THC Financial Engineering
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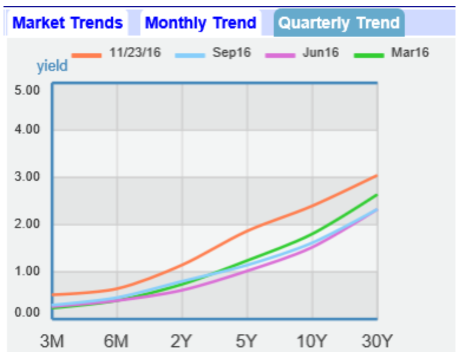
Weekly Post: Evaluate November Performances Before the Year End Reports

December 1, 2016

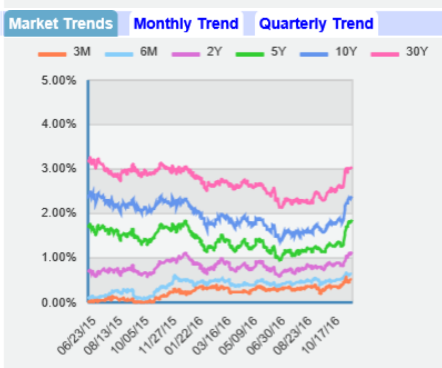
Dear Clients-

I hope you all had a good Thanksgiving.

Interest rates rose significantly after the election, and there has been much discussion regarding the reasons for the price and rate changes. In this Post, I want to focus instead on ALM strategies specifically for your balance sheet.



The Homepage quarterly Market View shows the yield curve has risen significantly since September. Beyond the 2 year term, the rates have increased approximately 50 basis points.



This time last year, the rates where as high as the current rates. The curve reached the trough in June.

Challenges

- How does the signific my pe month

First let me go through a check list of balance sheet items that would be changed by the November rate

- What should I do to ensure that the Dece exposures will be within my policy limits?
- What ALM strategies should I consider in

Solution

First let me go through a check list of balance sheet items that would be impacted by the November rate shift.

- ✓ Economic Value of Equity (EVE) or NEV
  - ○ If your balance sheet is liability sensitive (with positive duration), then the % drop on EVE value will be about half your EVE duration, in This change is reflected in your EVE report, which also reports the $ change in EVE value.
- ✓ Projected NII

Market Wisdom - Art Hilliard*

Hot Off the Press

I just got these 13 scratch and dent loans yesterday, and they are currently out for bid.

- Conforming and jumbo
- Fixed and one ARM
- Performing
- WAC 4.022
- WA LTV 76.13
- WA FICO 720
- WA DTI 38.89
- Geographically diverse

The issues on these loans are across the board. Too many to list. Here are a few, look at the tape to see them all.

- Uninsurable FHA
- Closed without appraisal
- Early payment default
- Undisclosed liability
- Fraudulent bank statements
- Occupancy
- Ineligible gift donor

Pick and choose the loans that fit. Bids are due by 10:00 central on Thursday the 17th.

An interesting fact, one would think that bidders would be mostly funds, but my bidders are typically banks

Art Hilliard has been in the mortgage industry for 29 years. He has originated, managed secondary marketing, securitizations and settlements, provided mortgage financial advisory and performed multiple mortgage portfolio sales and acquisitions.He was past president of the Illinois Mortgage Bankers Association.

- Your EaR report provides the changes in NII, % change in NII over 1 and 2 years. These projections provide you an estimate for a 50 bpt change in rates.

✓ Loan portfolio sensitivity (duration)

- Residential fixed rate mortgages will experience extension risk, resulting in a longer weighted average life and duration. Loan Performance Trend App will let you see these changes in November.

✓ Investment portfolio sensitivity

- The callable, step-up callable agency bonds, callable municipal bonds, and MBS will extend their duration, resulting in the EVE being more liability sensitive.

✓ Liquidity Coverage Ratio (LCR)

- Because of the extension risk of the loans and investments, there will be less prepayments that may result in reduction in your short term sources of funds from prepayments, lowering the liquidity coverage ratio.

✓ Mortgage servicing right portfolio (MSR)

- MSR value should increase due to the rising rates.
- This increase may be ignificant because the weighted average life of the fixed rate mortgages servicing fees will extend, resulting in higher non-NII income.

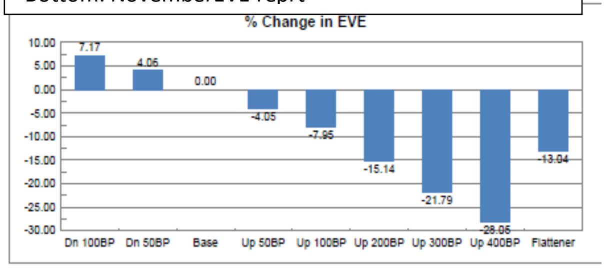
✓ Core deposit acccounts

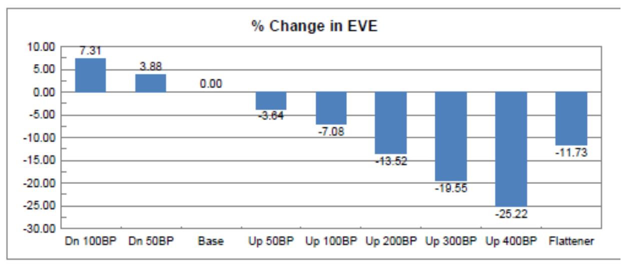
- The projected offer rates of the core deposits will increase faster at the speed half the estimated beta??

✓ Residential mortgage rates

- Fixed rate mortgage rates tend to track the 10 year market rate, and therefore the mortgage rates have risen.

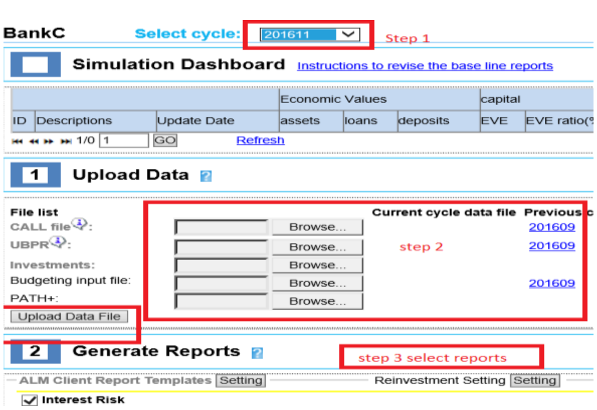
Top: September EVE report.
Bottom: NovemberEVE reprt





The recent rate increase affects your performance in multiple ways. You should use the month of December to understand the impact and revise the your balance sheet, when appropriate, as illustrated above in this section. Since the duration of this hypothetical bank is low the shift in the yield curve does not affect the Interest Rate Risk Reports significantly.

Numerical Example



A shift in yield curve affects the balance sheet in multiple ways. To decide how to adjust the balance sheet risk exposure, I suggest that you generate the November reports so that you can evaluate the combined changes of the items above on the balance sheet performance. In Risk Officer, the steps to generate the November reports are quite simple.

Step 1. Click on Monthly/Quarterly Generate report on the Homepage, and select the month, November

Step 2. Download the PATH + file that THC has prepared for the September cycle Left Panel/Homepage. Edit the file, particularly rollover any assets and liabilities that have paid down since September, paying attention to the short term instruments. Save the PATH+ file in your local drive and then browse and upload the file to the servers in THC Data Center.

Step 3. Generate the reports that you have selected. Upon c ompletion,
these reports will be available for download. These reports will also presented on the Homepage Left Panel and will be updated with your November data.

You can iteratively edit the PATH+ file until you incorporated all the necessary changes in the balance sheet since September. Generate Reports using PATH+ input data file is a powerful too for you to review and manage the balance sheet.

The results of the November reports may suggest possible actionable items: increase the cash position to enhance the liquidity coverage ratio, review the investment portfolio as the unrealized gain may have dropped significantly, etc. The EVE duration may have extended resulting in you exceeding the policy limits. The impact of the November rate shift would be a topic for your upcoming ALCO meeting discussion.

Conclusion:

The year end risk reports are important for the Board, regulators and ALCO. Given the significant shift in the yield curve in November, you may consider generating the November reports to determine the appropriate ways to adjust the balance sheet risk exposures.

If you have any questions regarding November cycle reports, please do not hesitate to contact THC. Use the Conference Room, Homepage Risk Officer, to send us your comments and questions. All your posts are anonymous.

Regards,
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*Art Hilliard is the Principal at AJHilliard Company assisting banks, credit unions, and mortgage companies with mortgage advisory and asset sales and acquisitions.

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