Managing Mortgage Pipeline Risk
By Robert Perry, Principal – ALM and Investment Strategy, ALM First Financial Advisors, LLC

Residential mortgage banking is a sizable and important market segment, and many institutions operate originate-and-sell models, in which mortgage production is sold to investors (e.g., Fannie Mae or Freddie Mac). Loans locked with borrowers but yet to be originated-and-sold represent the entity’s “mortgage pipeline.”

Managing this pipeline is critical in today’s market and calls for skilled management to keep risk under control while ensuring profitability. The hedging process can often seem confusing – even daunting – to some because it involves complex computations and the use of sophisticated models to manage risk and determine pricing. When done correctly, however, hedging strategies protect lenders from the unpredictability of interest rate movements and other financial risks, thus improving risk-adjusted returns and long-term business viability.

Managing the pipeline for secondary sale
When a mortgage lender locks with a borrower and the loan enters the mortgage pipeline, an open interest rate exposure is created. If interest rates change significantly, the price of the loan will change significantly as well. Additionally, the borrower is free to choose another lender without penalty. When a particular lock fails to originate, it is known as a “fallout” or “hard fallout”. This is where good pipeline management becomes essential; understanding your fallout is critical to understanding your market exposure.

Common strategies for managing pipeline market risk include using forward-sale commitments and hedging using capital market instruments.

Forward-sale commitment
Forward-sale commitments are direct commitments to sell to the investor at some point in the future; commonly, this includes GSE investors, such as Fannie Mae. Forward-sale commitments can be made on a “mandatory” or “best-efforts” basis for future delivery of the loan. A “mandatory” commitment requires the originator to deliver a set dollar amount of mortgage loans at a certain price by a specific date; if the originator does not deliver, the agent charges a “pair-off” fee.

A “best efforts” commitment hedges fallout risk by not charging a pair-off fee assessment if the loan fails to close; however, this comes at a cost, as the price will be less favorable.

<table>
<thead>
<tr>
<th></th>
<th>Mandatory Commitment</th>
<th>Best Efforts Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contract</strong></td>
<td>eCommmitting contract</td>
<td>eCommitONE contract</td>
</tr>
<tr>
<td><strong>Commitment Structure</strong></td>
<td>Bulk or Single Loan</td>
<td>Single Loan (Borrower and Property Specific)</td>
</tr>
<tr>
<td><strong>Loan Substitute</strong></td>
<td>Yes</td>
<td>Not Allowed</td>
</tr>
<tr>
<td><strong>Pair-Off Fee</strong></td>
<td>Yes, based on market movement</td>
<td>No, unless loan closes and not delivered using eCommitONE</td>
</tr>
<tr>
<td><strong>Product Change</strong></td>
<td>Not Allowed</td>
<td>Allowed</td>
</tr>
<tr>
<td><strong>Commitment Amount Change</strong></td>
<td>Subject to over-delivery fee or pair-off fee</td>
<td>Allowed subject to conforming loan limits</td>
</tr>
</tbody>
</table>

Source: Fannie Mae
**Hedging with capital market instruments**

Hedging the pipeline can also be accomplished through the use of capital markets instruments, most frequently using the TBA, or “To Be Announced”, mortgage-backed securities market. Larger, more sophisticated lenders tend to use this vehicle due to efficiency, flexibility gains and the ability to employ warehousing strategies to boost interest income – all leading to higher returns.

A successful hedging program includes three key steps:

1. **Maintain models and accurate data**
   Because hedging decisions are made based on data, data quality is paramount to the hedging process. Ensuring accurate and timely data is of utmost importance, and often involves disciplined and rigorous databasing and IT architecture. Automation and integration of the LOS, servicing platform and financial modeling software are important to foster efficiency and to reduce the possibility of human error.

2. **Estimate fallout**
   Understanding fallout, as discussed, is imperative to the hedging process, and can contribute significantly to hedge tracking error. Factors impacting fallout include interest rate movements, product type, pipeline stage, borrower characteristics and origination channels.

3. **Compute the hedge dollar amount**
   To determine the dollar amount that needs to be hedged, the risk manager must measure the market risk exposure associated with the mortgage assets, after adjusting for the expected fallout impact. Also depending on the institution’s circumstances, the mortgage servicing rights (MSR) asset volatility could also be important to model. Because the firm has a long position in mortgages, the firm should initiate a hedge by selling short the appropriate amount of TBA MBS.

A well-planned mortgage pipeline management program reduces the risk of the pipeline’s price volatility. Eliminating all risk would mean a perfect score, even if the hedge position resulted in a loss. Adjustments to the hedging process should reflect post-process evaluations of the accuracy of predictions, such as the back-testing of hedge ratios.

While internal hedging can bring cost savings, ultimately a hedge strategy is only as good as its execution. Thus, partnering with firms that are experienced in analysis and capital markets is often a prudent approach.

Disclaimer: The views and opinions expressed in this article are those of the author and do not necessarily reflect the official policy or position of the Financial Managers Society.

**About the Author**

Robert Perry is a Principal at ALM First Financial Advisors. He is responsible for the ALM and Investment Strategy Groups, which includes development of asset liability and investment portfolio themes, as well as strategic focus for financial institution client portfolios primarily invested in the high credit quality sectors. He also is instrumental in balance sheet hedging strategy development.