

# Understanding Investment Risk

**Chapter****Seven****87**

I'm writing this chapter at a point when the stock market has been battered. The value of a significant number of individual stocks has dropped by more than 50%, a few by more than 90% and a growing number of small, technology companies have totally disappeared. Even some mutual funds have also dropped in value by more than 50%.

Because of the current climate, this chapter is particularly relevant. At this point, I suspect many of you have a much better understanding of the risk involved with stock investing.

In general, there are three types of risk you need to consider when you invest for retirement:

- losing everything
- not having enough savings
- losing more investment value than you can tolerate.

## ***The Risk of Losing Everything***

The early days of 401(k) investing were very different from today. The typical plan had only two investment options—a guaranteed investment contract (GIC) and a growth mutual fund or company stock. The stock market was not producing double-digit annual returns. Most participants had little or no experience investing in the stock market, and many also had been raised by parents who feared stock investments.

Participants who invested in GICs earned a guaranteed fixed return in the 7 to 10% range. Participants could typically get an attractive guaranteed return with a GIC compared to a big unknown with stocks. There were a few years when GIC returns were as high as 15%.

The S&P 500 started a 27% decline on November 28, 1980, and it wasn't until the beginning of 1983 that investors recovered this loss. As a result, there wasn't a really strong incentive to invest in stocks, and about 70% of total 401(k) contributions were in GICs. The combination of an attractive, guaranteed return and the fear of losing money in stocks made GICs the logical choice for most participants.

Investment options were typically limited to 25% multiples. You had to split your money between the two types of investments 100/0%, 75/25% or 50/50%. Very few participants put 100% into the growth option. Most opted to invest 100%, 75% or 50% in GICs.

At the time no one told 30-year-olds they were foolish if they didn't put at least 75% into stocks. Because the 401(k) was new, it was important for employees to have a positive experience. GICs were performing well and employees were happy.

The primary concern was to get employees to contribute and to keep contributing. One of my fears was that if participants lost any money during the first couple of years, they would stop contributing. For this reason, some of the first 401(k) plans I designed had only a GIC option. I told these employers to add other options after the plans were a couple of years old. The new investments would be nice plan enhancements after participants had a positive initial experience.

Because participant account balances were small, any additional investment returns that might be gained through stock investments would make very little difference. A \$25,000 account balance was a big deal at this point.

Investment attitudes began to shift during the late 1980s for the following reasons:

- Confidence in GICs eroded when a couple of insurance companies failed
- Returns on GICs dropped to the 5 to 6% range
- Mutual fund companies became significant 401(k) providers, offering a wider range of investment options.
- Participants pushed for more options as their account balances grew.

The investment multiples changed from 25% to 10% as the number of options increased—typically from only two to three to five options during the late 1980s. The multiples typically dropped to only 1% as plans moved to a greater number of investment alternatives and record-keeping systems that permitted daily transfers.

The following comparison of the current and early 401(k) investment structure will help you understand the magnitude of the changes.

#### Comparison of 401(k) Investment Structure

	Early 1980s	2001
Number of options	2	10–15*
Investment multiples	25%	1%
Change frequency	quarterly	any time
How implemented	written	request online
When completed	after next valuation	same day
Transfer value	as of last valuation date	current value

\*A growing number of plans are also giving participants access to thousands of investment alternatives through self-directed investment options.

During the bull market of the 90s there was industry-wide concern that participants were investing too much of their money in GIC type investments that would produce lower long-term returns than stocks. A lot of effort went into edu-

cating participants about the risks of investing too conservatively.

Participants have generally reduced their fixed-income holdings, but I suspect the fear of losing everything may reemerge as a result of the 2000/2001 carnage. The first point you need to understand in dealing with this fear is that there aren't any risk-free investments. Start with burying the money or stuffing it in your mattress. The money may be stolen, burn or your dog may eat it for lunch. Even FDIC insured bank savings accounts or certificates of deposits (CDs) carry some risk of loss.

You may be able to avoid many investment disasters but one you will never avoid is inflation. The value of your money erodes by more than 60% over 30 years at a 3% inflation rate. This means that the \$100,000 that you have today will be worth only \$40,000 when you need it at retirement 30 years from now. This loss is just as real as waking up tomorrow morning to find that your account value has dropped by 60%. As a result, you must invest your 401(k) contributions—it's the only possible way to beat inflation.

The first key to dealing with the fear of losing everything is to have a basic knowledge of the risks involved with the different types of investments. These are the major investment categories that are likely to be available to you through your 401(k):

- **Money Market Funds:** These funds invest in short-term debt obligations that are issued by banks and large U.S. companies. If one or more of these businesses fails before the debt obligation is repaid, you could lose money. Interest is owed on the securities owned by the fund. The securities will not increase or decrease in value; therefore, your investment return is limited to the interest earned. The risk is low but so is the return—typically 5 to 6%.

- **Bond Funds:** These funds purchase longer-term debt obligations of the U.S. government or U.S. companies. The long-term return for this type of investment is in the 6 to 7% range. The fund earns

a specific amount of interest income on each bond it owns. The fund manager actively buys and sells bonds realizing a gain or loss each time a bond is sold. The manager may also hold on to the bond until its maturity date—at which time the fund will receive payment for the face amount of the bond.

A company that issues a bond may also be able to pay off the bond early. This is likely to happen when interest rates drop, enabling the company to sell new bonds at a lower interest rate.

The investment return you get will depend upon the:

- interest rate paid on the bonds
- changes in interest rates which result in an increase or decrease in the value of the bonds
- results the manager achieves by trading bonds
- failure of any companies that have issued bonds held by the fund.

The average maturity of the bonds held by the fund will impact both your risk and return. Your return from investing in a short-term bond fund will be 1/2 to 1% lower than an intermediate or long-term fund. But there will be less change in the value while you own a short-term fund.

The manager of a short-term fund buys bonds with a one to three-year maturity, an intermediate fund manager buys bonds with a 5 to 10-year average maturity and a long-term fund manager buys bonds with a 20 to 30-year maturity. The longer the average maturity, the larger the ups and downs in value while you own the fund.

Another factor that will impact your investment results is the quality of the bonds the fund owns. The financial strength of companies that sell bonds is determined by independent rating agencies like Standard & Poor's. They rank companies by their ability to pay the amount that is borrowed. Companies with high credit ratings are able to borrow at lower interest rates,

because they are more likely to repay the loan than companies with bad credit ratings.

Many bond funds invest in what are known as “junk” bonds. These are bonds issued by companies with low to medium credit ratings. There is much greater potential that one or more of the companies that have issued these bonds will not be able to repay the loan, particularly during an economic slump.

You need to understand exactly what you are buying when you invest in a bond fund. For example, a fund company is not going to call its fund that invests in junk bonds a junk bond fund. It will more likely be called a high-yield fund or some similar name. Read the prospectus or other material from the investment company carefully.

• **Stock Funds:** You are buying ownership in a company when you buy shares of its stock. You may receive a dividend, but your investment return is determined primarily by what happens to the price of the stock. These are a few of the many factors that make a stock go up or down:

- political events in the U.S. and around the world
- a change in management
- the revenue and profits of the company
- general market trends
- the industry climate
- new products the company has recently introduced
- a company’s prominence within its industry
- the opinion of large institutional investors such as mutual fund managers
- the opinion of key analysts
- special events such as the Y2K scare.

Since so many things can impact the price of a stock, you may wonder why in the world you should invest your retirement savings in something that is so uncertain. The answer is because this is how you can get the best long-term investment return. Retirement investing is a 40 to 60-year event that includes both your working and

leisure years. You can’t afford to accept a safe 6% return over this time period.

If you do invest too conservatively, you are likely to run afoul of one of the other risks: the risk of not enough money to fund your retirement. The best way to reduce your risk of loss, regardless of whether you invest in bonds or stocks or other investments, is to diversify your investments. The most efficient way for most 401(k) participants to do this is via collective investments such as mutual funds.

Assume you invest all your 401(k) money in only one mutual fund—an S&P 500 index mutual fund. When you invest in this fund, you own a small piece of the 500 largest companies in the U.S. The only circumstance that would cause you to lose all your money is if all 500 of these companies folded. This would be a disaster far beyond anything our economy has ever experienced. Most of the largest companies survived the great depression and ultimately recovered.

Aside from the issue of investing too conservatively, there’s also the risk of making the wrong investment decision. The advantage of mutual funds is that you shift the responsibility for deciding which stocks to buy to a professional fund manager. With a mutual fund you own a portion of many bonds or stocks.

The important fact is that it is highly unlikely that you will ever lose all your money. But the chances are much greater that you will lose 25% or more of your money when you invest in stocks. Why should you invest where you can lose 25% or more of your money? Because you will also earn more than 25% during some years. You are never likely to ever earn more than 7% in a bank savings account.

Because a mutual fund is a diversified investment, it often has less volatility than an individual stock. This means that the value of a fund you own could increase on a day that a single stock drops by 30%. If your fund manager owns shares of the company that drops by 30%, your account

value may drop by only 4% for the day—compared to 30% for a person who owns only this one stock.

Here’s an example that shows the importance of diversification. In this example, Manuel and Sophia both have \$5,000 in their 401(k) accounts.

### EXAMPLE OF DIVERSIFICATION

Manuel and Sophia both have \$5,000 in their 401(k) accounts. Manuel chooses to invest his entire balance in a money market with an average annual yield of 5%. Sophia decides to diversify her 401(k) account balance. She invests \$1,000 in each of five different investment options. Her first investment choice fails and she loses the entire \$1,000. The second option doesn’t do well, and although Sophia doesn’t lose any money, she doesn’t make any either. Her third, fourth, and fifth investment choices produce average to above-average returns.

#### 25 YEARS

**\$16,932** Manuel

**\$22,070** Sophia

Manuel invests \$5,000 at 5%

Sophia invests \$5,000 and diversifies

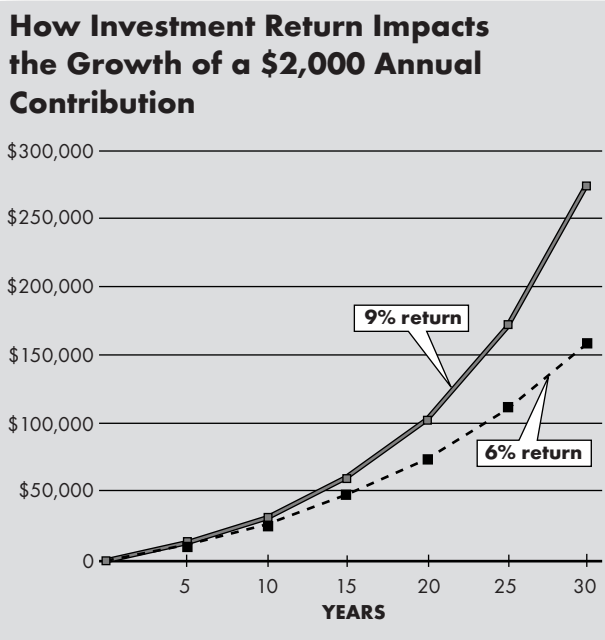
Invests \$1,000, losing it all	\$0
Invests \$1,000 at 0%	\$1,000
Invests \$1,000 at 5%	\$3,386
Invests \$1,000 at 8%	\$6,849
Invests \$1,000 at 10%	\$10,835

As you can see, even though two of the five investment options Sophia chose performed worse than the money market, Sophia came out with over 30 percent more than Manuel—because she diversified her 401(k) account rather than putting it all into a money market fund.

## The Risk of Not Having Enough Money

The most obvious risk is the risk that you will not have enough money when you retire. Your 401(k) retirement nest egg must come from your savings, any employer contribution and investment income. The more you earn on your investments, the less you have to contribute. You will hopefully have additional retirement resources, such as personal investments, home equity, etc. But the hard reality is that increasing your investment return requires taking more risk.

This is why you need to use a good retirement calculator or consult a financial planner to help you get the right balance of risks and returns. The following example shows how drastically your savings increases with an additional 3% return.



As you can see, the additional 3% return brings a total return of \$273,000 after 30 years vs. \$158,000 at the lower return rate. That means that the higher return would make it possible for you to generate 73% more income from your

401(k) nest egg. To achieve the same result over 30 years at the lower rate of return, you would need to make an annual contribution of \$3,460 vs. \$2,000 at the higher rate of return.

The major benefit of using a retirement calculator is that it gives you an investment reality check. Will the amount you are saving and the investment mix enable you to accumulate what you will need? A good retirement calculator will answer this question and also help you decide how to close any savings gap. Generally, a gap can be closed by increasing your contributions, adjusting your investments to achieve a higher long-term return or a combination of the two.

The earlier in your career that you become involved with this retirement planning process, the more likely you are to achieve your goals. It's a lot easier to make the necessary changes at age 35 than age 55. Check how you are progressing toward your savings goals every year.

## **The Risk of Losing More than You Can Tolerate**

No one wants to lose any money—but we're all especially fearful of losing more than we can afford. You should find some comfort in the fact that it's very unlikely that you would lose everything in your 401(k) account—but losing to the point of severe pain is a very real possibility.

Of course, everyone's pain threshold is different. At this stage of my life, a loss of 10% on my retirement funds is as much as I can tolerate. Fortunately, I've been able to avoid any losses beyond this point. (I will get into how I've done this in the next chapter.) You need to determine your own risk tolerance, and your 401(k) provider should have the tools to help you. If not, visit one or more of the retirement planning sites mentioned in Chapter 6.

Sometimes people say that you shouldn't be concerned about any drops in your retirement fund value because they are only "paper losses".

This refers to the fact that if you don't cash in your investments on the day their value drops, you haven't actually lost any money. It's true that you shouldn't panic with all the market ups and downs, but you still have to ask yourself if you can handle drops of 20%, 30%, 40%, 50%—or even more.

My retirement plan is disrupted if the value of my account drops from \$100,000 to \$80,000 because I didn't include a 20% loss in my plan. I could react to such a loss by withdrawing all my money from stock investments, shifting to lower-risk investments and staying there forever. If I do this, I will have to dramatically increase my contributions to make up the loss and the lower investment return I will be getting in the future.

My recommendation is to stick to stock funds that are less volatile for retirement investing. I've come to the conclusion that funds with a heavy industry sector weighting (like those that have recently dropped by 70% or so) are not appropriate for retirement investing. You need to focus on funds that have more consistent, positive returns. Many age 55+ participants have been hammered in the current market because they had either too much in stocks and/or the wrong type of stocks.

## **The Risk of Company Stock**

Although this chapter primarily talks about the risks associated with investments that you choose, you also have to be aware of the risks related to the investments your employer chooses. What I'm referring to is company stock, which can be a very risky investment. At most public companies, it's common for the employer matching contribution to be made in company stock.

Because stock investments are so volatile, and because participants don't always choose a company stock investment, there are politicians like Congresswoman Barbara Boxer who have attempted to change the laws. While I understand that people would want to limit the amount that

participants have in company stock, I don't want to create a situation that forces employers to stop their contributions. Remember that employer contributions are voluntary. Prohibiting employers from contributing stock to fund the matching contribution could lead to the reduction or elimination of their contributions. A contribution of company stock is much better than no employer contribution at all.

The real concern for participants is to consider how company stock investments affect their overall asset allocation. If a large percentage of your portfolio is in company stock due to your employer contributions, you need to be sure to balance these equity investments with other fixed-income investments.

This balance is also an important consideration if you are permitted to buy company stock with your own contributions. The fact that many companies prospered and their stock values consistently increased led many employees to invest all their own contributions in company stock. Especially in 2000 when the stock market began to decline, it was not a good idea to have all your eggs in one basket.

Employees often get a big sales pitch on the benefits of owning company stock. This is because the personal wealth of many senior executives is tied to company stock options. Many of them want employees to own as much company stock as possible for these reasons:

- Senior management has greater control of the company when large blocks of stock are owned by employees and other “friendly” investors.
- Employees are more loyal and productive when they own company stock (at least when the stock is doing well).

If you consider your total asset allocation and you make appropriate adjustments, I'm generally

a big fan of employee stock ownership. But I only feel this way if the stock is given to you or if it is sold to you at a discount. We had an Employee Stock Ownership Plan (ESOP) at The Johnson Companies, and all employees were given stock via employer contributions to the plan. Employees received an additional benefit when we sold the company—they got cash for their stock.

Generally, I don't recommend investing your own retirement money in company stock. The risk of a major loss is just too high. It's not just dot.com companies that have tanked during the recent market downturn. Many large, well-known companies have watched their stock prices drop by more than 50%. The entire S&P stock group has experienced some of the most major declines in its history.

You may wonder about the severity of some of the historical market drops. We all know about the great crash of 1929—that drop was 86%. But few are familiar with the 54% drop that started on March 5, 1937, followed by the 45% drop that started on November 11, 1938.

#### **Major Market Drops Since the Beginning of the 401(k)**

Date of market peak	% decline
Nov. 28, 1980	27%
Aug. 25, 1987	34%
July 16, 1990	20%
July 17, 1998	19%

How do these drops tie into investments in your company stock? These historical market declines reflect the average change for the 500 companies in the S&P index. As I mentioned earlier, some stocks fare better or worse than the general market decline. This means that the stocks of some S&P companies dropped by a lot more than 34% during the 1987 decline. The big problem with owning a single stock is that your company

may be the one that drops by 80% during such a period.

Eventually every stock's value goes down. It seems to be only a question of when and by how much. Some companies have experienced periods of 20 or more years when the value of their stocks have only gone up. But it's virtually impossible to maintain an uninterrupted upward record for 20 years or more.

Unfortunately, many 401(k) investors who have been heavily invested in company stock have experienced this reality at the worst time—when they are in their 50s and nearing retirement. For years they saw the value of their accounts grow as they rode the company stock wagon. Then, seemingly overnight, they watched much of what they gained disappear.

Many experts say that you shouldn't rely on company stock to get you to your retirement goals. The Charles Schwab brokerage firm conducted a study in 2000 showing how single stock ownership performed in comparison to a market index during three and ten year periods from 1926 to 1998. The best average return for a single stock holding was 65% and the worst was minus 60%. This compares to a best of 32% for the index and a worst of 29%. A single stock has twice the potential to move up and down than a

diversified portfolio. As a result, you should keep your ownership of company stock to the lowest level permitted by your plan to avoid unnecessary risks.

Company stock can also bring wonderful results. Penelope Wang wrote a very good article about company stock that appeared in the October 2000 issue of *Money*. She described "the accidental millionaire", a woman named Michelle Seymour who built a 401(k) account worth \$5 million by age 39 through company stock investments. Michelle started contributing only \$400 per year in the mid-1980s. She then increased her contribution rate to 15% of pay and invested primarily in company stock because it was doing better than any of the other plan options.

Michelle obviously totally surpassed the goal I suggested of building a nest egg equal to 10 times your annual pay by the time you retire. I have seen others like her who have really won big by investing heavily in company stock, but achieving these gangbuster results is more luck than good planning.

Another key point that this example illustrates is that when you are in your 20s and 30s you can take more risk. Michelle gradually reduced her company stock holdings from 90% to 35% to reduce her risk.

## Tips on Understanding Risk

- Remember that the three different types of risk you face are (1) the risk of losing everything (2) the risk of not having enough, and (3) the risk of losing more than you can tolerate.
- Recognize that there are no risk-free investments.
- Decide what level of risk is tolerable and manage your investments to stay within your comfort zone.
- Diversify your investments to reduce your risks. Invest in a variety of stocks, bonds and other investments.
- Try to increase your return by small increments—even a 1% increase will make a big difference.
- Don't put all your eggs in the company's basket. Remember that investing your contributions in your employer's stock is much riskier than investing in a diversified stock fund.

