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Weekly Post: Loan Pricing and THC Loan Valuation Model

Dear Clients-

Enhancing your loan pricing strategy is central to our community banking business. But, some common approaches may not maximize your earnings. For example:

- Requiring that the margin exceed a hurdle rate, the loan rate net of the funding cost, can be misleading as the method fails to adjust for the interest rate and credit risk of the loan accurately and ignore the difference in funding cost for different maturities.
- Seeking the highest rate that the market is willing to bear may lower the origination volume. This approach also constraints you to originate alternative ARM products to diversify your loan portfolio.
- Benchmark against the GSE prices cannot adjust for your credit risk exposure accurately.

I have explained the THC value and yield attribution methodologies to determine the fair value of loans. This post explains how these methods were applied in some actual cases and showed that THC fair prices were determined to provide quotes.

Challenges

- How can I adjust the economic cost of credit in my loan rates?
- How can I adjust the loan rate for the credit risk?

Solution

Art Hilliard has been providing Loan Pools for sale in this Weekly Post. Let me consider individual loans in the Pool #1706 that had bids. The loan tape provides LTV, CLTV, FICO, GEO, property types, liens and further comments on each loan. Some of the info is provided below for illustration.

Market Wisdom - Art Hilliard*

Pool color and strategy

Regarding the pool that Dr. Ho mentions in his comments, the entire pool, including low credit quality loans that had no bids available, sold to multiple bidders at a weighted average price of 82.38. Recall that the poll had a few warts:

- WAC – 3.97%
- WAFICO – 706
- WALTV – 89.73%
- WADebt To Income – 40.379

This seller always uses the same strategy to increase demand for the pool and to maximize the bid price:

- Bid the pool out through a competitive bidding process
- Have a bid due cutoff date and time
- Give bidders a date and time that the pool will trade.
- Communicate results to all bidders

Using THC to price the loans gives you an edge:

- You are determining a bid based on a value that makes sense to for th ebalance sheet and not to the market.
- Of course it is always important to know where the market is so as not to over bid and leave money on the table

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.

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Loan Id	Loan Numt	Sub Servic	Middle Fic	Total Loan	Current UF	Paid to Da	Product Na	Purpose
1706	6898971126	9802438334	684	86632	89604.71	3/1/2016	USDA Rural F	Modification
1706	9803203075	9803203075	743	125461.8	123547.91	3/1/2016	VA Fixed 30	Modification
1706	9803435859	9803435859	743	149016.26	146729.97	3/1/2016	USDA Rural F	Modification
1706	1699777754	9701639230	716	131000	130646.44	3/1/2016	Conforming Fi	Refinance
1706	7147742040	9701612872	711	787000	784519.26	3/1/2016	Non-Conformi	Refinance
1706	5415436083	9701576473	814	476000	474623.62	3/1/2016	Non-Conformi	Purchase
1706	6739365038	9701467533	775	1400000	1376799.14	3/1/2016	Non-Conformi	Refinance
1706	6804038736	9701752454	710	150800	150800	3/1/2016	Conforming Fi	Purchase
1706	4444277801	9701544612	783	694000	691925.88	2/1/2016	Non-Conformi	Refinance
1706	4023188572	9700427983	620	80514	77520.8	3/1/2016	FHA Fixed 30	Purchase
1706	7159547139	9701595325	610	250000	249746.53	3/1/2016	Non-Agency 3	Purchase
1706	8010509646	9701588908	604	142000	141859.76	3/1/2016	Non-Agency 3	Purchase
1706	8793571549	9701595523	650	112000	111833.24	3/1/2016	Non-Agency 5	Purchase

The THC loan pricing model then determined the value of the components of each loan and then summarized the component values for the loan portfolio. For the Pool #1706, the results were summarized below:

Released Price	Retained Price	MSR (servicing)	CECL (credit reserve)	Option cost	TBA required investment profit	Excess loan profit
0=1+2	1=7-2-3-4-5-6	2	3	4	5	6
100.50	99.52	0.98	2.43	0.69	2.40	4.27

THC model suggested that the servicing value was 0.98 and that the bank should allow for 2.43 for the credit risk. The loan pool should provide a profit of 4.27. Based on this model analysis, THC model suggested that the seller's service retained fair price can be determined based on this calculated excess profit for these types of loans

Numerical Example

I can now compare the THC fair price with the bid prices from the loan prospective buyers. The submitted bids are shown below:

	Bid Prices(the loan tape is service retained)
THC Price	99.52
Bid1	98.00
Bid2	98.50
Bid3	99.00
Bid4	99.50
Bid5	100.00

The table here shows that the bid prices range from 98.00 to 100.00. THC fair price is between the highest 2 bids. Based on the excess loan profit, THC price would be 99.52 between 99.50 and 100.00. Using this approach, the model can value a broad range of loan types.

The importance of value attribution as a loan pricing tool goes beyond providing a reasonable valuation of loans. By identifying each component value for a loan or loan portfolio enables you understand and may adjust your loan pricing.

For example, the valuation table show the loan's profits so that you can decide the appropriate loan rate to maximize the origination volume. Also you can decide on the appropriate level of the allowance for credit taking into consideration your ability to recover losses and manage credit risk. Also you can use this loan pricing tools to generate loan pricing sheets for loan officers to work with customer, selling loans to agencies or corresponding banks, selling or buying whole loan portfolio or in loan participation.

The above example uses a seller's servicing retained loan pool. The table below provides a comparison of THC pricing to the bids of a seller's servicing released loan pool.

	Bid Prices(the loan tape is service released)
THC Price	103.57
Bid1	100.00
Bid2	101.00
Bid3	102.00
Bid4	103.00
Bid5	104.00

Again the bid prices show that the range is significant, ranging from a high of 104.00 to 100.00. Also in this case, the THC calculated excess profit is 1.22. For a quote to be 100.00 as in this case study, the buyer would be looking for an excess loan profit of 4.79 on a 100. That would seem high for a high quality pool. By comparing the excess profit of loans in relation to the loan risks, the model can provide quotes close to the market.

These results show that the THC loan pricing model is practical and can be applied to many applications in Asset Liability Management.

Conclusions

Loan pricing is central to banking. To generate profitable loan volume is particularly important in today's market environment. You can diversify your loan portfolio, compete for loan origination profitably and more. These tools are available in Risk Officer. My team and myself will be delighted to work with you on your specific application.

If you have any questions regarding using Value Attribution in your ALM, please do not hesitate to contact THC.

Regards,
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