

A woman with long dark hair and glasses is sitting cross-legged on a light-colored, textured rug. She is wearing a white t-shirt and dark pants, and is focused on her laptop. The background shows a wicker chair and a wooden lattice screen, suggesting a relaxed, indoor setting.

Leveraged Investing for the Early Investor

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Utilizing Your Lifespan to Reduce Your Risk

The negative relationship between risk capacity and wealth over one's life-span is unnecessarily tragic. When we're young, we have the highest capacity for risk but the lowest amount of wealth to invest. The opposite rings true for those in the later stages of life.

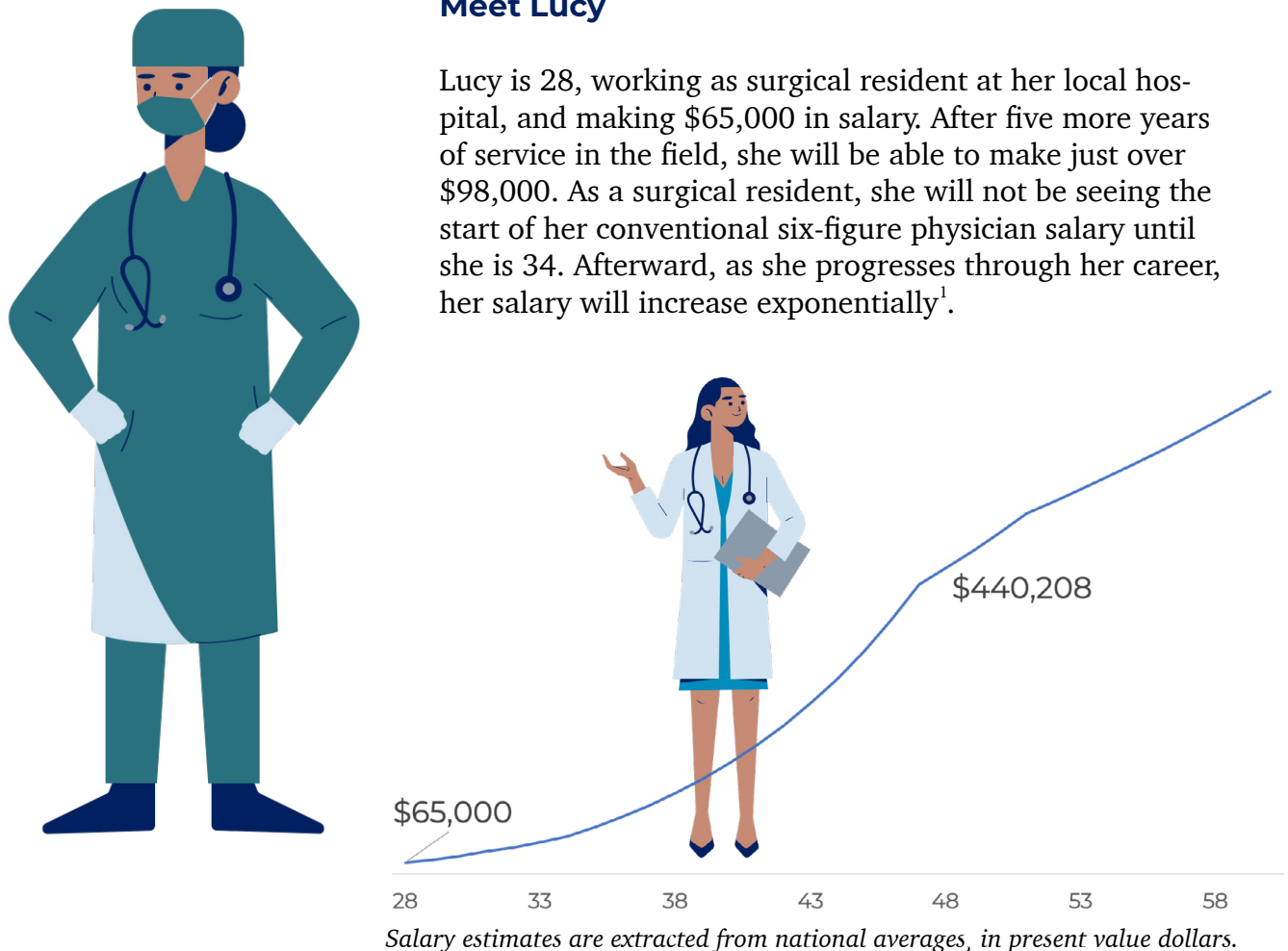
Why is this so? Well, time in the market will **always** beat the market.

The ability to sit patiently through the economic cycles, recessions and market events gives investors a strong upper hand in realizing returns. As we grow older, we no longer have the gift of time. An economic recession is detrimental when you are dependent on the funds from your investment accounts to live. To minimize volatility, we reduce the risk.

However, there is a way to reconcile these conditions. What if you could borrow from your older self in order to generate more investment growth over your lifespan?

Meet Lucy

Lucy is 28, working as surgical resident at her local hospital, and making \$65,000 in salary. After five more years of service in the field, she will be able to make just over \$98,000. As a surgical resident, she will not be seeing the start of her conventional six-figure physician salary until she is 34. Afterward, as she progresses through her career, her salary will increase exponentially¹.



¹ <https://www.eriesi.com/salary/job/general-surgeon/canada/alberta/calgary>

Because Lucy will be making a high six-figure salary as she nears her retirement, she will need to aim for a mid-six figure income replacement goal.

The problem is, due to the extensive schooling required to for her profession, she lost at least ten years of saving and investment compounding that she would have otherwise had in a different career path. This reduced time frame decreases her ability to diversify investment risk over longer time frames, losing out on the huge benefit of investing in younger years.

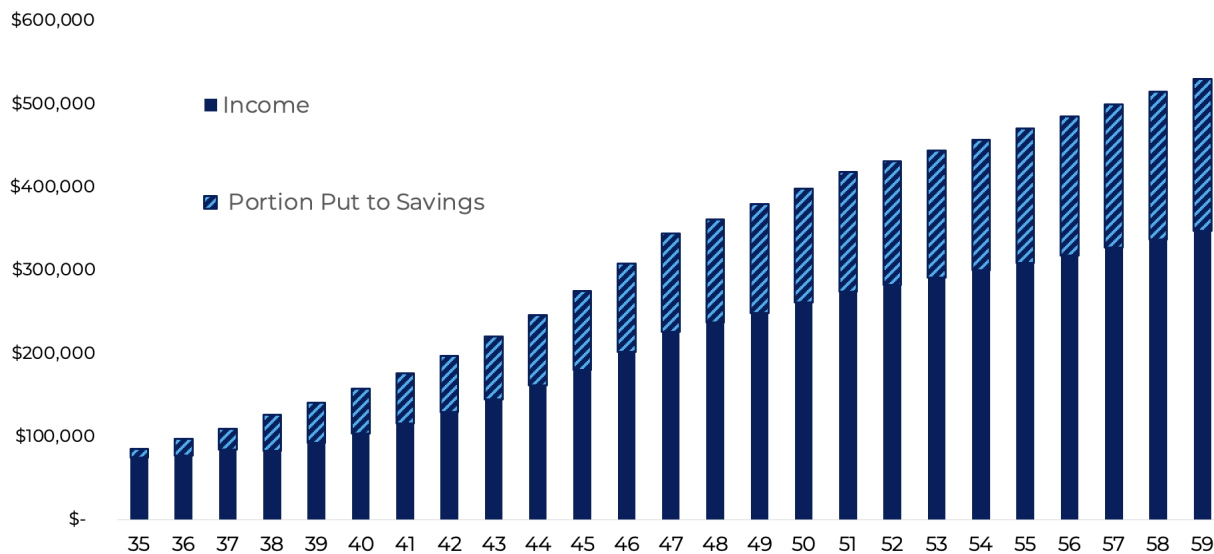
A simple analysis, using numbers provided by national averages, shows her retirement income replacement ratio should be 60% of her gross income the year prior to retirement.

A **replacement ratio** is used to estimate the level of retirement income needed to maintain an individual's quality of life—often 60%-80% of someone's pre-retirement income. The ratio is typically less than 1 because costs like commuting costs, mortgage expenses, and higher taxes are no longer relevant post-retirement.

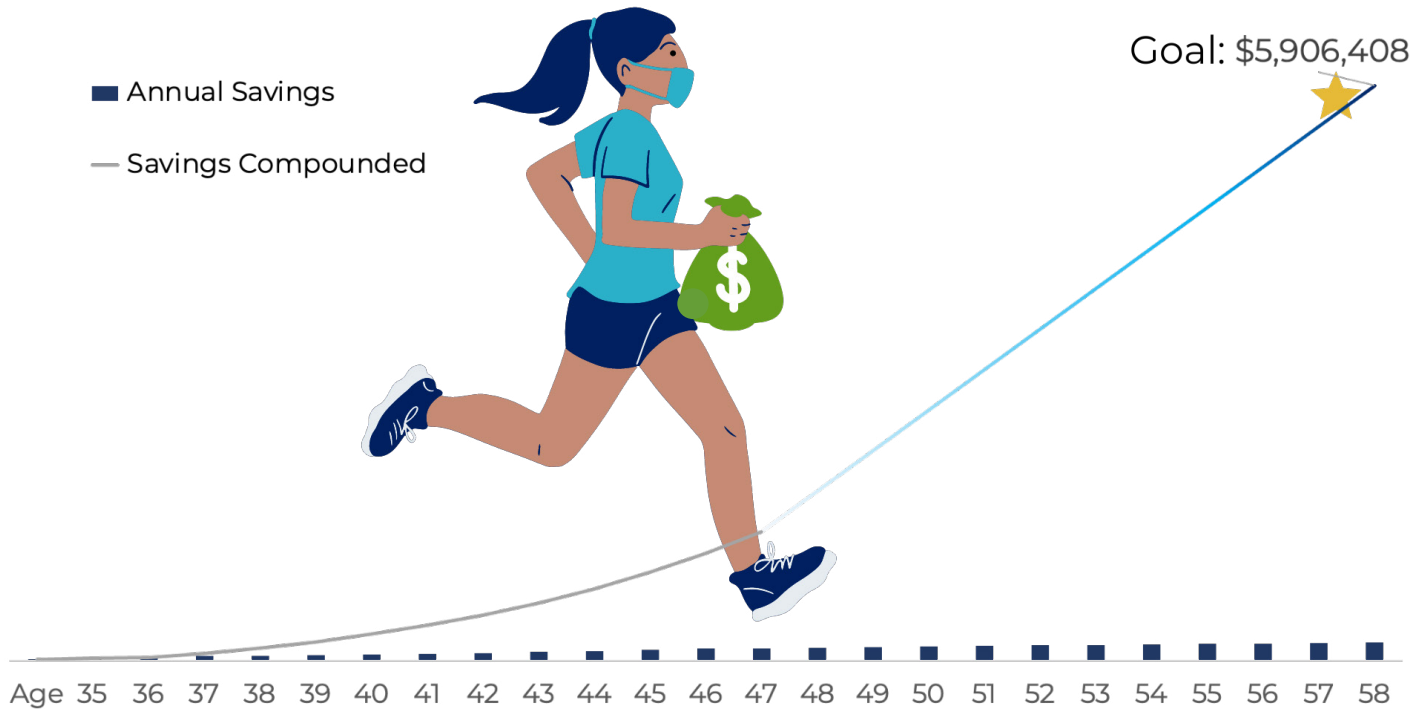
Income at 59	\$645,541
Savings (10% average)	\$64,554
Liability Insurance	\$30,000
Operational Costs	\$161,385
Retirement Income Goal	\$389,602

The goal of this ratio is to find a retirement income goal that represents what she was accustomed to spending right before retirement. It would be easy to then just use her employment income as her retirement goal, but there will be a lot of expenses that she will no longer need to incur once she stops working. These expenses can be (but are not limited to) the amount she puts away for retirement savings, insurance required to practice as a surgeon, and the overhead costs she incurs to accept patients and service them accordingly.

This replacement ratio is based on a hypothetical theory; the 10% savings is extracted from national averages that assume a worker has been saving 10% of their income annually through their whole career. As mentioned before—and unfortunately for Lucy—she must make up for lost time in terms of investing. To reach an appropriate income replacement ratio, she will need to save over 28% of her gross income when she begins earning enough to afford it at age 38.



Lucy has lots of “catching up” she needs to do in her late thirties and onward. The goal below is the lump sum amount of money Lucy needs in her investment account by the time of retirement in order to sustain her retirement income goal.



This is under the assumption she would change her risk from an 80% Equity/20% Fixed Income portfolio (80/20) to a 60/40 in retirement. Other assumptions: tax effects are ignored, 10% average annual equity return, 3% average annual fixed income return, Lucy lives until age 90, inflation is 2.0%.

However, it would be nice if Lucy could “level” out the rate at which she saved and not need to start racing to get back on track with her savings.

The beauty about Lucy's situation is that the issues presented above are generally uniform to the profession she is in. The exponential increase to earnings is less of an "if" and more of a "when." Especially considering that she had succeeded thus far in her program, there is a very high chance that she will realize her full projected income. Her human capital is extremely high and risk is relatively low.

Where does leverage come in?

Lucy could monetize her lifespan human capital and start investing when she is in her twenties; a technique that would allow her 38-year-old self a lot less stress and saving. But how could she do this? The stock market does not allow people to purchase shares of stock merely on their "earning potential."

Human capital is a worker's knowledge and skills, and it represents the present value of all of the future income throughout their career. People at the beginning of their careers have extremely high human capital, which reduces each year they get closer to retirement. It is a way to measure someone's earning potential and include it in their financial landscape.

But you know who will? **Banks.**

Mortgaging a Retirement

If Lucy did not want to lose out on years of investment compounding because she lacked the capital in her twenties, **she could get a loan and invest it.** As long as she made more in after-tax returns than the interest costs charged, she would be in a net-positive position.



Interest charges on loaned funds used to earn investment income are tax deductible.

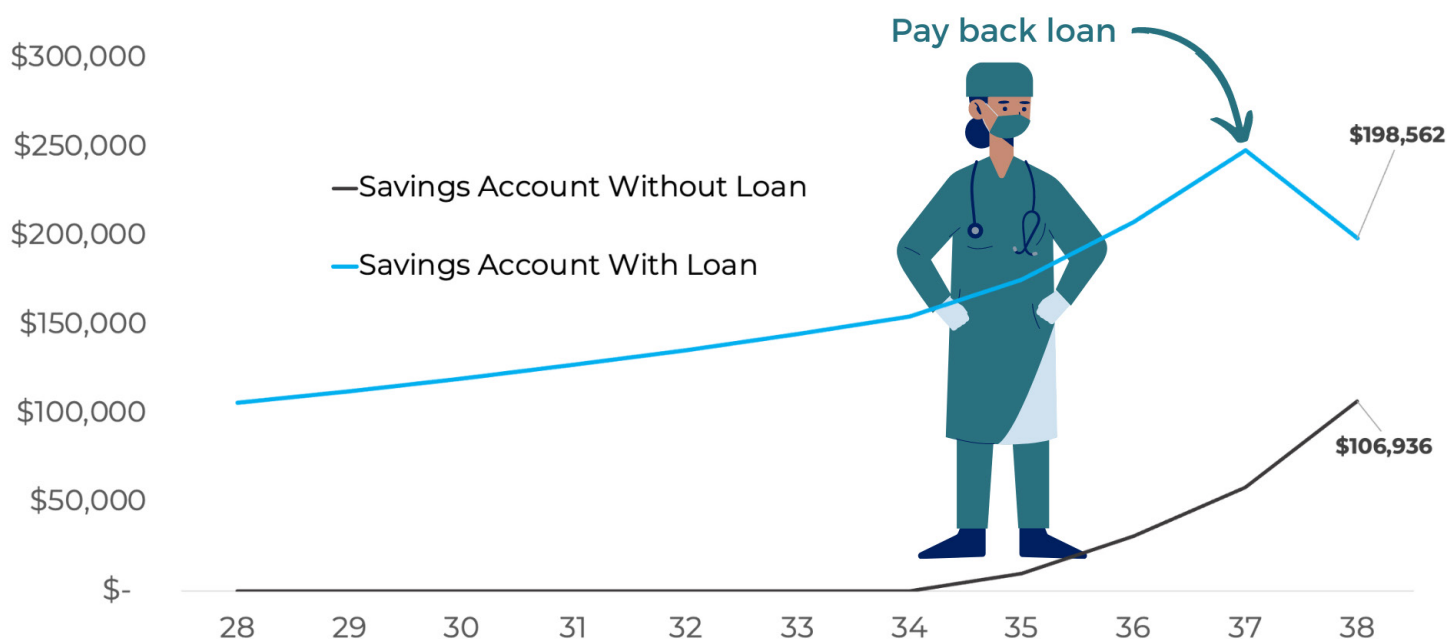
Of course, this is not a guarantee. Rarely are there ever guarantees in the investment market unless you pay an arm and a leg in fees and premiums. As most of you know, an investor is exposed to a degree of uncertainty at all times.

An investor looking to utilize this strategy must be comfortable with market volatility, temporary losses and maintaining patience. Investing with leveraged funds increases the risk of downside more than unleveraged investing.

However, because of Lucy's situation, career path and age, she can afford the added risk of leverage. The factor that makes all this feasible is her investment time horizon. Her ability to diversify her investment over a longer time horizon hedges short-term market volatility. Time is her friend! This is known as temporal diversification. The earlier she leverages, the more risk she can afford.

An investor may have losses in the stock market and lose some or all of their initial investment. However, leveraged investors have those same risks, with the additional requirement to pay back the interest on the initial investment—even if it is gone!

For example, if Lucy took out a \$100,000 loan at the age of 28, invested it in a moderately aggressive portfolio and paid back the loan after a 10-year period, her investment account would be ahead \$91,625 by age 38 (relative to her savings had she not taken out a loan to invest). This differential, invested until Lucy is ready to retire, would account for \$562,696 of her retirement savings at age 59.

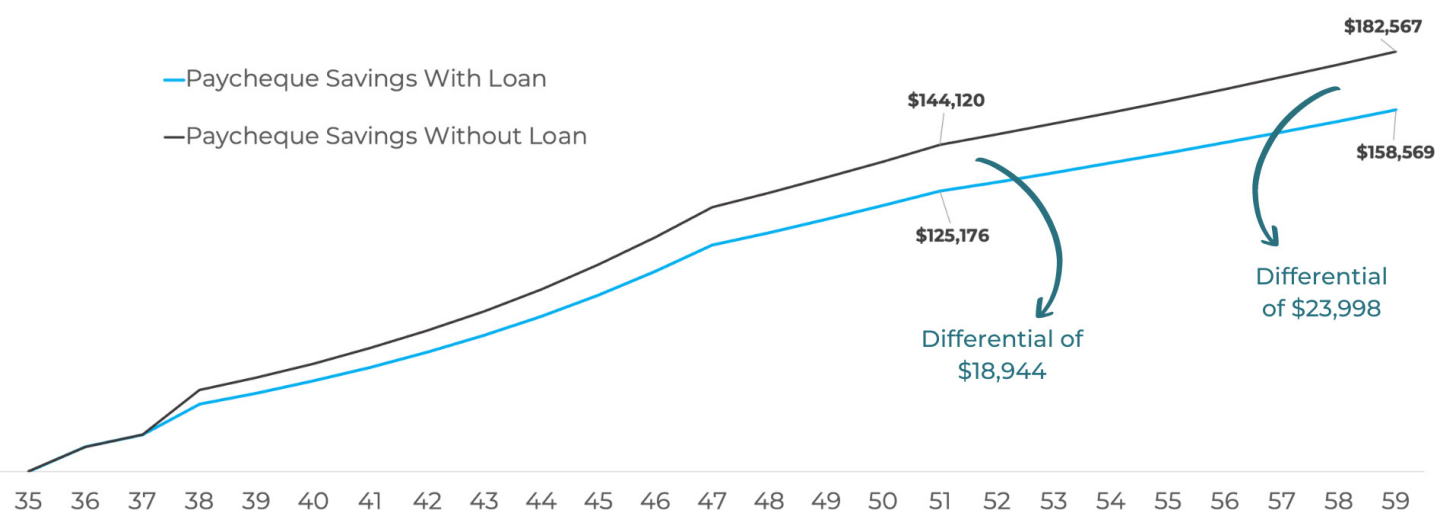


Assuming a 3.45% loan interest rate; 25% effective tax rate; and an 8.6% average annual investment return (80/20 portfolio), all values are in future dollars.

The cost to Lucy during the duration would be \$2,587.50 each year she invests the loan amount, which is her after-tax interest charge. However, she will be able to save less in the later years of her career relative to meeting her goal without leverage.

By using leverage in her early years, she is able to meet her retirement income goal by the same age while also being able to keep more of her paycheck. As you see here, by using leverage, she is able to keep \$23,998 more in her pocket at age 59.

If we summed up the differentials of each year, it would total \$343,257; that is extra pocket money while she is young, savings for something other than retirement, or the ability to retire a few years earlier!



Will All That Debt Bankrupt Me?

Leveraged investing sounds risky. But, in actuality, the risk can be lowered significantly by working with a registered portfolio manager and utilizing the following tips.

Tip #1 Get a loan from an established financial institution. **Do not** trust that guy at the pub with a toothpick in his mouth. His rates might be good but you will pay far more than interest if you default.

Tip #2 This strategy, like most strategies, is not meant for everyone. The horror stories we hear are from people who over-leverage themselves, cannot handle the volatility of the markets, or a mix of both. Leveraged investing should only be done by someone with high earning potential, a significantly long investment time frame (more than 10 years) and the cash flow to service the interest payments. Often, professionals, like doctors; lawyers; and professors, fall into this category. When determining if leveraged investing is a fit for you, ask yourself: “How risky is my human capital?”



If unsure, take a look at your industry and see how well it has fared through economic recession. Has the industry seen significant layoffs when the economy is not booming? Are there large, difficult hurdles for you to jump in order to realize your earning potential? How much “skin” do you have in the game just by doing the job? (For clarification, entrepreneurs have all their skin in the game.)

Tip #3 Time reduces risk. Make sure you are thinking ahead enough to allow the investment horizon necessary to rebound from dips and recessions. Leveraged investing relies heavily on this by utilizing temporal diversification.

Temporal diversification, on an average basis, could help someone see retirement wealth nearly 20% greater than if no leverage were used—not to mention, at a lower degree of lifetime risk. In other words, the expected gain of this strategy could “allow workers to retire almost six years earlier.” (Extracted from [work](#) by Ian Ayres and Barry J. Nalebuff from Yale University.)

In the same way one diversifies across asset classes (stocks and bonds) to reduce risk, one can reduce risk by diversifying across time. Borrow money from the future where you have less capacity to take risk, and take the risk earlier in life when you can afford such risk. This concept is called **temporal diversification.**

For context, at the existing borrowing rates, there has never been a period in history (from 1871 to January 2022) where an investor would have lost everything by attempting this strategy.

In Conclusion...

One could assume that leveraging retirement savings could be far more risky than simply saving a portion of income each year, and, in certain ways, it is! But the beauty of this technique is the risk reduction that time gives to young professionals.

Do you think that you have the right traits for this technique? Understanding your risk tolerance, and behavioural investor type, is important before considering a strategy like this.

Read more on your behavioural traits [here](#) and take our [Behavioural Investor Type quiz](#). The type known as Gloucesters will have the most difficulty investing with this strategy, and may want to consider a traditional strategy instead.

A qualified portfolio manager like those at Qube will help determine what investment strategies are best for your unique situation. What seems high-risk can actually be a boon to retirement savings if calculated correctly. Leveraged investing is most suitable for young professionals who are just starting their careers.

If you have a child or grandchild who might benefit from this strategy, share this article with them and encourage them to contact us by [email](#) or call [\(780\) 463-2688](#).

