MORTGAGE RATE VOLATILITY AND PREPAYMENT MODEL RISK

It is well known that mortgage rates are tied to the basic rules of supply and demand. Several factors contribute to mortgage interest rate volatility such as inflation, economic growth, the Fed's monetary policy, and the state of the bond and housing markets, all come into play.

Nowadays, all mortgage related aspects that banks manage such as mortgage servicing and mortgage hedging activities, and the market value of the mortgage's portfolio are dependent on decisions which stem from prepayment models used by the banks. In the US, the mortgage interest rate volatility has increased the uncertainty around prepayment models which are calibrated or fitted to historical data and therefore the hedging and balance-sheet risk that depend on these models.

This article looks at the historical volatility associated with mortgage interest rates in the US and explores the associated risk in prepayment models and the implication for financial institutions using those models.

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