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A Taxing Decision

Determining the worth of registered accounts for owners of small business corporations

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ABSTRACT

This paper offers analysis to compare the efficacy of an incorporated individual paying personal tax on salary and dividends in order to utilize their RRSP and TFSA as opposed to retaining earnings in their corporation for investment. The analysis shows that, on an after-tax basis, the RRSP and TFSA can accommodate greater long-term wealth accumulation compared to a taxable corporate investment account. This result is driven by the higher after-tax returns that can be earned in the RRSP and TFSA compared to taxable investments held in a corporation.

This report was written by Benjamin Felix, PWL Capital Inc. The ideas, opinions, and recommendations contained in this document are those of the author and do not necessarily represent the views of PWL Capital Inc.

Benjamin Felix, *Associate Portfolio Manager*, PWL Capital Inc. *"A Taxing Decision: Determining the worth of registered accounts for owners of small business corporations".*

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1 Overview

Since this paper was originally written in 2015, tax rates for both corporations and individuals have changed. This update incorporates those changes. It also analyzes a new scenario which has been identified as more realistic by several tax practitioners who read the original paper.

When an individual owns a small business corporation, common advice tends to be that they leave all dollars in excess of their living expenses inside of the corporation to defer paying personal tax. The idea is that this makes more dollars available for investment, which can be taken out as dividends at a lower tax rate later. This advice may make sense when the alternative is a non-registered investment account taxed at the highest marginal rate, but when it is considered that funds leaving a corporation could be destined for the TFSA or RRSP, the notion of leaving it all in the corporation can be challenged. To do this, we will look at some simple analysis using a tool that can be downloaded from pwlcapital.com.

The situation being analyzed begins with an Ontario individual who has already funded their lifestyle expenses for the year. They have excess business income in their corporation, and they need to decide if they will invest the excess business income in the corporate investment account, take out a dividend and use up their available TFSA room, or pay themselves a bonus to use up their available RRSP room. In this paper, we assume that tax is paid at the highest marginal rate in Ontario in 2017. This rate will be assumed to apply at the beginning (contribution) and end (withdrawal) of the planning period. We will assume a globally diversified and rebalanced investment portfolio holding 70% stocks and 30% bonds.

2 Planning for Growth

The number that we are interested in maximizing is the after-tax dollar amount that a shareholder can get into their personal hands at the end of the planning period. We will examine a business owner that has earned $1 of active business income in their corporation and needs to make a decision about where it will go before they close the books for the year.

2.1 Using the RRSP

It is not uncommon for the owners of small business corporations to have accumulated unused RRSP room over time. The advantage of using the RRSP comes from both the initial income tax deferral, and the tax-free growth of investments inside of the account. It is true that the RRSP income will be taxed as regular income when it is eventually withdrawn, but this is overshadowed by the initial tax deferral, and the tax-free growth.

If there is RRSP room available, the individual may elect to pay themselves a year-end bonus to fund an RRSP contribution. The bonus will be deductible to the corporation, but fully taxable at the individual's marginal rate of 53.53% in 2017. To defer the personal tax, when the individual receives $1 of bonus from the corporation, they will contribute $1 to the RRSP in the same year. The result is that the RRSP contribution offsets the tax owing on the bonus, and the full $1 is available for investment in the RRSP. Let's look at an example of $1 of current year active business income headed for the RRSP, outlined in Table 1.

Table 1: RRSP Investment

Active business income	$1
-Personal income tax	53.53%
+Personal tax deferral	(53.53%)
=Dollars available for investment	$1

2.2 Using the TFSA

With $5,500 of room available each year, the TFSA cannot be overlooked. While it will require taking an upfront tax hit, the account is able to grow tax-free without any limitations. Unlike the RRSP's requirement to convert to a RRIF at age 71, the TFSA has no expiry date. This means that the planning horizon for the TFSA can be exceptionally long, allowing many years for its tax-free nature to be advantageous.

If the individual has TFSA room available, they may elect to take out a sufficient dividend to fund the available room. If this occurs, the corporation will pay tax at the small business rate of 15.00%, and the individual will pay tax at their personal marginal rate. At the highest marginal rate, the tax on dividends will be 45.30%, leaving $0.47 to be invested in the TFSA. Let's look at an example of $1 of current year active business income headed for the TFSA, outlined in Table 2.

Table 2: TFSA Investment

Active business income	$1
-Corporate tax at the small business rate	15.00%
-Personal tax on dividend income	45.30%
=Dollars available for investment	$0.47

2.3 Leaving money in the corporation

If the decision is made to leave the earnings in the corporation, tax will be paid by the corporation at the small business rate of 15.00%, leaving $0.85 to be invested in the corporate investment account. Let's look at an example of $1 of current year active business income to be left in the corporate investment account, outlined in Table 3.

Table 3: Corporate Investment

Active business income	$1
-Corporate tax at the small business rate	15.00%
=Dollars available for investment	$0.85

2.4 Finding the advantage

In these three scenarios, the dollar amount that is available for investment differs, but at year 0 the after-tax dollars personally available to the shareholder are identical, as outlined in Table 4.

Table 4: Pre-Tax and After-Tax Dollars in Hand at Year 0

	$ PRE-TAX	$ AFTER-TAX
RRSP	1.00	0.47
TFSA	0.47	0.47
Corp	0.85	0.47

Projecting the growth of these dollars out into the future and examining the after-tax amount available to the shareholder shows the advantage of using the RRSP and TFSA. In this example, the advantage of tax-free growth is meaningfully apparent by year 15, as shown in Table 5, and in Figure 1. Note that the RRSP and TFSA have the same end result; this is because we are assuming the highest marginal tax rate at the beginning and end of the plan.

Table 5: After-Tax Dollars In Hand Over Time

	YEAR 0	YEAR 5	YEAR 10	YEAR 15	YEAR 20	YEAR 25	YEAR 30	YEAR 35	YEAR 40
RRSP	0.46	0.61	0.79	1.03	1.34	1.75	2.28	2.97	3.87
TFSA	0.46	0.61	0.79	1.03	1.34	1.75	2.28	2.97	3.87
Corp	0.46	0.61	0.79	1.00	1.25	1.56	1.93	2.37	2.91

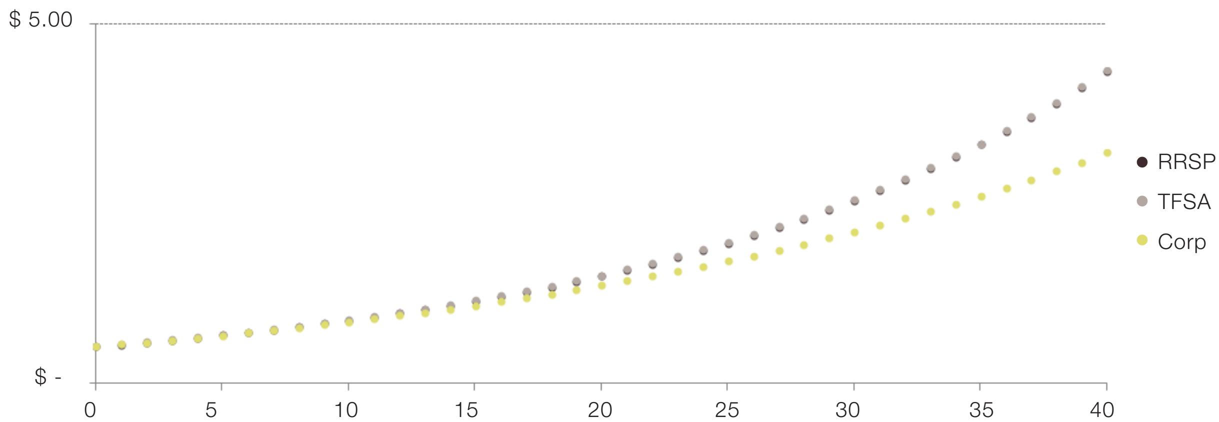

Figure 1: After-Tax Dollars in Hand Over Time

Based on our assumptions, it is apparent that using the RRSP and TFSA can be more efficient than a corporation for building long-term wealth, but there are some other factors that should be considered.

3 Some Considerations

3.1 What will the tax rate be at the end of the planning period?

Planning requires assumptions, and we have been assuming that our marginal tax rate at the beginning and end of the plan is that of someone with a taxable income over $220,000 in Ontario in 2017. The assumption that the tax rate will be as high at the end of the plan as it is at the beginning may not always hold true. A common argument for leaving money in the corporation is that about $50,000 can be taken out of a corporation tax-free in a year. Assuming $50,000 of dividend income taxed at 0% (in reality the average tax rate would be 4.34% on non-eligible dividends in 2017, but assuming 0% only strengthens the conclusion), and the 16.22% average tax rate that would apply to $50,000 of RRSP income, the results are heavily tilted in favor of the RRSP, as shown in Table 6 and Figure 2. In this simulation, the value of the TFSA does not surpass the after-tax value of the corporation in the projection.

Table 6: After-Tax Dollars in Hand Based on Tax Paid on $50,000 of Income

	YEAR 0	YEAR 5	YEAR 10	YEAR 15	YEAR 20	YEAR 25	YEAR 30	YEAR 35	YEAR 40
RRSP	0.46	1.09	1.42	1.86	2.42	3.15	4.11	5.36	6.98
TFSA	0.46	0.61	0.79	1.03	1.34	1.75	2.28	2.97	3.87
Corp	0.46	1.05	1.29	1.57	1.92	2.34	2.85	3.46	4.19

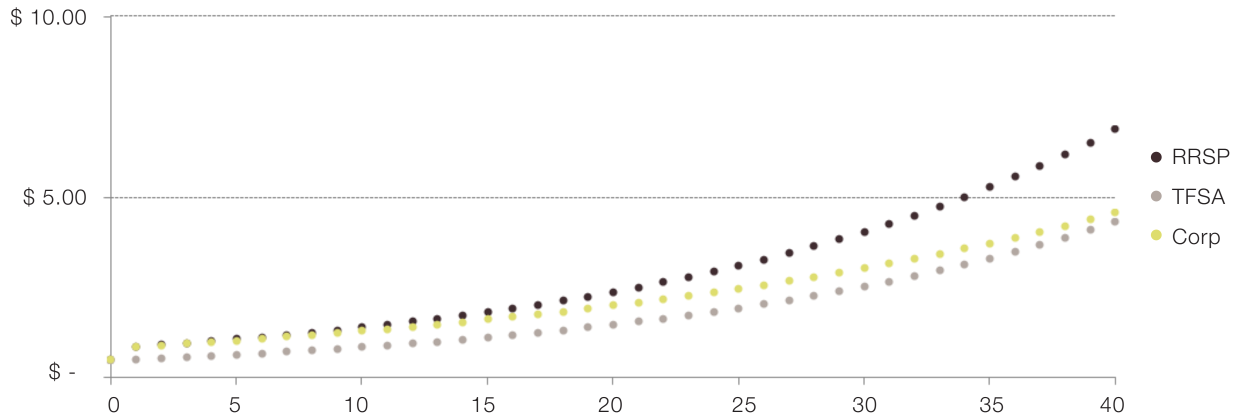

Figure 2: After-Tax Dollars in Hand Based on Tax on $50,000 of Income
(40 Year Projection)

3.2 How long is the planning period?

The TFSA and RRSP are most valuable when the investments they hold can compound over long periods of time. While the time horizon of the RRSP is constrained by the age of the account holder, the TFSA has no time limit. In the previous example, the TFSA was shown to fall short of the corporation in situations where the personal tax rate on dividend income coming out of the corporation is very low. Interestingly, the TFSA will surpass the corporation if it is given a long enough time horizon. Following the previous example, but extending the time period to 55 years, it can be seen in Figure 3 that the TFSA takes on a steeper growth curve than the corporation, becoming significantly more valuable by the end of the projection.

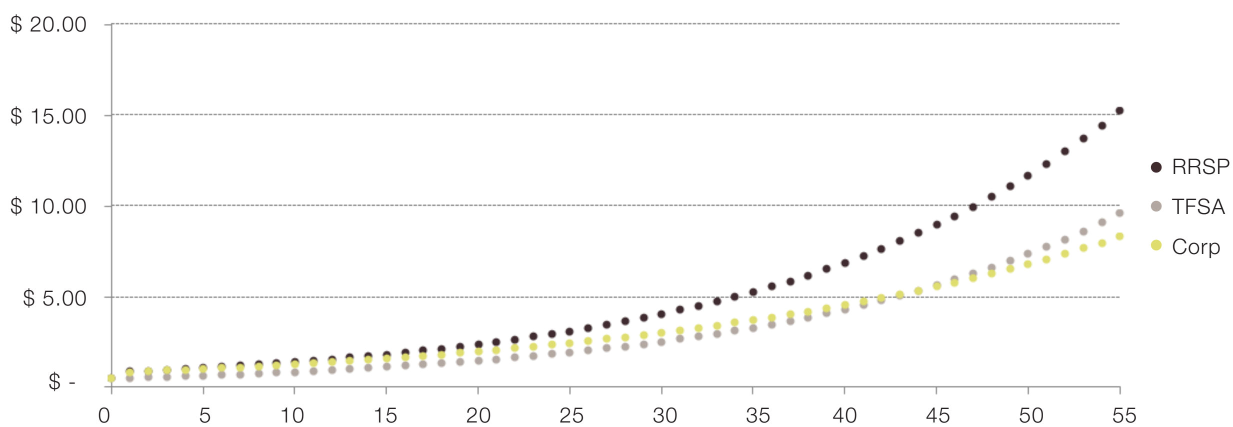

Figure 3: After-Tax Dollars in Hand Based on Tax on $50,000 of Income
(55 Year Projection)

3.3 How aggressive is the investor?

The expected returns of the portfolio can play a significant role in this decision-making process. Future returns cannot be known, but it can be anticipated that a portfolio containing only stocks will have higher expected returns than a portfolio containing only bonds. Most portfolios are a mix of stocks and bonds, and have expected returns attributable to their composition. In the previous example we observed the TFSA taking 45 years to exceed the after-tax value of the corporate investment, assuming a portfolio made of 70% stocks and 30% bonds. Assessing the same situation with a 100% stock portfolio results in the TFSA taking 40 years to surpass the corporation, and a 100% bond portfolio results in the TFSA not surpassing the corporation within the 55 year window.

While all of this analysis is based on assumptions, evaluating a range of assumptions allows us to distill some general concepts.

3.4 Not an overly taxing decision

Each situation is different, and a professional tax advisor should always be consulted. This analysis does not consider all factors that may affect the decision. However, the basic framework becomes very straightforward once the analysis has been done.

- If it is expected that the tax rate at the end of the plan will be lower than the tax rate at the beginning of the plan, the RRSP is very attractive, if there is room available. The size of the RRSP is also important to consider. If the RRSP becomes too large it can cause tax planning issues when it converts to a RRIF.
- If it is expected that the tax rate at the end of the plan will equal the tax rate at the beginning of the plan, the TFSA and RRSP are equally attractive, aside from the RRSP's time limitations.
- If it is expected that the tax rate at the end of the plan will be higher than the tax rate at the beginning of the plan, the TFSA is more attractive than the corporation and the RRSP.
- If the planning horizon is very long, the TFSA will always surpass the corporation due the TFSA allowing tax-free growth.
- If the planning horizon is short, the TFSA is not likely to be viable because after paying personal tax it takes significant time to catch up to a pre-personal tax dollar invested in the corporation.
- If the investor is more aggressive, and has higher expected returns, the after-tax value of the RRSP and TFSA will surpass the after-tax value of the corporation in a shorter period of time. This can be a material time difference, and should be considered.

4 Removing RDTOH

The calculation for the corporate after-tax dollars in hand takes into account the RDTOH and CDA accounts. Each year, the corporation earns interest, foreign dividends, Canadian dividends, realized capital gains, and unrealized capital gains. The corporation pays tax on all realized income each year, and the appropriate amounts are added to the CDA and RDTOH. In the initial analysis, the RDTOH balance is assumed to increase over time, only being triggered at the end of the plan. In reality, a shareholder receiving an annual dividend income would be releasing the RDTOH each year, effectively reducing the corporate tax rate on investments. While this wrinkle does make the corporation slightly more competitive, the RRSP and TFSA will still surpass it given a long enough time frame. While it takes the RRSP and TFSA 15 years to surpass the value of the corporation in our original case, it takes 20 years when refundable tax is refunded to the corporation each year. Taking refundable tax into account does make a difference, but the RRSP and TFSA still come out ahead in the long-term assuming the highest marginal tax rate both now and in the future.

5 Using the tool

The tool used for this analysis has three inputs which can be adjusted by the user using dropdown menus: Asset mix (stocks/bonds), Taxable income beginning of plan, and Taxable income end of plan. These inputs are self-explanatory. It should be noted that the tool uses marginal tax rates, and not average tax rates.

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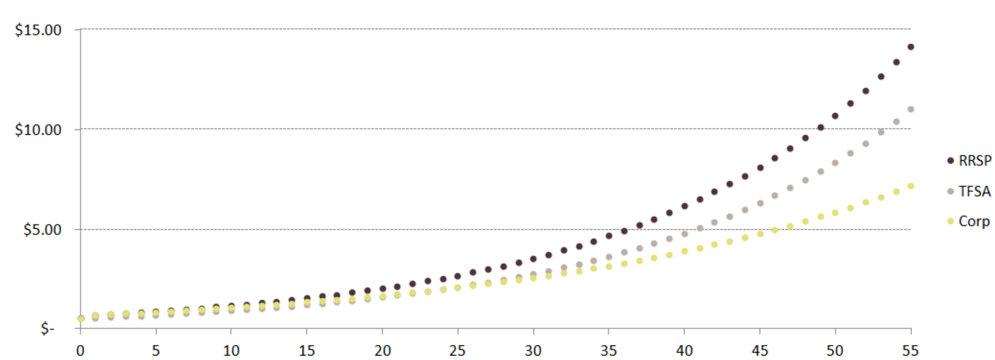
Corporation vs. RRSP vs. TFSA Calculator

Asset mix (stocks/bonds)	70/30
Taxable income beginning of plan	over $150,000 up to $220,000
Taxable income end of plan	over $72,064 up to $81,847

After-tax dollars available in the personal hands of the shareholder

	Year 0	Year 5	Year 10	Year 15	Year 20	Year 25	Year 30	Year 35	Year 40	Year 45	Year 50	Year 55
RRSP	0.52	0.88	1.17	1.54	2.03	2.68	3.54	4.66	6.15	8.12	10.71	14.14
TFSA	0.52	0.69	0.91	1.20	1.58	2.08	2.75	3.63	4.79	6.32	8.34	11.00
Corp	0.52	0.86	1.08	1.35	1.69	2.09	2.58	3.18	3.91	4.79	5.87	7.18



Appendices

Return assumptions

ASSET MIX	INTEREST	FOREIGN DIVIDENDS	CANADIAN DIVIDENDS	CAPITAL GAINS	DEFERRED CAPITAL GAINS
0/100	2.48%	0.00%	0.00%	0.00%	0.00%
5/95	2.36%	0.11%	0.06%	0.10%	0.10%
10/90	2.23%	0.24%	0.12%	0.18%	0.18%
15/85	2.11%	0.35%	0.18%	0.27%	0.27%
20/80	1.98%	0.48%	0.24%	0.35%	0.35%
25/75	1.86%	0.59%	0.29%	0.45%	0.45%
30/70	1.74%	0.70%	0.35%	0.54%	0.54%
35/65	1.61%	0.83%	0.41%	0.62%	0.62%
40/60	1.49%	0.94%	0.47%	0.70%	0.70%
45/55	1.36%	1.06%	0.53%	0.80%	0.80%
50/50	1.24%	1.18%	0.59%	0.89%	0.89%
55/45	1.12%	1.29%	0.65%	0.97%	0.97%
60/40	0.99%	1.42%	0.71%	1.06%	1.06%
65/35	0.87%	1.53%	0.77%	1.15%	1.15%
70/30	0.74%	1.65%	0.82%	1.24%	1.24%
75/25	0.62%	1.77%	0.88%	1.32%	1.32%
80/20	0.50%	1.88%	0.94%	1.41%	1.41%
85/15	0.37%	2.01%	1.00%	1.50%	1.50%
90/10	0.25%	2.12%	1.06%	1.59%	1.59%
95/5	0.12%	2.24%	1.12%	1.68%	1.68%
100/0	0.00%	2.36%	1.18%	1.77%	1.77%

Source: Canada Revenue Agency

Corporate investment income tax rates

	TAX RATE	RDTOH[i]
Interest	50.20%	30.67%
Foreign dividends[ii]	50.20%	15.20%
Canadian dividends[iii]	38.33%	38.33%
Net realized capital gains[iv]	50.20%	30.67%

Source: Canada Revenue Agency

Corporate after-tax rate of return calculation

$$R = \frac{P \times \left((I - I_t) + (F - F_t) + (D - D_t) + (R - R_t) + U\right)}{P}$$

P = Inital value

I = Expected interest

I_t = Tax on interest

F = Expected foreign dividends

F_t = Tax on foreign dividends

D = Expected Canadian dividends

D_t = Tax on Canadian dividends

R = Expected realized capital gains

R_t = Tax on realized gains

U = Expected unrealized capital gains

Corporate dollars in hand calculation

$$N = T - R_t + RDTOH - (T - R_t - CDA + RDTOH - GRIP^{v}) \times t_n - (GRIP) \times t_e$$

N = Net after tax dollars in hand

T = Total dollars available in the corporation

R_t = Tax on realizing accumulated unrealized gains

t_n = Personal non-eligible dividend tax rate

t_e = Personal eligible dividend tax rate

Personal tax rates

TAXABLE INCOME	OTHER INCOME	NON-ELIGIBLE DIVIDENDS	ELIGIBLE DIVIDENDS
first $42,201	20.05%	6.13%	-6.86%
over $42,201 up to $45,916	24.15%	10.93%	-1.20%
over $45,916 up to $74,313	29.65%	17.37%	6.39%
over $74,313 up to $84,404	31.48%	19.51%	8.92%
over $84,404 up to $87,559	33.89%	22.33%	12.24%
over $87,559 up to $91,831	37.91%	27.03%	17.79%
over $91,831 up to $142,353	43.41%	33.46%	25.38%
over $142,353 up to $150,000	46.41%	36.97%	29.52%
over $150,000 up to $202,800	47.97%	38.80%	31.67%
over $202,800 up to $220,000	51.97%	43.48%	37.19%
over $220,000	53.53%	45.30%	39.34%

Source: Canada Revenue Agency

[i] Refundable dividend tax on hand (RDTOH) is a notional account that tracks the refundable taxes that corporations initially pay in order for their income tax rates to be comparable to an individual. RDTOH includes 30.67% of the tax on aggregate investment income, and the full amount of Part IV tax (see endnote ii). $1 of RDTOH is refundable to the corporation for every $2.60 of dividends distributed to shareholders.

[ii] Foreign dividends are taxed as aggregate investment income, but only 15.2% of the tax is refundable through the RDTOH account. In this paper foreign withholding tax has been assumed to be 15% in the RRSP and TFSA, and 7.5% (15%, 50% recoverable) in the corporation.

[iii] Canadian private corporations receiving dividends from a non-connected Canadian corporation are taxed federally at a rate of 38.33%. This is called Part IV tax, and it is fully refundable to the corporation through the RDTOH account when dividends are paid to a shareholder.

[iv] 50% of capital gains are taxed at a rate of 50.20%, while the other 50% of the gain is added to the capital dividend account (CDA) which can be distributed tax-free to the shareholder.

[v] GRIP is the general rate income pool which tracks the dollar amount that can be distributed from a Canadian Controlled Private Corporation as an eligible dividend, which is taxed at the personal level more favorably than a non-eligible dividend.

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