OSFI and the Bond Indices

A recent media report[1] stated that "[the federal bank regulator, the Office of the Superintendent of Financial Institutions] OSFI wants [bank contingent capital] in the [bond] index and has make its plan very clear."

Such an inclusion in the major bond indices would be abusive to bond investors of all kinds, particularly retail investors who have – generally quite rightly – become enamoured of indexing their bond portfolios. But to understand the abuse, we must first understand the difference between a good index and a bad one, and why the inclusion of bank contingent capital bonds, or "CoCos", will push bond indices towards the latter category.

A good index can be said to have three major purposes[2] which I rank in order of importance:

- To act as performance standards for active managers.
- To serve as proxies for asset allocation purposes.
- To become purchasable and replicable vehicles for passive investment strategies.

The performance standard is paramount: investment managers work in an industry in which their ability to do their jobs can to a large extent be measured objectively (e.g., performance of a stock or bond portfolio can be measured precisely and compared with benchmarks; the allocation of investments to suit individuals' particular circumstances and perceptions can not).

The third element is, however, achieving increased emphasis, particularly amongst retail investors and their advisors, professional and otherwise, A cult worshipping passive investment has developed which holds that all costs associated with investment are almost certainly wasted.[3]

This new paradigm has had significant effect: the Investment Company Institute reports[4] that the market share of equity index funds (as a proportion of all equity funds) has increased from 4.0% in 1995 to 13.7% in 2009. In Canada, the "Bond Indexing Boom"

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[1] Barry Critchley, *Banks prepare for CoCos,* Financial Post, January 29, 2011, available on-line at http://www.financialpost.com/news/financials/Banks+prepare+CoCos/4188608/story.html (accessed 2011-2-18)
[2] Russell Investments, *Russell U.S. Indexes: Construction & methodology,* on-line at http://www.russell.com/indexes/data/us_equity/russell_us_indexes_methodology.asp (accessed 2011-2-21)
[3] E.g., William F. Sharpe, *The Arithmetic of Active Management,* Financial Analysts Journal, January/February 1991, reprint available on-line at http://www.stanford.edu/~wfsharpe/art/active/active.htm (accessed 2011-2-21)
[4] Investment Company Institute, *2010 Investment Company Fact Book,* available on-line at http://www.ici.org/pdf/2010_factbook.pdf (accessed 2011-2-21)

was described[5] as early as 1998. It is difficult to estimate the amount of bond assets currently indexed, however: one complication is that indexation via over-the-counter derivatives such as total return swaps are much cheaper than straightforward indexing for large institutional funds.[6] While I am not aware of any Canadian bond ETF using this strategy, the HBP S&P/TSX 60 Index ETF (HXT) is able to advertise[7] "a management fee of just 0.07% plus applicable taxes … the lowest cost ETF in Canada and less than half the cost of its nearest competitor" due to its use of swaps rather than direct holdings.

Most Canadian bond index products are based on the DEX Universe Index or on clearly identifiable sectors thereof (such as "All Corporates", or "Mid-Term"). While explicit indexing is reason enough to consider the DEX Universe important, it is also quite clear that most active management strategies are benchmarked against this index (or its segments). Decisions regarding the constituents of this index are therefore important not just to investors seeking a benchmark or passive strategy; it can also be argued convincingly that the index composition is important to the economy of Canada.

Good Indices and Correlation

The purposes defined above can be achieved only by careful construction. One important characteristic is that elements of an index should display a high degree of correlation within their segment and a lesser degree of correlation with other segments; the limiting factor in the degree of correlation is the desired broadness of the index.

The importance of correlation is emphasized by the second purpose of indices specified above, to provide a proxy for asset allocation purposes. A good index will have a predictable response to certain economic events (e.g., 'long bonds will do poorly as inflation expectations rise' – the preservation of the validity of this old truism is one reason, perhaps, why Real Return Bonds are excluded from the DEX Universe Bond Index[8]) and estimates of future sensitivity can be made by comparison to historical data – but only if the index chosen as a proxy has a reasonable level of homogeneity.

Thus, for instance, "catastrophe bonds" are not included in the major indices. Catastrophe bonds pay high interest, but are subject to capital losses in the event of specified events,

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[5] Dan Markovich, *Bond Indexing Boom,* Benefits Canada, March 1998, available on-line at http://www.tdcanadatrust.com/tdqc/review/articles/bond.htm (accessed 2011-2-21)

[6] Howard J. Atkinson, *How pension plans can use ETFs,* Benefits Canada, 2011-1-27, available on-line at http://www.benefitscanada.com/investments/other-investments/how-pension-plans-can-use-etfs-14033 (accessed 2011-2-21)

[7] Horizons Betapro, *HBP S&P/TSX 60 Index ETF (HXT) – Overview,* available on-line at http://www.hbpetfs.com/pub/en/etfs/?etf=HXT&r=o (accessed 2011-2-23)

[8] PC Bond, Untitled, 2011-2-15, available on-line at http://www.canadianbondindices.com/PDF/RE_Universe.pdf (accessed 2011-2-28)

such as earthquakes and hurricanes;[9] they are better regarded as insurance contracts than actual bonds. These bonds have had very good returns recently, but this has less to do with interest rates[10] and credit spreads than with a relatively benign hurricane season in the Gulf of Mexico[11] - which is not usually a consideration when constructing a bond portfolio!

Similarly, bond indices in common use as broad market measures typically exclude Junk Bonds from inclusion, since the correlation between this asset class and investment grade bonds is not very high – less, in fact, than the correlation between investment grade corporates and treasury bonds.[12] Even worse, "As for the relationship between [junk] and investment grade bonds over time, the correlation has been so variable that there appears to be no statistically detectable pattern."[13]

It will be noted that Modern Portfolio Theory holds that once a definable segment of the financial marketplace has a sufficiently low correlation with other segments, it can profitably be considered for inclusion in portfolios as a completely separate allocation – but a portfolio is not an index. Combining two poorly correlated financial instruments or segments (which may have wildly different responses to external events) may be good portfolio management, but it is poor index design!

A Bad Index

The DEX HYBrid Bond Index serves as an excellent example of a poorly conceived index in which the principles outlined above have been disregarded. This index combines the investment grade portion of the DEX Corporate BBB Index and the non-investment grade rated DEX High Yield Index.[14]

Thus, the first – and only the first – problem with this index is that it seeks to combine two sectors with a low correlation, while not including sectors with higher correlation.

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[9] *Goldman Sachs closes first cat bond of 2011,* Reuters, 2011-2-18, available on-line at http://uk.reuters.com/article/2011/02/18/cat-bond-goldman-sachs-idUKLDE71H20W20110218 (accessed 2011-2-23)

[10] Noah Buhayar, *Hartford Adds $135 Million in Hurricane Protection,* Bloomberg, 2011-2-17, available on-line at http://www.bloomberg.com/news/2011-02-17/hartford-adds-135-million-in-hurricane-protection-update1-.html (accessed 2011-2-23)

[11] Kelly Bit and Natalie Doss, *Catastrophe Bonds Jump to Five-Year High as U.S. Escapes Storms,* Bloomberg Businessweek, 2010-10-4, available on-line at http://www.businessweek.com/news/2010-10-04/catastrophe-bonds-jump-to-five-year-high-as-u-s-escapes-storms.html (accessed 2011-2-23)

[12] Frank K. Reilly, David J. Wright, and James A. Gentry, *Historic Changes in the High Yield Bond Market,* Journal of Applied Corporate Finance, Summer 2009, available on-line at http://business.illinois.edu/j-gentry/workshop/exhibit-14.pdf (accessed 2011-2-23).

[13] ibid

[14] PC-Bond Analytics, untitled, August 20, 2010, available on-line at http://www.canadianbondindices.com/pdf/DEX_HYBrid_BI_Methodology.pdf (accessed 2011-2-23)

Further, investment-grade bonds are included in the index according to a varying percentage of their market capitalization (30% as of 2010-8-30). This has two effects: first, given similar market capitalization of issues, the DEX HYBrid Bond index will have greater exposure to individual names of lower credit quality than of higher quality – a reversal of usual practice.(e.g., one popular fund[15] caps single issuer exposure at 10% for investment-grade bond and 5% for junk). Second, the relative weighting of the two groups will vary within the index over the long term in a manner that will not necessarily reflect their relative weight in the marketplace; this will also have the effect of changing the index' response to economic stimuli.

Finally, the very name of the index is a misnomer: the term "hybrid" is used in the bond market to denote a particular kind of investment, generally issued by banks and other regulated financial institutions, that has characteristics reflecting both regular debt and equity; the unwary might assume from the name of this index that such hybrid bonds are the constituents of this index, which is not the case.

Try as I might, I am unable to discern a purpose for this index based on benchmarking or asset allocation – it appears to have been initiated solely to serve as a platform for an ostensibly passive investment vehicle. John Bogle has charged[16] that "the [mutual fund] industry is a vast and highly successful marketing business, an industry focused primarily on salesmanship." Sadly, this index is an example of how this salesmanship is extending into index creation.

The TMX becomes very defensive when its indices are criticized! My earlier criticism of this index resulted in my receipt of a series of vituperative eMailed polemics from a TMX official, first threatening a complaint to my professional association, then claiming my views were motivated by a grudge regarding an unsuccessful sales presentation in 2006!

OSFI and Hybrid Bonds

As I have previously discussed,[17] the Panic of 2007 has motivated governments and regulators to seek ways of broadening "burden sharing", as governmental purchase of equity in various hard-hit banks avoided bankruptcy and hence greatly mitigated the

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[15] PHN High Yield Bond Fund; see https://www.phn.com/Default.aspx?tabid=892

[16] John C. Bogle, *The Mutual Fund Industry 60 Years Later: For Better or Worse?,* Financial Analysts Journal, January 2005, available on-line at http://cfainstitute.org/learning/products/publications/faj/Pages/faj.v61.n1.2678.aspx?WPID=Topic_List_Tabbed&PageName=Publications# (accessed 2011-2-21)

[17] James Hymas, *Prepping for Crises,* Advisor's Edge Report, January 2010, available on-line at http://www.himivest.com/media/advisor_1001.pdf (accessed 2011-2-23)

expected effects of bankruptcy on holders of bank non-equity capital securities, such as preferred shares, Innovative Tier 1 Capital ("hybrid bonds") and subordinated debt.

Hence, the Office of the Superintendent of Financial Institutions (OSFI) has proposed[18] that all future issuance of these instruments must contain a "Non Viability Contingent Capital" (NVCC) clause, which will require the full and permanent conversion of these instruments into common shares of the issuer, given only the Superintendent's opinion that the issuer has ceased, or is about to cease to be viable. There is no necessity for the Superintendent to justify her views in any way, nor is there any path of appeal.

It is breathtaking to consider the amount of power granted thereby to a single bureaucrat and shows the lengths to which governments are prepared to go to gain for themselves the powers ordinarily reserved for bankruptcy courts operating in the clear light of day – but that is more of a political question.

There is much to criticize in the plan. By making the trigger event non-viability, OSFI is preparing to deal with a crisis after the fact; if the conversion trigger was specified to be earlier in the decline of a bank's fortunes, there is a greater chance that such a crisis would be averted.[19] This is the path taken by the Swiss,[20] who have good reason to wish to avert crises rather than punish creditors afterwards.

Additionally, the draft proposal requires issuers to "provide a trust arrangement or other mechanism to hold shares issued upon the conversion for non-common capital providers that are not permitted to own common shares of the DTI due to legal prohibitions." Some might consider this a clever way to circumvent the intent of legislators and non-legislated investment mandates. Others might choose a different adjective.

However, the more immediate concern to fixed income investors is the question of inclusion of these instruments in bond indices – all the more important in Canada since there is only one universal index in common use.

We in Canada were fortunate during the crisis not to have any of the major banks get into serious trouble, but this will not necessarily be the case during the next crisis – and there

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[18] Office of the Superintendent of Financial Institutions Canada, *Non-Viability Contingent Capital,* Draft Advisory, February 2011, available on-line at http://www.osfi-bsif.gc.ca/app/DocRepository/1/eng/guidelines/capital/advisories/nvcc_dft_e.pdf (accessed 2011-2-23)

[19] Standard & Poor's, *Standard & Poor's Response To The Basel Committee's Proposals on Bank Capital And Liquidity,* 2010-4-15, available on-line at http://www.standardandpoors.com/products-services/articles/en/us/?assetID=1245210157817 (accessed 2011-2-23)

[20] Switzerland State Secretariat for International Financial Matters SIF, *Final Report of the Commission of Experts for limiting the economic risks posed by large companies,* 2010-9-30, available on-line via http://www.sif.admin.ch/dokumentation/00514/00519/00592/index.html?lang=en (accessed 2011-2-25)

will be another eventually, never fear! When this happens, the necessity of speculating as to OSFI's intentions will add another layer of uncertainty to the analysis of these bonds and result in their market values becoming uncorrelated with their peers. This will be in addition to fears of having creditor rights arbitrarily changed to suit bureaucratic convenience, as happened in the UK Bradford & Bingley nationalization.[21]

In Canada, we have already seen the effect of arbitrary regulatory change on hybrid bond returns: this class of issue dropped by 7.5% in the six months commencing August 2010 and drops for issues with long periods until their first par call were even more dramatic: a TD Capital Trust issue dropped 15.6%[22] in the complete absence of changes in the overall economy, bond market, or credit quality that could justify such a move. Virtually all the change was due solely to fears that OSFI would change the rules of the game, refuse to allow these issues to be included in Tier 1 Capital and thereby enable use of the "Regulatory Event" clause in the issue terms, allowing an immediate call at par.

This 'un-bond-like' behaviour of bank regulatory capital should be of great concern to investors of all stripes, as these issues are currently included in the DEX Universe Bond Index and hence in most performance benchmarks and many ETFs. Indeed, these issues are often overweighted in popular ETFs[23] presumably due to their higher quoted yields.

With its refusal to grandfather extant regulatory issues when changing requirements for new issues[24] OSFI has cemented its reputation for operating with little regard for the capital markets.[25] It should be clear that while bank hybrids and subordinated debt may well be good investments, they cannot and must not be regarded as bonds in the same category as senior debt – and, worse, their uncorrelated behaviour is likely to increase during a crisis, just when the safety of bonds (actual bonds, that at worst default and give rise to a restructuring in a clearly defined process) is most desirable.

Investors and portfolio managers should therefore urge the TMX to remove these instruments from the main index (or, at the very least, incorporate them only as a distinct

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[21] UK Financial Services Authority, *Bradford & Bingley plc,* 2008-9-29, available on-line at http://www.fsa.gov.uk/pages/Library/Communication/Statements/2008/bradford_bingley.shtml (accessed 2011-2-25)

[22] John Greenwood, *Hybrid bonds feel the heat,* Financial Post, 2011-2-3, available on-line at http://www.financialpost.com/news/Hybrid+bonds+feel+heat/4220686/story.html (accessed 2011-2-25)

[23] James Hymas, *Bond ETFs demystified,* Advisors' Edge Report, March 2010, available on-line at http://www.himivest.com/media/advisor_1003.pdf (accessed 2011-2-25)

[24] 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 2011-2-25)

[25] James Hymas, *OSFI and the Third Pillar,* Advisor's Edge Report, December 2008, available on-line at http://www.himivest.com/media/advisor_0812.pdf (accessed 2011-2-25)

and easily removable group, as is currently the case with Maple bonds[26]) and, should change not be forthcoming, to encourage the development and use of bond indices from other bond indexing services. Investors in the UK have been successful in keeping some contingent capital out of major indices[27] despite similar pressure from UK regulators;[28] this success should be replicated and reinforced in Canada.

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[26] PC Bond Analytics, Untitled, 2007-4-10, available on-line at http://www.canadianbondindices.com/pdf/UMBI.pdf (accessed 2011-2-25)

[27] Reuters, *Merrill in 2nd about-turn on contingent capital,* 2009-11-11, available on-line at http://www.reuters.com/article/2009/11/11/bonds-indexes-merrill-idUSLB70266120091111 (accessed 2011-2-25)

[28] Duncan Kerr, *Investor threat remains to Lloyds' contingent capital plans,* Financial News, 2009-11-3, available on-line at http://www.efinancialnews.com/story/2009-11-03/investor-threat-remains-to-lloyds-contingent-capital-plans (accessed 2011-2-25)