NUMBER CRUNCHING BY TALBOT STEVENS

# Should your clients invest in RRSPs or pay down debt?

*It's an age-old dilemma, but few experts consider investor behaviour when calculating the answer*

**MORE AND MORE CLIents are facing the classic Canadian dilemma: "Should I invest in RRSPs or pay down my mortgage?" Uncertain about stock markets — and disenchanted by the disappearance of returns — investors are looking at paying down debt as a more productive use of money.**

But is it fundamentally better to pay down debt than to invest? Debt vs RRSPs is one of the most controversial questions for investors — and advisors — and elicits a wide range of responses. Many experts recommend doing both, first investing in RRSPs and then using the tax refunds to pay down debt such as mortgages.

That is an easy answer that may satisfy some clients, but it doesn't really answer the question or make logical sense. If investing in RRSPs is the better strategy in February, the most effective use of the tax refund that comes a month or two later is to invest it until RRSPs are maximized, and then the best option is no longer available.

So let's crunch the numbers and then examine other issues that are often more important. To make the analysis practical, let's assume the client's investment goal is to retire with the largest possible RRSP and no debt. And because many clients have debt beyond their mortgages, we'll include debt of all flavours in the analysis.

Let's consider Bill, a baby boomer who has 15 years left on his $100,000 mortgage. At 6% interest, Bill's mortgage payments are about $10,300 a year. Bill is in a 35% tax bracket, and has an additional $2,000 a year available for the next 20 years, until he reaches his planned retirement age. Bill wants to know whether his additional cash flow of $2,000 a year should be invested in RRSPs, or used to pay off his mortgage and then invested after the mortgage is paid.

An efficient way to answer is to calculate the minimum return needed to make investing in RRSPs the better choice. If Bill is confident his RRSP can exceed this minimum return, his $2,000 a year should go into RRSPs. If not, he should pay down his debt first.

Many articles and software programs have attempted to shed light on the RRSP-vs-mortgage question. However, none address the most important parameter, which is the investor's behaviour. How disciplined is Bill as an investor? What portion of the mortgage payments will be invested when the debt is paid off? Software tools implicitly assume 100% of the cash flow resulting from the paid-off loan (and 100% of the RRSP refunds) is invested when the debt is gone. Is this realistic?

**As clients age, they have less time to enjoy the effects of compounding**

Behavioural factors are often the most important and overlooked parameters in financial analysis. For example, when Bill's mortgage is paid off, if he chooses to spend most or all of the cash flow that went into mortgage payments to enhance his lifestyle, he is clearly better off investing his $2,000 a year from the start. This will result in 20 years of savings instead of just the five years that remain after the mortgage is gone. Yes, spending the mortgage cash flow provides Bill with value, but it doesn't help him achieve his retirement goal.

**When RRSPs are better than paying down debts**

$2,000/year to invest, $100,000 debt, 35% tax

| Behaviour | Time horizon | Debt rate (%) | Return needed (%) |
|---|---|---|---|
| "Typical" saver: invest 50% of loan cash flow, 0% of refunds | Young investor: save 30 yrs, 25-yr loan | 6 | 1 |
| | | 10 | 4 |
| | | 18 | 11 |
| | Baby boomer: save 20 yrs, 15-yr loan | 6 | -3 |
| | | 10 | 1 |
| | | 18 | 8 |
| | Older investor: save 10 yrs, 5-yr loan | 6 | -17 |
| | | 10 | -15 |
| | | 18 | -9 |
| Disciplined investor: invest 100% of loan cash flow, 100% of refunds | All time horizons | 6 | 5-6 |
| | | 10 | 8-10 |
| | | 18 | 14-17 |

ASSUMPTIONS: GOAL IS LARGEST RETIREMENT FUND AND NO DEBT. HAVE $2,000/YR TO PAY DOWN DEBT OR INVEST IN RRSPS WITH A 35% TAX BRACKET. LOAN CASH FLOW AND RRSP REFUNDS THAT ARE NOT REINVESTED INCREASE CURRENT LIFESTYLE AT EXPENSE OF RETIREMENT GOAL (FUTURE LIFESTYLE)

SOURCE: TALBOT STEVENS INVESTMENT EXECUTIVE CHART

To understand all the numerical factors that may affect the evaluation, I analysed the impact of the interest rate on the debt, the time horizon, tax rate and the other behaviour factor, which is the portion of the RRSP refunds invested.

Surprisingly, the tax rate has no impact on whether to invest or pay down debt. Although the size of the retirement fund for each strategy is larger if some of the RRSP refunds are invested, the tax rate does not affect the decision. Apart from what portion of the loan cash flow and RRSP refunds actually gets invested, the only other factor affecting the decision was the time horizon.

For brevity, I have modelled only two of an infinite number of behavioural possibilities. I have assumed a "typical" client will invest 50% of his loan cash flow (his former mortgage payments) when the debt is paid off. Some clients will invest a higher portion. For others, this will be optimistic. I have also assumed none of the RRSP refunds are invested; my advisor surveys reveal that fewer than 10% of clients reinvest their refunds. For contrast, I have also modelled the very disciplined client, who invests 100% of the loan cash flow and

100% of RRSP refunds. (If any advisor can verify that such a client really exists, please let me know.)

The table shows the minimum return needed for RRSPs to be a higher priority than paying down debts with various interest rates. Mortgage rates are around 6%, credit cards charge about 18% and personal loans would be somewhere in between.

The analysis concludes that the time horizon is not much of a factor for very disciplined investors. The return needed to benefit from investing first was fairly consistent, regardless of the client's age. For those who invest 100% of the loan cash flow and RRSP refunds, RRSP returns can be 0%-4% less than their debt rate in order for RRSPs to start being better than paying down debt. A disciplined client with a 6% mortgage would need a 6% RRSP return to benefit from investing. For these super-disciplined investors, a simple rule of thumb is that, mathematically, they should invest only if they are confident that their RRSP returns can exceed their debt rate. With today's interest rates, this is possible, but not guaranteed for mortgages. More expensive debts, such as credit cards or personal loans, should be paid off first.

Now let's consider the "typical" client, who gets more serious about saving when the mortgage is gone, but doesn't commit 100% of this new cash flow.

As these investors get closer to retirement, lower and lower returns are required to produce a larger RRSP by investing first. This is because, to produce a retirement fund, you eventually have to start saving. As the time for compounding decreases, the benefit of piling up money becomes enough to outweigh even negative returns. Consider the almost shocking result for the older investor who has five years left to pay off a $100,000 mortgage and wants to retire in 10 years. Even if this investor averages a minimum 17% loss, he should invest the extra $2,000 a year in an RRSP before paying down the debt.

Note that, with the assumptions outlined, "typical" older clients will generally produce a larger retirement fund by investing if their RRSP returns are about 25% less than the interest rate on the debt. Typical clients who are about 20 years from retirement and 15 years before their debts are gone need returns of about 9% less than the debt rate for investing to be better. Even if the typical baby boomer's mortgage averaged 10% interest, investing the $2,000 a year and averaging RRSP returns of 1% or higher would produce a larger retirement fund than paying down the 10% debt first. For typical younger clients who are 30 years from retirement, the offset is less. Returns that are about 6% less than the debt rate are required to make investing first the better choice.

It's important to understand the financial analysis, but often we don't choose a strategy solely because it is projected to produce more dollars in the future. Clients are different and have unique secondary goals and risk tolerances. When discussing the RRSP-vs-debt paydown dilemma, consider the following issues, any of which could override the numbers:

■ **SHORT-TERM SECURITY.** Many people want to pay off their mortgages as quickly as possible to reduce the possibility of losing their homes. While this is a sensible goal, ironically, investing first in RRSPs is the better way for clients to reduce the chance a job loss could cause them to lose the house or force them to move to a smaller home. You might ask: "If your income was interrupted, what would make your feel more secure: having $40,000 in RRSPs that could act as an emergency income buffer, or a mortgage that is $30,000 smaller?" In an emergency, the client could withdraw some of the RRSPs, perhaps at a lower tax rate, to make mortgage payments.

■ **ESTABLISHING DISCIPLINE.** If the most important parameter in financial success is behaviour — and it is — it's better to establish the habit of saving at an early age, even if only a small amount is saved.

■ **DIVERSIFICATION.** To reduce economic, political and currency risks, clients need to diversify beyond one real estate investment. RRSPs also allow global diversification into different asset classes, up to the foreign-content limit.

■ **LIQUIDITY AND FLEXIBILITY.** With money in an RRSP, it is easy to take advantage of investment opportunities. Reducing a debt such as a mortgage makes it more difficult to get needed cash or take advantage of opportunities without setting up a home line of credit, which many people don't like to do.

■ **GUARANTEED VS PROJECTED RETURNS.** One benefit of paying down debt is that the returns are guaranteed. Paying down a personal, non-deductible debt results in a guaranteed, after-tax return of the interest rate being charged. For someone in a 35% tax bracket, paying down a 6% mortgage equates to getting a 9.2% unregistered GIC.

Unless clients are super-disciplined savers, most should invest in RRSPs ahead of paying down debts such as mortgages. As clients get closer to retirement, the minimum return needed to make investing the better choice decreases to the point that even negative returns can produce a larger retirement fund.

Helping clients understand all the factors and act on the best strategy could increase their retirement fund substantially. **IE**

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