FIG
Fixed Income Group
at
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Institutional, Expert Derivatives & Cap Markets Users ONLY.

Everybody's getting hammered on spreads moving wider. Interest rate hedges are fine. Volatility isn't gapping out.

HOW CAN I HEDGE OAS BLOWING OUT WITHOUT SACRIFICING ALL (OR MORE THAN ALL) MY CARRY?

With the rout on in junk bonds and spillover into investment grade due to the auto sector, pressure is on from investors. No thanks to faster prepayment speeds in the last six months across recent vintages (2013, 2014 and Q1 2015 originations), investment dollars are simply moving—and so are mortgage OAS levels. Versus mortgages, there are much juicier yields available in competing products.

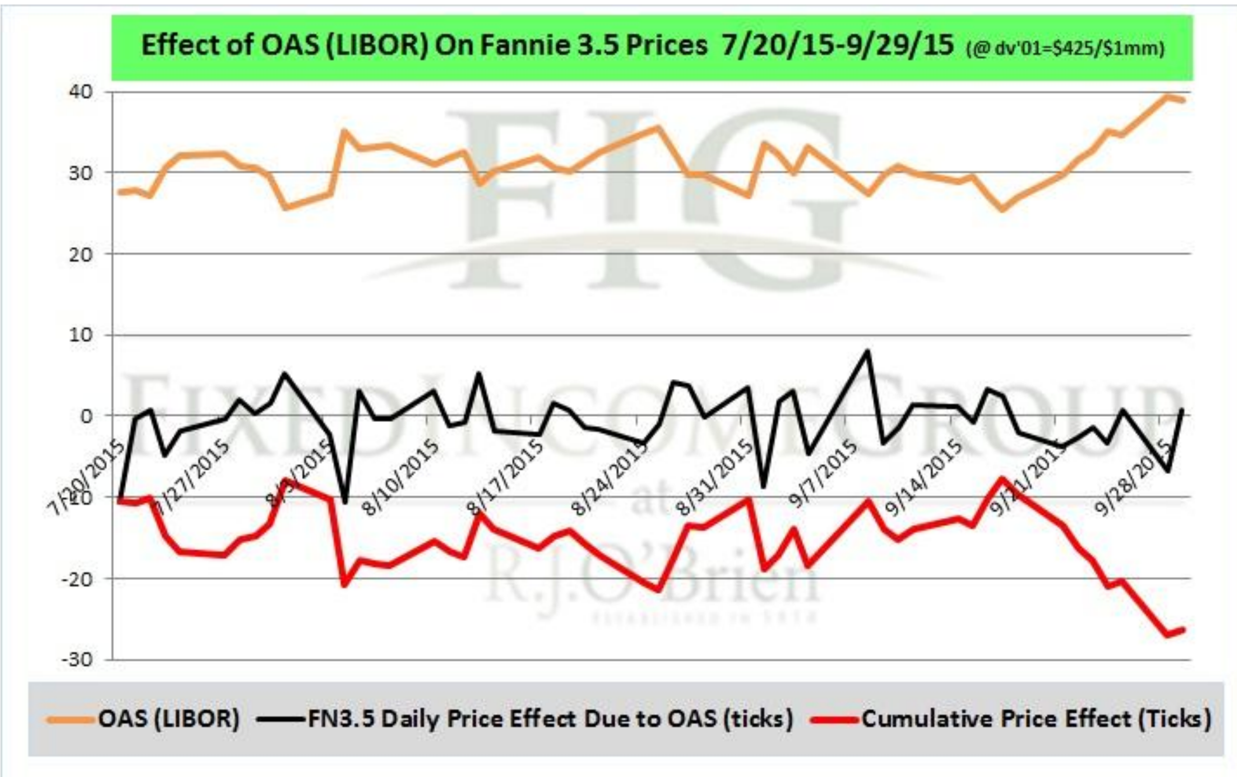
Couple the above with looming Basel III bank regulatory capital implications, sanctity and PRICE of balance sheet space is up. And, that means repo markets aren't the ocean of infinite depth and breadth they once were. Add a backdrop of debt-to-GDP for China, Brazil and some lesser countries that historically portend "banking crisis", and it's mighty difficult to envision spreads bottoming right here right now (though quarter-end passing may sponsor brief relief).

Dodd/Frank has catalyzed a ton of change. And as much as the "D/F-words" are often spit from mouths, there's a less-publicized hedge vehicle that was birthed in the shadows of Cleared Interest Rate Swaps and Swap Futures. It's new—even newer to trade than Eris and

Deliverable Swap Futures. And, it wasn't by design meant for mortgage world. But if 2007-2009 taught us anything, the lesson learned was: "When bad stuff happens, correlations go to 1 (or -1)."

There is, today, an actionable, executable, transparent, liquid, D/F compliant, margin efficient product we can use to hedge OAS. It is an exchange-cleared, FUTURES CONTRACT.

First, take a look at what we've all noticed but really haven't done much about other than back up bids: Fannie 3.5 OAS Levels (Bloomberg™ OAS Data)



OAS widening in the last two-ish months has COST 26+/32nds of value.

Versus Fannie 3.5's at a YTM of 2.85%, these nine weeks of <u>OAS WIDENING COST MORE THAN THREE MONTHS OF CARRY</u>—with most of the damage done in the last two weeks of trading.

So what's out there? What's the counter-hedge to OAS widening?

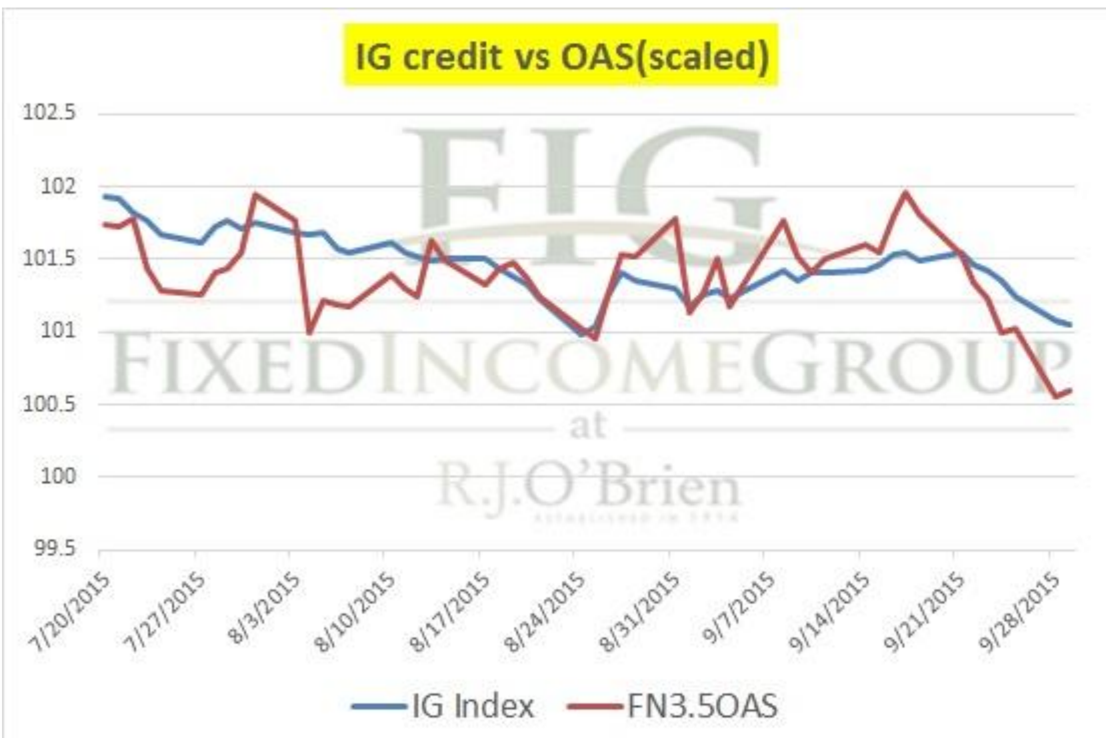
OAS is generally, in mortgage world, considered to be Incremental-Yield-Spread-Due-To-Prepayment-Risk. So, as Implied Volatility rises, option value increases, and mortgage longs are short prepayment optionality. Mortgage longs lose as IVol rises.

OAS though, to a corporate or sovereign debt trader or portfolio manager, is still Incremental-Yield-Spread; not because of optionality, but because of more subtle credit and cash flow

considerations. Mostly though, OAS – relative yield—is purely, "How much yield for taking how much risk." And right now it appears, since yields on all Investment Grade paper have been rising, spreads on most everything investment grade are higher—pulling mortgages wider.

The common denominator between this huge basket of potentially-investable-assets, all with OAS/Spreads widening, is the distinction of being "INVESTMENT GRADE". And thanks to the debacle in credit default swaps at the pinnacle of the crisis, Dodd/Frank has done us the solid of making an INVESTMENT GRADE INDEX viable as a futures contract. Not some off-the-run, just-get-something-out-there, futures contract: a bona-fide, massively traded Markit ™ index. In fact, this market exists in OTC trading- generally $250mm bid/ask, inside a basis point wide. And now—since the middle of August'15—also trades as a future. And this IG FUTURE looks to be a very sound step in OAS risk mitigation.

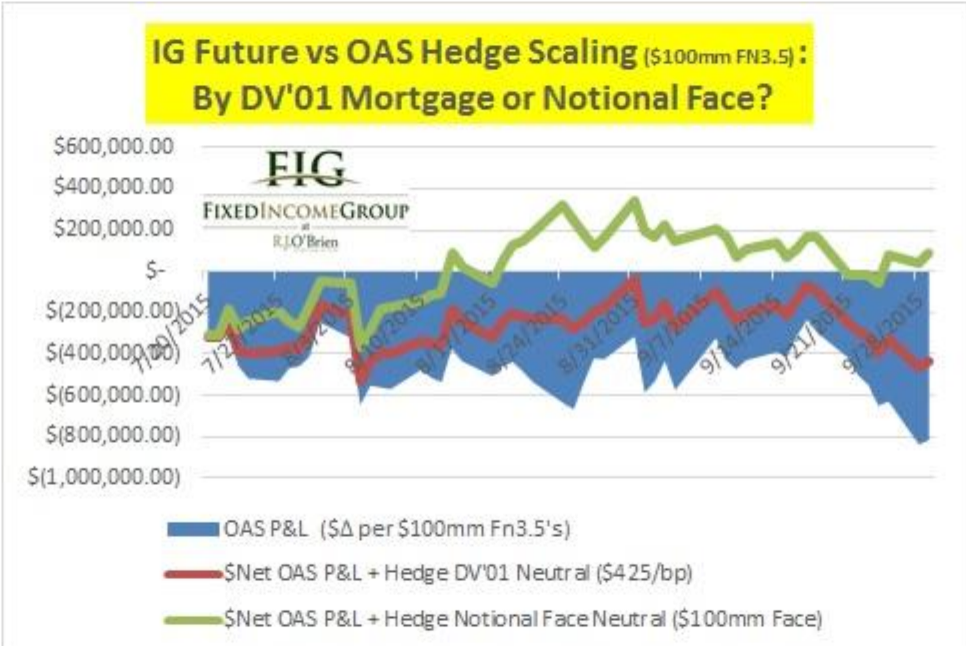
Before getting to the hard numbers, below is an illustration of how well-correlated the IG Future is to mortgage OAS (or, at least the part that isn't IVol driven): (Bloomberg™ data)



Mortgage OAS is assuredly "jumpier"—makes sense given that it's a combination of prepay risk and general investment-grade yield demand levels (not to mention a DV'01 that bounces around). Which brings the discussion to proper scaling of IG futures Vs Mortgage OAS risk.

There are three "possible" and two "best" choices: (1) DV'01 Neutral between Mort & IG Future, (2) Notional Face Neutral, and (3) Regress the P&L's at 100% notional and hedge to

the slope of the regression line. Toss out #3—we haven't even added the INTEREST RATE HEDGE yet. Not shockingly, the larger 100% Notional looks better:



No doubt, USING ANY AMOUNT OF IG FUTURE TO HEDGE OAS WIDENING WOULD HAVE HELPED. The argument for using notional face equivalencies is simple: Investor will invest FACE amounts and adjust DV'01s via interest rate hedge. Therefore, hedge notional with IG Future.

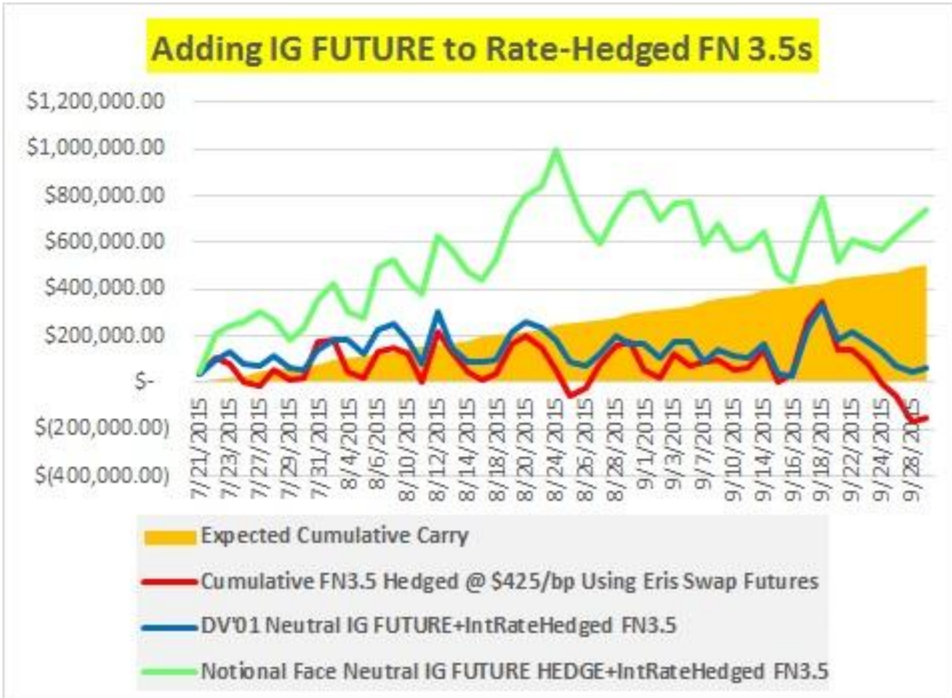
Being hedge prudes (or purists, maybe), hedging to the DV'01 is a much more comfortable argument. Hedging anything other than quantifiable risk is either guessing or "management's vision". Both hedging notional and DV'01 are arguable and both will be tracked (below) with the same interest rate hedge in place.

ADDING THE INTEREST RATE HEDGE TO THE DATA:

From 7/20/15 to 9/29/15, Fannie 3.5s traded to an empirical DV'01 of $425/bp. Using $425/bp as a static figure for the period on $100mm FN3.5s for OCT TBA, we generated a static ERIS swap futures hedge ($425 DV'01 on $100mm). The interest rate futures hedge is thus:

MortgageBuilder Interest Rate Hedge	
ERIS Sep15 2-yr (LITU5)	15%
ERIS Sep15 5-yr (LIWU5)	27%
ERIS Sep15 7-yr (LIBU5)	25%
ERIS Sep15 10-yr (LIYU5)	19%
ERIS Sep15 30-yr (LIEU5)	14%

The interest rate hedge, by the nature of being cast from an empirical DV'01, has to have been reasonably accurate. Nonetheless, due to OAS widening, the P&L for the period would be (Red):



So, in the final analysis, "the right answer" to scaling is likely some point between mortgage DV'01 neutral and notional face equivalents. And that's why you all get to make the "manager's call". Of note on the above, $100mm FN3.5s for Oct hedged DV'01 neutral, KRD-style with Eris Swap Futures, would have P&L'd at -$147k. OAS widening by 12.5 bps at $425/bp (x$100mm) would have resulted in $531k P&L. Add the two together and you're within 3-ish ticks of projected full carry on the mortgages (so the rate hedge was solid). This whole ugly stretch is flat-out OAS widening.

The IG Future: on Bloomberg™ as CWIZ0 <Index> DES <Go>. It's brand new to the futures hedger. It is not new, whatsoever, to the OTC credit hedger. Don't let the low volume and open interest fool you— Citadel and other mega-funds support, value, and make markets HERE. The liquidity appears to be on the order of 10yr interest rate swaps.

We, the futures people, have never had access to a spread-sensitive product before the listing of IG. ***We firmly believe IG and soon-to-follow other credit futures are the final piece we need to shore up OAS risk and mitigate what we also see as a HUGE, POTENTIALLY UPON-US-ALREADY, MARKET RISK.***

The desk can fill you in on any and all details regarding the contract. Here's a few you want to know:

1) It's an Eris-based contract. The same patented structure, through which interest rate swap futures are cleared, serves as the backbone for the IG future.

2) “Nobody rides for free.” The SHORT (ie: get paid if spreads widen, pay if narrow) is in a negative carry position. The current carry rate is 1% per annum (per Eris).

3) The IG futures contract trades with a decimal-ized, bond-like price: 101.05 and a futures-typical notional size of $100,000. The difference of a basis point (0.01) is the smallest tick size. Its value is $10. So, if the contract moves from 101.05 to 101.00, the short “makes” $50 and the long “loses” $50. We are certain of this as a member of the desk continues to “test the product.” Which also guides our certainty that if you are long the thing and OAS’s blow out, you LOSE.

4) Though an Eris contract by construction, the future trades at the primary clearing exchange for credit derivatives: The ICE (not CME). This doesn’t matter because there is no “cross-margin” value to the IG future. Like vega in an option, it’s a commodity unto itself. RJO clears these contracts just like any other rate future.

5) If your portfolio is constructed of non-agency product—particularly scratch & dent, non-performers, sometimes re-performers, credit storied product (I’m not going to call it you-know-what, but if it’s like, uh, FHA-ish) there is a lower-grade credit futures, HY, which aptly stands for “High Yield”. The carry on HY is 5%. So, if your FHA-ish stuff isn’t yielding well-above that, don’t even look.

Do NOT let the limited open interest deter you. Like interest rate swap futures, it will build quickly and IS NOT A BAROMETER OF LIQUIDITY. The liquidity stems (like rate futures) from the massive portfolios of the funds/market-makers that carry these indices in legacy OTC trades. There are billions of dollars of this stuff that settle daily.

Take some time, please, and look at the IG future. Have a call with us or we’ll gladly arrange a call with the exchange directly. We’ve needed this product too many times before and appear to be needing it RIGHT NOW.

For the Fixed Income Group-

Jc

See also:

https://www.theice.com/eris-futures

https://www.theice.com/products/44365521/Eris-CDX-IG-Credit-Future-5-Year

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