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[Provincial credit] Simple yet satisfying spread solver

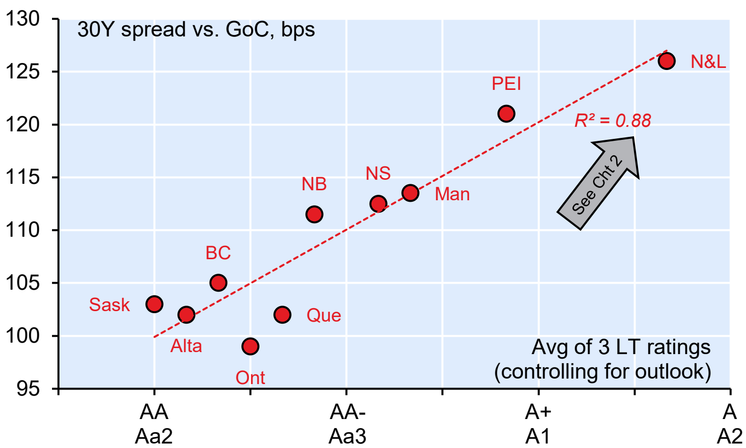
By Warren Lovely

As the U.S. Administration aptly demonstrated last week, sometimes the 'simple' approach—on reciprocal tariff rates for instance—is synonymous with 'shocking' or 'stupefying' or 'shortsighted' or 'seriously scary' (from a global growth perspective). Yet, in an entirely different context—as it relates to provincial spreads—the 'simple' approach might just yield 'satisfactory' and/or 'satisfying' results.

There remains a clear statistical link between relative credit spreads and ratings. A linear transformation of long-term ratings, controlling for non-stable outlooks, explains 88% of the current deviation in 30-year bond spreads (Chart 1). As we say, simple yet satisfying.

Chart 1: Using ratings to explain inter-provincial spreads

Provincial domestic bond spreads vs. average long-term credit ratings

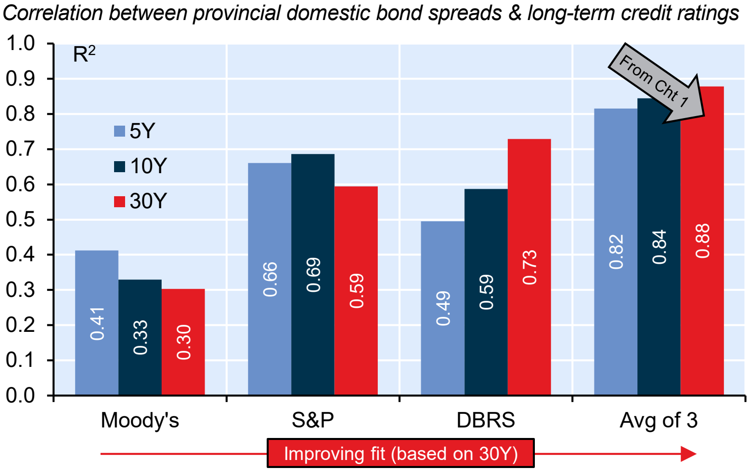


Source: NBC, S&P, Moody's, DBRS | Note: Controls for non-stable outlooks; as at 7-Apr

The predictive power of ratings can/does vary across the three credit rating agencies having a view on all 10 provinces. Without throwing shade, a conversion of Moody's ratings currently has the weakest correlation with relative spreads. But there's no need to pick favourites since the best fit with provincial bond spreads is achieved by applying the three-agency average rating (Chart 2).

Chart 2: Spreads fit best with average credit rating score

Correlation between provincial domestic bond spreads & long-term credit ratings



Source: NBC, S&P, Moody's, DBRS | Note: Controls for non-stable outlooks; as at 7-Apr

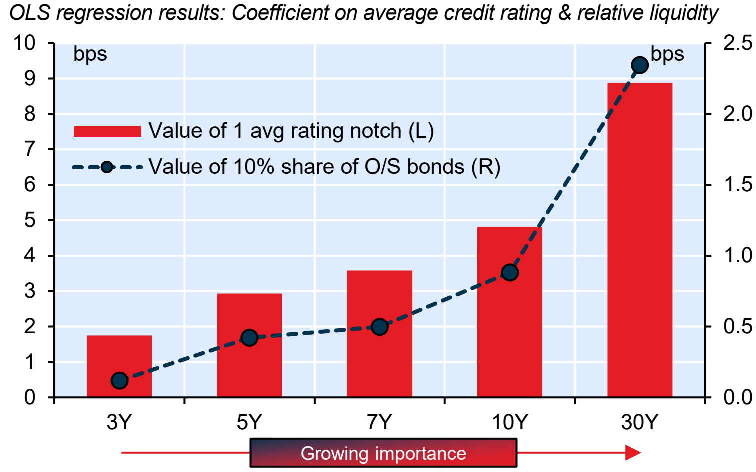
Despite obvious utility, credit rating scores (looked at in isolation) still leave some gaps between actual and fitted bond spreads. Premiums on the two largest provinces—Ontario and Quebec—are most significant (again, Chart 1). The solution? A somewhat 'less simple' but hardly sophisticated valuation model that also layers in relative liquidity. There are a few options for quantifying relative liquidity. We prefer using a province's share of bonds outstanding, though a simple ordinal ranking works just fine too.

Put ratings together with liquidity and the R-squared on a 30-year spread equation jumps to 99%. In other words, a two-variable OLS regression leaves just 1% of today's inter-provincial spread variation unexplained. It follows that the standard error on such a tight specification is quite skinny (just 1.0 bp in the long end).

As for the perceived value of a rating notch and/or liquidity? At present, moving the three-agency average rating up (or down) one full notch might be worth almost 5 bps on a 10-year provincial spread, approaching 9 bps in the 30-year sector (Chart 3). That's not to say that a rating change elicits/triggers that magnitude of re-pricing, since bond investors are generally adept at gauging shifts in intrinsic credit risk that presage rating changes. But track the evolution in relative ratings and basis spreads over time and the statistical connection is confirmed.

Chart 3: How much are ratings & liquidity worth to provinces

OLS regression results: Coefficient on average credit rating & relative liquidity



Source: NBC, S&P, Moody's, DBRS | Note: 2-var model of domestic spreads; as at 7-Apr

Separately, each 10%-point gap in the share of bonds outstanding might be worth 2-2.5 bps for a 30-year spread. Whereas a rating score is significant in all tenors, the statistical importance of relative liquidity only really builds as you move out the term structure. Makes sense.

All that to say, our simple spread solver continues to yield satisfactory results. Mind you, there's been a less-than-subtle re-pricing of risk assets post 'Liberation Day', one that is straining traditional credit relationships. Consider yet another 'simple' model that uses a key risk proxy (e.g., US 5-year IG CDX) to explain the bellwether provincial spread: Ontario 10-year vs. GoC. This relationship works well over time, collecting plenty of devotees. But results are distinctly less stable/less satisfying of late. Clearly, there's more nuance when discounting cross-sector risk these days, but that's a subject for another *Market View*.

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