



August 17, 2016

## Weekly Post: Economics of Selling Loans to Agencies

Dear Clients-

Many THC clients sell loans to Fannie and Freddie. Often, our clients retain the servicing fees and sell the loans to the agencies at the quoted price, adjusting for the credit risk based on the Loan Level Price Adjustment (LLPA). The process is efficient and operational.

In selling loans to the agencies, institutions can originate mortgages without keeping them on the balance sheet. This enables the institutions to receive fee income without taking interest rate risk once the loan is sold.

Today, when the net interest margin is compressed, and loan origination volume is low, institutions are taking a second look at the economics and alternatives of selling loans to the agencies. This Post explains further.

### Challenges

- How should I select which loans to sell to the agencies?
- What are the alternatives to selling loans to the agencies?

### Solution

Last week, I described a pricing methodology, Value Attribution, that decomposes a quoted price into its main components. Using this decomposition, the seller of loans to the agencies can evaluate the profitability of the loan transaction. Before applying the Value Attribution to evaluate the economics of selling loans to the agencies, let me first recap the agencies' securitization process.

These agencies buy loans from loan originators and sell them as mortgage-backed securities to capital market investors. Therefore, the agencies' loan pricing must take the capital market's required return into consideration in determining the loan bid price to the loan seller. Also, the agencies must charge the loan seller for the following items:

- *Guarantees for the credit risk of the loans.* The agencies provide implicit guarantee against any credit loss for the investors of mortgage-backed securities
- *Capital charge.* Even though the capital ratios are very low at the agencies, the capital charge is significant. US Government cannot infuse capital to the agencies constrained by federal regulations, but has to make a line of credit to support the operations of the agencies resulting in an additional capital charge to the agencies.

### Market Wisdom - Art Hilliard\*

Use the Secondary Market

We typically think of the secondary market as a place that we can sell loans out of our pipelines to mitigate risk. However, there are other strategies to consider.

As a seller of loans we can:

- Gain flexibility of offering other products without putting them on the balance sheet
- Gradually transition away from servicing released to keeping servicing in-house
- Transition into more technical servicing operations like holding escrows and investor reporting
- Improve portfolio asset quality and earnings

As a buyer of loans we can:

- Supplement originations – sometimes more cheaply
- Reduce loan concentration
- Improve asset quality and earnings

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.



- *Operating costs.* There are operating costs including transaction fees, interest rate risk and liquidity risk management and required profits to the shareholders.

These charges are G-fees in % and LLPA fees in \$ combined. Based on these costs, the agencies provide whole loan sellers non-negotiable bid prices. Therefore, the agencies' bid prices can be decomposed into sale premium (fee income) to the seller, the required investment profit to the capital market investors and the charge by the agencies that includes the G-fees and LLPA.

**Numerical Example**

Following the Value Attribution methodology described in the Post last week, for each loan considered to be available for sale to the agency, the THC valuation model can first determine the fair value of cash flow as if the cash flow had no default risks.

Consider the first loan 12/13/15 3.875% 30 year FRM in Value Attribution Table A below. The value of the cash flow with no credit risk is 112.348, and therefore the premium is 12.348. At the evaluation date, the capital market pricing of TBA (actively traded MBS) requires a profit of 4.858, as calculated using the TBA price quotes and THC valuation model.

The agencies provide the price quotes for each loan categories. For this loan, the price quote is 101.372, and therefore the loan sale profit to the seller, the bank, is 1.372. Based on these calculations, I can now determine the implied G-fees to be 6.117 (= 12.348-1.372-4.858). When deciding which loans to sell, the seller should seek loans with the lowest G- Spread (agencies' charges) adjusting for the MSR and CECL values, as I explained in the Post last week.

*Table A: The value attribution on this arbitrage pricing*

Loan Term	Note Date	Loan Rate	price attribution for agencies' price for loan sellers			total premium
			G-fees	Investment Profit	loan profit	
30	12/13/15	3.875%	6.117	4.858	1.372	12.348
30	12/20/15	4.125%	3.899	4.123	3.798	11.819
15	12/25/15	3.250%	3.138	1.276	1.992	6.406

Based on this value decomposition, the seller can

- better understand the profitability of individual loans and thus use this in deciding which loans to keep and which ones to sell to the agencies, in particular, selling the loans where the G-fees net of the MSR and CECL values are low. (Refer to last week Post in calculating MSR and CECL);
- keep more loans on the balance sheet when the interest rate risk of the loans can be managed, particularly for loans where the G-fees net of the MSR and CECL values are high;
- sell the loans to other non-agency buyers, who may consider these whole loans as better alternatives to buying MBS. Typically, buying whole loans are a better alternative to buying MBS if liquidity is not a concern.



Note: for clarify of exposition, I have ignore other relatively minor adjustments to the agency quoted price such as mark-up/mark-down and cheapest to delivery.

**Conclusions**

Agencies' whole loan pricing depends on many factors and the charge is incorporated in the G-fees and LLPA. By understanding the economics of the agencies' whole loan pricing, institutions have a tool to assist them in pricing, originating and selling loans thus furthering their ability to optimize the profits of their originated loans.

*If you have any questions regarding your Value Attribution in selling loans to agencies, please do not hesitate to contact THC.*

Regards,  
Tom Ho  
[Tom.ho@thomasho.com](mailto:Tom.ho@thomasho.com)  
1-212-732-2878

*THC is NOT a broker-dealer. THC only offers an analytical platform for clients to work together to meet your customers' needs or your balance sheet requirements. THC does not collect any commission.*

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

THE THC CONTENT IS PROVIDED AS IS, WITHOUT REPRESENTATIONS OR WARRANTIES OF ANY KIND. TO THE MAXIMUM EXTENT PERMISSIBLE UNDER APPLICABLE LAW THC HEREBY DISCLAIMS ANY AND ALL WARRANTIES, EXPRESS AND IMPLIED, RELATING TO THE THC CONTENT, AND NEITHER THC NOR ANY OF ITS AFFILIATES SHALL IN ANY EVENT BE LIABLE FOR ANY DAMAGES OF ANY NATURE WHATSOEVER, INCLUDING, BUT NOT LIMITED TO, DIRECT, INDIRECT, CONSEQUENTIAL, SPECIAL AND PUNITIVE DAMAGES, LOSS OF PROFITS AND TRADING LOSSES, RESULTING FROM ANY PERSON'S USE OR RELIANCE UPON, OR INABILITY TO USE, ANY THC CONTENT, EVEN IF THC IS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR IF SUCH DAMAGES WERE FORESEEABLE