August 10, 2016

Weekly Post: Buying Whole Loans Using Value Attribution

Dear Clients-
At times, I find clients buying whole loans as an alternative to buying mortgage-backed securities (MBS). Or on the other side when loan origination volume is low, clients may buy MBS as an alternative investment to loans.

MBS and whole loans are of course different from the balance sheet reporting perspective. MBS are securities regulated by FINRA. Whole loans you have purchased are typically treated the same as loans you have originated .

Yet, the economics of MBS and whole loans are similar as long as their risks are appropriately measured and priced. This Post explains the pricing differences in buying whole loans versus MBS.

Challenges

- What are the differences in economics between whole loans and MBS?
- How should I price a whole loan benchmarked against MBS?

Solution

The economics of whole loans and MBS differ for 3 main reasons:

- MBS are sold net of servicing, which means the pool of loans is "seller servicing retained."
- MBS have implicit credit guarantee
- The MBS market is more liquid relative to the whole loan market.

Therefore, when pricing whole loans relative to MBS, the analysis needs to decompose the whole loan value into its economic components: Current Expected Credit Loss (CECL) for credit risk and Mortgage Servicing Rights (MSR) for the servicing.

Market Wisdom - Art Hilliard*

Someone to love

Here are 21 scratch and dent loans currently out for bid.

- Mostly fixed – One jumbo ARM
- Performing
- WAC 5.128
- WA LTV 80.26
- WA FICO 721
- WA DTI 32.91
- Geographically diverse

These are run-of-the-mill scratch and dent loans.

- Disclosure issues
- Appraisal issues
- Early payment defaults
- Flipping

Someone will love these loans. In fact, so far, I have received bids on four. Bids are due by 3:00 central on Friday the 12th.

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.

Consider the following example for fixed rate 1-4 family owner occupied whole loans. The components of the attribution are explained below, using the first whole loan, 30 year FRM at 3.875% for illustration. I use all the values based on 100 par and the valuation is based on July 21, 2016.

- If the loan is valued as a bullet loan like a bond based on a benchmark curve, for example the Treasury curve, then the loan would be valued 112.348 or a premium of 12.348.
- The bank may sell the servicing fees. The value of the servicing fees is the Mortgage Servicing Right (MSR). The value is 1.429
- The bank CECL is 2.316 which has to be deducted from the premium to isolate credit risks from profitability.

- Based on the option-adjusted spread (OAS) estimated from the TBA MBS market, I calculated the investors' required profit in the capital market is 4.858.

A summary of Value Decomposition is provided in Table A.

Table A. Value Attribution of Loan from a Bank's Perspective

Loan Term	Note Date	Loan Rate	MSR	CECL	Investment Profit	Loan excess profit	total premium
30	11/03/15	3.875%	1.429	2.316	4.858	3.744	12.348

Table A shows that when the loan is valued as zero risk cashflow, then the price is 112.348. But after deducting the servicing fees (1.429), credit risk reserve (2.316) and the current TBA (MBS) market required investment profit (4.848), the whole loan valuation is 103.744.

Applications
You can use THC value attribution in a number of ways.

- *Whole Loan pricing*
  THC estimates the CECL based on the THC national average model. You may use a different CECL or credit reserve estimate, and you can adjust the price accordingly. Your incremental servicing cost per loan can also be different and therefore the MSR value can also be adjusted accordingly. For clarity of exposition, I have ignored the "option cost" which I have explained in previous Posts.
- *Selling loans to Agencies*
  You can evaluate the benefits of selling conforming loans to agencies. Let me use Table A to illustrate. If the agencies' quote for your loan is 102, then you would have given up 1.744 (=103.744-102) profit. Therefore, you can use this methodology to filter loans that you would sell to the agencies, taking the loan credit risk that you have evaluated and your servicing cost into account, as mentioned above.
- *Constructing a loan portfolio*
  The current slow economic growth lends itself to an increase in origination of more diverse loan types. This leads to some of our clients trying to construct an optimal loan portfolio of more diverse loans consisting of 30yr and 15 yr FRM, a broad range of ARMs, CRE, C&I and consumer loans, etc. Furthermore, the loan portfolio credit risk as measured by FICO and LTV covers a broader range. Value attribution, as shown in Table A, enables you to make an apple to apple comparison of values of across different loan types.

Conclusions
Purchasing and originating whole loans is an institution's core business. Today, they often consider loan transactions in a broader context, beyond originating 30 yr FRM or selling loans to the agencies. This Post introduces Value Attribution as a tool for you to extend the loan transactional activities to enhance profitability while at the same time understanding and thus better controlling your risks.

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

Regards,
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