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Commentary

Market Opinions and Topics of Interest

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Is Fannie Mae's Duration Gap Becoming An Issue Again?

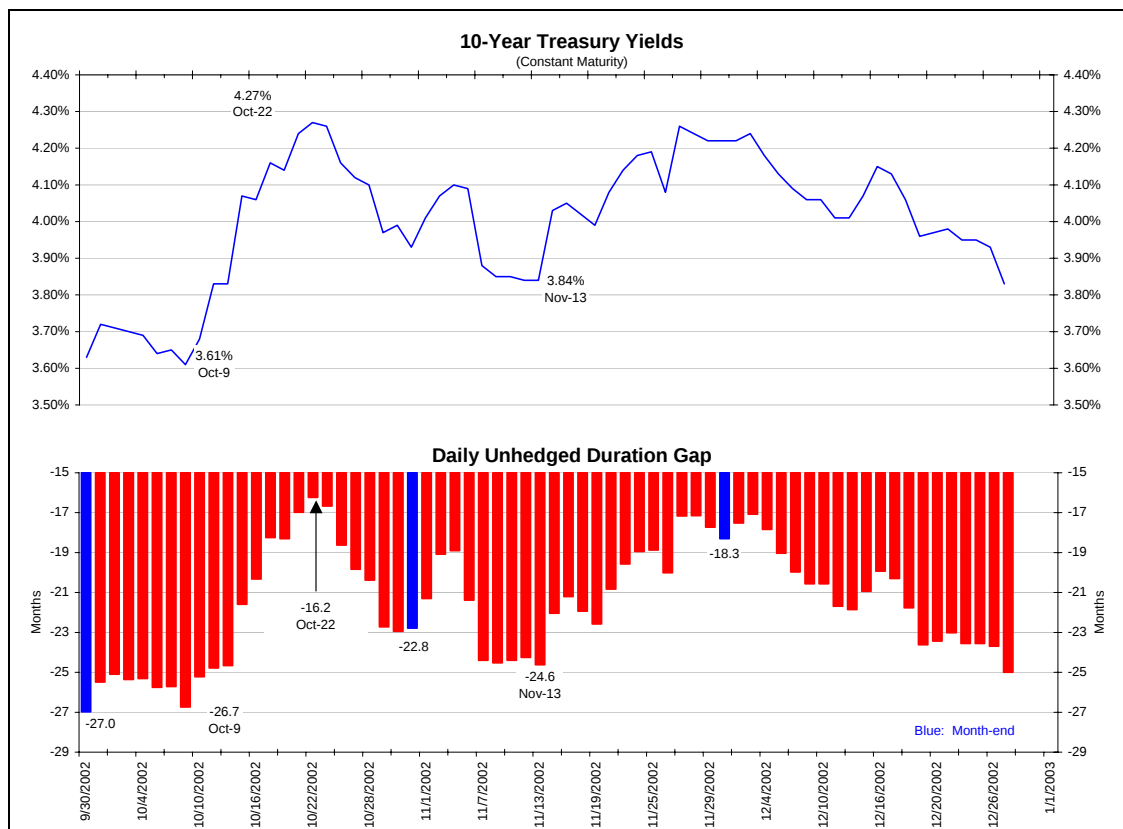
*Well, the duration gap will move with interest rates. It will move up and down. **But we expect it to be staying within our plus or minus six-month range, going forward** [our emphasis].*

Franklin Raines: CEO, Fannie Mae -- Bloomberg TV Interview, December 13, 2002

Don't look now, but Fannie Mae's duration gap **may be** an issue again very soon. Recall that Fannie Mae is the largest player in the "convexity trade." This trade enhances the volatility of interest rates, typically exaggerating the existing trend. **If the largest convexity trader is about to become active, we believe it will greatly impact all interest rates.** (For a detailed explanation of the convexity trade, how it works, and why you should care even if you do not trade mortgage-backed securities, see the [special report](#) that came with this commentary.)

The top panel of the chart below shows the yield of the 10-year Treasury note (constant maturity). The bottom panel shows the *daily unhedged duration gap*. This measures the difference in the *effective duration* between the Merrill Agencies Master Index and the Merrill Fannie Mae Master Index.

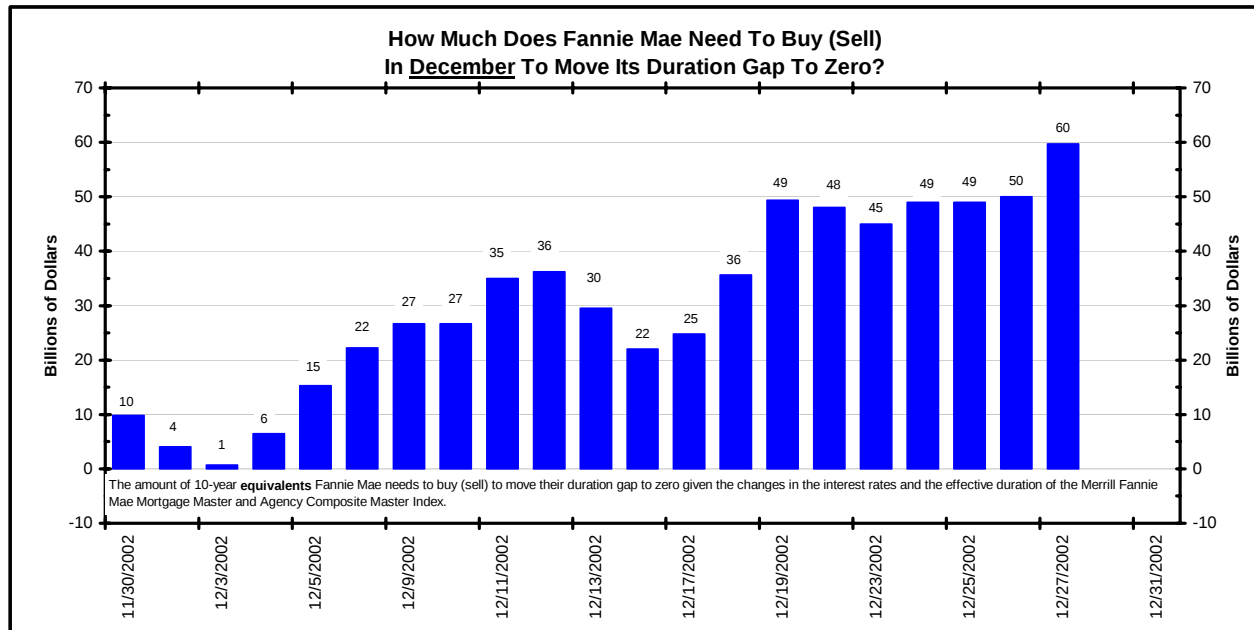
We use the difference between these measures to gauge the movements of Fannie Mae's duration gap. Given Fannie Mae has a mortgage portfolio in excess of \$750 billion, versus \$2.5 trillion for the Merrill Fannie Mae Master Index, we believe using these indices provides a close approximation to their actual unhedged duration gap.



On Friday, December 27, the difference in the effective duration between the Merrill Agencies Master Index and the Merrill Fannie Mae Master Index was –25 months. On November 30 this measure was –18.3 months. Note that Fannie Mae piled over \$630 billion of derivatives (notional value) on top of their \$750+ billion mortgage portfolio to close this unhedged gap to a reported +2 months as of November 30.

From November 30 to December 27, the unhedged duration gap moved –6.7 months (from –18.3

months on November 30 to –25 months on December 27). **This means if Fannie Mae did no hedging in December, its reported duration gap would now be near –4.7 months – dangerously close to exceeding its +/- 6 month preferred range.** Furthermore, the unhedged duration gap moved –1.3 months **on Friday alone** (recall the 10-year yield fell 10 basis points). With two days left in the month (and year), any further drop in interest rates could push Fannie Mae's duration gap outside their preferred range.



Conclusion

In our [December 18 commentary](#), we said:

They understand that if they again move significantly outside this preferred range anytime soon, they risk a loss of investor confidence.

As Fannie Mae's duration gap moves close to violating its +/- 6-month range, especially with month-end looming, we believe they will become active in hedging to stay inside this range. They do not want to risk investor/regulatory wrath by violating these guidelines so soon again.

To get a sense of how big their hedging needs are, the chart above shows how many "10-year equivalents" were needed for Fannie Mae to move its duration gap to zero on any given day.

(Note: This analysis uses the term "10-year Treasury equivalents." Fannie Mae trades in many different instruments, especially derivatives, and rarely, if ever, buys Treasuries. We are not suggesting they buy Treasuries, let alone 10-year Treasuries. They do not. Rather, this measure is

meant as a benchmark to gauge Fannie Mae's hedging needs).

For Fannie Mae to hold its duration gap steady, on **Friday alone**, they would have had to buy **\$10 billion of 10-year equivalents** (the difference between \$50 on December 26 and \$60 billion on December 27). For Fannie Mae to have a duration gap of zero, they needed to buy \$60 billion of 10-year equivalents throughout the month.

With only two days left in the month (year) and very thin markets, any further drop in interest rates could get Fannie Mae's hedging operation active and potentially produce an exaggerated move lower in interest rates.

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