your company can change its plan policies over time—even after you retire—so there is no guarantee your benefits will remain constant. Moreover, most plans require you to stay with the company for a specific length of time to become fully vested, or in other words, fully eligible for benefits. If you quit or lose your job before retirement, you may lose your benefits.

It is important for you to remember that 9 out of 10 defined-benefit plans do not provide for a cost of living adjustment (COLA). This means that inflation could significantly reduce your purchasing power during retirement. You should also be aware that some plans are unfunded, which means the company does not put aside the money to pay retirement benefits but instead pays retirement benefits out of the company's current profits. If the company does not make the necessary profits, you may not get your retirement benefits. Finally, if you die before retirement, your surviving spouse will likely receive a reduced benefit.

Payout Formulas

With a defined-benefit plan, the company uses a payout formula to determine how much you will receive at retirement. This formula usually includes variables such as retirement age, average salary, and years of employment.

The following example shows a payout formula used by XYZ Corporation. Assume XYZ Corporation uses the following steps to calculate an employee's annual retirement payout:

1. Averages the employee's five highest annual salaries within the last 10 years
2. Determines the employee's total years of employment
3. Multiplies the average salary by 1.5 percent and by the total years of employment—a maximum of 33 years

Bill Smith has worked for XYZ Corporation for 25 years. The average of his five highest salaries over the last 10 years is $60,000. Using this information, XYZ Corporation calculates his retirement benefit as follows: $60,000 * 0.015 * 25 = $22,500.

When Bill retires at the end of next month, he will begin receiving $22,500 each year for as long as he lives. This means that Bill will receive 37.5 percent of his average salary each year throughout his retirement.

Time and Salary

One reason a company might provide a defined-benefit plan is to encourage employees to stay with the company over the long term. In most cases, it is easier to retain a good employee than to hire and train a new employee. Providing a good retirement program is an important means by which companies retain good employees. Table 3 shows the payouts of a pension plan based on the amount of time an employee has stayed with a company; the payout is shown for two different salary levels.

Cash-Balance Plans

A cash-balance plan is a type of defined-benefit plan that credits your retirement account based on a certain percentage of your salary each year (usually between 4 and 7 percent) plus a predetermined rate of interest. Employees have no control over the way this money is invested. The difference between cash-balance plans and plans based on a formula is that cash-balance plans grow at a predetermined rate regardless of how much money is in the account.

Table 3. Payouts Based on Time and Salary

Years of Employment	Average Salary	Payout
10 years	$55,000	$8,250
	$72,000	$10,800
20 years	$55,000	$16,500
	$72,000	$21,600
30 years	$55,000	$24,750
	$72,000	$32,400

There are several advantages of cash-balance plans. First, like basic defined-benefit plans, these plans are noncontributory, which means that, as the employee, you do not contribute funds to this plan. Funds contributed to a cash-balance plan are free money. Second, the rate of return on a cash-balance plan is constant and guaranteed. Third, your retirement benefits are much easier to calculate because you know all of the variables and the guaranteed rate of return. Fourth, cash-balance plans are portable. If you are fully vested, you can take your principal and earnings with you when you move to another company. Fifth, cash-balance plans are much cheaper for the company because the percentage of your salary and the guaranteed rate of return are generally low; funding these plans is not as much of a financial burden or risk to the company. One major disadvantage to employees is that the actual payouts are generally lower than the payouts of basic defined-benefit plans.

Payout Options

When you retire, you must choose from among several options of how you would like to receive your distributions. These options determine how long you will receive payments, how long your spouse or beneficiary will receive payments after you die (not all options allow this), and how much you will receive each month or year. Table 4 shows several payout options that may be offered by your company. Since different options insure more people and have guaranteed payments, the conversion factor relates the present value of the estimated payments compared to the standard benefit. For example, if you chose the Joint and Survivor 100-percent annuity (10-year certain), you would receive 88 percent of the standard payment but would have the guarantee that both you and your spouse would receive payments for the rest of your lives, with a minimum 10 years guaranteed even if you both died within 10 years.

The standard benefit gives you equal monthly payments for as long as you live. If you die within 10 years of the date you retire, payments will continue to your beneficiary until the 10 years are up. If you choose the 20-year certain and life option, payments are guaranteed for 20 years. A life annuity guarantees payments only for as long as you live.

If you are married when you retire, federal law requires that, at a minimum, your benefit be paid according to the qualified joint and survivor annuity payment option. This option provides equal payments for as long as you live, and 50 percent payments to your spouse for as long as he or she lives. A surviving spouse may also be eligible to receive a 10-year certain or a 75 or 100 percent annuity, but, if you die before retirement, your spouse will usually be restricted to the qualified joint and survivor annuity option.

Table 4. Payout Options and Conversion Factors

Payout Option	Conversion Factor
Standard benefit (10-year certain and life)	1.00
20-year certain and life	0.92
Life annuity	1.02
Qualified joint and survivor annuity (50 percent and no-term certain)	0.95
Joint and survivor 50 percent annuity (10-year certain)	0.95
Joint and survivor 75 percent annuity (10-year certain)	0.91
Joint and survivor 100 percent annuity (10-year certain)	0.88

Learning about Your Company's Plan

You should ask a number of questions when investigating your company's retirement plan or when considering new employment. You should also get it in writing, as benefits may change over time. The following are questions you should ask about your company's plan:

1. Does the company provide a defined-benefit plan?
2. Is the payout based on your average salary, your final annual salary, or some other amount?
3. How long is the vesting period?
4. What formula does the company use to calculate benefits?
5. What is the normal retirement age?
6. What happens to your payout amount if you retire earlier than the normal retirement age?
7. Is there any advantage to working past age 65?
8. Will the payout include a cost of living adjustment (COLA)?

Defined-benefit plans can be an important part of your retirement plan. However, you must understand the plan—its benefits, drawbacks, and requirements—so that you can receive the maximum amount at retirement.

Explain Defined-Contribution Plans

With a defined-contribution plan (DCP), your employer contributes a specific amount to your retirement plan while you are working; when you retire, your employer is absolved of any further responsibilities. In a defined-contribution plan, both you and your employer generally contribute to the fund. Your pension is determined by how much both you and your employer invest each year, how fast the investment grows, and how many years your investment is able to grow.

Advantages and Disadvantages

For employees, the advantages of defined-contribution plans include that they have strong growth potential, they are portable, and they provide you with greater control. These plans are also tax-advantaged in the sense that the contributions and earnings are tax-deferred money. The main disadvantage of these plans is that there is no guarantee as to the actual amount of money you will receive at retirement; in other words, defined-contribution plans shift the risk from your employer to you.

For employers, defined-contribution plans are advantageous because they are easier to manage, they have fewer government regulations, they provide a greater number of investment choices, and they come in many different types. The disadvantage to employers is that these plans take time and resources to manage.

Types of Defined-Contribution Plans

There are three types of defined-contribution plans: discretionary (or optional) contribution plans, fixed contribution plans, and salary-reduction plans. In discretionary contribution plans, contributions are made at the discretion of the employer. In fixed contribution plans, contributions are fixed by the employer. And in salary-reduction plans, employees' contributions are made on a before-tax basis. Contributions to a salary reduction plan reduce the amount of the employees' taxable income and remain tax-deferred until retirement. In salary-reduction plans, you can direct your funds into various investment options, including fixed-income securities, equities, money market funds, and guaranteed investment contracts (GICs).

There are three main types of discretionary contribution plans:

> In a **Profit Sharing Plan**, the employer's contribution varies from year to year depending on the firm's profitability. There may be no contributions made if the company has an unprofitable year.
>
> **Stock Bonus Plans** are a type of profit-sharing plan in which employer contributions are made in the form of employer-owned shares of stock. Employee stock-ownership plans (ESOPs) and leveraged ESOPs (LESOPs) are the most common types of stock-bonus plans. In an employee stock-options plan, retirement funds are invested in company

stock. This is a very risky and non-diversified plan because both your retirement and your job are dependent on the same company. Since you are already an employee of the company, if the company does well, you will also likely do well, i.e., keep your job. If the company does poorly, you may lose your job, and the value of your company stock is likely to decline as well.

In a **Money Purchase Plan**, the employer contributes a percentage of the employee's salary each year.

There are two main types of fixed contribution plans:

In a **Thrift and Savings Plan**, the employer matches a percentage of the employee's contributions. These contributions are free money.

A **Target Benefit Plan** is a defined-contribution plan that has a required contribution level so that the employee will be able to meet a target level of benefits. Employers set this target level when an employee is hired, and the employer contributes to the plan each year to help the employee reach that level.

There are several types of salary-reduction plans. These plans are categorized according to the type of company that installs the plan and whether the plan uses before-tax or after-tax dollars for funding. The main types of salary reduction plans are 401(k) plans, Roth 401(k) plans, 403(b) plans, Roth 403(b) plans, and 457 plans.

401(k) plans are set up by a private company. In a 401(k), you contribute a percentage of your salary up to a specified amount ($19,000 in 2019 or $25,000 if you are over age 50, see Table 6), and the money grows in a tax-deferred account until you retire. Your employer may or may not contribute a matching amount (free money). Because this money is tax-deferred, you do not have to pay taxes on the money until you withdraw it after you reach age 59½.

In **Roth 401(k) plans**, you contribute a percentage of your salary. The maximum contribution amount is the same as for 401(k) plans (see Table 6). Roth 401(k) plans are unique in that you contribute to the fund using after-tax dollars, or money on which you have already paid taxes. These plans are beneficial because the money grows until you retire, and you never need to pay taxes on the earnings and capital gains again if you withdraw it after age 59½.

403(b) plans are basically the same as a 401(k) plan; however, 403(b) plans are specifically designed for employees of nonprofit, tax-exempt companies and institutions (for example, schools). The maximum contribution amount is the same as for 401(k) plans (see Table 6).

Roth 403(b) plans are basically the same as a Roth 401(k) plan; however, they are specifically designed for employees of nonprofit, tax-exempt companies and institutions. Contributions are made with after-tax dollars, and individuals are not required to pay taxes on withdrawals after individuals reach age 55. The maximum contribution amount is the same as for 401(k) plans (see Table 6).

457 Plans are basically the same as a 401(k) plan, but they are specifically designed for state and municipal workers. The maximum contribution amount is the same as for 401(k) plans (see Table 6).

Matching Plans

In a matching plan, the employer matches all or a percentage of the contributions you make to your retirement fund. Less than 80 percent of all 401(k) plans include a matching component. Note that with a Roth 401(k) or Roth 403(b) plan, the employer contribution is made on a before-tax basis and not an after-tax basis. Funds the employer provides as a match are held in a separate tax-deferred account; taxes must still be paid on the matched amount at retirement. Always get the match!

Vesting Requirements

Vesting is the process through which your employer's contributions to your retirement fund become your property. You will typically become fully vested, or gain full ownership of the contributions, after you have worked for the company for a certain number of years. For example, you may own 60 percent of the employer's contribution after two years, 80 percent after three years, and 100 percent after four years. Vesting schedules vary depending on the company. Matching contributions must be vested according to the cliff schedule, which means that after a specific number of years, you are immediately vested, or to the graded schedule, which means you are partially vested after a specific number of years, and the vesting increases each year (see Table 6).

Contribution Limits

An annual contribution limit is the maximum amount you can invest in a particular retirement vehicle each year. In a 401(k) plan, you cannot contribute more than 25 percent of your before-tax income, and this amount cannot exceed the annual limits in Table 7. Employer contributions may exceed this limit. Annual contribution limits gradually increase each year. In addition to the limits listed in Table 7, a "catch-up" limit is available for those over age 50. If you are over age 50, your annual contribution limits are the normal contribution limit (i.e., \$19,000 in 2019) plus the additional catch up contribution limit of \$6,000, which adds up to \$25,000.

Tax Implications of Defined-Contribution Plans

If your company offers a defined-contribution plan, there are several tax implications you should be aware of:

- Retirement income is taxed as ordinary income.
- If you make withdrawals from your defined-contribution plan before age 59½, you will be charged a 10 percent penalty to principal and earnings (there are some exceptions).
- There is a 20 percent withholding requirement on withdrawals made before age 59½ from qualified plans. This means that if you withdraw $20,000 before age 59½, you will only receive $16,000. The pension plan will keep the remaining 20 percent to submit to the Internal Revenue Service for tax purposes.
- Certain loan provisions may apply.
- Mandatory annual distributions begin after age 70½.

Table 5. Vesting Schedule for Matching Plans

	401(k) Plans		403(b) Plans	
Year	Cliff	Graded	Cliff	Graded
1	0%	0%	0%	0%
2	0%	20%	0%	0%
3	100%	40%	0%	20%
4	100%	60%	0%	40%
5	100%	80%	100%	60%
6	100%	100%	100%	80%
7	100%	100%	100%	100%

Table 6. Annual Contribution Limits for 401(k) Plans, 403(b) Plans, and 457 Plans**

Year	Contribution Limit	Catch-Up Contribution Limit*
2014	$17,500	$5,500
2015	$18,000	$6,000
2016	$18,000	$6,000
2017	$18,000	$6,000
2018	$18,500	$6,000
2019	$19,000	$6,000

* Catch-up contribution is for those over age 50.

** 457 plan participants also have the option of increasing their deferrals to the lesser of twice the normal limit ($38,000 in 2019) or the normal limit not applied in previous years; this option may be exercised in the final three years before retirement.

Required Minimum Distributions

When saving for retirement, remember that the benefit of deferred taxes is offset by the fact that you must eventually pay taxes on your principal and earnings. Defined-contribution plans that defer taxes require that minimum distributions must begin by April 1 of the year following age

70½. The distribution amount is calculated by dividing the account balance on December 31 of the previous year by the life expectancy. Note that there is a 50 percent penalty on minimum distributions that are not taken (see Table 7).

Payout Options

Payout options are the ways you can receive your money at retirement. You can receive a lump-sum distribution, an annuity, periodic payments, or you can roll the money into an individual retirement account (IRA).

A **Lump Sum Distribution** gives you full control over future investing and spending. The disadvantage is that taxes are due immediately on the full amount of the distribution. In addition, this type of distribution will not necessarily provide you with income throughout your retirement.

Table 7. Life Expectancy and Age

Age	Life Expectancy
70	27.4
71	26.5
72	25.6
73	24.7
74	23.8
75	22.9
76	22.0
77	21.2
78	20.3

An **Annuity**, which may be purchased either through an investment company or through an outside company, provides fixed payments, usually for life. However, an annuity does not usually provide a cost of living adjustment (COLA), and you must pay taxes on the amount you receive each year.

Periodic Payments provide you with fixed payments at regular intervals. However, this type of distribution does not ensure that you will receive income throughout your retirement because the money may eventually run out if you live longer than your planned periodic payments. Also, if payments are large, your tax rate may be quite high.

Rolling into IRA allows you to continue to defer taxes until you make withdrawals. Once the money is in an IRA, you can direct the investment of the funds even more than when the funds were in a 401(k) plan. The only disadvantage of this option is that you must begin making withdrawals at age 70½ or you will incur a penalty.

Making Use of Your Defined-Contribution Plan

Once you know which investment vehicle is available to you through your employer's defined-contribution plan, the next step is to choose the appropriate financial assets to include in this plan. Most people invest about 75 percent of their retirement assets in equities; in general, mutual funds provide good diversification opportunities. Refer to the unit on investing for help in determining which assets to include in your retirement vehicle. Most company plans offer about 10 investment options, although some plans offer significantly more.

As you make investment decisions, it is important to remember the principles of successful investing, the priorities of money, your investment horizon, your financial goals, and your risk-tolerance level. You should also consider other important issues, such as annual expenses, administration expenses, transfer fees, and reallocation options and costs.

Plans and Strategies for Employer Qualified Plans

As you put your Retirement Plan together, it is important to think through some plans and strategies. Examples include:

Plans and Strategies

Accumulation

- Live on a budget, save 20%, always get the company match
- Save 20% of every dollar, 15% into your Roth 401k, 3% for other goals, and 2% for children's mission and education
- Invest in Roth accounts while young and when rates are low. Use these to target your tax rate in retirement (to a low level)
- Even though you don't know future tax rates, maximize investments in Roths as you are saving more for retirement

Retirement

- Calculate a minimum level of retirement income, and annuitize that amount (if you have sufficient assets). The process is:
    - a. Calculate Social Security and defined benefit plan(s)
    - b. Determine your minimum amount needed to live on
    - c. Take a percentage of EQP assets at retirement to purchase an immediate annuity to give you the minimum amount needed to have your acceptable level of income
- Have both Roth and traditional retirement assets so you can target your tax rates in retirement
- Donate assets from your traditional 401k/403b to pay tithes and offerings to eliminate your capital gains

Distribution

- Have taxable (tax now), Roth (rarely taxed) and traditional (taxes later) vehicles to target your tax rate in retirement

- Set a target tax rate, then pull traditional assets up to that specific amount, then Roth assets afterwards to reduce taxes
- Make sure to pay your Required Minimum Distributions
- During your later years which your income is less, i.e., during missions, transfer money from your tax-deferred to tax-eliminated accounts. Use this time to move assets into Roth accounts with as little tax consequences as possible
- After age 69.5, donate assets from your traditional 401k/403b to pay tithes and offerings, to eliminate your capital gains, and to fulfill your required Minimum Distribution amounts

Summary

There are three main types of employer-qualified retirement plans: defined-benefit plans, defined-contribution plans, and salary-reduction plans. Defined-benefit plans provide a predetermined payout based on specific employee data, such as years of employment and annual salary. Defined-contribution plans are investment plans in which both the employee and the employer contribute funds to the plan; the amount contributed by the employer is generally fixed. In salary-reduction plans, employees contribute a percentage of their salary to retirement vehicles each period.

A defined-benefit plan (DBP), also called a pension plan, is a retirement plan funded entirely by an employer; the employee does not contribute to this type of plan. At retirement, the employee is promised a specific payout amount that is calculated using a formula set by the company.

With a defined-contribution plan (DCP), your employer contributes a specific amount to your retirement plan while you are working; when you retire, your employer is absolved of any further responsibilities. Both you and your employer generally contribute to the fund. Your pension is determined by how much both you and your employer invest each year, how fast the investment grows, and how many years your investment is able to grow. With salary-reduction plans, employees' contributions are made on a before-tax basis. Contributions to a salary reduction plan reduce the amount of the employees' taxable income and remain tax-deferred until retirement. In salary-reduction plans, you can direct your funds into various investment options, including fixed-income securities, equities, money market funds, and guaranteed investment contracts (GICs).

Assignments

Financial Plan Assignment

If you have an employer-qualified plan, talk to your employer. Find out as much information as you can regarding your plan. What type of plan is it? Is it a defined-benefit plan or a defined-contribution plan, or does your employer offer both?

If your company offers a defined-benefit plan, what are the requirements for the plan? What factors are included in the payout formula (number of years working, average salary, percentage of salary, etc.)? How long must you be with the company to receive benefits? At what age can you begin receiving benefits? Based on today's earnings, how much will you receive each month during retirement?

If your company offers a defined-contribution plan, what type of plan is it? Does it have a company matching option (free money)? Are you getting your full company match each year? How much do you currently have in the plan? Where is that money allocated? Is the allocation consistent with your risk level and the fact that the funds are long term? Have you followed the principles of successful investing in terms of diversification, low costs, low risk, and other key factors? Are you rebalancing back to your target allocations in a timely manner? Become aware of this information because it is important to your retirement planning.

Learning Tools

The following Learning Tools may also be helpful as you prepare your Personal Financial Plan.

Retirement Planning Needs Spreadsheet (LT06)
This Excel spreadsheet helps you determine how much you must save each month to achieve a specific lifestyle at retirement based on the following estimates: years until retirement, expected return, inflation, and tax rates.

Retirement Planning Ratio Forecasts (LT25)
This spreadsheet is an Excel template that will help you determine where you are in your progress toward achieving your retirement goals. By inputting the relevant information, you can estimate whether you are on track for reaching your retirement goals, based on your age and income.

Roth versus Traditional: Which Is Better for You (LT28)
This Excel spreadsheet helps you determine whether the traditional IRA or the Roth IRA is a better investment vehicle for you to use in saving for retirement. Note that this shares the 8 questions you should answer in deciding which to choose (see also Roth versus Traditional Accounts).

Review Materials

Terminology Review

401k Plans or Roth 401k Plans. These are defined contribution plans where employees contribute a percent of salary up to a specified amount. Employers may contribute a matching amount (free money) to encourage participation.
403b Plans or Roth 403(b) Plans (also called Tax Sheltered Annuities). These are defined contribution plans, and are the same as 401k but for non-profit tax-exempt companies and institutions (i.e., schools).

457 Plans. These are defined contribution plans, the same as 401k plans but for state and municipal workers and tax-exempt organizations.
Average compensation. The average of the years of salary considered in making the defined benefit calculation.
Cash-Balance Plans. A type of DBP in which provides specific annual employer contribution (generally 4-7%) each year, plus a low but guaranteed rate of investment earnings. Accounts grow at a predetermined rate, regardless of how much is in the account. Employees do not make any investment decisions.
Defined Benefit Pension Plans. A Defined Benefit Pension Plan is a DBP where payments are based on a benefit payout formula. The formula is based on your salary, years worked and a company determined factor to calculate how much you will get each year. Employees do not contribute and bear no risk.
Defined Contribution Plan (DCP). A retirement plan where the employer contributes a specific amount to the employee's retirement funds while the employee is working and then has no responsibilities once the employee retires. Employer contributes to a fund, and then has no additional obligation when the employee retires. Employee may also contribute to the fund. Pension is determined by how much is invested by both the employer and employee, and how fast it grows.
Discretionary contribution plans. Retirement plans where contributions are at the employer's discretion. These include profit sharing plans, stock bonus or ESOP plans, and money purchase plans.
Distribution/Payout Options. These are options as to how you will take the benefits over your retirement.

- Life Annuities (guaranteed for the "certain" period). You receive benefits for as long as you live or for a certain guaranteed period, whichever is longer.
- Joint and Survivor Annuities (percent relates to the amount the spouse receives). You receive payment for as long as you live or for a certain guaranteed period, whichever is longer, and your spouse, after you die, receives that percent of your payment for as long as they live.
- Special Joint and Survivor Annuity (if there is a death in the marriage the benefit decreases). You receive payment for as long as you live or for a certain guaranteed period, whichever is longer, and your spouse, after you die, receives a percentage of that payment for as long as they live.

Employee Contribution (or Salary Reduction Plans). These are defined contribution plans where employees contribute before tax dollars reducing their taxable income and earnings accumulate tax deferred. The major plans are Roth or Traditional 401k and 403b plans and 457 plans. Employees direct the funds into different financial asset options provided by the company including mutual funds, index funds, fixed income, equities, money market funds, and GICs (guaranteed investment contracts). Companies have their list of approved investment assets. Employees choose where to invest their assets subject to the company list, and employees are not allowed to invest outside of approved investment assets.
Employer Qualified Retirement Plans. These are retirement plans, established by a company, that have specific tax and other benefits to both the company and the employee. Benefits include competition, tax shelters, personal retirement for the owners, and personal retirement for the employees. They can be either defined benefit or defined contribution plans.
Fixed contribution plans. These are defined contribution plans where contributions are fixed by the employer. Examples are thrift and savings plans and target benefit plans.

Immediate Annuity Distribution. You can use your defined contribution plan to purchase an immediate annuity, either from your retirement Plan provider or from others outside the Plan. IRA Rollover distribution (Be careful and don't touch the funds). You can roll over your distribution into an IRA. The benefits are you can defer taxes until you withdraw the funds, you can direct investment to different assets and asset classes, and you can continue to enjoy tax-deferred growth. The risks are that there is no guarantee that funds will last a lifetime and you must begin withdrawals at 70½ or 50% penalty is incurred.
Lump Sum Distribution. This is taking the entire retirement account at retirement. You are responsible to ensure this amount lasts your entire life. The benefits are you can take the money out as you need it, and can invest/gift/use it elsewhere. The risks are that plans only allow distributions every 3 months, taxes are incurred immediately, and if you do not plan well, may not have sufficient money for retirement.
Money Purchase Plans. These are defined contribution plans where the employer contributes a percentage of employee salary each year, not dependent on company profits. Employees do not contribute.
Periodic Payments distribution. With this distribution, you can plan for regular payments at regular intervals, and can ensure that payments are available for a specific period of time. However, there is no assurance of lifetime income, and your tax rate may be high due to the amount of money withdrawn.
Profit Sharing Plans. These are defined contribution plans where employer contributions vary year-to-year depending on firm profitability (it may be zero if the firm is not profitable in that year).
Required minimum distributions. For tax deferred retirement plans, the government requires that a certain percentage of assets must begin by April 1st of the year following age 70½. The distribution is the account balance on Dec. 31 of the previous year (age 69) divided by the life expectancy from the table below. There is a 50% penalty on minimum distributions not taken.
Roth. These are defined contribution plans where distributions of contributions can be made without penalty and without tax after 5 years. Roth plans do not have mandatory distributions (if they are rolled over into Roth IRAs at retirement), and matching employer contributions with Roth plans go into traditional plans (not Roth plans). Roth plans allow you to save more money (as taxes are paid outside the retirement vehicle).
Stock Bonus Plan. These are defined contribution plans where employer contributions are made with employer shares of stock. Employee stock ownership plans (ESOPs) and leveraged ESOPs (LESOPs) are the most common.
Target Benefit Plan. These are defined contribution plans that establish a required contribution level to meet a specific target level of benefits at retirement.
Thrift /Savings Plans (TSP). These are defined contribution plans where the employer matches a percentage of employee contributions to a specific amount (i.e., free money). This program is for employees of federal civil service.
Vesting period. This is the period required before the promised benefits are considered yours.

Review Questions

1. What is a qualified retirement plan?
2. What are the three major types of employer-qualified retirement plans?

3. What is the general trend in regard to qualified retirement plans, or what types of plans are most companies shifting away from, and what types of plans are most companies shifting toward?
4. What are the three types of defined-contribution plans?
5. In relation to an employer's contributions to your retirement fund, what does "vesting" mean? Why is it important to know the vesting requirements of your employer?

Case Studies

Case Study 1

Data

Bill, married with two kids, will be graduating in April with his bachelor's degree and has two similar offers from companies located in San Francisco, California. Both are companies he would be content to stay with for 30 years. Company A has a 401(k) with a 100 percent match up to 4 percent of his salary. Company B has a 401(k) with no match but has a defined-benefit plan with the formula based on average salary, a factor of 1.5 percent, and years of service up to 30 years.

Calculations/Application

A. Assuming the salary is $50,000 for each firm, which has the more attractive retirement package for Bill?

B. Can Bill participate in other retirement plans?

Case Study 1 Answers

A. This is a difficult question to answer and depends on (1) Bill's plans, (2) Bill's forecast for the company, and (3) Bill's view of company policy.

(1) Bill's Plans. How long is he planning to be with either company? Is he going back to graduate school soon? How portable is the defined-benefit plan? The answer to this question is really based on the assumptions Bill has regarding how long he plans to stay with either company. Since a defined-benefit plan generally requires you to stay for an extended period, that benefit will only be valuable if Bill is committed for a long period of time.

(2) Bill's Forecast for the Company. Is the company viable, particularly company B? Will Company B be around for as long as Bill wants it to? Are the products of both companies viable?

(3) Bill's View of Company Policy. Will either company change its retirement policies after Bill retires? Have the companies historically taken good care of their employees? Are the plans consistent with similar companies? What is Company B's defined-benefit formula? If Bill stays until retirement at B, what is the annual benefit? Assuming a reasonable interest rate, what is the present value of the annual benefit to Bill? What is the value of the company match over the same period?

B. Bill can have other plans, as long as his salary is below specific IRS-determined limits. Based on the information provided, he could also invest in either a Roth or traditional IRA, or if he had a small business, he may be able to invest in a small business plan, such as a SEP IRA.

Case Study 2

Data

Greg is 50 years old and has been working for 10 years with a company that has a defined-benefit plan. The formula is the average of the five highest annual salaries within the last 10 years multiplied by a company-determined factor of 1.5 percent multiplied by years in service (to a maximum of 33). Assume Greg stays with the company until his retirement at age 65 and his highest annual salaries for five years average $60,000.

Calculations

A. How much can Greg expect to receive annually at retirement?
B. What is the percent of his final five-year average salary?

Case Study 2 Answers

A. Greg can expect to receive the following:
$60,000 * .015 * 25 years = $22,500 per year until he dies.
B. This is $22,500 / $60,000, or 37.5 percent, of his final salary.

Case Study 3

Data

Adam is 55 and plans to retire in 10 years. He is working for a company with a tax-sheltered annuity (TSA, or 403(b) Plan).

Calculations

A. How much can he contribute, assuming his salary is below the IRS-determined limits, into his company's Roth 403(b) plan in 2019?
B. If his company has a matching program, what impact will that have on Adam's contribution?

Case Study 3 Answers

A. Contribution limits for the 401(k), Roth 401(k), 403(b), Roth 403(b), and 457 Plan annual contribution limits are:

Year	Contribution Limit	Catch-Up Contr.
2017	18,000	6,000
2018	18,500	6,000
2019	19,000	6,000

Since Adam is over 50 years old, he could contribute $19,000 plus a $6,000 catch-up contribution in 2019, for a total of $25,000.

B. The company match will have no impact on the amount Adam can contribute.

Case Study 4

Data

Adam retired on his 60th birthday and did not use any of his traditional IRA balances. On December 31 of his 69th year, he had $450,000 in his 401(k) plan.

Calculations

A. How much would he be required to take out of his account the next year, the year he turns 70.5?

B. How much would he be required to take out if this was a Roth 401(k)?

Life Expectancy Table

Age	Life Expectancy (LE)
70	27.4
71	26.5
72	25.6

Case Study 4 Answers

A. From the table, his life expectancy at age 70 is 27.4 years. Adam will be required to take a distribution of his 401(k) plan of \$450,000 / 27.4, or \$16,423, the next year.

B. If this was a Roth 401(k), he would still have to take the required distributions. However, if, once he retired, he rolled his Roth 401(k) over to a Roth IRA, there would be no required distributions.

Case Study 5

Data

Sam graduated last year and has already begun his retirement program. He has invested enough in his company 401(k) plan to get the company match this year and has found out that his company has a Roth 401(k) plan as an option. He is discussing with a friend the benefits of the Roth 401(k) versus the traditional 401(k).

Application

A. Which vehicle, the Roth or traditional 401(k), should Sam select and why?

B. What are the assumptions that would impact Sam's choice of retirement vehicle?

Case Study 5 Answers

A. Which vehicle Sam chooses should be based on his vision, goals, objectives, and assumptions for the future.

B. His assumptions should relate to seven key areas (see Roth versus Traditional: Which Is Better for You (LT28):

1. Sam's projected tax rate in retirement. If Sam expects his tax rate to be higher (or lower) in retirement, the Roth (or traditional) is preferred. Make sure Sam takes into account child tax and other credits when determining his current tax rate.

2. Sam's need for the tax break now. If the reduction in AGI is important for Sam to reduce his current tax bill, he would likely choose the traditional.

3. His cash flow situation. If he has additional money to invest for retirement, he can invest more in the Roth than the traditional, due to taxes.

4. His possible need for principal. If Sam might need some of the money in the account (just in case), with the Roth he can take out principal after five years without penalty or taxes, as principal has already been taxed. He cannot, however, take out earnings and interest without penalty.

5. His desire to have more money saved for retirement. If Sam wants to put more money in for retirement, since he pays taxes outside the retirement vehicle with a Roth vehicle, he is actually saving more for retirement. For example, if he puts both $5,000 into both a Roth and traditional IRA, the Roth will be worth more at retirement after taxes as Sam must pay taxes on the traditional IRA when he takes out the money.

6. Does he want to avoid RMDs or required minimum distributions. If he puts money into a tax-deferred account, he is required by law to take out a required minimum distribution each year after age 69. If he does not take out these RMDs, his penalty is 50% of those RMDs, which is steep.

7. *Does he want to leave money to your heirs without major tax or other problems*. Tax deferred money has yet to be taxed. When these assets are left to heirs, the heir still must pay taxes on these assets. With Roth vehicles, because the taxes are already paid, it is much easier from a tax basis to give them to heirs.

8. *Does he want to be able to target his tax rate in retirement.* If he wants to target his tax rate in retirement, he should have a balance of his assets in tax-now accounts (brokerage, banks, and mutual fund companies), tax-deferred accounts (traditional 401k, 403b and IRA accounts), and tax-never accounts (Roth IRA and Roth 401k accounts). This way he can pull out assets from his tax-now and tax-deferred accounts up to his targeted tax rate, and anything beyond, he takes from his Tax-never accounts.