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Inside the yield factory

It's a rip-roaring year on Wall Street when a respectable single-digit return counts as a disappointing outlier, but such is the state of mortgage real-estate investment trusts in fast-fading 2019. We write to anticipate a brighter 2020.

At worst, mortgage REITs are the devil's own contraptions. At best, they're lucrative income machines. They're the rare fixed-income asset that can hurt you when interest rates go up or when they go down. And the good or the hurt is amplified by leverage, in the case at hand in the amount of almost 10:1.

AGNC Investment Corp. (AGNC on the Big Board) is that case. Through techniques both obvious and obscure, the company, led by Gary D. Kain, longtime executive at Freddie Mac, teases an 11% dividend yield from assets that, unleveraged, generate 3.16%, and from liabilities that cost 1.85%. An AGNC preferred issue, to which attach many fewer risks and contingencies, is priced to a current yield of 6.8%.

Catalyst for this essay is the observation that mortgage-backed securities, unlike most other credit instruments nowadays, are trading at wider than normal spreads to Treasurys-thank you, Harley Bassman, volatility expert extraordinaire and author of Convexity-Maven.com, for flagging it.

The narrowing of such spreads would constitute one bullish development for a mortgage-REIT investor. A reduction in funding costs, a second; a consequent steepening of the yield curve, a third; a reduction in interest-rate volatility, a fourth. Nor does the list stop even there. The first thing to know about mortgage REITs is that there are more moving parts than you can shake a stick at.

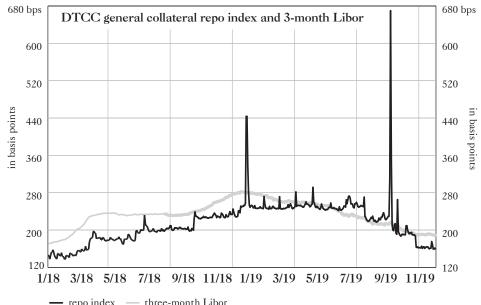
Managing a business like AGNC's is simple enough in outline: Purchase triple-A-rated residential mortgagebacked securities issued by (and guaranteed by) Fannie Mae and Freddie Mac employing heavy leverage; hedge the liabilities; clip the coupons; remit the dividends to the stockholders.

The fundamental source of complication is the right of the American homeowner to repay his or her mortgage without penalty. It's this prepayment option, observes colleague Fabiano Santin, that distinguishes mortgage investing from ordinary bond investing.

You can see the difference in the math. A stock jockey confronting a mortgage REIT for the first time may do a doubletake. As every trainee knows, duration is the weighted average number of years required to deliver a bond's cash flows to the investor who owns it; it's also an approximation of the sensitivity of a bond's price to changes in a bond's vield to maturity.

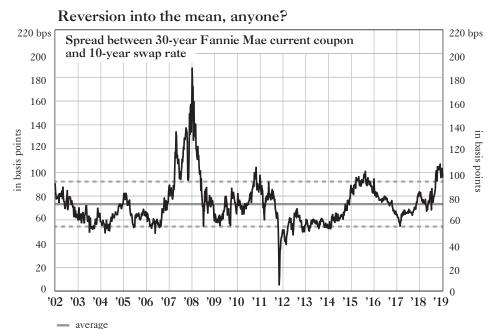
"However," Santin proceeds, "things get a little more complex when you compare the duration of a 30-year simple Treasury to that of a 30-year notso-simple mortgage-backed security. It happens that the duration of the Treasury is 22 years, while that of the MBS is a very approximate 3 years. Why that immense, uncertain gulf? Because the 30-year mortgage is a security whose functional maturity date rests with the

Not what Willis had in mind



repo index

source: The Bloomberg



-- average plus or minus one standard deviation

source: The Bloomberg

householder, or mortgagor. It matures when he or she decides to refinance (or, less frequently, to pay down principal), a decision which depends on current and future interest rates, seasonality, monetary policy, bank-lending activity and demographics, among other things.

"Investing in agency-guaranteed mortgages," Santin adds, "implies the purchase of amortizing 'risk-free' bonds while simultaneously selling call options on those bonds at par. Think of the yield earned above Treasurys as the price that the lender charges the borrower to compensate for the prepayment option."

So, to a degree, with respect to interest-rate movements, it's heads you lose, tails you lose. When rates rise, the price of your MBS drops, as any bond does. But when rates fall, the price of your MBS may likewise decline, since the borrower, exercising his or her sacred right to refinance, can pay them off at par. And if your cost basis was, say, 103 or 105, your only recourse is to slap your forehead with the palm of your hand.

It's the ever-present risk of early call that caps the price of these securities (you aren't going to pay 125 for one that might re-rate to par next month). This bitter dual-downside risk takes the name of negative convexity.

MBS investors live and die by funding costs. Highly leveraged, they build their businesses on the assurance of reliable repo lines of credit—loans secured by the mortgage-backed securities they hold.

"Despite the central bankers' habitual narrative of undaunted optimism," Santin notes, "if liquidity were truly and naturally plentiful, the Federal Reserve would not have found it necessary to re-start its balance-sheet expansion in October by committing to buy \$60 billion's worth of Treasury bills every month until at least the second quarter of 2020 and by reinvesting maturing Treasury securities and agency MBS—although reinvestments of the latter into new MBS have been capped at \$20 billion per month."

This year, before the Fed recommitted to a policy it chooses not to call QE, high repo rates plagued mortgage REITs like AGNC that fund themselves with secured loans. Repo customarily hovers below the London interbank offered rate, as you'd expect it would, since repo is a collateralized rate and Libor an unsecured one. But from June through September, the relationship inverted—repo was quoted above Libor—and REIT stocks bore the scars of the inversion.

You'll recall that the Fed began the year in easing mode. By the end of August, the overnight repo rate had dropped by only 30 basis points compared with a 70 basis-point decline in three-month Libor. A 40 basis-point differential might not impress the layman, but it's costly to the mortgage REIT that, like AGNC, hedges its portfolio by entering into interest-rate swaps through which it receives Libor and pays a fixed rate.

Interest-rate volatility constitutes another drag on mortgage-REIT performance. The more tumultuous the market, the higher the imputed price of the prepayment option that's embedded in mortgage-backed securities—which option, in effect, MBS are short. Every self-interested holder of a mortgage REIT therefore hopes for peace and quiet in the debt markets.

An investor will likewise pull for stability in mortgage-prepayment rates, a wish that Mr. Market is currently denying him. The conditional prepayment rate on 30-year Fannie Mae mortgages in October reached an annualized amount of 21.2% of the total pool, highest in more than six years.

The Merrill Lynch Option Volatility Estimate (MOVE) index, crafted by Bassman in the 1990s, measures the volatility of yields in basis points—it's the VIX for bonds. For the 24 months ended May 30, MOVE averaged 52 basis points, but from June through September, it jumped to an average of 74 basis points, thereby undercutting the AGNC share price.

Nor was the summertime action in the yield curve any gift to the mortgage REITs. The curve began to flatten in 2010 and actually inverted in May 2019. The inversion persisted until the 10-year yield dipped precisely 50 basis points below the yield of the 3-month T-bill on Aug. 27. Exactly one week later, when the charts confirmed that the yield-curve inversion had ceased, the prices both of AGNC and Annaly Capital Management (NLY on the Big Board) hit their lowest price since March 3, 2009, which date happened to coincide with the great bear-market bottom of the S&P 500.

Since September the difference between 10-year and 3-month rates has climbed to 26 basis points, a happy omen (although certainly no guarantee of further steepening). A steeper curve widens the spread between the yield on a portfolio's assets and the cost of its liabilities. Also, an upwardly sloping curve lifts the value of MBS because of technicalities related to the forward interest-rate curve and its relationship to the strike price of mortgage call options, which arcane facts we take on faith from the quantitative Bassman.

For a handy measure of the MBS valuation, consider the difference between the 30-year Fannie Mae current coupon and the 10-year swap rate (that rate being the fixed portion of the decade-long

contract between two parties in which one pays a fixed rate and receives a floating rate based on Libor). At the current spread of 100 basis points, the MBS premium is squarely in value territory. For perspective, the post-January 2004 average stands at 73 basis points, a sweep of time encompassing the 220 basis-point spike during the 2008–09 financial crisis.

"Just a reversion to the mean," Santin notes, "would translate into double-digit gains in the book value of mortgage REITs—AGNC equity would go up by 13.2% on a 25 basis-point spread tightening, according to the company's third-quarter presentation to investors."

Like other dedicated MBS investors, AGNC shops for mortgages that may prove resistant to early call. What might such a mortgage look like? It might be too risky to qualify for refinancing or it might be too close to maturity to bother to refinance, among other reasons. Out of the Sept. 30 portfolio summing to \$102.6 billion, these curated mortgages-plucked from so-called specified pools—contributed 59% of the total. Naturally, such statistically vetted loans cost more than generic pools do-it's part of the art of mortgage-portfolio management to weigh price vs. prepayment risk. Anyway, the estimated prepayment rate for AGNC's portfolio registered 16% in October, lower than the 21% for all 30-year Fannie Mae mortgages.

As mentioned, AGNC's portfolio yielded an average of 3.16% in the third quarter compared with an average cost of funds of 1.85%, thus delivering an average spread of 1.31%—much improved from the approximate 1% earned in the first half of the year. Since management has chosen to hedge 100% of the liabilities, the portfolio is exposed only to deviations in prepayments from those already baked into security prices. Employing 9.8 times leverage, AGNC is generating a return on equity before operating expenses of about 13% (9.8 times 1.31%), higher than that 11% dividend yield.

The AGNC share price fell to the accompaniment of fears over plunging bond yields, a flattening (or inverting) yield curve, accelerating mortgage prepayments and a consequent deep and certain erosion in book value per share. Invert those apprehensions to hopes—of stable rates, a steepening curve, manageable prepayments and appreciating book value—and you can understand why, over the past two months, the price has been climbing.

"If 2020 is a year when rates are kind of range-bound with the 10-year staying between 1.5% and 2%," Bose George, managing director at sell-side firm Keefe, Bruyette & Woods, Inc., tells Santin, "and if volatility gets no worse, then you get a double-digit return. If volatility improves, then hopefully there's upside with book value increasing as well."

The consensus view that inflation is yesteryear's bugbear, that interest-rate volatility is dwindling, that the Fed has the repo market well in hand and that a bull steepening yield curve is on the 2020 agenda all work in favor of AGNC shareholders. Observe, however, that each is a hope, not a certainty.

"There isn't a huge margin of safety built into AGNC shares, which trade at 1.03 times tangible book value," Santin notes. "But the well-covered 11% dividend and the prospects for book-value appreciation from narrowing MBS spreads, as well as potentially lower downside risks, provide some cushion.

"A sort of contingent put is available for free to AGNC shareholders," Santin goes on. "In July, AGNC's board authorized up to \$1 billion in share repurchases through Dec. 31, 2020—the prior plan had expired in December 2017. The company intends to buy back stock only if it's trading below tangible book value (which stood at \$16.75 on Nov. 30 versus a last quoted price of \$17.31), as when it repurchased \$103 million's worth of shares at an average

A steeper curve would help

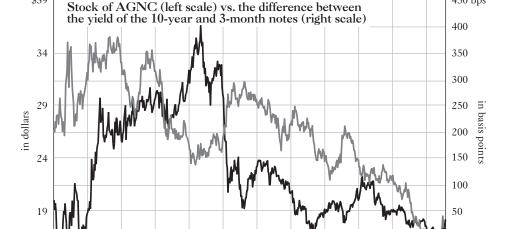
price of \$14.90 in the third quarter, at the decade low (see nearby graph)."

Two insiders have netted \$1.8 million's worth of share purchases in the past 12 months, with CEO Kain purchasing \$1.9 million's worth in May and director Morris Davis selling \$207,000's worth in April, then buying \$125,000's worth last month. The sell side is mostly skeptical with four buys, eight holds and no sells.

"If you are concerned about an upcoming recession," Santin suggests, "bear in mind that Annaly was able to generate 10.6%, 5.4% and 23.7% ROEs from 2007 through 2009—the yield curve started steepening in early 2007 (AGNC came into the world in 2008). Depending on the depths of your concern, you might consider the relative safety of AGNC's 6.875s Series D fixed-to-floating preferred securities (CUSIP 00123Q609; \$235 million outstanding). The shares change hands at \$25.55 for the previously mentioned current yield of 6.8% and are callable in April 2024; if not called, they reset at 3-month Libor plus 433 basis points. The yield to call is 6.6%. On Sept. 30, \$10.2 billion in common equity furnished protection to a grand total of \$711 million of outstanding preferreds.

"The \$13 million per quarter in preferred-dividend distributions are pocket change to AGNC," Santin continues, "whose \$242 million in comprehensive income covered that outlay by nearly 19 times last quarter. Even if there were a significant drop in the \$10.2 billion

450 bps



5/13 5/14 5/15 5/16 5/17

AGNC — yield difference

5/10 5/11 5/12

source: The Bloomberg

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book value, the company would have more than enough resources to pay the preferred holders.

"Another possibility is the Annaly 6.75s Series I fixed-to-floating preferred issue (CUSIP 035710847; \$442 million outstanding) quoted at \$25.61. It delivers a current yield of 6.6% and is callable in June 2024 or, if not called, resets at 3-month Libor plus 499 basis points. The yield to call is 6.0%, and Annaly had

\$15.2 billion of common equity junior to \$2 billion of preferred shares. The company's \$201 million comprehensive income covered the \$36 million in preferred dividends by 5.6 times."

From the relatively secure position of the preferred investor, news of the abrupt departure of Kevin Keyes, chairman, CEO and president of Annaly since Jan. 1, 2018, while not exactly welcome, holds less cause for concern than it likely

does (and should) for a common holder.

But the Internal Revenue Service extends no such privilege to senior securities, as the government taxes REIT preferred dividends as ordinary income. A wealthy blue-state investor must therefore resign himself to remitting more than half of his preferred dividends to Treasury Secretary Mnuchin—or to calling a moving van.

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