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## SUMMARY

- Start Young
- Contribute as much as you can
- Be willing to take risk as time is on your side
- Don't get emotional about your statements

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## The 21st Century Retirement: Accumulate Phase

### The Paradox of Youth: Why taking risk is 'less risky' and starting young may make a bigger difference than you think.

Recognizing that each saver has their own unique circumstances, RiverFront's general advice for someone starting to save for retirement can be boiled down to four bullets:

- 1. Start as young as possible, save whatever you can afford.**
- 2. If you can, we suggest saving 5-10% of your salary every year on a bi-monthly basis in a tax deferred account.** Otherwise, start the process with something. (Maximize any employer matching in a 401(k), 403(b), etc.)
- 3. We suggest primarily owning stocks in a diversified portfolio until the 'sustain phase' (10 years prior to retirement).**
- 4. Don't get emotional about your statements:** You are buying every month; while rising prices feel good, falling prices allow you to buy at lower levels.

The 'paradox' is that some or all of these 'rules' can be most difficult when you are young. Starting out, saving 10% of salary can be a tall order when the essentials take up most of your income. Retirement may well be the last thing on your mind in your 20s and early 30s, but as we will show, the choices made early on potentially have a big impact. To bring these rules to life, we have tried to put some numerical values in the tables below to show their significance, using hypothetical examples.

Another paradox centers on risk taking. Investing in stocks and watching the value rise and fall significantly can seem very risky, especially if no one has explained the potential rewards. We will seek to quantify the risk to your retirement of 'playing it safe'. We think the numbers discussed below will surprise and perhaps amaze many of you, so please read on.

A brief disclaimer: *this piece is about retirement saving.* It is impossible to try and write about the many different scenarios that people face through life with their saving/spending choices. There are many unknown variables to consider: two incomes versus one, marriage, divorce, children, saving for education costs, saving for a house purchase... the list goes on. If 'death and taxes' are the two certainties in life, a highly probable third is retirement, hence its importance. We think the trade-offs should be considered and understood as early as possible. We use the example of a 401(k) (a company sponsored retirement plan) as it is the vehicle used by many, but the same basic rules apply to those working for non-profits investing in a 403(b), or someone saving in a tax-deferred way through some form of an Investment Retirement Account (IRA). In saving for retirement, we believe a tax-deferred plan is going to be the best option for most people. Finally, the examples below focus on the younger investor (25-35), but we think the same principals apply to any investor with a 20, 30, or 40-year planning horizon. Retiring at 65 is just used for our illustration.

Albert Einstein, one of the greatest minds of the 20th Century is reputed to have made several quips about compound interest:

**“Compound interest is the eighth wonder of the world” and also “Compound interest is the greatest mathematical discovery of all time.”**

These seem to be strong statements, but we will try and show what he meant. Rarely is this fully explained to us when we are young (or ever) so let’s try and illustrate what he was talking about. Kaetlin Collins, one of our millennial-age financial analysts who is passionate about educating her generation, built a “retirement calculator” for a 401(k) plan which we will use to illustrate the first 3 rules. The main inputs are salary, percent of salary contributed, company match, starting age, retirement age, average returns, and growth of salary.

**Our Model Retirement Saver ends up with \$4,500,000 million.**

The examples below are purely an illustration to make a point, but we have tried to make them realistic. Our “model retirement saver” is someone who starts saving at 25, saves 10% of their salary monthly, and seeks to retire at 65 (we are assuming a starting annual salary of \$50,000 in line with the average of the millennial generation). Our model saver invests 100% in stocks at a return of 9.2%. We use this rate of return as US stocks have risen at an average rate of 9.2% since 1880 (source: Goldman Sachs). We are also assuming salary growth of 4%, which is two times the Federal Reserve’s targeted long-term inflation rate. Finally, we are assuming a company match of up to 3% of salary. Plans vary widely, but this is consistent with US norms. We urge all savers to take advantage of any company match in a 401(k)/403(b) if at all possible. Doubling your money is not easy in markets, but when a company matches your contributions, that is exactly what happens with the amount matched. **After 40 years, the model saver’s portfolio in our example is worth \$4,498,216, shown in the first table.**

The Model Retirement Saver	
ASSUMPTIONS	
Starting Salary (Gross)	\$50,000.00
Paychecks Per Year	24
Employee Contribution	10%
Company Match	3%
Starting Age	25
Retirement Age	65
Average Annual Return	9.2%
Annual Salary Growth	4.0%
<b>Value at End of Retirement</b>	<b>\$4,498,216.08</b>

**Rule 1: Start Young:**

To illustrate the value of starting early, we will keep everything constant except the starting age which will now assume is 35, by which time our late starter’s salary has grown from 50,000 to \$74,000. The results are shown in table 2.

The Late Starter	
ASSUMPTIONS	
Starting Salary (Gross)	\$50,000.00
Paychecks Per Year	24
Employee Contribution	10%
Company Match	3%
Starting Age	35
Retirement Age	65
Average Annual Return	9.2%
Annual Salary Growth	4.0%
<b>Value at End of Retirement</b>	<b>\$2,362,890.88</b>

**Potential Cost – \$2,135,000**

**The Late Starter: Potential Cost – \$2,135,000**

The first 10 years of the model saver’s personal contributions are **just \$60,000**, and yet the cost in terms of returns of starting 10 years later, in this hypothetical example, is approximately **\$2.1 million**. This illustrates the power of compounding 9.2% returns over 40 years versus 30. To many people this result is shocking. As noted above, we recognize the challenge of saving 10% of salary at age 25. However, knowing the potential rewards might well make you a better saver.

## Rule 2: Contribute as much as you can.

To illustrate the value of a higher contribution rate, we will return to our original model, only this time we will drop the contribution rate to 5%. The results are in figure 3.

### The Lower Contributor: Potential cost – \$1,658,000

As you would expect, given the lower contribution rate the final number is lower in this case by approximately \$1.7 million. However, look at the comparison with the late starter. **Starting earlier and saving for an extra 10 years, even with half the contribution rate, results in a bigger number at age 65...**perhaps another surprise result. Regardless of age, the message here is to contribute what you can afford and start as soon as possible.

The Lower Contributor	
ASSUMPTIONS	
Starting Salary (Gross)	\$50,000.00
Paychecks Per Year	24
Employee Contribution	5%
Company Match	3%
Starting Age	25
Retirement Age	65
Average Annual Return	9.2%
Annual Salary Growth	4.0%
<b>Value at End of Retirement</b>	<b>\$2,840,495.05</b>

Potential cost – \$1,658,000

## Rule 3: Be willing to take risk as time is on your side.

For this illustration we will return to our model saver who saves 10% and starts at age 25, but this time our investor only invests 50% of their money in the stock market. In the current interest rate environment, we are assuming the other 50% has a zero return, net of inflation. This may even be generous as the US Treasury's Inflation Protected Securities (TIPS) at the time of writing have negative yields for all maturities out to 2050; and money market yields are close to zero and so well below the inflation rate.

The Risk Averse Investor	
ASSUMPTIONS	
Starting Salary (Gross)	\$50,000.00
Paychecks Per Year	24
Employee Contribution	10%
Company Match	3%
Starting Age	25
Retirement Age	65
Average Annual Return	4.6%
Annual Salary Growth	4.0%
<b>Value at End of Retirement</b>	<b>\$1,407,095.64</b>

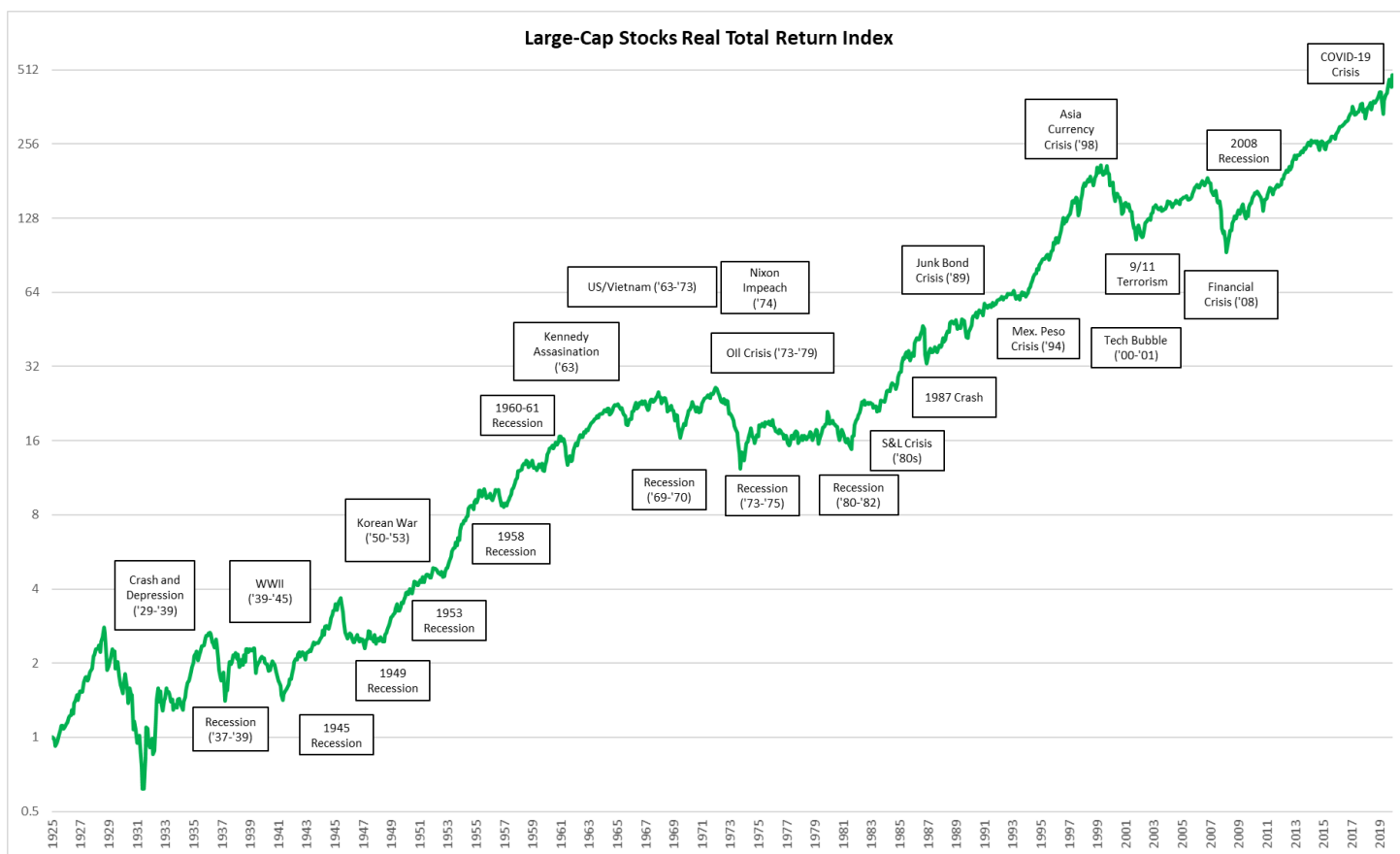
Potential cost – \$3,091,000

### The Risk Averse Investor: Potential cost – \$3,091,000

**Understand that 'safety' or 'risk aversion' can have a price:** This is perhaps the most important lesson of all. The paradox is that we believe you put your retirement at greater risk by playing it safe, especially in the early years when you have the longest timeframe. As you get closer to retirement, managing risk becomes more important. Of all the rules and their consequences, it might surprise you that in the current interest rate environment **being risk averse can cost you a lot more than either making a lower contribution or starting later.** Even though our risk averse investor is just as diligent as the model saver, **their final amount is nearly \$3.1 million lower.** This all leads to rule 4.

## Rule 4: Don't get emotional about your statements.

It is all very well to talk about historical US stock market returns of 9.2%...but what if stocks are about to fall? We cannot know what the future holds nor the timing of the next sharp or prolonged decline (bear market). However, the chart below shows the good times and the bad: extraordinary and prolonged periods of rapid gains and periods where the total return did not advance for a decade or more. It includes wars, the Great Depression, the inflation of the 1970s, the bursting of the late 1990s tech bubble, the market collapse of 2008, and now a pandemic. To us the main takeaway of this chart is the sheer magnitude of the gain - 500 times the original investment, net of inflation - despite all these challenges.



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One thing we can predict with considerable certainty is that a saver who invests in stocks over 40 years is going to experience market declines, some significant in both magnitude and duration. We submit that market declines matter little to someone in a retirement plan, who is buying incrementally every month and is in the first 30 years of their saving journey. (We discuss the last 10 years in our recently published [Strategic View on the Sustain Phase](#)).

As long as you believe companies will continue to grow earnings and dividends over the long term and that their share prices will reflect that growth, market declines are simply an opportunity to accumulate at lower prices. As legendary investor Warren Buffet says: "The best chance to deploy capital is when things are going down." Imagine you were the investor who started saving in the 1930s, the 1970s, or the 2000s. The early years would have been very discouraging, often seeing the value of your investment declining, but remember that over the timeframe of those market declines you were buying at lots of different levels and when the next sustained price increase (bull market) started you were well positioned. The message here is to trust the process. If you are willing to own stocks, don't be disheartened by the market value on your monthly statement along the way.

## Conclusion:

The purpose of this piece is to provoke thoughts about savings choices and give guidance. We hope it will promote discussions among younger investors and those that they trust for advice and counsel. We recognize that there will be readers who don't have a formal relationship with a financial advisor, and we encourage you to explore what that relationship could do for you.

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