

TAX SAVINGS FOR CANADIANS

Is an RRSP contribution better than a non-registered investment or a mortgage payment?

A recent article in the Toronto Star says "Disciplined savers who do not need the tax deduction are probably better served by keeping their investments in a non-registered account". Is it true?

Are people really better off saving money outside of an RRSP? Some say buying and holding growth stocks that pay no dividends is another way to defer taxes, and that investments in an RRSP lose access to the dividend tax credit.

Others say that it's better to repay your mortgage than invest in an RRSP. There are a lot of people saying things like this and they are almost always wrong. The arguments for non-registered investments generally involve a lot of grand claims, so let's break it down and look at the numbers.

First we'll look at buying stocks in and out of an RRSP, and then we'll compare an RRSP to a mortgage payment.

This article gives straightforward proof that investments in an RRSP beat investments outside an RRSP in terms of expected returns.

For mortgage payments versus RRSP it's a bit more complicated--the RRSP will win on pure return, but since the mortgage payment also lowers your overall level of risk it still might be worth considering.

We'll look at the same overall situation in each case: You've got \$1000 *pre-tax* to invest and you are deciding what to do with it. Your top marginal tax rate is 32% now (the rate that applies to a \$50k/year job) with an average tax rate of 20%, and it will be roughly the same in retirement. We'll assume in all cases that stocks return 10% and bonds return 5%. We'll assume you have 15 years to go until retirement. These calculations will look at the future value of investments ignoring inflation--good enough to compare what has the higher return, but if you actually want to plan a real future budget you'll have to discount the future values by inflation.

Note that these assumptions bias *against* the RRSP because for many people, the tax on withdrawals from an RRSP will be lower in retirement than the tax saved at contribution time. That's because for many people retirement income is lower, and a lower marginal tax rate applies: If you no longer have to pay your mortgage, your retirement income can be lower by the amount of your mortgage payment, for example, and you'll still enjoy the exact same standard of living as you did pre-retirement when you were paying the mortgage.

For the sake of simplicity though we'll assume that the retirement tax rate is the same as your current tax rate.

Case 1: RRSP versus Buy and Hold Growth Stock

A growth stock that pays little or no dividends is taxed very favorably--when you sell, perhaps 10-15 years from now, you'll pay capital gains on only half the increase in value. If you invest in an RRSP you'll have to pay income tax on all the gains when you withdraw it 10-15 years from now.

Doesn't the growth stock defer income just as well as the RRSP does, but with less tax in the long run?

No!

You pay income tax in both cases, but outside the RRSP you also pay the capital gains tax. The non-RRSP version is subject to double taxation. Let's calculate it:

RRSP:

\$1000 pre-tax to invest becomes a \$1000 RRSP contribution.

Over 15 years it grows to $1.1^{15} * \$1000 = \4177 .

Income tax on withdrawal is $\$4177 * 36\% = \1503.81

You have \$2673.44 to spend.

Non-Registered:

\$1000 pre-tax income incurs $\$1000 * 36\% = \360 in income tax.

\$640 to invest for 15 years = $\$740 * 1.1^{15} = \2673.44

Pay capital gains tax of $(\$2673.44 - \$640)/2 * .36 = 366.02$

You have \$2307.42 to spend.

Notice that in both cases you had \$2673.44 after income tax and compounding, but in the non-RRSP case you also had to pay the capital gains tax. It was the capital gains tax, the double taxation, which caused the non-RRSP investment to lose to the RRSP.

Almost everyone who argues that the non-RRSP is better ignores the fact that the non-RRSP payment was made with after tax dollars. In other words, they ignore the double taxation.

Case 2: RRSP versus High Yield Canadian Dividend Stock

Dividends from Canadian corporations are very favorably taxed. Someone with a \$50k/year employment income would ordinarily pay only about 8% tax on dividend payments versus a 36% marginal tax rate, due to the very favorable Federal Dividend Tax Credit.

When you invest in an RRSP the money you withdraw is taxed at your marginal tax rate in retirement--you don't benefit from the dividend tax credit. Wouldn't it be better to invest outside an RRSP to gain access to the dividend tax credit?

No!

Once again, you pay the income tax either way. The dividend tax, as small as it may be, represents double taxation. The RRSP will beat the non-RRSP investment by the 8% (or whatever) dividend tax you pay. Let's calculate it, for an equity that returns all of its revenue as a 10% dividend (it might be a preferred share), assuming the dividends are re-invested:

RRSP:

\$1000 pre-tax to invest becomes a \$1000 RRSP contribution.

Over 15 years it grows to $1.1^{15} * \$1000 = \4177 .

You withdraw it and pay $\$4177 * 36\% = \1503.81 in tax.

You have \$2673.44 to spend.

Non-Registered:

\$1000 pre-tax income incurs $\$1000 * 36\% = \360 in income tax.

The after tax yield on the 10% dividend taxed at 8% is 9.2%

Your investment grows to $\$640 * 1.092^{15} = \2396.18

You have \$2396.18 to spend

Case 3: RRSP versus extra mortgage payment

Many people say that paying off your mortgage is more important than contributing to an RRSP. There is actually some truth to this. If you carry a lot of mortgage debt you essentially have a highly leveraged position in the real estate market, which carries a lot of risk.

If interest rates rise a lot you might wind up with an interest payment that you cannot afford -- so paying down your mortgage reduces this risk, and is therefore often a sensible move.

Once you've paid down the mortgage enough that you have effectively eliminated the risk, though, the RRSP is likely a better choice.

In this case the reason is that the returns available to you through an investment in your RRSP are simply higher than the returns available through your mortgage. The "return" on your mortgage payment equals the interest rate available on your mortgage: Let's say, 6% (as I write this the current prime rate; so let's use that). The return on your RRSP is likely higher than that, since you can invest in equities as well as bonds. Only if you were so risk adverse that you were absolutely unwilling to invest in equities at all, would the RRSP and mortgage be equivalent--and therefore, the mortgage better, since it also lowers risk. For an investor who is willing to hold some equities, and who has made an adequate down payment so as to have avoided serious risk from an interest rate rise, the RRSP has a better return. Let's calculate it, assuming a mortgage interest rate of 6%:

RRSP:

\$1000 pre-tax to invest becomes a \$1000 RRSP contribution.

Over 15 years it grows to $1.1^{15} * \$1000 = \4177 .

You withdraw it and pay $\$4177 * 36\% = \1503.81 in tax.

You have \$2673.44 to spend.

Mortgage:

\$1000 pre-tax becomes a \$640 mortgage payment after tax

Extra payment builds equity of $\$640 * 1.06^{15} = \1533.80

You are \$1533.80 better off.

So, due to the lower rate of return, the mortgage only left you \$1533.80 better off than you were, while the RRSP grew to \$2673.44.

Note, though, that the RRSP involved an equity purchase--much higher risk than paying down the interest on your mortgage. If you are able to meet your financial goals with the rate of return available on the mortgage than the mortgage payment really may be better for you--but not in terms of expected return.

Note that there is a case where the mortgage payment beats an RRSP: When you invest in *bonds* in your RRSP you'll get a lower rate of return than your mortgage. That's because your mortgage rate is higher than you would get from a government bond, and yet the mortgage payment has less risk. So if you hold a mortgage you are better off putting any money you had intended to invest in bonds into your mortgage instead.

Author: Martin Gale

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Martin Gale has worked throughout the financial services industry, in brokerages, banks, financial publishers, and has a joint degree in mathematics and professional writing. He is a member of the American Finance Association. He created a website to close the enormous gap between what is well known about investing and what most people believe as a result of biased industry advertising and popular media.