



# The Swoon In June

James Hymas

**F**inancial markets can be strange things. Despite the best efforts of academics to show that the markets are efficient, strange anomalies persist in wreaking havoc with the best laid plans of investors, while providing opportunities that had been undreamt of in prior times.

At the beginning of June, there was a universal feeling that the Bank of Canada would be cutting the overnight interest rate by 0.25% – perhaps by as much as 0.50%! But, after a rise in oil prices, some tough talk by Jean Trichet, president of the European Central Bank, and an unexpected move by the Bank of England to maintain their rate at 5%, the Bank of Canada announced on June 10 that “the balance of risks to the Bank’s April projection for inflation in Canada has shifted slightly to the upside” and maintained a steady course.

The preferred share market plummeted. There are many investors and advisors who talk grandly about “interest rates”, acknowledging by the plural that there is more than just one, but trading on the assumption that all yields on fixed income instruments will move in lockstep with the Bank of Canada overnight rate. In fact, the relationship between long rates and short is complex and ever-changing, depending largely on inflation and policy responses thereof (the short end) and inflation expectations (the long end) – two related, but not identical concepts. A quick glance at Chart 1 (data courtesy of the Bank of Canada) shows considerable divergence between the two rates.

Further complexities are introduced when we consider corporate bonds and preferred shares, but when yields for

government and corporate long bonds are compared to the interest equivalent yields from perpetual discount issues, a much higher correlation is seen. To obtain the “interest equivalent yield”, dividend yield is multiplied by 1.4 (see *CMS*, February 2007). Long corporates include only investment grade corporate bonds with a remaining term to maturity of greater than ten years. Elimination of “short” (1-5 years) and “mid” (5-10 years) bonds increases the relevance of the comparison.

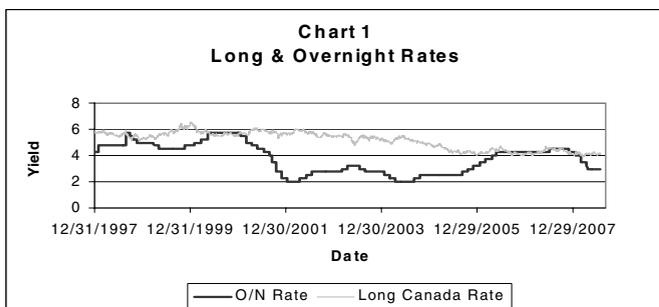
Investors have demanded a greater interest-equivalent yield from perpetual preferreds than from long corporate bonds:

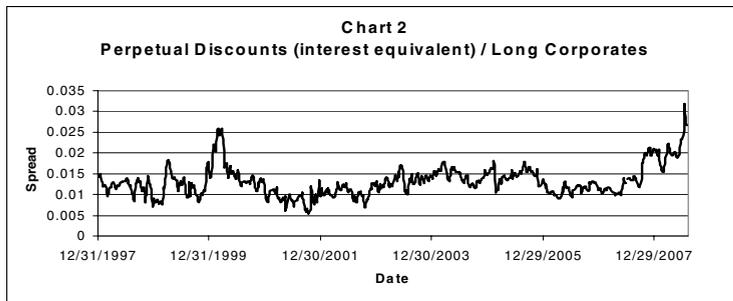
- Perpetual preferreds are ranked junior to bonds should the issuer go bankrupt and dividends may be halted without placing the company in bankruptcy; hence, there is greater credit risk with perpetuals.
- Perpetuals have, by definition, no maturity date and hence have greater term risk.
- For traders of institutional size, there is greater liquidity risk with perpetuals, although retail investors may well experience the opposite.

Factors affecting the corporate/government bond spread are mainly:

- Standard credit metrics such as the debt/equity ratio and income coverage.
- The leverage ratio of the issuer, particularly when this changes. Increases lead to an increased spread.
- The issuer’s common stock price volatility. Higher volatility implies a wider spread.
- A greater potential for surprises in the price of the bond will increase the spread.
- Smaller issues will generally have greater spreads.

Bearing this in mind, we can examine the the Perpetual Discounts/Long Corporates spread in Chart 2. The latter chart shows just how unusual the summer has been. The prior peak in this spread was a mere 250bp, reached in March 2000, while the current spike exceeded the 300bp level.





I assert that the most likely explanation of the recent price collapse is blind panic on the part of unsophisticated retail investors and their advisors; that one explanatory mechanism is portfolio “window dressing” in preparation for the mailing of quarterly account statements dated June 30; and that another factor is a misunderstanding of fixed income mathematics.

The first possible explanation may be dealt with easily. I suggest that stockbrokers are sick and tired of reminding their clients that their preferred shares, bought at \$25 in the first half of 2007, are now trading at \$20. If the issue is

sold, then the client will take the loss, but at least won't be reminded with every statement. I believe this mechanism contributed to the collapse, but there's no real way of testing the hypothesis – a very convenient circumstance for which all pundits are grateful.

The second explanation is a bit more complex. Readers of these columns will remember my emphasis on the negative convexity of fixed-rate perpetual preferreds when they are near their redemption price (see the articles “Perpetual Hockey Sticks” from *CMS*, March/April 2007, and “Convexity” from *CMS*, November 2007). The basic point is that the interest rate risk of these issues is asymmetrical since the issuer has the option, but not the obligation, to call the issue for redemption at the par value after a date that is defined in the prospectus. The par value of a perpetual preferred share trading at a discount has only one effect: to limit the holder's winnings should interest rates decline.

Some, however, consider a higher coupon and higher price to be a good thing when deciding between two perpetual discount issues with the same yield. For example, one analyst with a major Canadian dealer stated in a report to clients: “We focused on low dividend rate perpetuals which would be most sensitive to higher interest rates.”

This statement is simply wrong. A certain amount of algebra starting from Equation (3) of the article “Modified Duration” in *CMS*, May 2007 leads to the conclusion that the Macaulay Duration of a perpetual annuity with a yield per period of “ $r$ ” is  $(1+r)/r$ . Therefore, from Equation (2) of that article, the Modified Duration (which measures the sensitivity of price to yield changes) is simply  $1/r$ . Thus, the Modified Duration of a discounted perpetual trading to yield 5% is 20 years, irrespective of price, dividend rate and par value, which implies that an increase in yield of, say, 5bp to 5.05% will result in a decrease in price of 20 times this amount, or 1%.

But consider Chart 3, which bolsters my argument that the decline was led by unsophisticated investors. The May 30 curve is normal. It should be upwards sloping since a rational investor will demand more yield from an issue with a higher dividend, since the cap on potential capital gains is closer. We will not quibble in this short article regarding whether the slope is too little, too much, or just right, but it does slope in the correct direction.

On June 24, the curve was clearly downward sloping! Consider the choice on June 24 between a high dividend and low dividend issue:

- The low dividend issue has a higher yield.
- The two issues have roughly the same price sensitivity to increases in yields.
- The low dividend issue has a potential for greater capital gains should yields fall.

## The Pick of PrefLetter

After the close on August 8, my monthly newsletter ([www.prefletter.com](http://www.prefletter.com)) recommended W.PR.J, among others, for long-term, buy-and-hold investors.

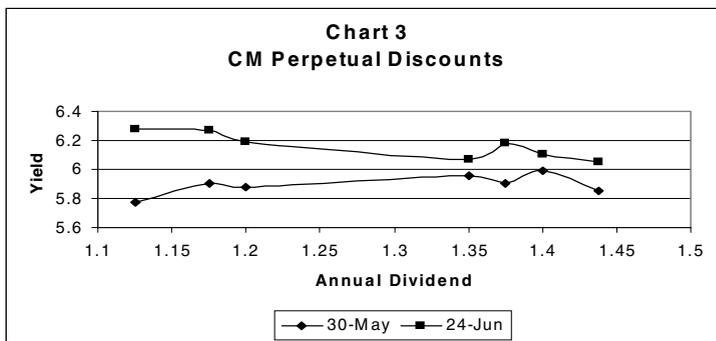
Type of Preferred .....	Perpetual Discount
Quotation (2008-8-8) .....	\$21.33-63
DBRS Rating .....	Pfd-2(low)
S&P Rating .....	P-2(low)
Annual Dividend .....	\$1.40
Yield-to-Worst Scenario .....	Limit Maturity
Yield-To-Worst .....	6.65%
Modified Duration, YTW .....	12.77
Pseudo-Convexity, YTW .....	-4.04

**W.PR.J** - Currently redeemable at 25.00. Next ex-date: 2008-9-26 (estimated). Two strikes against this issue are its (relatively) low credit rating of Pfd-2(low) and its relatively high dividend combined with the fact that it is currently redeemable (which explains the negative pseudo-convexity). However, it is a non-financial issue, the dividends are cumulative, the redemption price is still 17% above the current bid, and the yield is quite attractive. So, all in all, there will be many who find it compelling. This issue was hit along with everything else in the period June 13-July 11, returning -8.70% compared to -7.72% for the Perpetual Discount index, but has not participated in the recovery of July 11-August 8, returning -0.79% compared to +3.18 for the index. Careful readers will note that the Modified Duration reported above is not equal to  $1/r$ . This is due to approximations made in my analytical programme for computational expediency.

It seems like a pretty straightforward choice, doesn't it? What conceivable reason is there to purchase a high-dividend issue in these circumstances? In the course of the decline, the relative changes did correct themselves, but the initial oddity was reflected in the broader market.

Given the extreme nature of the decline in prices, the lack of confirmation from the corporate bond market (which resulted in a skyrocketing of spreads) and the complete lack of internal consistency during the initial decline, I must conclude that the recent sell-off was simply blind panic by unsophisticated investors, triggered by an irrational response to the Bank of Canada announcement and later reinforced by those who sold simply because the market was declining.

When will the market recover? When will yields and spreads return to more normal levels? Ah, if I knew that, I wouldn't have to spend so much time determining when one issue was cheap relative to another! The markets can



get out of whack and stay out of whack for indefinite periods. But knowing their normal behavior is the first step towards exploiting their occasional inconsistencies.

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