Proposal

Synthetic Floating Rate Preferreds

Part 1

James I. Hymas

It has been observed that many participants, or potential participants, in the Canadian preferred share marketplace avoid perpetual preferreds on the grounds that the exposure to interest rate risk is too extreme. Should rates double, so that new perpetual issues come with a 9% coupon rather than the current 4.5%, the market price of extant perpetual issues will halve, with no rational prospect of recovery of capital other than the hope that rates will eventually return to their starting level.

This has led to a situation in which various classes of preferred shares appear to be over-priced. For example, consider the issue BAM.PR.K and BAM.PR.B, both relatively liquid floating rate preferreds that pay a fixed percentage of prime. They are currently paying $0.2625 quarterly, or $1.05 annually, and trading with a Current Yield (dividends / price) of 4.20-4.25%.

This could be swapped (see “Interest Rate Swaps”, below) into a fixed rate of approximately 4.66% for a thirty-year term. At the Ontario dividend conversion factor of 1.4x, this is the interest equivalent of 6.52%.

We may convert the new-issue bank perpetuals level of 4.5% into the interest equivalent of 6.3% using the same conversion factor, thus deriving a spread between BAM and “Banks” of approximately 25bp pre-tax interest-equivalent for fixed-rate perpetuals (one of which, the BAM, is synthetic).

When we look at bond market spreads, however, we may see that the BAM issue 5.95% of June 14/35 (CUSIP 10549PAJ0) is trading to yield 5.84-81% (quote from Bloomberg), far above long-term obligations of other financial issuers, such as BNS 8.90% of 2025 (yielding about 5.00%) and a recent Manulife issue, 5.059% of 2036 (yielding about 5.20%).

Thus, we may conclude that BAM floating perpetual preferreds are overpriced relative to bank fixed-trade perpetual preferreds, if we use the corporate bond market as a benchmark.

To put this in other terms: we may buy a bank fixed-rate perpetual with a yield of approximately 4.5% and Swap this into a floating rate (based on Bankers’ Acceptances) starting at 4.10%. This rate is only 10bp below the rate currently paid on BAM floaters, with much better credit quality.

Therefore, I propose the following investment vehicle:

i) Funds to be invested in a portfolio of high quality straight preferreds. I recommend that this portfolio be limited to issues rated Pfd-2 or higher by DBRS; this will provide a certain amount of credit-risk protection, since the issues may be downgraded to Pfd-2(low) without losing their Investment Grade status. Well-known issuers that will be eliminated from consideration by this requirement (as opposed to a requirement for Pfd-2(low)) include TRP, WN & BAM.

ii) Expected fixed-rate payments will, ideally, be swapped into floating rate at the Canadian Long Rate. The Canadian Long rate is based on the Canadian 30-year benchmark bond which, together with the Long Canada Swap Spread of (currently) 57.25bp, is swapped into the Canadian Bankers' Acceptance Rate. Thus, 4.7725% (fixed) is swapped into 4.35% (floating) for a thirty year term.

iii) To minimize problems of negative convexity, it would be best to restrict the portfolio of preferreds to those issues trading at a deep discount to their ultimate call price. Unfortunately, there are no such issues, as may be expected from historical trends in interest rates. Thus, I propose that the portfolio manager be given discretion to vary from the "Canadian Long Rate" swap to swaps based on a shorter term in order to hedge the portfolio more closely on a duration-matched basis and at a lower cost.

iv) The portfolio of Straight Preferreds to be traded actively.

Risks

- **Decline in interest rates:**
  - There will be a greater probability that fixed-rate perpetuals in the underlying portfolio will be called at par, which will then have to be replaced with lower-yielding issues. Since the initial Swap transaction will be based on a thirty-year exchange of the initial fixed-yield for the portfolio, this will lead to a capital loss (if the Swap is partially unwound) or to a shortfall of income relative to the expected floating rate (if the Swap is maintained in its entirety). In order to minimize this risk, it is anticipated that the actively managed straight-preferred portfolio will be biased towards holding lower-coupon preferreds, preferably those trading at a discount (as discussed in characteristic (iii) of the proposed vehicle, above).
  - Since the Swap is not actually a thirty-year contract, but is a three-month contract with settlement pricing based on a thirty-year term, a decline in rates may lead to capital losses that are realized rather than unrealized, with a corresponding need to liquidate a portion of the fixed-rate portfolio.
  - These losses may be offset, partially or entirely, by capital gains on the fixed-rate portfolio. It might be possible at some point to purchase a deep-out-of-the-money long-term bond call to hedge this risk.

- **Increase in interest rates:**
  - Due to the nature of the contract, capital gains will be realized with tax implications for taxable investors.
  - These gains may be offset, partially or entirely, by capital losses on the fixed-rate portfolio, to a greater or lesser extent determined by the extent to which the swap contract has been utilized to minimize duration risk or minimize income-stream risk.
- **Credit Spreads**
  - "Swap rates, like the London Interbank Overnight Rates (LIBOR), reflect the "riskless" rate of Treasury securities plus the credit risk associated with the financial sector." (http://www.cbot.com/cbot/pub/cont_detail/0,3206,1562+37959,00.html) Due to the nature of the long position, it is anticipated that this risk is hedged – the fixed-rate perpetual preferred market is dominated by the financial sector.
- **Counterparty Risk**
  - The Swap is only as good as the counterparty. There is (currently) no exchange traded facility for 30-year swaps in Canada
  - Any major bank in Canada will make a market in 30-year swaps – provided their credit department approves a line, which may be withdrawn at any time.
- **Tax Risk**
  - Adverse changes in the taxation of dividends may be expected to impact the underlying portfolio negatively without a compensating gain on the swap contract.
- **Basis Risk**
  - The floating rate for the swap contracts is based on the three-month BA rate, while the floaters which we are attempting to synthesize pay based on a fixed proportion of Canadian Prime. This is not considered to be a significant difference.
  - The fixed rate portfolio is comprised of high quality preferred shares, while the contract is based on (for practical purposes) a bank bond. There are issues in this basis risk based on the negative convexity of the portfolio and potentially varying preferred/bond-equivalent spreads.

Rewards

Assuming passive management, the vehicle should receive floating rate dividends based on the Bankers' Acceptance rate slightly below current market levels (the current market has a very limited number of exclusively low-quality issuers available) but with much greater credit quality than is available in the preferred share marketplace with direct investment.

Active trading will of the underlying straight-perpetual portfolio will be undertaken with the goal of returning an additional 1.0-2.0% annually, before fees and expenses.

Structure

The investment vehicle could be either a split-share corporation or a mutual fund (preferably closed end). If split-share, the floating-rate preferreds issued should be callable after five years to account for the risk of interest-rate declines that (due to redemptions of the perpetuals held) may permanently impair fund returns. If the fund is open-ended, there should be a penalty for redeeming units within one year of purchase, due to the costs inherent in putting on a preferred-share + swap contract position.

Credit problems might result from attempting to apply this strategy in segregated accounts, but investors of sufficient size could always attempt to qualify for a line from a suitable counterparty.

Interest Rate Swaps

See http://www.mathematik.uni-ulm.de/finmath/ws_0506/pfe/InterestRateSwaps.pdf for an essay on Interest Rate Swaps that includes copious notes on the use of Bloomberg Terminals for pricing purposes. See http://repositories.cdlib.org/anderson/fin/7-86/ for a paper regarding pricing of these swaps.

These instruments have become a standard tool for risk-control, with over $81-trillion in notional value of swaps of various kinds reported for US Banks by the FDIC (http://www2.fdic.gov/qbp/2006dec/qbp.pdf , table VI-A) which they both trade and use for their own risk-management purposes (http://www.fdic.gov/bank/analytical/fyi/2006/022206fyi.html)

See http://www.cbot.com/cbot/pub/cont_detail/0,3206,1562+37416,00.html for an explanation of how settlement prices for exchange-traded interest-rate swap contracts are priced.

Conversion rates used in this proposal are based on current quotes for Canadian Long Swaps. The Long (30-year) swap is now 57.25bp over Canadas; long Canadas are now yielding 4.20; This implies that an obligation with a notional term of 30 years yielding 4.7725% may be swapped to receive floating rate payments based on three month Bankers' Acceptances, now yielding 4.35%.

Part 2 of this proposal is in preparation and will focus on stress-testing various scenarios.

***Note re BAM perpetuals**: We may also note that the recent BAM straight preferred, BAM.PR.M, is trading to yield 4.73% (Yield-to-Worst), which is 7bp greater than the swap-equivalent of the BAM floaters, despite its far higher liquidity. The implications of this relatively close congruence between theory and reality in the preferred share market are unclear.*