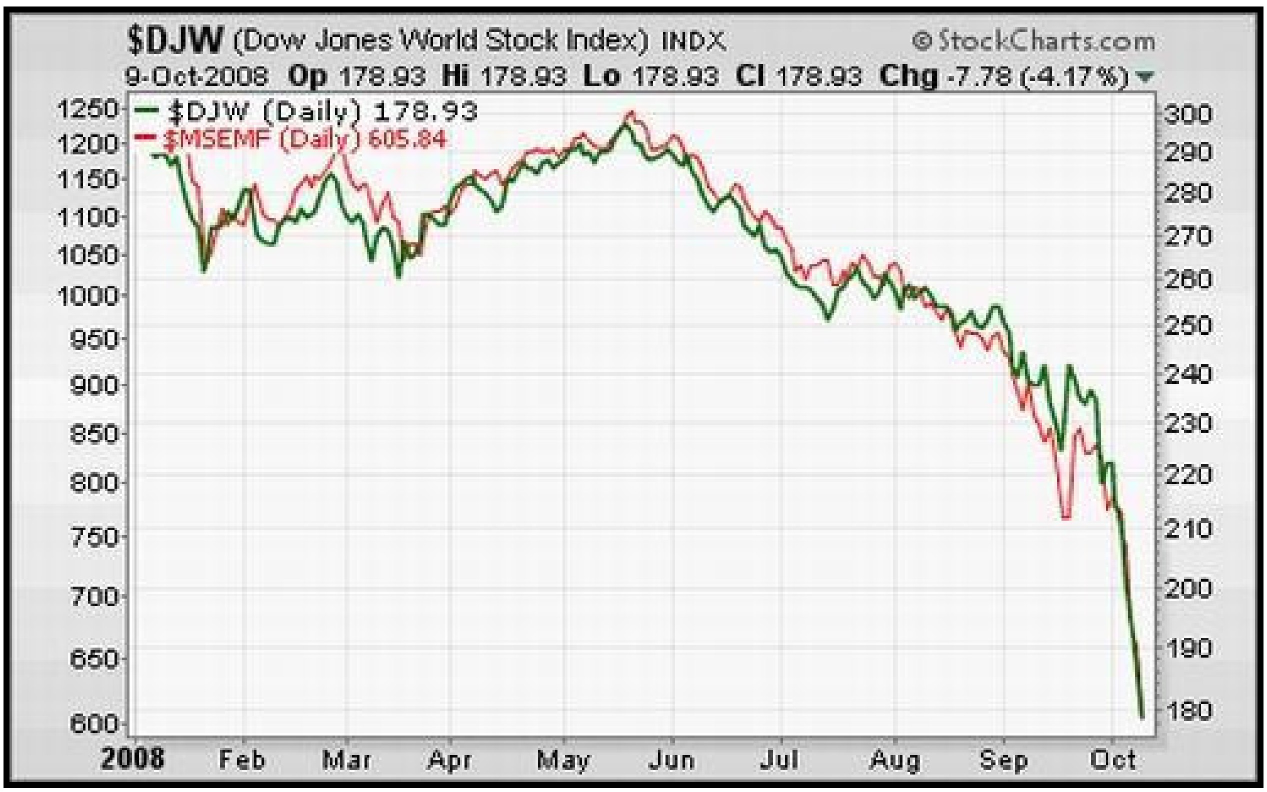
Suppose you decide to set up a 3P pension at the age of 50. Because you have been advised in the past to minimize your annual salary and dividend out cash when you need it, your RRSP portfolio is pretty modest at $100,000.

Let us also assume that we take a time machine back to 14 years ago and unbeknownst to you at the time, the world's markets are about to experience the worst setback since the Great Depression. We might as well see how you would have fared using real market data from a very scary time for most professionals trying to save for their retirement.



Fortunately, you have a secure and relatively recession-proof job as a specialist physician: your professional corporation pulls in $300,000 of gross income per year. You immediately inform your accountant that you want to optimize your T4 income each year (i.e. $145,733/year in 2018) in order to maximize your annual defined benefit contributions. You are quite worried about taxes, so you intend to pack away the maximum amount allowed each year into the pension in order to fully benefit from tax-deferred compound growth.

You have a twin sister named Mary. She is also a physician earning a bit more than you at $350,000/year. She also has $100k in RRSPs. She took your advice to increase her T4 income in 2004, but she elected to contribute to the RRSP's rather than establish a pension plan.

From 2004 until the year before retirement at age 64 at the end of 2017, you each contribute the following:

Table 1

	You	Mary
Year	Contribution	Contribution
2004	$ 83,972.00*	$ 26,500.00
2005	$ 33,117.00	$ 26,500.00
2006	$ 33,117.00	$ 26,500.00
2007	$ 33,117.00	$ 26,500.00
2008	$ 33,117.00	$ 26,500.00
2009	$ 36,378.00	$ 26,500.00
2010	$ 36,378.00	$ 26,500.00
2011	$ 36,378.00	$ 26,500.00
2012	$ 36,378.00	$ 26,500.00
2013	$ 36,378.00	$ 26,500.00
2014	$ 39,959.00	$ 26,500.00
2015	$ 39,959.00	$ 26,500.00
2016	$ 39,959.00	$ 26,500.00
2017	$ 39,959.00	$ 26,500.00
2018	$ 43,076.00	$ 26,500.00
Total	$ 601,242.00	$ 397,500.00
Difference	$ 203,742.00	

* You got a head start on your sister because you were able to contribute to both your RRSP in 2004 based on 2003's income and also your defined benefit account in the 3P Pension. In addition, you were able to contribute $24,355 for past service to your corporation!

You were able to contribute over $200k more to your savings than your sister over a 14-year period. That's impressive...but, there's more.

Because you were able to get more investment capital earlier than she could, it grew faster. Even more impactful is that you are able to make special payments when your pension plan suffered during inevitable market declines, whereas Mary could only rely on waiting to 'get back to even'.

For example, if we put Mary in a typical mutual fund (MER 2.53[1]%; tracking the TSX composite return) we can see how she would have fared from age 50 until 64:

Table 2

Year	Portfolio Return	Portfolio Value	Fund Costs	Contribution	Annuitant Age
2004		$ 100,000	$ (2,530.00)	$ 26,500.00	50
2005	21.91%	$ 151,686	$ (3,837.66)	$ 26,500.00	51
2006	14.51%	$ 200,203	$ (5,065.14)	$ 26,500.00	52
2007	7.16%	$ 237,870	$ (6,018.11)	$ 26,500.00	53
2008	-35.03%	$ 165,743	$ (4,193.30)	$ 26,500.00	54
2009	30.69%	$ 247,049	$ (6,250.35)	$ 26,500.00	55
2010	14.45%	$ 306,827	$ (7,762.72)	$ 26,500.00	56
2011	-11.07%	$ 288,665	$ (7,303.22)	$ 26,500.00	57
2012	4.00%	$ 320,468	$ (8,107.84)	$ 26,500.00	58
2013	9.55%	$ 371,996	$ (9,411.49)	$ 26,500.00	59
2014	7.42%	$ 418,653	$ (10,591.91)	$ 26,500.00	60
2015	-11.09%	$ 385,193	$ (9,745.39)	$ 26,500.00	61
2016	17.51%	$ 474,035	$ (11,993.10)	$ 26,500.00	62
2017	6.03%	$ 518,725	$ (13,123.73)	$ 26,500.00	63
2018		$ 532,101		$ 26,500.00	64

*Portfolio returns are based on historical S&P/TSX Composite Total Annualized Returns

Not bad: her nest egg has grown five-fold over 14 years. Persistence pays off, even after seemingly devastating portfolio drawdowns like she experienced in 2008.

Your situation is a bit more complex. Every 3 years, an actuary values your portfolio and compares it to a model portfolio that monotonously returns 7.5% per year. If your pension is not on track to meet its promise to you, you are required[2] to make a 'special payment' to top up the pension and bring it back in line. At first glance, this seems punitive; however, there are definitely a few upsides:

1. You inject capital into your portfolio when the market performance has been poor for several years. This counter-cyclical investing approach has produced markedly superior returns, particularly compared to investing during high flying periods.

2. You get a corporate tax refund as a consequence of the payment.

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[1] This is the average management expense ratio in Canada in 2017: https://retirehappy.ca/mutual-funds-and-fees/

[2] This requirement varies from province to province. In British Columbia, the payments are discretionary, for example.

3. You get a head start in terms of compounding your portfolio growth.

So, if you were invested in the same plain vanilla TSX tracking fund, how did you do?

Table 3

Year	Portfolio Return	Portfolio Value	Fund Cost	Admin Costs	Contribution	Special Payment	Annuitant Age
2004		$ 100,000	-$2.5K	-$2.0K	$ 59,617.00	$24K	50
2005	21.91%	$ 211,591	-$5.4K	-$2.0K	$ 33,117.00		51
2006	14.51%	$ 278,216	$0.0K	-$2.0K	$ 33,117.00		52
2007	7.16%	$ 323,441	-$8.2K	-$2.0K	$ 33,117.00		**53**
2008	-35.03%	$ 223,989	-$5.7K	-$2.0K	$ 33,117.00		54
2009	30.69%	$ 325,770	-$8.2K	-$2.0K	$ 36,378.00		55
2010	14.45%	$ 402,300	-$10.2K	-$2.0K	$ 36,378.00	$54K	**56**
2011	-11.07%	$ 431,525	-$10.9K	-$2.0K	$ 36,378.00		57
2012	4.00%	$ 472,661	-$12.0K	-$2.0K	$ 36,378.00		58
2013	9.55%	$ 541,941	-$13.7K	-$2.0K	$ 36,378.00	$152K	**59**
2014	7.42%	$ 751,870	-$19.0K	-$2.0K	$ 39,959.00		60
2015	-11.09%	$ 684,692	-$17.3K	-$2.0K	$ 39,959.00		61
2016	17.51%	$ 828,575	-$21.0K	-$2.0K	$ 39,959.00	$167K	**62**
2017	6.03%	$ 1,059,513	-$26.8K	-$2.0K	$ 39,959.00		63
2018		$ 1,099,472			$ 43,076.00		64

total Fund Cost:	$160.9K	Bold = actuary valuation period	
total Admin Cost:	$ 28,000.00	Special Payment in 2004 is past service buy-back	
Total Costs:	$ 188,853.02	Total Special Payments:	$398K

From the same starting point of $100,000, you have crushed your sister's nest egg achievement by a margin of $567,371 (an 107% advantage)! If you subtract the extra payments and contribution advantages, you are still almost $350,000 ahead because of the timing of the contributions (at market troughs, where they are most effective!).

Be nice to your sister! Don't be mean and rub it in…

How about taxes and fees?

Mary self-administers her RRSP using a discount brokerage. She isn't an investing buff, so she keeps it simple by investing in a single Canadian-focused mutual fund. As such, her costs are straightforward: if you look back at table 2, each year she gets charged 2.53% of her portfolio value. Over 14 years that adds up to $ 105,933. Unfortunately, outside of a pension, retirement asset management costs are <u>not</u> deductible against income. In other words, costs come straight out of nest egg and there is no way to mitigate the loss of compounding potential, other than trying to find the lowest cost investment vehicle possible.

Because defined contribution accounts like RRSPs are funded from personal salary rather than corporate coffers, she enjoys a large tax refund each year: at a blended effective tax rate in British Columbia of 43.7%[3], her tax refund cheque comes in at $11,580/year. This adds up to an impressive total refund of $173,707.50 over 14 years.

You face a bit of a mixed bag: higher costs and a lower tax rate at the corporate level, offset by the ability to deduct those costs and generate much higher contributions.

Pensions are complex entities requiring a highly regulated relationship between 6 parties: you (the annuitant/beneficiary), the corporate sponsor, an investment manager, a trustee, an administrator and a custodian. It's not surprising that maintaining this structure costs more than Mary's setup. Over the 14-year period, this costs your corporation $189k compared to about $106k paid personally by your sister.

A financial summary of the 14 year period we have been examining is as follows:

HST Credit refund (for you):	$35K
3P Tax refund (for you):	$147K
RRSP Tax refund (for your sister):	$174K
Delta:	$8K (in favour of you)

In the end, you got a pension double the size while paying fewer taxes along the way.
This >$500k of extra portfolio value creation in your pension can now be used to fund your retirement and/or potentially pass on to your children on your death.

A 3P Pension plan can help you achieve your retirement goals, even if you start late!

[3] https://www.taxtips.ca/taxrates/bc.htm