

## SECURITIZED SPOTLIGHT

## Models Versus Reality

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Mr. Katz is a Securitized Product Specialist in the Fixed Income group. He joined TCW in 2012 and brings the firm extensive experience with prior roles at Western Asset Management Company (WAMCO) and Pacific Investment Management Company (PIMCO). At WAMCO he served across multiple functions including Senior Portfolio Manager, Trader, and Research Analyst, in addition to co-heading the RMBS team. Prior to that, Mr. Katz was a Senior Portfolio Associate at PIMCO. Mr. Katz began his career at Republic National Bank of New York as Closing Analyst. Mr. Katz graduated with Honors from the University of Florida with a BS in Finance and holds an MBA in Finance from the UCLA Anderson School of Management. He holds FINRA Series 7 and 66 licenses.



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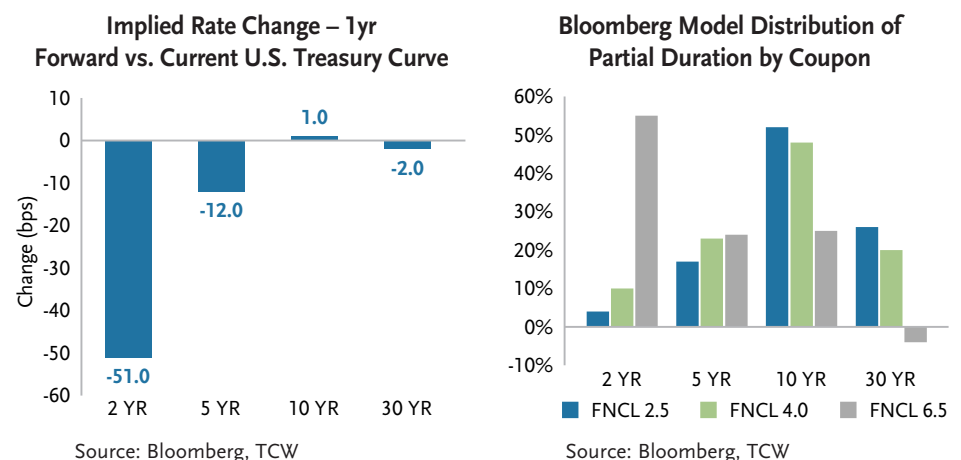
Mr. Li is an Analyst in the Fixed Income group, specializing in mortgage-backed securities. Prior to joining TCW in 2019, he was a trader at HSBC Global Banking and Markets focused on asset-backed securities. Mr. Li earned a BS in Finance and Mathematics from the New York University Stern School of Business and a MS in Financial Economics from Columbia Business School. He is a CFA charterholder.

“Models versus reality” is a fundamental battle in mortgage-land, and the recent moves in rates have made clear the shortcomings of blind model-based processes.

With over 12 tradable coupons, the agency mortgage-backed security (MBS) “basis” is anything but homogeneous. Indeed, the fortunes of the coupon stack tied to the future gyrations of the yield curve and [coupon selection](#) is a key factor in alpha generation. As the vast majority of mortgages in the U.S. are 30 years long, MBS cashflows are exposed to many points on the yield curve. The sensitivity of a mortgage bond to changes on a specified point of the yield curve is measured by partial durations, or “partials.” Mortgages with higher rates are expected to prepay faster, thus shortening the duration of the pass-through security. As such, higher coupon MBS are more exposed to the short end of the yield curve, namely the 2-year to 5-year partials. The converse is true for lower coupon MBS, with slower expected prepayment speeds (thus longer durations) and partials more exposed to the long end of the yield curve.

Taking the current Treasuries forward yield curve at face value, investors expect a 10 to 50 basis point (bps) rally in the front end while the long end is expected to hold steady. Which coupons are expected to perform under such a paradigm? The higher coupons! Looking at conventional 30-year (FNCL) 6.5 coupon MBS, we can see that the Bloomberg model distribution of partial durations is heavily skewed towards the front end, with 80% spread across 2-year and 5-year partials. For lower (2.5s) and belly (4.0s) coupons on the other hand, between 60% to 80% of partial durations are concentrated in the long end. As such, those investors relying on mortgage models with static option-adjusted spread assumptions and steeper scenarios may be lulled into the conclusion that current coupons are poised to outperform the stack.

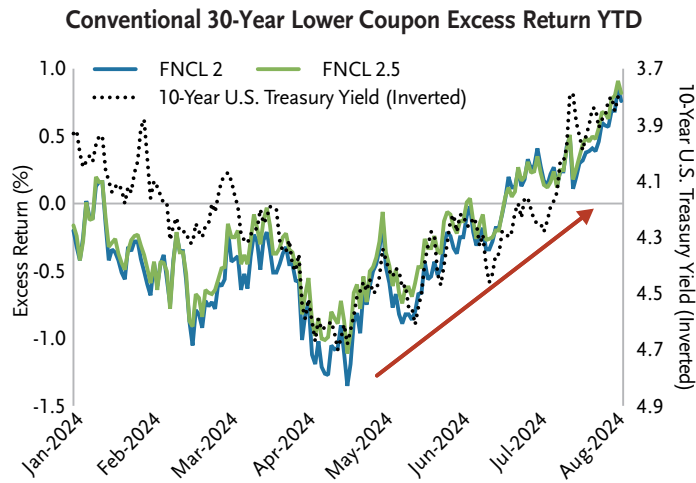
**Models versus reality... should rates evolve as implied by the 1-year forward yield curve, the Bloomberg model suggests that higher coupons would likely outperform given shorter duration partials:**



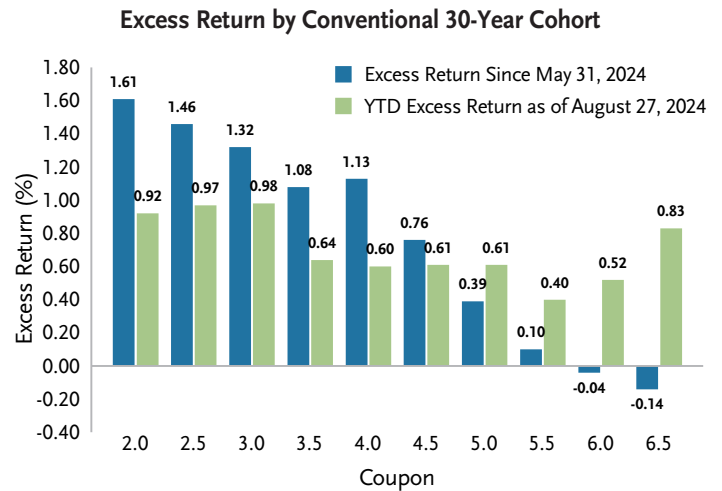


Indeed, the future rarely (if ever) evolves in a manner implied by forward curves. As rates have rallied between 50 and 100 bps across the yield curve since April, the “duration effect” – along with positive technicals and shifting investor sentiment on prepayment speeds, convexity risk, and terminal rates – has led to the significant outperformance of discount-dollar-priced profiles. Looking at Fannie 2.0s and 2.5s, excess returns have rallied in the neighborhood of 1.5% over the last three months, trouncing the higher coupons and now leading this year’s excess returns. In short, in the latest round of models versus reality, it seems that reality has emerged victorious.

**Models versus reality... in the real world, as rates have rallied, the “duration effect” and positive technicals have led to the significant outperformance of discount profiles:**



Source: Bloomberg, TCW



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It has been said that investing is an endeavor that is more [art than science](#) and this is just the most recent example of the shortcomings that accompany blind faith in a “perfected” mortgage model. As volatility rises and inflection points come fast and furious, what once seemed rational becomes uncertain, and valuation models once deemed predictive invariably fail. Under such circumstances, success will likely be determined by adherence to an investment process informed by decades of experience and honed over multiple cycles. In short, the case for active management in achieving “alpha” in the mortgage market is now stronger than ever as the turn of the cycle looms large. ■

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