



Turbo-charge your portfolio Understand the risks and benefits of borrowing to invest

An investing strategy that is gaining popularity among Canadians is borrowing to invest – otherwise known as investment leverage. Despite its rising profile, some people consider leverage to be a high-risk strategy, on par with short selling and option trading. As leverage becomes more popular with the main-street investor, perhaps the time has come to ask the question: Just how risky is leverage?

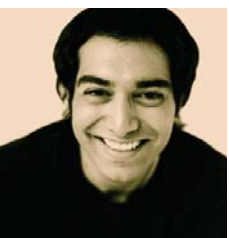
WHAT IS LEVERAGE?

For those who are unfamiliar with this strategy, investment leverage is simply borrowing money to invest. While it may seem counterintuitive to introduce interest-payments into your investment strategy, leverage can work for two reasons.

1. Compounding With a traditional investment strategy such as dollar-cost-averaging, a small contribution is made regularly, for example every month. Assuming a ten-year investment horizon, only the first contribution grows for the full ten years. The contribution you make one year from now only has nine years to grow, and so on. With leverage, the full amount of your investment has the entire ten years to grow.

2. Interest deductibility Interest payments made on a leverage loan are generally tax-deductible. This lowers your cost of borrowing and reduces the return you need to achieve for leverage to make sense.

Together, the power of compounding and interest deductibility can help a leveraged portfolio outperform a traditional portfolio. But now on to the important question: How much risk is involved when achieving these higher returns?



UNDERSTANDING RISK

While everyone has a slightly different idea of what risk means, most would agree that risk is simply the likelihood that a different course of action would have produced better results. When an investor is choosing between a leverage strategy and a traditional 'annual contribution' strategy, this translates to: What is the likelihood that a non-leveraged investment will outperform a leveraged investment? This is a fair question, because if there is a good chance, or risk, that a non-leveraged investment will outperform a leveraged investment, most people will sensibly choose a non-leveraged investment strategy.

So how do you calculate the risk that a non-leveraged investment will outperform a leveraged investment?

MEASURING RISK: A HISTORICAL PERSPECTIVE

Given that nobody can predict the future, one approach we can use to measure risk is to look to the past. To do this, we looked at the historical performance numbers of both the Toronto Stock Exchange (TSX) Total Return Index, and the Prime-lending rate over various ten-year historical periods. By looking at these two measures, we calculated how often a leverage strategy would have outperformed a non-leverage strategy.

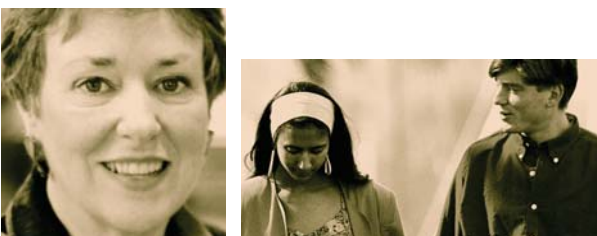
Between February 1956 and December 2003, we identified 456 distinct ten-year time periods. For example, the first such period was February 1st, 1956 to January 31st, 1966, the second was March 1st, 1956 to February 28th, 1966, and so on. Over these periods, ten-year annualized returns for the TSX Total Return index ranged between 3.3% and 19.5%, and the ten-year average interest rate (based on Prime + 1.25%) ranged between 6.9% and 14.0%.¹

In this analysis, we used annualized returns and the average interest rate (Prime + 1.25%) over each ten-year period to determine if leverage or a non-leverage strategy would have outperformed. And because marginal tax rate can be a significant factor in determining which strategy is better, we repeated those calculations for all 456 periods for investors in two different tax brackets: Harold High and Madeline Middle.

HAROLD HIGH AND MADELINE MIDDLE

Harold High is an executive in a major corporation and has a 45% marginal tax rate. Madeline Middle owns her own small business and has a 35% marginal tax rate.²

Assuming that their cost of borrowing was the average historical Prime rate + 1.25% during each of the periods under consideration, we compared the returns that Harold and Madeline would have achieved with a traditional 'annual contribution' strategy and a 'borrow to invest' strategy.





Out of the 456 historical ten-year periods, how many times would Harold and Madeline have been better off with a leverage strategy? How often would they have lost money? The illustration below shows the results.

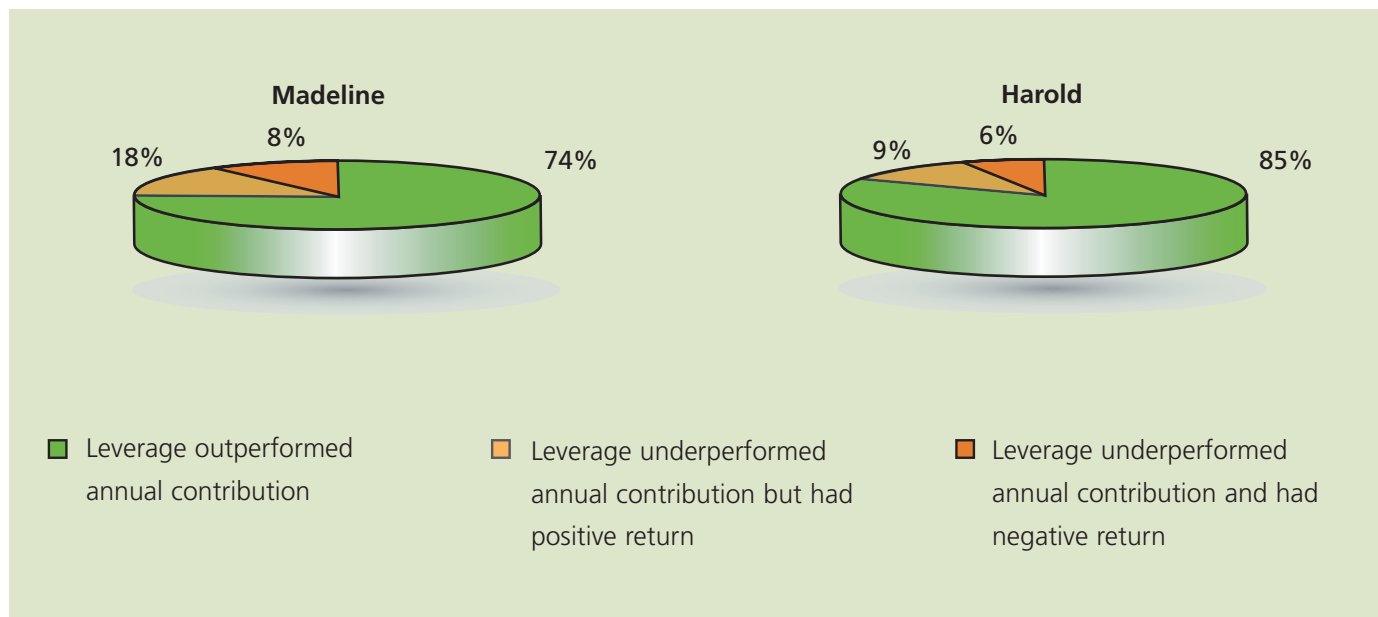
Madeline would have been better off with a leverage strategy in 341 out of the 456 (74%) ten-year periods, and would have had a positive return 92% of the time. Harold, because of his higher tax-bracket, would have been better off with leverage in 385 of the 456 (85%) ten-year periods, and would have had a positive return 94% of the time.

HOW RISKY IS LEVERAGE?

Let's now return to our original question: How risky is leverage? From a historical perspective, the answer is,

probably not as risky as you thought. While Harold and Madeline increase the risk of losing money over a ten-year period with a leverage strategy, they also increase the likelihood that they'll experience greater investment growth than with a traditional 'annual contribution' strategy. For investors who are looking for higher returns and are comfortable with a higher level of risk, leverage can be an attractive alternative. If the future looks anything like the past, it may be worthwhile to consider whether a leverage investment strategy is right for you.

Note: This analysis does not take into account changes made to interest-deductibility rules in Quebec announced in March 2004. Based on the new rules, historical results for Quebec would be slightly different.





FOUR RULES FOR SUCCESSFUL LEVERAGING

If you're considering borrowing money to invest, here are four important rules to keep in mind:

- 1. Focus on the long-term.** The shorter your investment horizon, the greater the risk. Plan to invest for ten years or more.
- 2. Diversify your investments.** Don't swing for the fences with high-risk investments. Remember – slow and steady wins the race.
- 3. Protect yourself in the short-term.** Some lenders will require additional deposits (margin calls) if your investment drops in value over the short-term. If you don't plan on having extra cash sitting around in case the market drops, ensure your investment loan has a 'no margin call' feature.
- 4. If the market is down and you're getting cold feet, refer to rule #1.**

IMPORTANT NOTE

Borrowing to invest is suitable only for investors with higher risk tolerance. You should be fully aware of the risks and benefits associated with investment loans since losses as well as gains may be magnified. The value of your investment will vary and is not guaranteed, however, you must meet your loan and income tax obligations and repay your loan in full. Read the terms of your loan agreement and the investment details for important information, and discuss with your financial advisor before deciding whether to borrow to invest.

¹ Returns are for illustration purposes only and are not indicative of future performance.

² Assumptions: Harold: 45% marginal tax rate, 100% loan deductibility, 35% tax rate on investment income, 25% taxable portion of return. Madeline: 35% marginal tax rate, 100% interest deductibility, 25% tax rate on investment income, 25% taxable portion of return. In both cases loan interest rate was the historically observed average Prime rate plus 1.25% over the ten-year period.

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