Comparison of a Group RRSP Benefit versus the McMaster Pension Plan Benefit

McMaster University management has proposed a Group RRSP for new employees. Many members are aware of how poorly their personal RRSP's have done with the recent market meltdown. Despite this experience, some members are attracted to the idea of managing their own retirement fund. We did some simple calculations to compare the advisability of the RRSP approach versus a traditional defined benefit (DB) pension plan.

We found that the McMaster Pension Plan will pay at least twice the pension benefit as can be expected with a Group RRSP. A 20-year employee retiring with an income of about $42,400 can expect a McMaster Pension of $945.70 per month (plus a bridge to age 65) whereas an employee retiring after making 20 years of contributions to an RRSP of the type McMaster proposes would get $367.09 per month.

The following example is simplified in several ways from a real-life situation to ease the burden of calculations and to make it easier to follow. Assumptions about rates of interest are conservative so that the results are realistically attainable.

<u>Example</u>

A member has an annual salary this year of $42,400 after just over 20 years of service starting July 1, 1989. Since commencing employment, she has had salary increases of 3% per year.

year 1	$23,770	year 6	$27,680	year 11	$32,234	year 16	$37,536
year 2	$24,505	year 7	$28,536	year 12	$33,231	year 17	$38,697
year 3	$25,263	year 8	$29,419	year 13	$24,258	year 18	$39,894
year 4	$26,044	year 9	$30,329	year 14	$35,318	year 19	$41,128
year 5	$26,850	year 10	$31,267	year 15	$36,410	year 20	$42,400

The member's 60th birthday is in August. Since the sum of her age (60) plus her years of service (20) is 80, she has the "Rule of 80". This means that no penalty will be assessed against her for retiring before the age of 65.

The member chooses to retire on September 1, 2009. She is single at retirement.

<u>McMaster Pension Plan:</u>

This scenario is that the member above has been contributing to the McMaster Pension Plan for the whole of the 20 years of employment. During this period her contributions were 3.5% of her salary. The University's contributions during much of this time were zero but started to rise over the past few years. However, the actual contributions have no bearing on the pension benefit.

Her four-year average earnings are $40,530. Her earnings are below the Canada Pension Plan's "Years Maximum Pensionable Earnings" (YMPE), therefore the portion of the pension formula for earnings above that level is not relevant.

The Basic formula is:

1.4% x Best Average Yearly Earnings(ABYE) x Years of Service (YOS)

In this case:

1.4% x $40,530 x 20 years = $11,348.40 per year

$11,348.40 / 12 months = $945.70 per month

This member is also entitled under the McMaster Plan to a Bridge from age 60 to age 65. The Bridge is $19 per month for each year of service before June 30, 1996. From July 1, 1989 to June 30, 1996

7 years x $19 = $133 per month

<u>Total monetary benefit:</u>

From Age 60 to 65 = $1078.70 per month

After age 65 = $945.70 per month

This pension has a seven-year guarantee. This means that if the member dies before the seven year period has elapsed, the unpaid balance of the seven-years of benefits will be paid to the member's beneficiary or estate.

In addition, the McMaster plan has a limited form of cost-of-living protection. While adjustments are not guaranteed, over the past number of years the average adjustment has been 80% of the actual consumer price index (CPI).

<u>RRSP route:</u>

This scenario looks at what could realistically be expected if, over the past twenty years, the member did not have the McMaster Pension Plan but had an RRSP of the type that McMaster is now proposing for new hires.

Contributions of 3.5% of employee's salary + an equal contribution from the Employer (as per Employer's proposal) for a total of 7.0% of employee's salary.

We assume an annual rate of return on contributions of 4.0% compounded. The safest route for the member is to put the money into an term-deposit.

Total of contributions plus compounded interest = $67,178.38.

There are many types of annuity that can be purchased from a Life Insurance company when one chooses to retire. An Annuity is a contract to pay a fixed amount of money each year or (more commonly) each month. The basic type of annuity pays this amount for a pre-specified number of years. The hazard is that the member may outlive the term and then be left destitute.

A "Life Annuity" removes this hazard. A Life Annuity is a contract to pay a guaranteed income for as long as the member lives or the guarantee period, whichever is longer. This type of annuity is the closest to the type of default benefit that the McMaster Defined Benefit Pension Plan provides. Since the Life Insurance company bears the risk that the person will outlive the period of the basic annuity, the amount of the annuity is reduced.

In return for paying $100,000, an insurance company will, as of August 20, 2009, provide a Life Annuity to a female member which is equal to $546.44 per month, including a 5-year guarantee. In the event that the member dies early, the balance of the 5-year guarantee is paid to the named beneficiary or the members' estate. This is the closest guarantee to the seven-year guarantee that is standard for the McMaster pension. If it were possible to purchase a seven-year guarantee, the amount that could be purchased would be somewhat less.

$100,000 purchases $546.44 per month

$67,178/$100,000 x $546.44 = $367.09 per month.

So with the amount of $67,178.38 the monthly annuity that can be purchased is $367.09. There is no cost of living protection on this amount.

At some times in the past the annuity that could be purchased was higher. However, we are now in an era of low interest rates. So, the prospects for a better outcome any time soon are not good.

A member could conceivably do better on the investments than the 4% annual average used in this example. However, the experience of the past year shows how extremely difficult it is for the average person to do any better over the long run than the 4% average that we have used in this example.

The Bridge in the McMaster Plan will not be available on a go-forward basis, as it is only for service before 1996. The best ongoing comparison is on the Mac Plan benefit after age 65.

There are several reasons that a large Defined Benefit Pension Plan can afford to pay the higher benefits that are shown in this sample calculation. Some examples are:

1. Such plans have the best professional money managers, so they can provide the best advice to the board of trustees.

2. Such plans have investment policies on the distribution of the plan's asset among various investment vehicles which minimize the risk of any one negative investment depressing the value of the fund.

3. The money managers are typically paid about one-eighth of a per cent of the value of the assets they are managing. Compare this to the typical 2% or higher for the run-of-the-mill mutual fund manager. The current McMaster pension money managers can afford to take a lower fee because their percentage is on a much larger pool of money and they are in competition with other managers for the University's business.

4. The large plans can take part in investments that are not available to the average single investor. These type of investments, such as 30-year bonds, require a higher pool of cash to purchase and they pay a higher interest rate.

At certain points in its history the McMaster Plan has had very high rates of return on investment which allowed the University to take extended pension holidays on its own contributions, basically paying these out of the surplus.

Conclusion

A defined benefit pension plan, such as the McMaster Defined Benefit Pension Plan, not only produces a reliable pension income that a member can depend on upon retirement; it also is very likely to produce a much higher pension income for the member than an RRSP.

A move to Group RRSPs for any person represents an enormous drop in future retirement income. It also represents a transfer of wealth to McMaster and to the fund managers.

As we have said before, there is a trend among Canadian corporations to get out of providing Defined Benefit pension plans. Typically a few years after eliminating it for new hires, they approach a bargaining team with a proposal to eliminate it for all current employees. This is the danger that all current employees face.