BONDS 101: A-Z

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MORTGAGE

The word mortgage literally means DEATH PLEDGE

A LOAN'S ORIGINATION

Participating Lenders originate loans using an HFA's Programmatic Requirements, such as

- 1st Time Homebuyer Requirement (3 years)
  - Exceptions for Targeted Area Lending
  - Exceptions for Veterans
- Principal Residence Requirement
- Family Income Limits
- Purchase Price Limits
- Proof by affidavits including 3 years of tax returns
- Lenders provided with comprehensive program guides to adhere to program requirements as set forth by the HFAs

BOND COMPATIBLE

HFAs can relax some requirements in order to broaden the universe of lenders and borrowers while still maintaining the mission of the HFA such as

- Increasing Purchase Price Limits
- Accepting proof of first time homeownership other than 3 Years' of Tax Returns
- Calculating Income eligibility based on borrower's income rather than household income

However, these mortgages would be excluded from bond funding (aka Non MRB eligible)

  - MRB = Mortgage Revenue Bond

Can you name another type of loan that is non MRB eligible but otherwise conforms to all requirements?

MORTGAGE CREDIT CERTIFICATE (MCC)

Mortgage Credit Certificate

- provides an eligible 1st time homebuyer with a tax credit of up to 50% of their mortgage interest deduction subject to a cap of $2,000 of tax credits per family per year.
- The HFA selects the amount of the tax credit ranging anywhere between 10%-50%
- The tax credit will remain in effect for as long as the homebuyer retains the home as their primary residence.
- There is a potential for borrowers to owe a recapture tax during the first 9 years if their income increases by a certain amount AND there is a gain on the sale of the their home.
- Example: Value to the Homeowner – based on $175,000 mortgage, 5% Rate, 25% Tax Credit
  - Interest Paid Yr1: $8,691.36 Max Tax Credit (Savings): $2,000
  - Interest Paid Yr2: $8,559.27 Max Tax Credit (Savings): $2,000
  - Interest Paid Yr3: $8,420.42 Max Tax Credit (Savings): $2,000
- Private Activity Allocation is required for MCCs
  - MCCs are allocated at 25% of tax exempt bond allocation
  - For Example, if the HFA wanted to fund MCCs for 100 loans described above (for a total of $17,500,000) and is offering 25% tax credits, the amount of MCC allocation needed is $4,375,000. That is equivalent to $17,500,000 in bond allocation.)

INTEREST RATES AND DOWN PAYMENT ASSISTANCE

- Interest Rates and Down Payment Assistance (DPA) is set by the HFA
  - Function of market rates and resources for DPA
- Types of Down Payment Assistance used today include
  - GRANT: a gift that is never required to be repaid by the borrower (EX: Hardest Hit Funds or premium priced loans)
  - NON AMORTIZING SECOND, DUE ON SALE: 0%, Second Mortgage, due when the mortgage is retired – sale or refinance (generally $7,500 to $15,000 based on an HFA's resource.
  - QUASI GRANT: The amount due on the mortgage declines by a certain percentage each year after a designated lockout period.

EVOLUTION – FROM LOAN TO GUARANTEED MORTGAGE BACKED SECURITY

STEP 1: Participating Lender reserves funds for prospective borrower.

STEP 2: Lender funds the loan and is reimbursed by the Master Servicer when the Master Servicer purchases the loan from the lender.

STEP 3: The Master Servicer aggregates a sizeable amount of loans and then pools the loans into a Mortgage Backed Security or MBS

TYPES OF MBS:

- FHA/VA Loans are pooled into Ginnie Mae (GNMA) Certificates
- Conventional Loans are pooled into Fannie Mae (FNMA) or Freddie Mac Securities (FHLMC)

- How big is the Mortgage Backed Securities Market?

HOW INVESTORS JUSTIFY INVESTING IN MBS

GNMA, FNMA and FHLMC offer guarantees to investors for the eventual return of principal and interest payments

- GNMA is backed by the full faith and credit of the US Government
- FNMA and FHLMC are not backed by the US Government but they are a GSE (Government Sponsored Enterprise) which is a type of financial services corporation created by the US Congress to make the credit markets more efficient.

There is an active TBA (To Be Announced) market that allows for a pool of generic mortgages to be sold. Investors are promised a pool of mortgages with certain characteristics without knowing the exact loans to be included in the pool in advance.

TBA MBS multi issuer pools, are large in size and trade differently than single issuer pools.

Which is NOT a type of FNMA, FHLMC or GNMA MBS?

- Dwarf
- Midget
- Giants
- Gold
- Silver
- Major

KNOWING THE LANGUAGE OF MBS

Gross Mortgage Rate: The actual mortgage rate of a loan that is pooled into an MBS

Weighted Average Mortgage Rate: The weighted average mortgage rate of all the loans in an MBS pool. The gross mortgages rate for the loans pooled into an MBS usually fall within a 50 basis point range or 0.50%.

Pass Through Rate: The interest rate on an MBS that is paid to the investor.

Spread: The spread is the difference between the weighted average mortgage rate that the borrowers are paying monthly and the pass through rate that is paid to the investors. The spread is comprised of:

- Servicing Fee: The fee paid to the Master Servicer for servicing the loan – collecting the monthly principal and interest and disseminating funds to the investors, as well as managing loans that are delinquent.
- Guaranty Fee: The insurance payment for GNMA or the GSEs which have guaranteed the ultimate repayment of the par amount of the investment.

NEXT: OPTIONS FOR PURCHASE - EXAMPLES

The HFA contracts with the Master Servicer to Purchase the MBS that the Master Servicer has pooled with the HFA's mortgages.

There are 3 options to the HFA to purchase these MBS

- OPTION I: Buy with HFA cash and hold as an asset
- OPTION II: Sell the MBS in the marketplace (for simplicity we will assume the MBS is sold in the Specified Pool Market and not the TBA market. Specified Pool Market means the Investor is provided with the exact characteristics of the underlying mortgages that make up the pool.)
- OPTION III: HFA can issue bonds and direct the Trustee of the bonds to purchase the MBS with bond proceeds

SAMPLE QUANTITATIVE RESULTS

ASSUMPTIONS:

$17,500,000 made up of 100 loans with a balance of $175,000 and a 5% mortgage rate

Purchase Price from the Master Servicer: 100.41% or $17,571,000

- Derivation of the Mortgage Loan Purchase Price
  - PAR amount of the Loan 100.00%
  - + Lender Profit 2.50%
  - - Borrower Point 1.00%
  - Servicing Release Premium 1.09%
  - NET Purchase Price 100.41%

  - SERVICER RELEASE PREMIUM (SRP) – the HFA sells to the Master Servicer the right to service the loan and collect a monthly servicing fee. The Master Servicer pays the HFA 1.09% of the par amount of the loan for that right.

OPTION 1: BUY THE SECURITY - EXAMPLE

Initial Investment: $ 17,571,750

Income Earned Over Time assuming the MBS prepays at

0% PSA:	$20,081,960	Net Profit: $2.5MM
100% PSA:	$19,138,287	Net Profit: $1.6MM
200% PSA:	$18,656,839	Net Profit: $1.1MM
300% PSA:	$18,382,655	Net Profit: $0.8MM

(assuming 3.35% Present Value Rate)

PSA = Public Securities Association Standard Prepayment Model – It is a measure of the expected prepayment speed of a typical mortgage.

Who can name ONE Florida local HFA that has $17,571,750 to invest in a pool of mortgages to hold until maturity?

OPTION 2: TRADE THE MBS - EXAMPLE

Initial Investment: $ 17,571,750

Sale Price of a GNMA II 4.5% Pass Through Security: 104%

Sale Proceeds: $18,200,000

Net Profit: $628,250

OPTION 3: HIRE AN UNDERWRITER & ISSUE BONDS - EXAMPLE

UPFRONT CONTRIBUTIONS:	
▪ Costs of Issuance:	($ 300,000)
▪ Deposit to the Capitalized Interest Account to Fund Negative Arbitrage:	($ 275,000)
(Prefunding interest costs on the bonds while the bond proceeds are converted to interest bearing assets – MBS)	
▪ Bond Premium:	$292,500
INCOME EARNED OVER THE LIFE OF THE BONDS:	
▪ Issuer Fee:	$ 290,000
EQUITY RELEASED WHEN THE BONDS MATURE:	
▪ The Residual	$200,000
NET BENEFIT:	**$207,500**
SUBSIDY CREATED USING 5% MORTGAGE RATE:	**$1,575,000**

OPTION 3: VALUE AND WEIGH THE NET BENEFIT, EXAMINE THE YIELD AND CREATE ZEROS - EXAMPLE

- There is a limit on the interest rate and points charged on loans - 1.125% over the bond yield.
- Based on current market conditions, a mortgage rate of 5% and a bond rate of 3.35% will result in a bond issue that is "OVER SPREAD"
- The remedies available to an Issuer to bring a bond issue into yield compliance include
  - Loan Forgiveness
  - Lowering the overall mortgage yield of the issue by creating a smaller pool of ZEROs
    - In our example, $1,575,000 is set aside and will be used to purchase a participation of mortgage loans in a future bond issue.
    - Assume the HFA issues Series 2019, a similar structure as Series 2018 with 5% mortgages.
    - The Trustee will use 9% of the Series 2018 Proceeds and 91% of the Series 2019 Proceeds to purchase $17,500,000 of 2019 MBS
    - When the MBS repay over time, 0% of the mortgage interest is allocated to Series 2018 and 100% of the mortgage interest is allocated to Series 2019
    - Now Series 2018 is comprised of $15,925,000 of 5.00% mortgages and $1,575,000 of (effectively) 0% mortgages – in the form of a participation with an overall weighted average mortgage rate of 4.55% which will bring the bond issue into spread compliance

A BENEFIT TO CREATING ZEROS - EXAMPLE

Issuing long term bonds creates wealth in an indenture and secures a stream of cashflow into the future (in the form of an issuer fee)

In this market, the wealth created is in the form of Zero Subsidy

- Zeros can be a hedge for interest rate risk.
- The HFA issues bonds with a full spread mortgage rate of 4.55%
- During the origination period interest rates drop 55 basis points (0.55%) and the HFA can only originate 4.0% mortgages
- PROBLEM: 4.0% mortgages don't generate enough interest to cover the debt service on the bonds.
- Zeros set aside from the Prior 2018 Bonds will infuse more interest into the bond issue, sufficient to cover the debt service on the bonds.
- Zeros don't have to immediately expire as long as the HFA continually issues bonds on a regular basis and can roll them forward year after year (up to 42 months.)
- Further examination of the 42 Month Rule, 10 Year Rule and the Universal Cap will be provided in Bonds 201: 1-100. Stay Tuned.