FINA200

Summer 1 2011

Case 3 - Covering Chapters 9, 10, 13 and 14

Suggested Solution

Question 1 (30 marks)

	Gross	Net
Corporate Pension (indexed)		
($40,000)(1 - 0.3)(1 + 0.02)	$28,560	$18,564
QPP Pension Benefit (indexed)		
($720[1])(12)(1 + 0.02)	8,813	5,728
OAS Benefit (indexed)		
($526.85[2])(12)(1 + 0.02)	6,449	4,192
RRSP (no withdrawals)	-	-
Non-registered investments		
($400,000)(0.066[3])	26,400	17,160[4]
Total Income	$70,222	$45,644

Note:

The OAS clawback is $67,733 in 2011. Assuming it rises in 2012 to ($66,733)(1 + 0.02) = $68,068, Winifred would probably not suffer any significant clawback.

Will Winifred have enough income to live on? Most people could live on a net income that is close to $4,000 a month. It depends on how Winifred splits expenses with her partner. She can always call upon her non-registered portfolio for special needs. Don't

[1] 75% of QPP maximum monthly pension benefit of $960 as of June 2011.
[2] OAS maximum monthly benefit as of June 2011.
[3] The weighted average return on her portfolio would be (0.7)(6%) + (0.3)(8%) = 6.6%
[4] Winifred's $26,400 would be derived 70% from the fixed income component of her portfolio and 30% from equities. We presume the equities would generate tax-preferred income, but it would be difficult to estimate the exact tax rate that would apply to her investment income. I have therefore taken the conservative route and assumed it is fully taxable.

forget, also, that Winifred is leaving her registered assets to grow. Eventually, these funds will have to be withdrawn and so her cash in-flows would rise.

Marking scheme: 5 marks for each source of retirement income (RPP, QPP, OAS and portfolio). Appropriate explanations and sourcing are required. 5 marks to discuss the OAS clawback and 5 marks to discuss whether she will have sufficient funding.

Question 2 (15 marks)

We have three hints that Winifred probably receives her pension income from a Defined Benefit Pension Plan (DBPP).

- First, she receives a predicable pension income.
- Second, the income is indexed.
- Third, the pension benefit may be cut.

Only a DBPP pays a predictable pension benefit. The more generous DBPPs are also indexed. However, if the pension plan was underfunded, as is the case with many DBPPs after the market crash of 2009, and the company is not in a position to make up the shortfall, then her pension benefit could be cut.

Both employees and employers fund a DBPP pension plan. For your information, a DBPP is assessed by actuaries every 3 years. If there are insufficient assets to pay the present value of the plans liabilities, the company has 5 years to make up the difference. But the company has to fund the shortfall from profits, and this may not be feasible given the amount involved and the profit forecast for the company.

If you argued that Winifred had a Defined Contribution Pension Plan (DCPP) and used the balance in the plan at retirement to purchase an indexed annuity from a life insurance company, you could explain points 1 and 2. However, the annuity could not be cut back by 30%.

Marking scheme: 4 marks for each reason supporting a DBPP, 3 marks for explaining why it could be cut back.

Question 3 (15 marks)

Winifred must collapse her RRSP by December 31st of the year in which she turns 71. Her options are as follows:

Option	Strength	Weakness
Cash in the balance	She'd have a significant amount of money all at once.	The full balance of her RRSP would be taxed. If you recall, given the progressive tax rates in Canada, a significant portion of her $200,000+ withdrawal would be taxed at the highest marginal rate.
Purchase an annuity	Known characteristics, such as payment, timing (life or term), no investment decisions required, and others....	Little flexibility once terms set, fixed income is not always indexed, life annuities lost after guaranteed period, and others....
Transfer funds to a RRIF	Possibility of continued growth, balance at death can be transferred to beneficiaries, and others.....	Requires management, minimum amounts must be withdrawn (and taxed) each year whether needed or not, income not guaranteed, and others.....

Marking scheme: 5 marks per strategy.

Question 4 (20 marks)

Information for RBC Bond Fund as at June 1, 2011: (www.globefund.com):

Information		Information	
Load	None	Returns 1 year	5.26%
MER	1.18%	3 years	5.18%
Risk	4.43%	5 years	4.74%
		10 years	4.80%

The fund's top 5 holdings include Government of Canada, 5%, maturing June 1, 2037 (2.47% of total), Province of Ontario, 4.6%, maturing June 2, 2039 (2.06% of total), Government of Canada, 4%, maturing June 1, 2041 (1.98% of total), Province of Ontario, 465%, maturing June 2, 2041 (1.72% of total) and Bank of Nova Scotia 5.04%, maturing April 8, 2013 (1.5% of total).

More important than the fund's individual statistics is how it fared with respect to similar funds and the appropriate benchmark. In terms of its returns, it exceeded its peers and peer index for all 4 time frames quoted. At the same time, its volatility rating was slightly higher, meaning that there was more risk in this fund than the average, but it paid off in terms of higher returns.

It is a no-load fund with a very low MER whose fundamental objectives are to "seek potential for regular income and moderate capital appreciation."

Yes, it is an excellent investment for Winifred. Given that income generated by the fund would for the most part be fully taxable, it should be held in her RRSP.

Marking scheme: 2 marks for each piece of information (14 marks in total), 3 marks for the top 5 holdings, 3 marks for discussing the fund's investment objectives and suitability.

Question 5 (5 marks)

Yes, Winifred's overall asset allocation at 70% fixed income and 30% equities is appropriate, if a bit low on equities. A rule of thumb (I introduce this out of interest) would be to hold 100 - age in equities. However, given Winifred's life expectancy, it would shift to 110 - age or 45% in equities. Winifred requires equity investments to provide her portfolio with growth (it has to last 45 years!). However, how much really is a question of her risk tolerance.

Marking scheme: 5 marks for a well-reasoned argument.

Question 6 (15 marks)

If Winifred expects to live to an advanced age, then regular term insurance will not suit her. Term insurance can be renewed, but usually ceases at around age 70. Therefore, she must seek some type of life insurance that is "permanent", i.e. will be in force no matter when she dies.

Winifred is not looking for additional tax deferral opportunities, so whole life and universal life, with their expensive premiums, might not be suitable either, although they would be the safest bet. Universal insurance, with its greater flexibility, would be better.

Perhaps her best bet for life insurance would be term-to-100. This type of insurance would cover her to age 100 and would cost much less than whole life or universal insurance. Several different options are offered by insurance providers should she live beyond the age of 100 - including payment of the fact value.

Winifred would not qualify for and does not need disability insurance, as it is income replacement for employment income lost due to a disability. She should consider critical illness that pays a lump sum should she be diagnosed with cancer, heart attack or stroke, as well as long-term care insurance, should be need 24/7 care.