Treatment of non-qualifying capital instruments

This month's essay takes its title from an advisory[1] issued by the Office of the Superintendent of Financial Institutions (OSFI) on February 4 which has had great effects on a specialized corner of the capital markets both in its anticipation and reaction.

The heart of the matter is: *Capital instruments issued prior to September 12, 2010 that previously qualified as regulatory capital but do not meet the Basel III criteria for regulatory capital will be considered non-qualifying capital instruments and subject to the phase-out described in this Advisory.*

Strictly speaking, the advisory is directed only towards banks and the implications for banks' preferred shares are clear: the current pool of "Additional Tier 1 Capital" (which includes both preferred shares and Innovative Tier 1 Capital) will gradually lose its status and no Tier 1 credit will be granted for these instruments starting with the first quarter of fiscal 2022. Thus these instruments, which the banks have formerly been able to regard as cheap equity will be better described as expensive debt. This creates a huge incentive to redeem which has not existed before, adding an entirely new layer of analysis to the requirements for understanding the preferred share market; this layer is the subject of this essay.

The Purpose of Tier 1 Capital

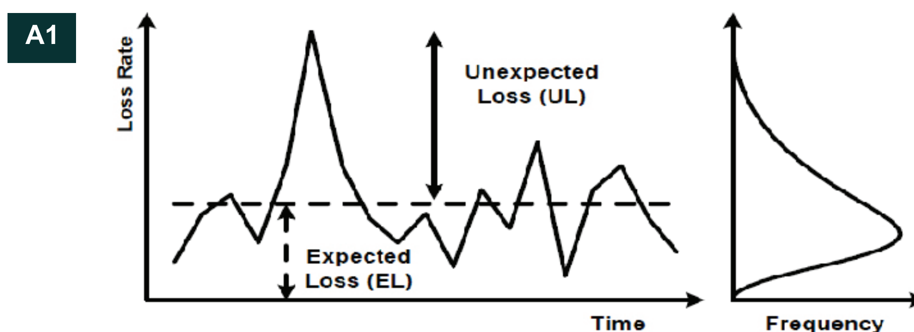
To preserve financial stability, the Basel Committee on Banking Supervision[2] (BCBS), which is organized under the auspices of the Bank for International Settlements (BIS) has defined "Three Pillars" upon which the international banking system rests:

- The First Pillar defines minimum capital requirements for banks, with guidelines for their precise calculation. These requirements seek to measure the risk that each bank is subject to, and to measure the adequacy of a bank's capital to meet these risks.
- The Second Pillar is the Supervisory Review Process. The Basel II agreement states "Supervisors are expected to evaluate how well banks are assessing their capital needs relative to their risks and to intervene, where appropriate".[3]
- The Third Pillar is Market Discipline. The purpose of this pillar is "to encourage market discipline by developing a set of disclosure requirements which will allow market participants to assess key pieces of information on the scope of application, capital, risk exposures, risk assessment processes, and hence the capital adequacy of the institution."[4]

It is, of course, the first pillar that requires the most exacting set of rules – characterizing all the activities of all of the world's banks into just a few numbers is a Herculean task – but it is not necessary to trace the full implications of each paragraph in order to appreciate their intent. In order to provide an overview of the BIS Capital Ratios for non-specialists – and thus strengthen the "Third Pillar" of market discipline – the Bank published "An Explanatory Note on the Basel II IRB Risk Weight Functions"[5] in July 2005 with the purpose of "explaining the Basel II risk weight formulas in a non-technical way by describing the economic foundations as well as the underlying mathematical model and its input parameters."

They commence by drawing a distinction between "expected losses" and "unexpected losses". A certain proportion of defaults is only to be expected in any lending operation and over time banks have developed a certain amount of expertise in predicting these losses based on the statistical properties of their borrowers and the loan structure.

Naturally, these expected losses will not occur in a neat fashion; there will be years of good times, during which employment is high and wages rise, followed inevitably by recessions during which poor business practices are punished en masse by default, bankruptcy and increasing unemployment. A visual representation of this ebb and flow of loan losses is shown in Chart A1.



1 Office of the Superintendent of Financial Institutions, *Treatment of non-qualifying capital instruments*, Advisory, February 2011, available on-line at http://www.osfi-bsif.gc.ca/app/DocRepository/1/eng/guidelines/capital/advisories/nqcibIII_e.pdf (accessed 2011-2-12)

2 See http://www.bis.org/bcbs/index.htm. Canada is one of twenty-seven members of this committee and is represented by both OSFI and the Bank of Canada (http://www.bis.org/bcbs/history.htm)

3 BIS compilation of the Basel II agreement, paragraph 722, available on-line at http://www.bis.org/publ/bcbs128c.pdf (accessed 2009-6-28)

4 Basel II compilation, paragraph 809 available on-line at http://www.bis.org/publ/bcbs128c.pdf (accessed 2009-6-28)

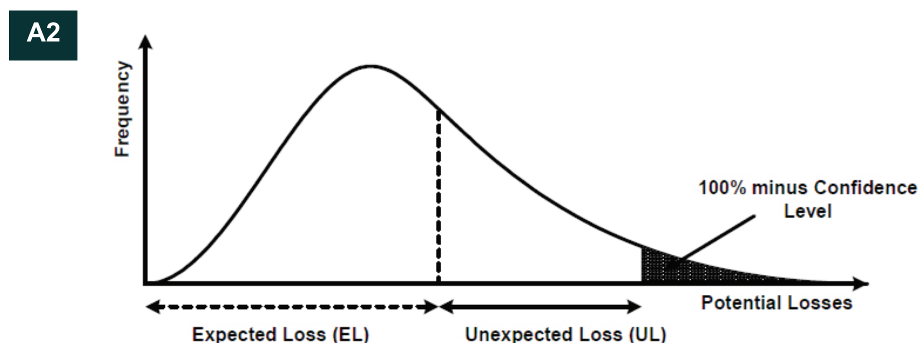
5 Available on-line at http://www.bis.org/bcbs/irbriskweight.pdf?noframes=1 (accessed 2009-6-28)

An unpredictable spike in loan losses may result in bankruptcy for a regulated bank and the stated intent of bank regulation is to minimize this danger by ensuring that the bank will be able to meet its obligations to creditors and depositors despite such a peak. It is, of course, impossible to provide any guarantees that depositors and creditors will be repaid promptly and on time; the leverage implicit in a bank's capital structure means that if every single loan it makes defaults with no recovery for the bank (a rather extreme example!) then it will not be able to meet its future obligations. The purpose of the Basel Accords is simply to reduce the chance of such a trade-threatening occurrence from happening.

To this end, each bank calculates its Risk Weighted Assets, weighting their exposures to various business risks in a standardized manner. Table A1 provides an outline of the risk-weighting that is applied to various types of assets held by banks in Canada:[6]

Table A1: Some Examples of Risk-Weighting Factors in Canada	
Treasuries & Canada bonds	0%
Claims on banks (according to sovereign rating) and corporates	
- Rated AAA to AA-	20%
- Rated A+ to A-	50%
Claims on Individuals	
- Uninsured Mortgages	35%
- Unsecured loans	75%
Publicly Traded Equities	200%
Private Equity	300%
Other factors contributing to total Risk Weighted Assets include those based on the term of the loans, amount of unused credit, Market Risk and Operational Risk	

Thus, after determining the level of Risk Weighted Assets held by a bank, the BIS Capital Ratios determine how much capital is required to demonstrate a prudent approach to the vagaries of lending. The BIS publication regarding the Risk-Weighting philosophy[7] provides another helpful diagram to explain the intent of the capital ratios:



The bank is required to hold capital sufficient to ensure that an Unexpected Loss (UL) will not cause losses to the bank's depositors and senior creditors, with a probability equal to 100% minus the confidence level. The bank states "The confidence level is fixed at 99.9%, i.e. an institution is expected to suffer losses that exceed its level of tier 1 and tier 2 capital on average once in a thousand years."

In order to meet this requirement, BIS sets a minimal total capital ratio of 8%[8].

[6] Office of the Superintendent of Financial Institutions Canada, *Capital Adequacy Requirements (CAR)*, available on-line at http://www.osfi-bsif.gc.ca/app/DocRepository/1/eng/guidelines/capital/guidelines/CAR_A1_e.pdf

[7] An Explanatory Note on the Basel II IRB Risk Weight Functions, supra

[8] The First Pillar – Minimum Capital Requirements [Basel Committee] supra

The Failure of Tier 1 Capital

A number of elements served to illustrate that the concept of Tier 1 Capital as described above is relatively simplistic. For instance, Chart A2 illustrates the concept whereby a bank can absorb "unexpected" losses – expected to occur only once every millennium (provided the models work. They often don't, as entertainly discussed by Andrew G. Haldane of the Bank of England[9]) – within its capital, but fails to consider what happens next. As Willem Buiter has commented[10] *Constant regulatory capital ratios also have pro-cyclical effects, as declining asset valuations depress the actual capital ratios and force defensive measures on the banks*.

Thus, for instance, a bank might experience unexpected losses equal to 4% of its Risk Weighted Assets, or half its minimum capital, and due to the assumptions embedded in the statistics this will happen much more often than once per millennium – even given perfection of the model. At that point, the bank will be operating with only half of its original, minimal capital to support essentially the same level of assets and will be below its regulatory minimum. To get back into the regulators' good graces, it must therefore sell assets or raise capital – at what is almost sure to be a very bad time to be taking these actions! When a significant number of global banks finds themselves in this situation at the same time, trouble ensues.

This particular risk is addressed (at least in part) by a new counter-cyclical buffer and capital conservation buffer,[11] but is exacerbated by the fact that non-equity Tier 1 Capital does not provide the same level of loss absorbancy as does common equity, a fact that has infuriated regulators and politicians since the commencement of the Crisis.[12] An OSFI Draft Advisory[13] goes so far as to state: *All regulatory capital must absorb losses in a failed bank. During the recent crisis, however, this premise was challenged as certain non-common Tier 1 and Tier 2 capital instruments did not absorb losses for a number of foreign financial institutions that would have failed in the absence of government support*

Sharp eyed readers will note that the quoted sentences form a non-sequitur: the first sentence states expected loss-absorbance in the event of bank failure, while the second decries the fact that they didn't absorb losses when the bank didn't fail. As discussed last month, however, the regulators' desire to bypass the judiciary in the event of bankruptcy and to expropriate property at their sole discretion has made mere matters of logic the least of our worries.

To eliminate any vestige of legal constraints on the bureaucracy at the time of the next crisis, the draft advisory proposes the definition of Non-Viability Contingent Capital (NVCC).

Non-Viability Contingent Capital

The draft advisory requires that all elements of non-common equity Tier 1 Capital meet a set of principles, the most important of which are:

Principle #1: Non-common Tier 1 and Tier 2 capital instruments must have, in their contractual terms and conditions, a clause requiring a full and permanent conversion into common shares of the DTI upon a trigger event. As such, original capital providers must not have any residual claims that are senior to common equity following a trigger event.

and

Principle # 3: All capital instruments must, at a minimum, include the following trigger events:

a: the Superintendent of Financial Institutions (the "Superintendent") advises the DTI, in writing, that she is of the opinion that the DTI has ceased, or is about to cease, to be viable and that, after the conversion of all contingent capital instruments and taking into account any other factors or circumstances that she considers relevant or appropriate, it is reasonably likely that the viability of the DTI will be restored or maintained; or

b: a federal or provincial government in Canada publicly announces that the DTI has accepted or agreed to accept a capital injection, or equivalent support, from the federal government or any provincial government or political subdivision or agent or agency thereof without which the DTI would have been determined by the Superintendent to be non-viable.

I will be the first to agree that, in a perfect world, these provisions will not make much difference to preferred shareholders: we understand that if a company fails, its preferred shares will almost certainly be worthless, as happened with Nortel[14] and Quebecor World.[15] But, when the laws of a nation change to give extraordinary power to the state in extraordinary circumstances, these laws almost invariably get abused in a slow slide towards tyranny. It did not take long for the UK to use its anti-terrorism laws against Iceland in a mere commercial dispute;[16] the ability to appoint a dictator of Rome was a rational response to emergencies; the assumption of the dictatorship by Julius Caesar was not.

It will be noted that there are no constraints placed on the discretionary powers of the Superintendent (a civil servant reporting to the Minister of Finance), and no avenues for appeal are specified. There is nothing that prevents the Superintendent from taking the view tomorrow morning that Royal Bank has ceased to be viable – she is not even required to state her reasons for such a finding.

Be that as it may, it's what we're stuck with. We will now turn to an examination of the probable implications of these changes, with respect to extant Tier 1 Capital.

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9 http://www.bis.org/review/r090219d.pdf (accessed 2010-12-11)

10 Willem H. Buiter, *Lessons from the global credit crisis for social democrats*, Revised April 28, 2009, available on-line at http://www.nber.org/~wbuiter/uyl.pdf (accessed 2011-2-12)

11 Basel Committee on Banking Supervision, *Basel III: A global regulatory framework for more resilient banks and banking systems*, December 2010, available on-line at http://www.bis.org/publ/bcbs189.pdf (accessed 2011-2-12)

12 See my article *Prepping for the Next Crisis*, available on-line at http://www.himivest.com/media/advisor_1001.pdf or via the draft, footnoted, version at http://www.himivest.com/media/advisorDraft_1001.pdf

13 OSFI, Draft Advisory: Non-Viability Contingent Capital, February 2011, available on-line at http://www.osfi-bsif.gc.ca/app/DocRepository/1/eng/guidelines/capital/advisories/nvcc_dft_e.pdf (accessed 2011-2-12)

14 See http://www.prefblog.com/?p=6995

15 See http://www.prefblog.com/?p=7016

16 Dan O'Brien, *Bailout pledges would not be easy to keep*, Irish Times 2011-02-01, available on-line at http://www.irishtimes.com/newspaper/opinion/2011/0201/1224288694185.html (accessed 2011-2-11). I'm sure there are better references.

Observations on Market Integrity and Analysis

Issuers affected by the phase-out of extant preferred shares will have the Tier 1 credit for this capital reduced by bucket (Tier 1 total and Tier 2 total) rather than by issue: therefore, if an issuer has $1-billion of non-equity Tier 1 capital currently outstanding, the full amount can be claimed until the first quarter of fiscal 2013, at which point the eligible total will be reduced to $900-million – implying that $100-million of this type of capital will be called for redemption prior to this date.

There is only one restriction placed by OSFI on the timing of redemption of individual issues: they expect the use of the “regulatory event” clause to be minimized and the banks have all stated their expectation that they will be able to reduce their capital within that time-frame with minimal use of this clause.[17]

The regulatory event clause is something that has not been seen much in prospectuses for preferred shares, although the new issue BNS.PR.Z (issued as part of the takeover of Dundee) has one.[18] Briefly, such a clause permits the issuer to call the issue at par should it be advised that the issue is no longer Tier 1 capital.

This clause has caused great grief and consternation amongst holders of Innovative Tier 1 Capital. Unlike the complacent purchasers of FixedResets, there were many canny buyers of this type of capital who refused to buy high-coupon bank issues during the crisis unless there was a long lock-out period for calls. Two issuers, TD and CIBC, were forced to agree to a thirty-year lock-out period in order to issue their paper and by the time the crisis had eased in August 2010, the price of these issues had increased from par to the area $160 per $100 face value[19] – a very nice capital gain!

Increasing fear that the regulatory event clause would become exercisable brought the price down to about $130 by November – news of OSFI’s directive that the banks use their legal powers minimally have now raised the price to the area of $135.

Thus, we see the following chaotic effects on these two issues:

- new-issue investors smart enough to insist on a long call lock-out period have been insufficiently rewarded.
- investors who bought at the highs, ignoring the regulatory event clause, have been insufficently punished.
- investors who believed that the Regulatory Event clause would become effective have been insufficiently rewarded.
- Conversely, issuers are not being rewarded or punished for their foresight or lack of it.

This sort of gyration is, of course, the reason why the issues should have been grandfathered – it’s hard enough to select good investments on economic grounds, without having to add a layer of regulatory rule-changing on top of that. OSFI’s deliberate deprecation of the value of investment analysis is harmful to the integrity of the capital markets and, of course, makes nonsense of their calls for market discipline. Investors cannot plan for the long term when the rules may change at any time.

I will, however, take the opportunity to point out some things that may be of use to investors:

- Eurobonds commonly have an equivalent clause that provides for immediate redemption if tax laws change such that the rationale for their issue disappears. While the Eurobond market has been stable for many, many years and the risk of such a tax event is low … do you really want to buy, or hold, high coupon Eurobonds trading well above par? At the very least, the admittedly slim possibility of exercise of this clause should be factored into the decision-making process.
- Perhaps the next stage in the eternal war between issuers and new-issue buyers will be the adjustment of the call price in the case of such an event. A “Canada Call”, for instance, whereby the redemption price is determined by reference to contemporary market conditions, would serve to ensure that risks of regulatory whimsy are not borne entirely by one party.
- When analyzing prospectuses to determine call schedules for incorporation into HIMIPref™ , I assume that any specified trigger event will take place immediately – this is a matter of prudence, since it represents something over which I have no control and no ability to forecast. It will not have escaped notice that in my monthly listing of FixedResets, the issue DC.PR.B, trading at a good premium over issue price, has been displayed as having a negative yield-to-worst – with the notation “To Immediate Call”. This issue has a “Special Redemption Right” that permits call according to a specific schedule if the corporations seeks to take an action that would result in preferred shareholders being granted the right to vote (e.g., an amalgamation).[20] Since I have no way of forecasting the potential for this to become exercisable, I value the issue as if such a call schedule was definitely effective, rather than simply ignoring it. It may be that I miss the occasional good deal through this gloomy perspective – but in the bond world the return distribution is generally highly asymmetric and it takes a lot of good deals to compensate for one bad one (a long overdue price decline for this issue has restored the sign of the YTW to its proper setting).

Naturally, incorporation of Regulatory Event clauses in new issues will cause me to assume that all such issues are immediately callable at par. This then implies that my analytics will conclude that the potential for capital gain on such an issue is minimal and therefore I will be even less likely to purchase such issues than I am now. This is unfortunate, but I take the view that any other course of action would be imprudent. Should a sufficient number of other investors become equally persuaded of the prudence of this approach, it will become much more difficult to sell new issues; this illustrates the harmful effects of arbitrary regulation. To address the problem, issuers will need to increase the coupon on their new issues, agree to a lock-out period even after a Regulatory Event, or adjust the call price applicable after a Regulatory Event.

Analytical Approach

One way or another, my analytical approach for valuing preferred shares since the announcement has been to add a “hardMaturity” entry to the HIMIPref™ call schedule for each issue I consider to be affected, or likely to be affected, by the change. This hardMaturity is processed with a strike-price of par and an exercise date of 2022-1-31, that being the last day of the first quarter in which the cap on inclusion of these issues in Tier 1 Capital goes to zero.

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[17] See http://www.prefblog.com/?p=14016

[18] See http://www.prefblog.com/?p=13976

[19] See http://www.prefblog.com/?p=13992

[20] See http://www.prefblog.com/?p=7652

As part of the reporting of this approach, I have termed all "Straight Perpetuals" (those with a constant dividend rate, currently assigned to the PerpetualDiscount and PerpetualPremium classes) affected by the change to be "DeemedRetractibles" – since they would in fact be referred to as Retractibles if the hardMaturity was part of the terms of the prospectus. This class of preferred share will decline in importance over time, as its constituent issues are redeemed, have language added to their terms allowing them to requalify as Tier 1 Capital or are found to have been included in this class due to an error in my analysis (as may well be the case with the non-bank issues in this group).

Order of Redemption

I have observed a certain amount of confusion regarding the relative timing of preferred share redemptions, with some investors believing (or at least hoping!) that redemption at par will take place at the first opportunity.

There is no basis for such a hope. The OSFI Advisory simply places a cap on the total amount of non-equity Tier 1 Capital that is eligible for inclusion as regulatory capital, and beyond expressing an intent to minimize and delay use of the Regulatory Event Clause, no instructions have been made public regarding the relative timing of redemptions.

It will also be remembered that financial issuers as a group have an enormous quantity of high-coupon FixedResets outstanding which have been expected to be redeemed at the first opportunity anyway based solely on economic considerations. This fact alone will give them a great amount of flexibility in determining the timing of redemptions which are not so economically desirable.

One wrinkle we may see is time to come is adjustment of timing based on issue size. The small size of preferred share issues relative to Innovative Tier 1 Capital issues may mean that the preferreds are used as "filler" – if a bank is faced with the necessity of redeeming one of two different issues in order that the total remain under the allowable cap, they may wish to redeem the smallest issue that achieves that goal.

Status of Extant Preferred Shares

In the January edition of this newsletter I stated *I have taken the view that extant instruments are likely to be grandfathered*.

Well, that's the sort of thing that keeps us humble! In my defense, however I will point out that as recently as May, 2010, OSFI was indicating[21] an expectation of grandfathering: *The Basel proposals provide that "members consider the grandfathering of instruments which have already been issued by banks prior to the publication of [the] consultative document." When the Basel proposals and the transition provisions to the revised Basel II rules are finalized, OSFI expects such revisions to include provisions dealing with grandfathering and transitioning*.

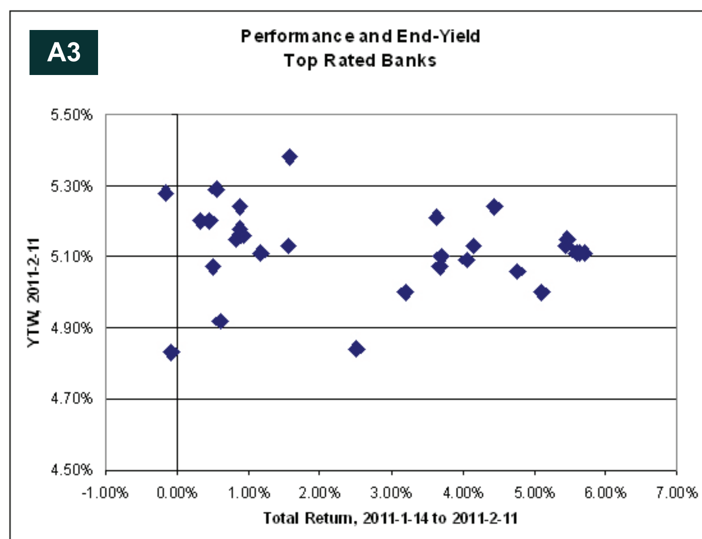
We also have prior examples of grandfathering, not just of retractible preferred shares when the accounting rules changed,[22] but also of capital requirements for insurers' segregated funds[23]: *This Advisory prescribes new minimum calibration criteria for models that OSFI has approved for use in determining segregated fund guarantee capital requirements by federally regulated life insurers. This revised guidance will apply to segregated fund guarantee capital requirements for business written on or after January 1, 2011. The existing calibration criteria will continue to apply to business written prior to January 1, 2011 until a new approach, which is consistent with the vision for life insurance company capital previously enunciated, is developed and implemented*.

In other words, the calibration standard for pre-change segregated funds was grandfathered.

However, I had plenty of company in my incorrect prediction,[24] the fund outperformed its benchmark in January[25] and, most importantly, it's too late to do anything about it, so we will now examine which groups of issuers are affected and may be expected to be affected.

Banks

This is trivial – the advisory specifically relates to banks. As shown in Chart A3, the total return on Bank Straight Perpetuals varied over a very wide range in the period from the last issue of this newsletter (2011-1-14) to the last close (2011-2-11), while the Yields-to-Worst, measured at the end, did not vary overly much. The performance relative to coupon rate (Chart A4) seems to exhibit less correlation than usual, but I have no figures to support this hypothesis.



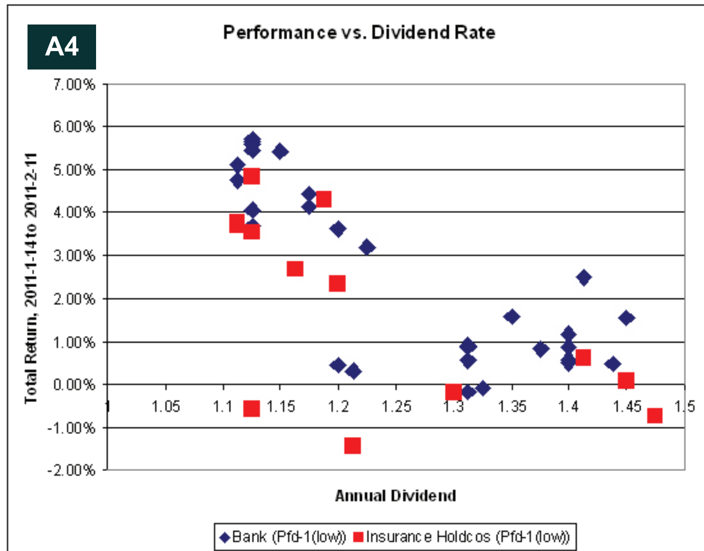
21 OSFI, *Interim Treatment of Capital Instruments*, Draft Advisory, May 2010, available on-line at http://www.osfi-bsif.gc.ca/app/DocRepository/1/eng/guidelines/capital/advisories/ntrcpnstr_e.pdf (accessed 2011-2-12)

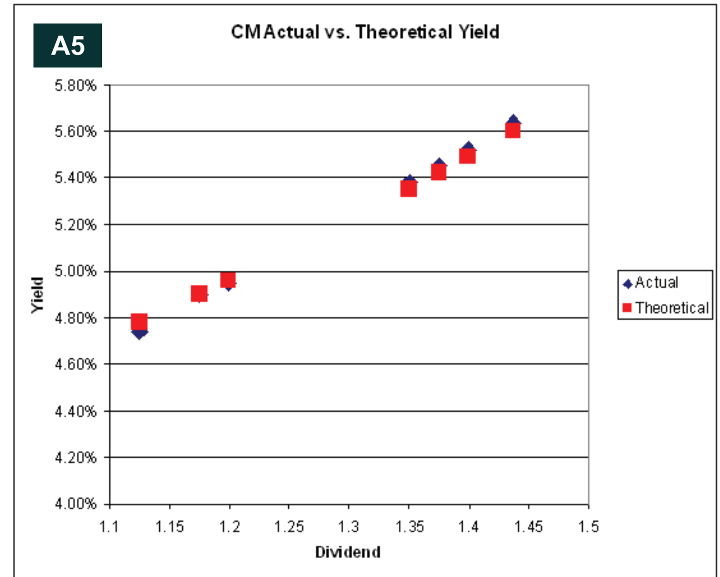
22 Barry Critchley, *The soft retractable pref option*, National Post, available on-line at http://www.financialpost.com/scripts/story.html?id=afb24363-fbaa-4cb2-8fab-713875f8d3a1&k=56982 (accessed 2011-2-12)

23 OSFI, *Revised Guidance for Companies that Determine Segregated Fund Guarantee Capital Requirements Using an Approved Model*, Advisory, December 2010, available on-line at http://www.osfi-bsif.gc.ca/app/DocRepository/1/eng/guidelines/capital/advisories/sgfndreq_e.pdf (accessed 2011-2-12)

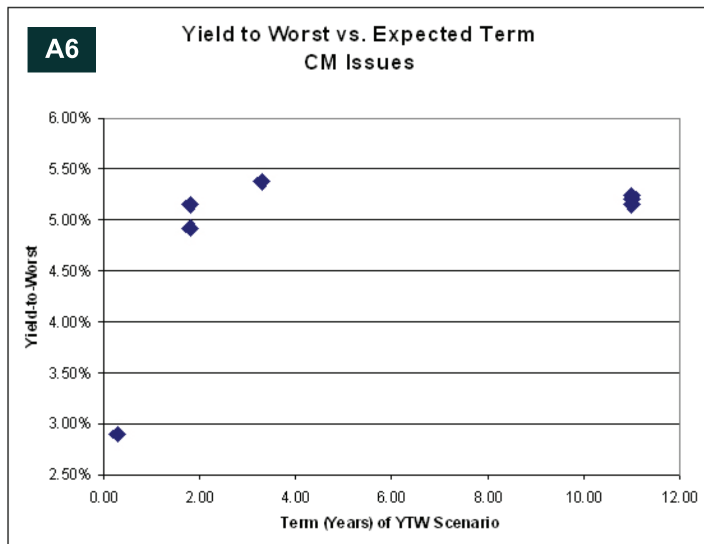
24 See http://www.prefblog.com/?p=12490 and http://www.ritceyteam.com/pdf/guide_to_preferred_shares.pdf (accessed 2011-2-12)

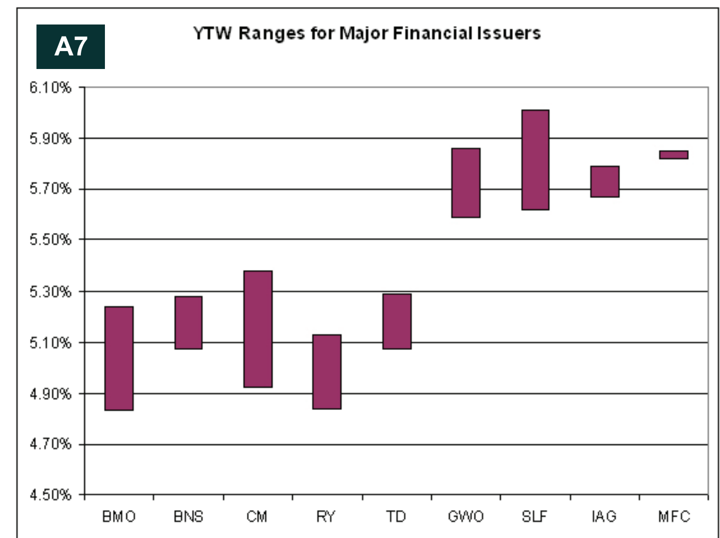
25 See Appendix M





Surprisingly, there remains an effect of dividend rate on yield, as shown in Chart A5 from the Straight Perpetual Implied Volatility Calculator[26] – provided one doesn't look too closely at the parameterization! The fit of theoretical to actual yield is good, but only with a "Pure Yield" (on a notional non-callable perpetual) of 0.01% and an Implied Volatility of 40%. Clearly, there is something else going on – the difference could be due to a very high emphasis on the benefits of deferred taxation on the expected capital gain component of the total yield, a realization that, subject to the desirability of keeping their non-eligible Tier 1 Capital below the limit, the banks will probably seek to redeem their lower coupon issues last, or it may simply be one of the vagaries of the preferred share market. It must also be noted that one of the assumptions inherent in the Implied Volatility calculation is that there is a constant three-year period until a par call for every issue. With four of the seven CM issues now trading above par, the differences in the call schedules have more importance than has generally been the case for the past few years; the YTW vs. expected term is shown in Chart A6.





[26] See the January, 2010, edition of this newsletter and the calculator at http://www.prefblog.com/xls/PDTheoreticalPricing.xls

Insurers

Properly speaking, there is only one investment-grade insurer with preferred shares outstanding and trading on the TMX at the present time: IAG. All the other issuers loosely referred to as insurers are actually Insurance Holding Companies.

OSFI's Advisory on disqualified capital stated: *This Advisory does not apply to regulated life insurance companies, insurance holding companies, federally regulated property and casualty insurance companies or cooperative credit associations. OSFI will, after consultation, determine how and to what extent the Basel III rule changes will be applied to these federally regulated institutions and additional guidance will be released in due course.*

OSFI has – quite laudably – been seeking to harmonize capital requirements for banks and insurers to the extent possible. While I certainly cannot presume to state flatly that the provisions of the Advisory will be applied to insurers, it seems like the rational choice to make on a balance of probabilities basis.

Insurance Holding Companies

Many people are surprised to learn that MFC, SLF and GWO are not insurance companies, but such is the case: they are holding companies, with the operating insurance company as their principal asset.

It is unfortunate that the regulation of these entities is so vague. An OSFI Guideline from 2005 states:[27] *Subsection 515(1) of the Insurance Companies Act (ICA) requires federally regulated life insurance companies and societies to maintain adequate capital and subsection 992(1) requires insurance holding companies to maintain adequate capital. This Guideline is not made pursuant to subsections 515(2) and 992(2) of the Act; however, it sets out the framework within which the Superintendent assesses whether a holding company maintains adequate capital pursuant to subsections 515(1) and 992(1). In addition, the Superintendent may direct the holding company to increase its capital under subsection 515(3) or 992(3)… OSFI's framework for assessing the adequacy of capital in a holding company compares capital available with a capital risk metric… There are no minimum or target requirements; however, OSFI expects holding companies to manage their capital in a manner which is commensurate with the group risk profile and control environment.*

A bureaucrat's dream! Huge discretion, minimal reporting and no accountability! However, the Guideline does go a long way towards explaining why the holding companies issue Tier 1 preferred shares in the first place – we know they are subject to similarly phrased capital requirements; we just don't know what those requirements might be.

The decision to include such issuers amongst those who are incorporated in the DeemedRetractibles class is harder to make than for the Insurers, but in the end I decided to include them. This was based on several considerations:

- the specific incorporation of the phrase "insurance holding companies" in OSFI's advisory of future rule changes, quoted in the section "Insurers", above
- A feeling that, as shown by the Guideline quoted above, the holding companies are subject to similar requirements as insurers, and that this similarity will likely continue for all practical purposes.
- my continuing apprehension that regulation of such companies will be increased in future due to pressure from the US Treasury[28] (incensed by the AIG fiasco) and Julie Dickson's mention of the possibility in a speech.[29] While it is true that nothing much has been heard on this front for a relatively long period of time, it is also true that the regulators have been busy framing Basel III for the banks; now that that framework has been agreed, we may see more movement on the insurance front
- analysis that shows that such an effect is widely expected by the market. Chart A8 shows a very good fit between the theoretical application of Implied Volatility to GWO (the only one of the three issuers to have a sufficient range of annual dividends to be usefully analyzed in this manner) and market prices: this fit was achieved with a Pure Rate (of a perpetual annuity) of 2.60% and an Implied Volatility of 35%. This is a very high, and economically unjustifiable level for Implied Volatility.

However, I will be the first to agree that the decision to include a deemed retraction in the issues of these issuers represents a weak point in the total analysis. Those who save their issues of this newsletter in hopes of finding errors and inaccurate predictions to torment me with at a later date will be well advised to clip this section out and put it on their fridge!

Power Group

Another potential set of issuers are the two senior layers of the Power Group structure, PWF and POW, which controls GWO. It is entirely reasonable to speculate that consolidated regulatory supervision of insurance holding companies will catch these two issuers in its net, given that PWF owns 68.6% of GWO.[30] If OSFI were eventually to take the view (possibly requiring legislative authority) that any entity that controls over X% of an insurer, however indirectly, is a de facto Insurance Holding Company and therefore subject to regulation – I might even support them!

However, the potential for such action remains much more speculative that I like to be the case in analysis and, with misgivings and an intent to keep a sharp eye on the situation in the future, I have left these two issuers out of the DeemedRetractible group.

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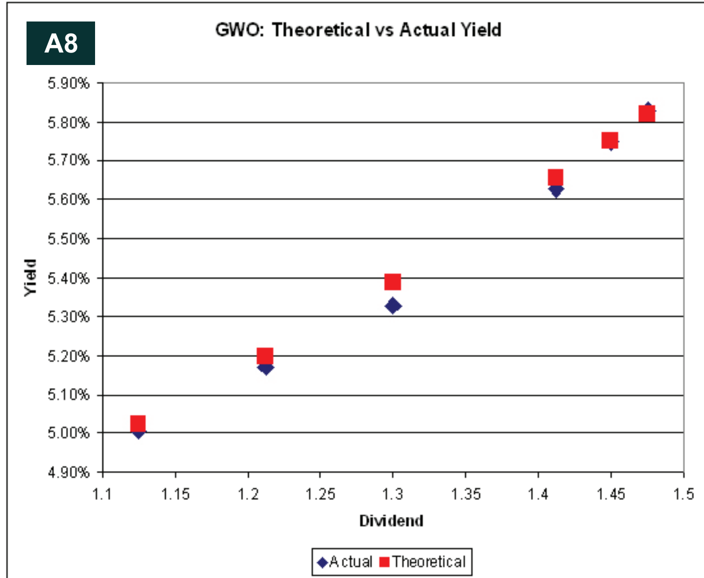
[27] OFSI, *Capital Regime for Regulated Insurance Holding Companies and Non-Operating Life Companies*, Guideline, July 2005, available on-line at http://www.osfi-bsif.gc.ca/app/DocRepository/1/eng/guidelines/capital/guidelines/A2_e.pdf (accessed 2011-2-12)

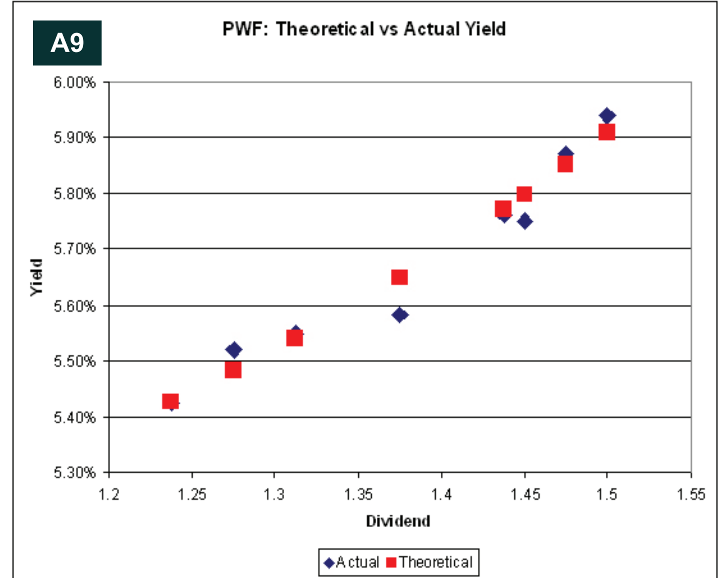
[28] See http://www.treasury.gov/press-center/press-releases/Documents/capital-statement_090309.pdf (accessed 2011-2-12)

[29] See http://www.osfi-bsif.gc.ca/app/DocRepository/1/eng/speeches/JDickson_09_Life_e.pdf (accessed 2011-2-12)

[30] See http://www.powerfinancial.com/index.php?lang=eng&comp=powerfinancial&page=orgchart (accessed 2011-2-12)

A piece of supportive evidence for this decision is the Implied Volatility analysis of PWF issues, as illustrated in Chart A9, shows that while Implied Volatility is high, it is merely elevated at 22%, as opposed to the economically ridiculous levels achieved by CM (40%) and GWO (35%), all of which may be compared to my rule-of-thumb 15%. The relatively low figure observed for PWF is consistent with the implicit hypothesis that we may use Current Yields as a proxy for expected return, which is not the case for CM and GWO.



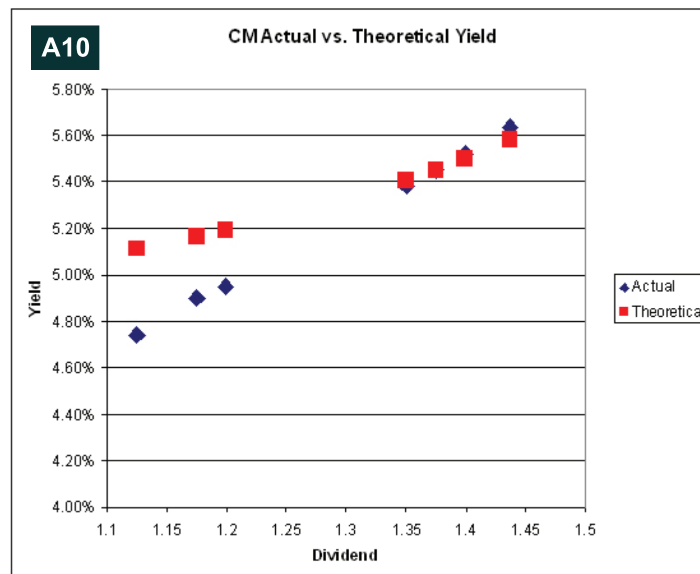


Potential for Changes: Addition of a NVCC clause by Shareholder Vote

As noted above, I expect the DeemedRetractible group to decline in size over time – and the faster the better! One way that this could happen is a change of terms of individual issues: shareholders could vote to insert the missing NVCC clause into the terms of the issue, at which point it would become eligible as permanent Tier 1 Capital again – at least until OSFI decides to change the rules again!

OSFI specifically encouraged this possibility in their NVCC Draft Advisory: *DTIs are encouraged to consider amending the terms of existing non-common instruments that do not comply with the NVCC requirement to thereby achieve compliance, or to otherwise take actions, including exchange offers, which would mitigate the effects of such non-compliance*.

The analytical problems start, however, when attempting to determine what inducement could be given to shareholders that would encourage them to vote in favour of such a proposal while still making economic sense for the bank. Consider Chart A10: to create this chart I have used the Implied Volatility Calculator to show a theoretical curve with a "normal" Implied Volatility of 15%, with a par yield of about 5.4%.



Now, consider the position of a holder of CM.PR.J being asked to vote on the addition of a NVCC clause to the terms of this issue. CM.PR.J is currently bid at 23.74 and has an annual dividend of 1.125, for a Current Yield of 4.74%. The Implied Volatility analysis implies that if this were a normal issue in normal times, the Current Yield would be expected to be 5.11% and in order for this to be true, the price would have to be $22.00. Note that this is approximate: the par yield of 5.4% is effective only for an instrument with a maximum term of eleven years; the par yield for a Straight Perpetual might be expected to be even higher, making the price effects of adding a NVCC clause even worse.

"Vote in favour of this proposal" the proxy statement might say, "and you will probably see the market value of your shares drop by at least $1.75." Rational holders would require an inducement to allow the clause but shareholders, particularly preferred shareholders, are rarely rational when it comes to voting on company proposals.

In the case of CXC.PR.A[31], for instance, holders of the split-share corporation's preferreds found their holdings trading at 8.71-00 (compared to a par value of 10.00) in November 2008, when the company had to ask them for permission to change the mandate, since the company's sole holding, CI Investments, was converting back to a corporation from an Income Trust.

The NAV of the whole units at the time was a little over $12.00. Had the preferred shareholders voted "No", they would have received par value for their shares as the company would have been forced to wind up. So their choices were:

- Vote No and get $10.00 immediately
- Vote Yes and hope to get $10 on scheduled maturity in a few years, provided the crisis did not worsen.

They voted yes. Another egregious case of shareholders voting against their own interests was the conversion of Bell Canada preferreds to BCE preferreds, in which they enthusiastically worsened the credit quality of their holdings for a derisory one-time payment.[32]

The potential for a NVCC clause being adopted by preferred shareholders for minimal compensation should not be ignored.

Potential for Changes: Simply Left Outstanding

Another possibility is that the banks will elect to leave the issues outstanding even after they cease to be useful as Tier 1 capital. In this case, all the rights and risks of preferred share ownership would remain with the shareholders but from the banks' perspective the issues would be part of normal, senior debt.

It is highly unlikely that banks would take this action given a continuation of current economic circumstance. The lowest coupon Straight Preferreds carry a coupon of 4.45%, equivalent to 6.23% interest at the standard conversion factor of 1.4x; this is expensive long term debt now that the average long corporate bond yields 5.6%.

Sixty-three basis points is not a lot of yield change over the long term, however. Should the prophets of the apocalypse be proved correct and current loose fiscal and monetary policies lead to a permanently higher level of inflation, it might well be the case that 6.23% interest equivalent looks like cheap financing for a bank – and they would be sorely tempted at such a time not to exercise their right (not their obligation) to redeem.

While the risk of high inflation is a risk we are currently taking as holders of these issues, it will be noted that current pricing discounts this risks: issues are now trading at (or near) prices which imply certainty of a call within twelve years; the existence of this risk implies there may be an unexpected downside to this rosy forecast. Potential buyers might be willing to take the risk at a "normal times" price of $22 (as in the case of CM.PR.J, above), but not at $23.74.

Investment Conclusions

There is still considerable uncertainty left in the market regarding the impact of the OSFI action; the two primary sources for this uncertainty are treatment of insurance, and insurance holding company preferreds (which OSFI should address with due speed) and the potential for NVCC clauses to be added to the terms of extant issues in exchange for a small one-time payment, a permanent increase in dividend or, as a rather cynical acquaintance has suggested, extremely small benefits for shareholders but rather larger proxy solicitation fees for their brokers.

Uncertainty breeds volatility. The bimodal distribution of valuations, illustrated in the discussion of CM.PR.J in the section on NVCC shareholder votes, almost inevitably leads to higher volatility, as the density of probability expectations between the two probability peaks will be much less than is found with a normal distribution of valuations. The lower the number of investors willing to buy 'if the price goes down a little', the greater the market impact of forced or uniformed trading; I will be most interested to examine spreads and volatility measures a year hence to see the degree of impact this has had.

Some have expressed the fear that Straight Perpetuals will become extinct, but I feel such concerns are overdone. When priced correctly, Straights provide certainty of cash flow for issuer and purchaser alike, and the desire for certainty will always be a major consideration in capital markets. I do agree that FixedResets are likely to dominate issuance for the next few years, but am more dubious as to how the structure's perceived attractiveness will weather the mass redemptions expected to take place in 2013-15, when the advisability of a long call lock-out period becomes more clear to ordinary investors and their advisors.

But all structures have their day in the sun! FixedFloaters were incredibly popular a few years back, but we haven't seen one of those for a long time. Additionally, there are complications posed by the NVCC clause: will it scare off investors? Will buyers decide it is more rational to buy an issue that converts into common equity well before the point of non-viability, when the issuer may be expected to still be healthy enough to have a relatively stable stock price, and while potential conversion can still be hedged on the option market?

These are all important topics for thought and speculation but perhaps the most important lesson to remember is that it didn't need to be this way. OSFI has injected a great deal of wholly unnecessary uncertainty into the Canadian capital markets and has made it more difficult for issuers and investors alike to achieve their goals.

[31] Originally discussed at http://www.prefblog.com/?p=4046

[32] See http://www.prefblog.com/?p=505