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# Quick Hit — Are Canadian provis shedding their "low-beta" label? No!

Bond market turbulence has forced a re-think of how to compensate for volatility. One particular discussion we've engaged in relates to noise in provincial spreads relative to other segments of credit markets. Some have postulated that multi-standard deviation moves in provi spreads are becoming *more* frequent, casting the sector's whole "low beta" premise in doubt. Respectfully, we disagree, offering up this note (in Q&A format and backed by a detailed scrub of actual/indicative spreads) in defense of our view.

***Q: Are provincial government credit spreads prone to bouts of significant volatility?*** ***A: You betcha*** — You'll have little trouble finding periods of rapid change, including one notable and very fresh episode. As we explored in our first *Quick Hit* of the year, provincial spreads suffered mightily in December. A good portion of that widening has been undone in the first handful of trading days of the year, effectively extending spread volatility into early 2019 (albeit moving in the opposite direction).

***Q: Are changes in provincial spreads normally distributed?*** ***A: Nope*** — It should come as little surprise that changes in domestic provi spreads tend to be irregularly distributed. As with key fiscal/economic indicators, bad news often is incorporated quickly in credit spreads, while recoveries can take some time to develop. In other words, extreme moves in provi spreads (the fat tails as it were) are apt to be of the 'widening' variety. But that hasn't really changed, and can be observed in most corners of credit markets.

***Q: Is volatility in provincial credit spreads really picking up?*** ***A: Not significantly*** — We'll concede that the full-year change in provincial spreads—29 bps wider for Ontario 10s over the course of 2018—was hardly ordinary. It was the worst annual showing since the global financial crisis after all. Despite that shake-out, much of which was actualized in December, the standard deviation (SD) in daily benchmark provincial spreads was really no higher in 2018 than the prior year (2017 being considered by many a fairly sanguine period for credit). Observed SDs in Ontario 10s were quite a bit larger in 2015-2016. Granted, spreads were wider back then, but even using a coefficient of variation (CV) approach—which controls for spread levels—2018 can hardly be painted as a year of outsized noise (Chart 1). Fact is, the frequency of extreme/multi SD moves didn't really pick-up in 2018. More than half of last year's 261 trading days produced no change in Ontario's 10-year benchmark spread (par for the course), with spreads breaking out of the rolling +/-2 SD channel barely 10% of the time… the lowest share of extreme readings since the crisis if you care to look (Chart 2).

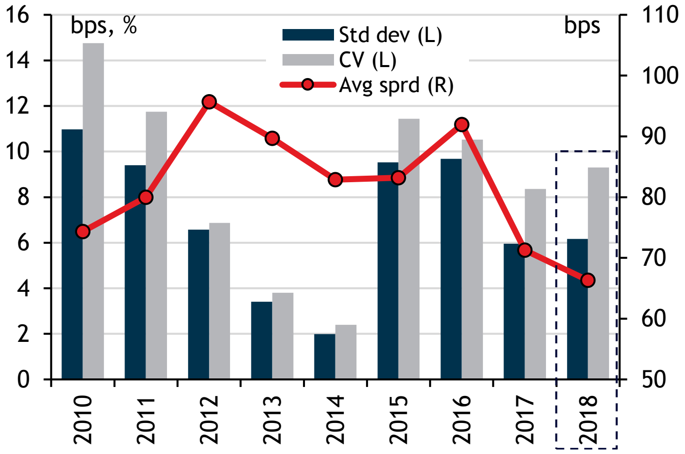
***Q: Relative to US high-grade credit, have provincials shed their "lower beta" standing?*** ***A: No!*** — Moving on to the heart of the matter, relative to core measures of US credit, provincial bonds remain very much a "lower beta" product. The standard deviation in US IG credit expanded sharply last year, relative to provis and once again controlling for underlying spread levels. Simply put, provis were *much less* volatile than this key basket of US corporates in 2018, not more so, as some have argued. This is hardly a new development. Pour over the >136,000 days that make up the last seven years of trading, and you'll find that the relative variation in provincial credit spreads has been consistently lower than what we've seen in US IG (Chart 3).

***Q: Vs Canadian corps, have provis become relatively higher beta?*** ***A: Not recently*** — One can go further in comparing relative noise across credit markets, lining up moves in provis with Canadian corps. We're doing this beta analysis all the time and our scrub of the 2018 data only reinforces the above point: provis retained a "lower beta" standing compared to a diverse set of Canadian corporate bonds… be it in the financial, regulated utility, telco, energy infrastructure or retail sectors of the market (Chart 4).

Look, the economic outlook is uncertain enough, with balance sheet unwinding at certain central banks tending to argue for larger, not smaller risk/term premia than what we had in earlier stages of the expansion. But if you're focusing on *relative* volatility across credit markets, C$ provincial bonds remain very much a "lower beta" option, with superior liquidity to boot. No need then to demand *incremental* compensation vs corps, in fact, it's probably the other way around if you thought vol was really here to stay.

## Chart 1: Full-year volatility not that extreme

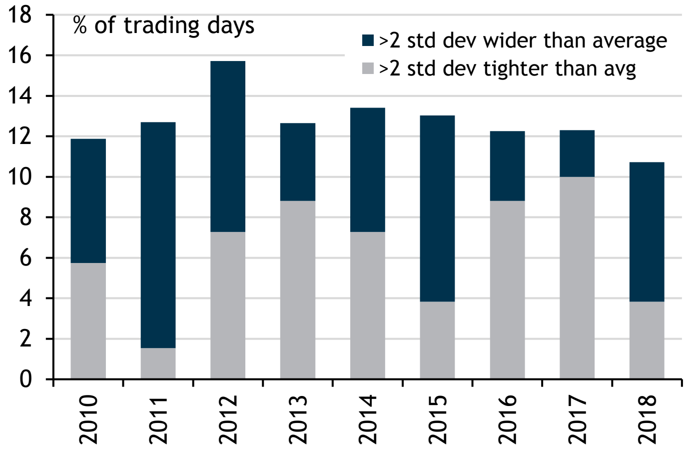
*Absolute, relative variation in Ontario 10s*




*Source: NBF, Bloomberg | Note: Annual figures based on daily spread levels for Ontario 10-year benchmark bond vs GoC; CV refers to coefficient of variation*

## Chart 2: Breaking out of channel less frequently

*Share of days Ontario 10s two SDs above/below 20D moving avg*




*Source: NBF, Bloomberg | Note: Annual figures based on daily spread levels for Ontario 10-year benchmark bond vs GoC; based on rolling 20D avg & SD*

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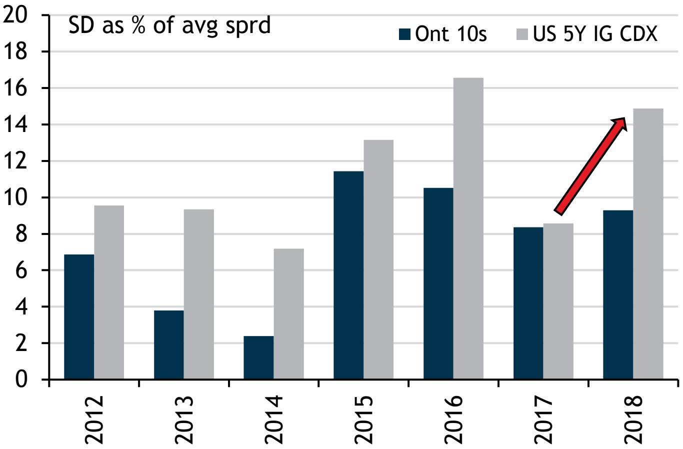
**Chart 3: US IG considerably nosier in 2018**

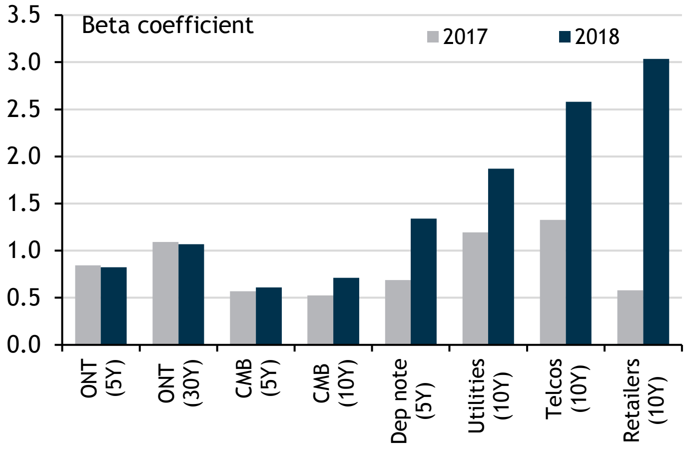
*Annual coefficient of variation in Ontario 10s & US IG CDX*




*Source: NBF, Bloomberg | Note: Annual figures based on daily spread levels for Ontario 10-year benchmark bond vs GoC & US 5-year IG CDX*

**Chart 4: Cdn corps proved much higher beta too**

*Beta coefficients of select Cdn corporates vs Ontario 10s*




*Source: NBF | Note: Annual figures based on weekly constant maturity spread indications; corporate spreads based on basket of representative names*

*Note: Please contact Catherine Maltais for greater detail on provincial-corporate relative value relationships and/or for more detailed analysis of beta coefficients over various time periods, tenors and sectors.*

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