

Tax Effects on FixedResetPremium Issues¹

Spring is almost here and, as is well known, in spring a young man's fancy lightly turns to thoughts of tax.

Differential taxation of income types is, of course, the main attraction of preferred shares: dividends are taxed at a lower rate than interest income. These tax advantages are of no value to non-taxable investors, such as pension funds, leading to a much narrower class of potential investor which, in and of itself, is sufficient to increase yields to a higher level than is justified by the lower seniority of preferred shares.

Marginal rates on income types² for an investor resident in British Columbia with a taxable income of \$150,000 are shown in Table 1. It should be noted that these are generic rates, which may be materially affected by the taxpayer's personal tax circumstances.

Table 1: Marginal Tax Rates in British Columbia	
Taxable Income \$150,000	
Interest Income	43.70%
Capital Gains	21.85%
Eligible Dividends	19.92%
Ineligible Dividends*	32.71%
<i>Data Source: Ernst & Young (see footnote 2)</i>	
<i>*It is extremely rare for ineligible dividends to be paid on the preferred shares of Canadian corporations listed on the Toronto Stock Exchange. The only example of which I am aware is WN.PR.A, for which less than 1% of the 2009 dividend was ineligible; over 99% was eligible. See http://www.weston.ca/en/inv_sharehold.html</i>	

Table 1 allows us to compute an equivalency ratio, which describes how many dollars of pre-tax interest income are required to produce the same after-tax value as one dollar of pre-tax dividend income. A calculation based on the figures in Table 1 is shown in Table 2³. Those with an algebraic bent will notice that:

$$E = (1 - M_{Div}) / (1 - M_{Int})$$

Where:

E is the equivalency factor (Row G of Table 2)

M_{Div} is the Marginal Rate on Dividends (Row B of Table 2)

M_{Int} is the Marginal Rate on Interest (Row E of Table 2)

Calculations have been performed for a variety of provinces and taxable incomes, with the Equivalency Factors thus derived shown in Table 3.

Table 2: Sample Calculation of Equivalency Factor		
A	Pre-Tax Dividend Income	\$1.00
B	Marginal Rate of Tax on Dividend Income	19.92%
C	Tax Paid (A * B)	\$0.1992
D	After Tax Amount (A - C)	\$0.8008
E	Marginal Rate of Tax on Interest Income	43.7%
F	Pre-tax Interest Income Required to Leave Amount D after tax (D/(1-E))	\$1.4224
G	Check! Tax Paid on Interest (F * E)	\$0.6214
H	Check! After-Tax Amount from Interest (F - G)	\$0.8010
I	Check! Are the after-tax amounts equal? (H = D ?)	Close enough!
G	Equivalency Factor (F/A)	1.42
<i>Data Source: Ernst & Young (marginal rates; see Table 1 and footnote 2), author's calculations.</i>		

¹ This essay represents an expanded version of the PrefBlog post, *Tax Impact on FixedResetPremium Yields*, available on-line at <http://www.prefblog.com/?p=9558>

² Ernst & Young, *2009 Personal Tax Calculator*, updated to 2009-12-15, available on-line at <http://www.ey.com/CA/en/Services/Tax/Tax-Calculators-2009-Personal-Tax> (accessed 2010-3-11)

³ A more involved calculation (with different assumptions of taxation rates) is shown in the post *After-Tax Yield Equivalency*, on-line at <http://www.prefblog.com/?p=1255>

Table 3: Equivalency Factors for Some Provinces and Taxable Income Levels

Province	\$150,000	\$75,000	\$30,000
British Columbia	1.42	1.42	1.25
Alberta	1.40	1.41	1.33
Manitoba	1.42	1.42	1.35
Ontario	1.44	1.38	1.27
Quebec	1.36	1.37	1.32
<i>Data Source: Ernst & Young (marginal rates; see footnote 2), author's calculations</i>			

Using these approximations, we may compare the yields on preferred share with the yields on senior bonds to determine how much money we are being paid – on a meaningful basis, accounting for taxation – to assume the extra risks that the subordination of preferred shares implies.

Or can we? As I must consistently stress, any quantitative analytical tool must be examined carefully in advance of its use in order to determine conditions in which it might break down. The first vulnerability of the above calculations has already been stated: the marginal rates used in the calculations are generic rates calculated for a generic taxpayer – there is no allowance for the taxpayer's individual circumstances. One very important and very common individual circumstance is the applicability of the OAS clawback. Another is the assumption that all pre-tax yields may be treated identically for comparison purposes.

Preferred Shares and the OAS Clawback

According to the accountancy firm KPMG⁴: *For high-income taxpayers these [Old Age Security] payments are completely taxed back through a special tax, known informally as the "clawback". The tax reduces benefits for taxpayers whose net income (after most deductions, such as RRSP contributions) is over \$66,335. If your net income exceeds about \$107,692, the clawback will apply to 100% of your OAS benefits.*

At first glance, this might seem to be immaterial to our purpose. Clearly, the marginal rate of tax for individuals receiving OAS benefits will be higher – within the stated range of taxable income – but, one might think, this will not affect the calculation of the equivalency factor if both marginal rates increase proportionately.

Unfortunately, there is another nuance due to the manner in which dividend income is treated under the Income Tax Act. Again, according to KPMG: *Dividends received by individuals from Canadian corporations are taxed in a rather peculiar manner, designed to reflect the fact that the corporation paying the dividend has already paid tax on its profits. The amount included in the individual's income is "grossed-up" to reflect the total amount of pre-tax income that the corporation is presumed to have earned. The individual then receives a credit to offset the tax the corporation is presumed to have paid.*"

This mechanism of dividend taxation has the unfortunate effect of increasing the amount of income calculated for purposes of OAS clawback, while not providing any mitigation of this higher clawback.

I have not been able to find an authoritative source that quantifies this effect in any way; the best I can provide is unattributed or non-authoritative claims on the Internet⁵ that indicate that, in the presence of clawback of OAS benefits, the equivalency factor declines somewhat to about 1.3:1, that is, that a taxable investor subject to partial OAS clawback will find that \$1.30 in pre-tax interest income is equivalent to \$1.00 in pre-tax dividend income. This reduces the attractiveness of preferred shares for investors in such a position, although dividend income is still strongly favoured. Naturally, if the taxpayer's income level is such that OAS clawback will not be affected by minor changes in taxable income, then the equivalency factors shown in Table 3 will not be affected.

However, these conclusions will change, perhaps dramatically, according to the province of residence, the precise amount of taxable income, and the sources of income (or other benefit, such as drug plans) that are subject to clawback. Investors should consult their own personal tax advisor to determine the equivalency factor that should be used when choosing between investments offering different types of income.

Pre-Tax Yields are Heterogeneous by Income Type

Heterogeneous income sources are an insidious nuance to yield calculation, particularly for those investors who have suffered large capital losses as a result of the Credit Crunch.

Consider the case of RY.PR.N⁶, which was quoted on March 8 at 27.76-80, to yield 3.32% at the bid. It pays an annual dividend of 1.5625 until the first Exchange Date 2014-2-24, at which point it will either be called, or reset to Five-Year Canadas +350 bp (or, at the option of the holder if not called, be convertible into Floaters paying 350bp over three month Canada Treasury Bills, recalculated quarterly) until its next Exchange Date five years afterwards.

⁴ KPMG, *Tax Planning 2010 For You and Your Family*, ISSN 1207-5957

⁵ Million Dollar Journey, unattributed blog, *TFSA vs RRSP – Clawbacks & Income Tax on Seniors*, post attributed to Ed Rempel, available on-line at <http://www.milliondollarjourney.com/tfsa-vs-rrsp-clawbacks-income-tax-on-seniors.htm>; PrefBlog, (my own blog, not authoritative on taxation matters), comments to Marginal Tax Rates: Ontario 2008, available on-line at <http://www.prefblog.com/?p=2372#comment-27986>; and Financial Webring Forum, Tax Bracket Sensitivity of Preferred Shares, unattributed discussion forum, available on-line at <http://www.financialwebring.org/forum/viewtopic.php?f=32&t=111505>

⁶ Royal Bank of Canada, *Prospectus Supplement, 9,000,000 Non-Cumulative 5-Year Rate Reset First Preferred Shares*, Series AN, 2008-11-26, on-line at <http://www.rbc.com/investorrelations/pdf/SeriesAN.pdf> (accessed 2010-3-11)

Since the Issue Reset Spread of +350bp is very high compared to what may currently be issued in the market (the recent TRP.PR.B⁷ has an Issue Reset Spread of only +128bp) it is prudent to assume that it will be called at \$25.00 on its first Exchange Date, while remembering that this is an assumption based on circumstances that may change.⁸

If the issue is called 2014-2-24 after having been purchased 2010-3-8 at 27.76, the buyer will have received sixteen quarterly dividends of 0.390625, totalling \$6.25. He will also realize a capital loss on redemption of \$2.76. When these figures are processed⁹ with due regard for time of receipt and fixed income calculation conventions¹⁰, one may conclude that the yield to call for this issue is 3.32%.

However, this calculation makes no provision for tax and assumes that each dollar is worth the same amount. However, the marginal rates in Table 1 are different: the investor will be taxed at a rate of 19.92% on dividends compared to recovering capital gains tax otherwise payable at a rate of 21.85%.

In order to account for this effect, we can adjust the numbers used in our calculation:

- Change the quarterly dividend from \$0.390625 to \$0.3128125 to reflect the net amount after tax on the dividend
- Change the call price on the issue from \$25.00 to \$25.60306, to reflect a benefit of \$0.60306 due to being able to claim the capital loss

When we perform the calculation in this manner, we arrive at an after-tax yield of 2.68%, which implies that the effective tax rate on the pre-tax yield is 19.28% ... as we might have expected, given the tax rates on the dividends and capital gain components. Unfortunately, while the investor may maintain high confidence that he will have to pay tax on the total dividends of \$6.25, it is not possible to place such high confidence in his ability to claim the \$2.76 capital loss in a timely fashion. Capital losses may only be used to offset capital gains that would otherwise be taxable; they may not be claimed as a deduction from normal income.¹¹

If the investor does not have capital gains available to offset the loss, there is the potential for the beneficial tax impact of the claim to be lost completely; at the very least, realization of the benefit may be considerably delayed. An investor in a position of having considerable losses available for tax purposes anyway will be prudent to assume – at least for the purposes of a ‘worst-case’ scenario – that there will be no tax benefit at all for the capital loss and thus that a third calculation should be performed:

- Assuming that dividends are taxable at their marginal rate, to arrive at a net figure of \$0.3128125 quarterly
- Assuming that there is no recovery of tax on the capital loss, to arrive at the original ‘non-taxable’ call price of \$25.00

When such a calculation is performed, such an investor might be horrified to learn that his net after-tax yield is merely 2.14% and thus that his effective tax rate relative to the pre-tax yield of 3.32% is a horrific 35.66%.

Table 4 shows the data to be entered into the yield calculation spreadsheet¹² that will compute the values discussed in this section.

Table 4: Computation of Tax Effects for RY.PR.N as of 2010-3-8 using ytc_resets.xls			
Data	Non-Taxable	Taxable with loss claimable	Taxable with loss not claimable
Current Price		27.76	
Call Price	25.00	25.60	25.00
Settlement Date (see note)		2010-3-8	
Call Date		2014-2-24	
Quarterly Dividend	0.390625	0.31281	0.31281
Cycle		2	
Pay Date		24	
Include First Dividend		1	
First Dividend Value (if different)		[blank]	
Reset Date		2014-2-24 [Irrelevant]	
Quarterly Dividend After Reset	0.375 [Irrelevant]	0.30030 [Irrelevant]	0.30030 [Irrelevant]
Results			
Annualized Quarterly Yield to Call	3.32%	2.68%	2.14%
Effective Tax Rate	0.00%	19.24%	35.66%
<i>Note: For the “Settlement Date”, I assume the trade is executed 2010-3-8. Many investors will prefer to use the value date of such a trade, 2010-3-11. The choice will be dependent on when the investor loses control of (or ceases to earn interest on) the cash used to purchase the security. The difference is rarely material.</i>			

⁷ TransCanada Corporation, Press Release, *TransCanada Announces Preferred Share Issue*, 2010-3-4, available on-line at http://www.transcanada.com/news/2010_news/20100304.html (accessed 2010-3-11)

⁸ See the August, 2009, edition of this newsletter

⁹ See the discussion on PrefBlog, *Research: Yield from On-Line Calculator*, available on-line at <http://www.prefblog.com/?p=1227> and the on-line calculator itself at <http://www.telusplanet.net/public/kbetty/yt.xls> (accessed 2010-3-11)

¹⁰ See the discussion on PrefBlog, *Research: Modified Duration*, available on-line at <http://www.prefblog.com/?p=864>

¹¹ Capital losses may be claimed against normal income in the year of the taxpayer’s death, according to H&R Block, *Losing a Loved One*, available on-line at http://www.hrblock.ca/your_life/losing_loved.asp (accessed 2010-3-11)

¹² Spreadsheet available on-line at http://www.prefblog.com/xls/yt_resets.xls

A More Convenient Spreadsheet

Inspection of Table 4 shows that a lot of values are repeated in the course of the three calculations and that some of the values require a certain amount of fussy calculation (for instance, the after-tax amount of the quarterly dividend for an issue paying \$1.5625 taxable at 19.92% may be input as “=1.5625*(1 – 0.1992)/4” ... and that’s the convenient way!).

All this mindless activity is a little boring¹³ and is easily automated. Accordingly, a spreadsheet, resetTaxEffects.xls, has been developed and is now available on-line.¹⁴

The input data for the analysis of RY.PR.N using resetTaxEffects.xls is displayed in Table 5. Using this table with data for each of the currently extant FixedResets¹⁵, we can calculate Table 6. And, as usual in the financial world, while the derived results for the focus of the investigation, effective tax rates, are important, it is the notes which are most interesting.

Premium Prices and the FixedReset Yield-to-Worst

Many of the notes in Table 6 advise that the scenario chosen for analysis – the yield to the next Exchange Date, using the lower of the call price or the current price as the value on that date – is not the YTW; that is to say, that the investor will realize a lower yield if the issue is not called and the dividend on the issue reset in accordance with its terms.

Most issues of this type are non-investment grade issues¹⁶ trading below par – and when issues trade below par, it is entirely in accordance with our experience with Straight Preferreds (which pay a fixed dividend and are referred to as PerpetualDiscounts when trading below par) that the YTW scenario will be the scenario in which it remains outstanding forever.

However, BAM.PR.R is trading above par and I have noted in Table 6 that a call at the next Exchange Date – which will result in a capital loss if executed – is not the worst thing that can happen from a yield perspective.

Table 5: Computation of Tax Effects for RY.PR.N as of 2010-3-8 using resetTaxEffects.xls

Current Price	27.76
Call Price	25.00
Settlement Date	2010-3-8
End-Date	2014-2-24
Quarterly Dividend	0.390625
Cycle	2
Pay Date	24
Include First Dividend?	1
First Dividend Value (if different)	[blank]
Reset Date	2014-2-24 [Irrelevant in this calculation]
Quarterly Dividend After Reset	0.375 [Irrelevant in this calculation]
Marginal Tax Rate on Dividends	19.92%
Marginal Tax Rate on Capital Gains	21.85%
<i>Results are as shown for Table 4.</i>	

BAM.PR.R: A Counter-Intuitive Yield-to-Worst

Brookfield Asset Management announced the issuance of this FixedReset preferred on January 5¹⁷ with an initial dividend rate of 5.40% resetting to GOC5 +230bp on 2016-6-30 and every five years thereafter.

Later that day, the issue size was increased to \$275-million,¹⁸ indicating strong demand, perhaps aided by a dearth of new issues at that time.

An unusual feature of the financing was the relatively long term until the first exchange date: the press considered¹⁹ this to be an unusual move because: *BAM was asking investors to lock in at 5.4 per cent for six and a half years. That may seem a subtle difference, but 18 months represents a 30 per cent extension on the dividend rate on this issue.*

BAM was trying to nail down financing at a time when interest rates are near historic lows. How did investors respond? After all, they were being asked to make a longer commitment, at a time when interest rates seem likely to rise in the future.

¹³ If I wanted to do the same pointless thing all day long, I’d go work for a bank

¹⁴ Spreadsheet available on-line at <http://www.prefblog.com/xls/resetTaxEffects.xls>

¹⁵ Available on-line at <http://www.prefinfo.com>

¹⁶ The question of what constitutes “investment grade” in the preferred share market is a matter of some dispute. I consider issues rated Pfd-3(high) or lower by DBRS to be non-investment grade entirely on the basis of their market behaviour: they exhibit far more company-specific price fluctuations than do higher rated, “investment grade” issues.

¹⁷ Brookfield Asset Management, Press Release, *Brookfield to Issue CDN\$150 Million of Preferred Shares*, 2010-1-5, available on-line at http://www.brookfield.com/content/2010_press_releases/brookfield_to_issue_cdn150_million_of_preferred_s-1996.html (accessed 2010-3-12)

¹⁸ Brookfield Asset Management, Press Release, *Brookfield Announces Increased Preferred Share Issue*, 2010-1-5, available on-line at http://www.brookfield.com/content/2010_press_releases/brookfield_announces_increased_preferred_share_iss-1997.html (accessed 2010-3-12)

¹⁹ Andrew Wills, *Brookfield re-writes rules on preferred shares*, Globe and Mail, 2010-1-6, available on-line at <http://www.theglobeandmail.com/blogs/streetwise/brookfield-re-writes-rules-on-preferred-shares/article1420756/> (accessed 2010-3-12)

This commentary illustrates one misconception regarding FixedResets: the length of the commitment. Many who should know better regard them as five year instruments, but it is only the dividend that is reset, not the principal. The commitment is perpetual, just as with straights.

The commentary also puts misplaced emphasis on the rationale behind the unusually extended time prior to the first reset: it is almost certainly not to provide Brookfield with greater certainty with respect to its financing costs – although that is consideration – but rather to allow a lower reset while maintaining a few scraps of integrity in the standard FixedReset structure.

The FixedReset structure was designed for use by banks, to be given status as Tier 1 Capital at a time when the market was placing great emphasis on Tier 1 Capital levels. In order for preferred shares to qualify as Tier 1 Capital, they must²⁰:

- Be perpetual
- Not be callable until at least five years after issue
- Not contain an incentive to redeem (thus there can be no “step up” in yields at any time)
- Not have a cost that can be affected by the issuer’s credit quality (thus the very similar FixedFloater/RatchetRate preferreds will not qualify)

At the time of their development, it was becoming increasingly difficult to issue Straight Perpetuals at any price; yields were also becoming more and more elevated in the secondary market; and the standard terms of a Straight Perpetual do not allow a call at par until nine years after issue. Banks needed to raise capital at the high yields of the time, but wanted the option to call it as soon as possible at a cheap price; had they attempted to issue Straights with a five-year call at par, potential new issue buyers might have noticed the change and devoted some thought to the question of what they were being asked to buy – the last thing the issuers want or expect.

In order to meet these constraints, the structure was developed to set the dividends at a spread over five-year Canadas – but at what spread? It cannot be higher than the issue spread, or there is the potential for OSFI to reject the inclusion of the issue in Tier 1 Capital. If it’s significantly lower, buyers might think about what they’re doing! The answer was to make the Issue Reset Spread equal to the spread over Government of Canada bonds having a term equal to the Initial Fixed Rate Period.

The yield curve is (almost always) upwardly sloping, therefore it is in the issuers’ interest to make the Initial Fixed Rate Period as long as possible. This applies not just to issuing banks, but to other issuers, not subject to the OSFI rules, but who wish to use the structure in their own interest while the undewriters have an interest in making the terms of each issue as consistent as possible, in order to maintain liquidity in the marketplace.

On the date of the announcement of BAM.PR.R, the Bank of Canada reports²¹ that five-year Canadas were trading at 2.70%, but seven-year Canadas were at 3.04%; quite a significant difference if the instrument exists in perpetuity! The terms of the BAM.PR.R issue, 5.40%+230bp with a six-and-a-half year initial fixed rate period, stretches both the initial term and the spread to comparable Canadas ... but evidently was within the tolerance of their underwriters and was, as previously discussed, snapped up by the market.

As an aside, it will be noted that Brookfield’s Straight Perpetuals, BAM.PR.M and BAM.PR.N, were trading to yield about 6.80% at the time, resulting in a very high Break-Even Rate Shock²² of 249bp.

One way or another, the actual spread of BAM.PR.R over five-year Canadas for the initial (longer) period, calculated on the issue date, was +270bp, but the reset will be to +230bp – an enormous difference.

In fact, the Issue Reset Spread is so low that, if the five-year Canada rate remains unchanged from its March 8 value of 2.50%, the yield to perpetuity is less if it retains its value but resets, compared to the effects of being called at a capital loss to the March 8 price, as shown in Table 7.

Much the same effect can be observed with TRP.PR.B, issued at 4.00%+128 with an initial period of slightly over 5.25 years, when the Five-Year Yield was 2.59% and the Seven-Year Yield 2.91% – but TRP.PR.B has not yet traded at a premium.

And, of course, if we consider other types of preferred shares, we find that this a reduction in dividends after a conservatively estimated reset is very similar to the situation now for many FixedFloaters, which were discussed in the February, 2010, edition of this newsletter.

Table 7: Scenario Analysis of BAM.PR.R using ytc_resets.xls

Data Value	Yield to First Call	Yield to Perpetuity
Current Price	25.62	25.62
Call Price	25.00	25.62
Settlement Date	2010-3-8	2010-3-8
Call Date	2016-6-30	2035-3-8
Quarterly Dividend	0.33750	0.33750
Cycle	3	3
Pay Date	30	30
Include First Dividend?	1	1
First Dividend Value	0.28110	0.28110
Reset Date	2016-6-30	2016-6-30
Quarterly Dividend After Reset	0.300000	0.300000
Annualized Quarterly Yield-to-Call	5.08%	4.96%

²⁰ Office of the Superintendent of Financial Institutions, *Capital Adequacy Requirement (CAR) – Simpler Approaches*, November 2007, available on-line at http://www.osfi-bsif.gc.ca/app/DocRepository/1/eng/guidelines/capital/guidelines/CAR_A_e.pdf (accessed 2010-3-12)

²¹ Bank of Canada, *Selected Bond Yields, 10-Year Lookup*, available on-line at <http://www.bankofcanada.ca/en/rates/bond-look.html> (accessed 2010-3-12)

²² For a discussion of Break-Even Rate Shock, see the June, 2009, edition of this newsletter and my essay *Breakeven Rate Shock*, available on-line at http://www.himinvest.com/media/moneysaver_0910.pdf

Conclusion

Chart 1 plots the relationship between after-tax yield-to call scenarios in which losses may be used to reduce taxes otherwise payable on capital gains versus those in which such a claim cannot be made, using data from Table 6.

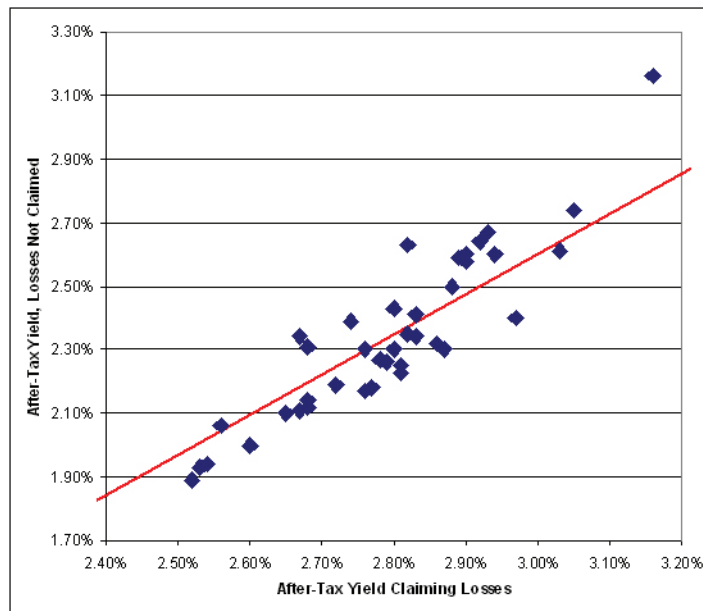
It will be noted that the differences are significant – as is indicated by the regression line, which has the formula $y = 1.27x - 1.20\%$, $R^2 = 0.91$ and that significant differences in ordering are observed.

The consideration of claimability of capital losses should be borne in mind when electing FixedResets for investment, although it should also be noted that the “NoClaim” scenario is worst-case, as it assigns zero value to the capital loss carry-forward. After all, taxpayers may have capital gains to offset by the time the loss becomes available; or gains may be available in the years following; or – if they’re really lucky – they’ll die and be able to claim the losses against ordinary income.

On the other hand, reliance on the “Claim” scenario accepts the immediate payment of tax on the dividends in exchange for the deferred benefit of tax reduction with the capital loss. That, to me, is the wrong order in which to have dealings with a government with a \$50-billion annual deficit that will have to be addressed one day.

One way or another, examination of the effective tax rates shown in Table 6 for the “NoClaim” scenario may surprise some investors with large capital losses who imagine they are buying a safer, tax-advantaged investment.

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Investment Grade Issues

Ticker	Initial Dividend	Spread on Reset	Reset Date	NextEx	Bid	Ask	PreTax	Claim	NoClaim	EffTaxClaim	EffTaxNon	Note
BAM.PR.P	1.75	445	09/30/14	03/11/10	27.25	27.40	5.10%	4.08%	3.70%	20.00%	27.45%	
BAM.PR.R	1.35	230	06/30/16	03/11/10	25.62	25.67	5.08%	4.08%	3.99%	19.69%	21.46%	Not YTW
BMO.PR.M	1.25	165	08/25/13	04/28/10	26.41	26.49	3.32%	2.67%	2.34%	19.58%	29.52%	
BMO.PR.N	1.625	383	02/25/14	04/28/10	28.20	28.30	3.11%	2.52%	1.89%	18.97%	39.23%	
BMO.PR.O	1.625	458	05/25/14	04/28/10	28.28	28.35	3.22%	2.60%	2.00%	19.25%	37.89%	
BMO.PR.P	1.35	241	02/25/15	04/28/10	27.06	27.10	3.62%	2.90%	2.58%	19.89%	28.73%	
BNS.PR.P	1.25	205	04/25/13	03/31/10	26.39	26.44	3.32%	2.68%	2.31%	19.28%	30.42%	
BNS.PR.Q	1.25	170	10/25/13	03/31/10	26.34	26.40	3.59%	2.89%	2.59%	19.50%	27.86%	
BNS.PR.R	1.25	188	01/26/14	03/31/10	26.41	26.56	3.59%	2.89%	2.59%	19.50%	27.86%	
BNS.PR.T	1.5625	414	04/25/14	03/31/10	28.18	28.25	3.14%	2.54%	1.94%	19.11%	38.22%	
BNS.PR.X	1.5625	446	04/25/14	03/31/10	28.19	28.29	3.13%	2.53%	1.93%	19.17%	38.34%	
CIU.PR.B	1.675	481	06/01/14	05/04/10	28.23	28.37	3.43%	2.77%	2.18%	19.24%	36.44%	
CM.PR.K	1.3375	218	07/31/14	03/23/10	26.70	26.75	3.80%	3.05%	2.74%	19.74%	27.89%	
CM.PR.L	1.625	447	04/30/14	03/23/10	28.13	28.18	3.42%	2.76%	2.17%	19.30%	36.55%	
CM.PR.M	1.625	433	07/31/14	03/23/10	28.22	28.30	3.49%	2.81%	2.25%	19.48%	35.53%	
GWO.PR.J	1.50	307	12/31/13	06/01/10	27.20	27.70	3.42%	2.76%	2.30%	19.30%	32.75%	
HSB.PR.E	1.65	485	06/30/14	03/11/10	28.19	28.24	3.69%	2.97%	2.40%	19.51%	34.96%	
IAG.PR.C	1.55	338	12/31/13	05/24/10	27.05	27.25	3.76%	3.03%	2.61%	19.41%	30.59%	
MFC.PR.D	1.65	456	06/19/14	05/22/10	27.97	28.07	3.54%	2.86%	2.32%	19.21%	34.46%	
MFC.PR.E	1.40	323	09/19/14	05/22/10	26.96	27.16	3.66%	2.94%	2.60%	19.67%	28.96%	
NA.PR.N	1.3438	205	08/15/13	04/06/10	26.61	26.75	3.48%	2.80%	2.43%	19.54%	30.17%	
NA.PR.O	1.65	463	02/15/14	04/06/10	27.88	27.93	3.56%	2.87%	2.30%	19.38%	35.39%	
NA.PR.P	1.65	479	02/15/14	04/06/10	27.95	28.00	3.48%	2.81%	2.23%	19.25%	35.92%	
PWF.PR.M	1.50	320	01/31/14	04/06/10	27.41	27.50	3.51%	2.83%	2.34%	19.37%	33.33%	
RY.PR.I	1.25	193	02/24/14	04/22/10	26.28	26.35	3.65%	2.93%	2.67%	19.73%	26.85%	
RY.PR.L	1.40	267	02/24/14	04/22/10	26.90	27.04	3.58%	2.88%	2.50%	19.55%	30.17%	
RY.PR.N	1.5625	350	02/24/14	04/22/10	27.76	27.80	3.32%	2.68%	2.14%	19.28%	35.54%	
RY.PR.P	1.5625	419	02/24/14	04/22/10	27.71	27.81	3.37%	2.72%	2.19%	19.29%	35.01%	
RY.PR.R	1.5625	450	02/24/14	04/22/10	27.80	27.85	3.28%	2.65%	2.10%	19.21%	35.98%	
RY.PR.T	1.5625	406	08/24/14	04/22/10	27.91	27.95	3.48%	2.80%	2.30%	19.54%	33.91%	
RY.PR.X	1.5625	442	08/24/14	04/22/10	27.94	28.00	3.45%	2.78%	2.27%	19.42%	34.20%	
RY.PR.Y	1.525	413	11/24/14	04/22/10	27.86	27.91	3.50%	2.82%	2.35%	19.43%	32.86%	
SLF.PR.F	1.50	379	06/30/14	05/22/10	27.75	27.98	3.17%	2.56%	2.06%	19.24%	35.02%	
TD.PR.A	1.25	196	01/31/14	04/06/10	26.36	26.40	3.64%	2.92%	2.64%	19.78%	27.47%	
TD.PR.C	1.40	274	01/31/14	04/06/10	27.00	27.03	3.51%	2.83%	2.41%	19.37%	31.34%	
TD.PR.E	1.5625	437	04/30/14	04/06/10	27.98	28.00	3.33%	2.68%	2.12%	19.52%	36.34%	
TD.PR.G	1.5625	438	04/30/14	04/06/10	28.00	28.05	3.31%	2.67%	2.11%	19.34%	36.25%	
TD.PR.I	1.5625	415	07/31/14	04/06/10	27.99	28.08	3.46%	2.79%	2.26%	19.36%	34.68%	
TD.PR.K	1.5625	433	07/31/14	04/06/10	27.99	28.12	3.46%	2.79%	2.26%	19.36%	34.68%	
TD.PR.S	1.25	160	07/31/13	04/06/10	26.24	26.28	3.60%	2.90%	2.60%	19.44%	27.78%	
TD.PR.Y	1.275	168	10/31/13	04/06/10	26.58	26.77	3.40%	2.74%	2.39%	19.41%	29.71%	
TRP.PR.A	1.15	192	12/31/14	05/24/10	26.12	26.19	3.51%	2.82%	2.63%	19.66%	25.07%	
TRP.PR.B	1.00	128	06/30/15	05/24/10	25.00	25.00	3.95%	3.16%	3.16%	20.00%	20.00%	Not YTW

Non-Investment Grade Issues

Ticker	Initial Dividend	Spread on Reset	Reset Date	NextEx	Bid	Ask	PreTax	Claim	NoClaim	EffTaxClaim	EffTaxNon	Note
AER.PR.A	1.625	375	03/31/15	03/15/10	25.16	25.17	6.63%	5.30%	5.28%	20.06%	20.36%	Not YTW
BPO.PR.L	1.6875	417	09/30/14	03/11/10	25.85	25.87	6.20%	4.95%	4.81%	20.16%	22.42%	
BPO.PR.N	1.5375	307	06/30/16	03/11/10	24.95	25.00	6.40%	5.12%	5.13%	20.00%	19.84%	Not YTW
BRF.PR.A	1.3125	262	04/30/15	04/03/10	25.00	25.00	5.24%	4.20%	4.20%	19.85%	19.85%	Not YTW
CCS.PR.D	1.8125	521	06/30/14	06/03/10	27.26	27.40	4.79%	3.85%	3.44%	19.62%	28.18%	
CZP.PR.B	1.75	418	12/31/14	03/14/10	26.86	27.08	5.53%	4.42%	4.13%	20.07%	25.32%	
FFH.PR.C	1.4375	315	12/31/14	06/03/10	25.94	26.00	4.78%	3.83%	3.68%	19.87%	23.01%	
FFH.PR.E	1.1875	216	03/31/15	03/06/10	24.15	24.24	5.12%	4.10%	4.10%	19.92%	19.92%	Not YTW
FTS.PR.G	1.3125	213	09/01/13	05/03/10	26.46	26.70	3.48%	2.81%	2.47%	19.25%	29.02%	
FTS.PR.H	1.0625	145	06/01/15	05/01/10	25.08	25.25	4.19%	3.36%	3.35%	19.81%	20.05%	Not YTW
TCL.PR.D	1.6875	416	10/15/14	04/13/10	25.06	25.15	6.93%	5.55%	5.54%	19.91%	20.06%	Not YTW
YPG.PR.C	1.6875	417	09/30/14	03/11/10	24.46	24.48	7.23%	5.78%	5.78%	20.06%	20.06%	Not YTW
YPG.PR.D	1.725	418	06/30/15	03/11/10	24.76	24.85	7.26%	5.81%	5.81%	19.97%	19.97%	Not YTW

“PreTax” is the pre-tax yield to the first reset date

“Claim” is the after-tax yield if capital losses may be used to offset capital gains

“NoClaim” is the after-tax yield if capital losses are not used to offset capital gains

“EffTaxClaim” is the effective tax rate on the pre-tax yield if the capital loss is claimed

“EffTaxNon” is the effective tax rate on the pre-tax yield if the capital loss is not claimed

All calculations involving taxes use the marginal rates for a BC investor with taxable income of \$150,000, as reported by Ernst & Young for 2009: 21.85% for capital gains and 19.92% for Eligible Dividends.