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SPECIAL COMMENT

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HFA Single-Family Bond Financing Will Increase, Driving Revenue Growth

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As housing finance agencies (HFAs) seek to rebuild their balance sheets amid a favorable bond market, we expect bond financings to become a more significant part of HFAs' mortgage funding sources, reversing the downward trend since 2011. Due to the ineffectiveness of bond financings in the last five years, many HFAs turned to the secondary market for more cost-effective mortgage financings. As a result, bond financing, which prior to 2011 financed nearly all of HFA single-family mortgage loans, plunged to being 33% of HFAs' mortgage funding source in 2013.

We expect HFAs to issue more bonds to finance single-family mortgage loans because:

» Bond-financed mortgages are more profitable and provide dependable long-term annuity income to HFAs.

» Mortgage subsidies from prior bonds allow HFAs to issue new bonds at higher interest rates while remaining competitive and profitable.

» HFAs with surplus mortgages can over-collateralize new bonds to bring down their borrowing costs which makes bond financing practical.

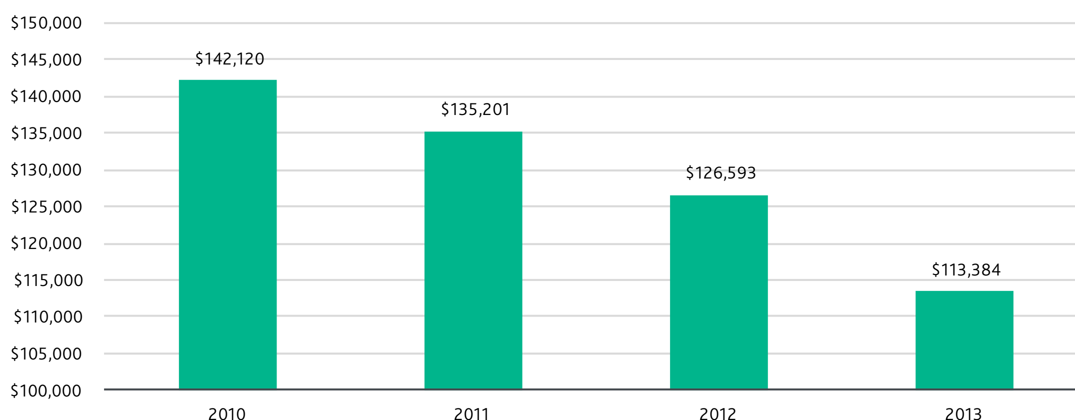
Bond-financed mortgages provide long-term benefits to HFAs

Although the secondary market will continue to be an important funding source for HFA single-family programs, HFAs generally favor using bonds because bond-financed mortgages provide a more profitable long-term revenue stream. Furthermore, bond-financed mortgages are a better fit for HFA's operations and help them to rebuild balance sheets that have been shrinking since 2010 (see Exhibit 1). We expect this downward trend to moderate in 2014 and start improving in the next three to five years.

EXHIBIT 1

HFA balance sheets have been shrinking since 2010

HFA Total Adjusted Combined Assets ($ Million)



Source: Moody's Investors Service

Bond-financed mortgages are beneficial to HFAs in the end because they are:

» **A better fit to HFAs' operations**: Compared to the stable annuity income from bond-financed mortgages, the one-time, upfront income generated by selling mortgages or mortgage-backed securities (MBS) in the secondary market is more volatile. After every secondary market sale, HFAs must reinvest sale proceeds for a short period when they reuse sale proceeds to originate mortgages or MBS, exposing them to reinvestment risks. The annuity income from bond-financed mortgages, on the contrary, is dependable, has no reinvestment risks, and better supports HFAs' ongoing general and administrative needs. HFAs can better budget for their long-term program operations with income from bond-financed mortgages instead of from any secondary market funding activities.

» **More profitable**: Since mortgage loans and MBS are generally the highest yielding long-term assets (compared to the short-term cash generated by secondary market funding activities) on HFAs' balance sheets, they drive long-term revenue growth and boost HFAs' profitability. Additionally, HFAs can earn up to 4.5% in profit (present value of future revenue stream as a percentage of bond par amount) by issuing bonds to finance mortgages, compared to about 1%-2% in excess of par amounts if they sell the same mortgages in the secondary market.

» **A way to rebuild HFA balance sheets**: HFAs retain ownership of bond-financed mortgages, which helps them to rebuild balance sheets. Most HFA balance sheets have shrunk since 2010 as low interest rates and high unemployment caused rapid mortgage prepayments and high mortgage defaults that contributed to substantial reduction in HFAs' mortgage and bond portfolios. Furthermore, limited bond issuance in the last five years has prevented HFAs from adding new loans to their balance sheets.

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However, HFAs appreciate the importance of rebuilding balance sheets because larger balance sheets afford them more financial flexibility. For example, an HFA with financial resources can continue to issue bonds during challenging times because the support from its balance sheet allows the HFA to consider using different bond structures to lower borrowing costs, even when these structures do not cash flow on their own (there may be timing mismatch between revenue receipts and debt service payments).

Subsidies allow HFAs to issue bonds at higher interest rates and remain profitable

Prior to 2009, HFAs were able to rely on bond financings without considering alternatives because bonds produced low enough cost of funds for HFAs to finance competitive single-family mortgage loans. Their mortgage funding landscape changed considerably in 2009 when municipal housing bond yields remained high, but conventional mortgage rates fell to historical lows. HFAs were not going to be able to compete if they continued to finance mortgages with bonds.

In an effort to support affordable housing, the federal government established the New Issue Bond Program (NIBP) in December 2009 and purchased up to 60% of HFA bonds issued from 2010 to 2011 at below-market interest rates. NIBP provided capital at a cost that allowed HFAs to offer competitive bond-financed mortgage loans through 2011. Afterwards, bond financings became impractical again and many HFAs turned to the secondary market for more cost effective mortgage financings.

However, bond financings have recently re-emerged because the bond market is becoming more efficient and HFAs value rebuilding their balance sheets. HFAs have created mortgage subsidies, such as those described below, over time and can use these subsidies to make bond financing practical if they so choose. With these subsidies, HFAs can afford to issue bonds at higher interest rates, offer competitive lower rate mortgage products and stay profitable. These subsidies include:

Excess spreads in a refunding bond issue: When HFAs use new bond proceeds to pay off a prior, higher-rate bond series, they re-allocate higher rate mortgages (called transferred mortgages) from the prior bond series to the new bond issue. This typically results in a spread (between yields on transferred mortgages and new bonds) exceeding what's allowed by the tax law. Federal tax law sets a limit on the permissible profit (or spread) an HFA can earn on single-family mortgages or MBS financed with tax-exempt bonds.

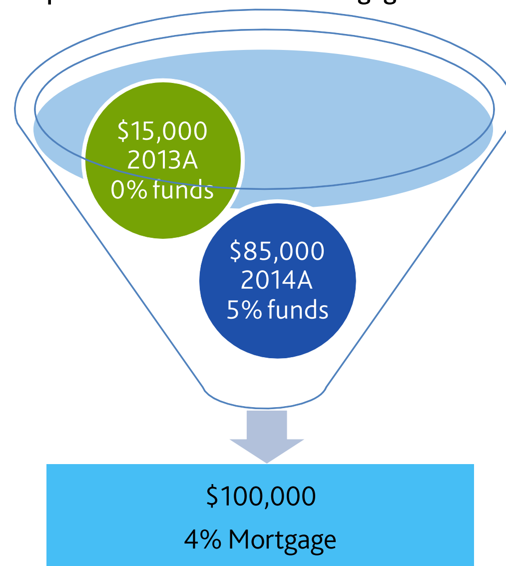
In the event that the loan rate generates a higher-than-permitted spread, an HFA can choose to rebate the excess spread to the federal government or use it to create mortgage subsidies for other new bond series sold at the same time. Bond series sold within a 15-day window are treated as one for the purpose of calculating tax law arbitrage positions. Therefore, HFAs can leverage the excess spread on the transferred mortgages to make less profitable, lower rate new mortgages (financed with new bond proceeds sold along with the refunding bonds) and still earn full-spread on the overall bond issue (refunding and new bond series together) because the excess spread on the transferred mortgages makes up for the lower-than-desired spread on the new mortgage loans.

0% participation funds: Alternatively, HFAs may elect to save the subsidy generated by the excess yield as "0% participation funds" (called zeroes) so they can be used to "blend" down higher mortgage rates in the future. For example, an HFA can earn full-spread on bond-financed mortgages if it can borrow at 4% and lend at 5%, but the prevailing mortgage rate is 4%. In this case, bond financing would not have been practical to the HFA in the example because its full-spread 5% mortgage rate is considerably higher than its competition's 4% rate. However, if the HFA in the example has zeroes

generated by a prior bond issue with excess spreads (2013A in the exhibit below) that can be used to subsidize the new bond-financed mortgages, the bond financing would be practical. That is because after the new bond sale, the HFA will have two pots of bond proceeds available for mortgage financing – one with a 5% interest rate (non-zeroes) from 2014A and the other with a 0% interest rate (zeroes) from 2013A. Therefore, the HFA in this example can blend the non-zeroes and zeroes pools to offer a 4% mortgage (see Exhibit 2).

EXHIBIT 2

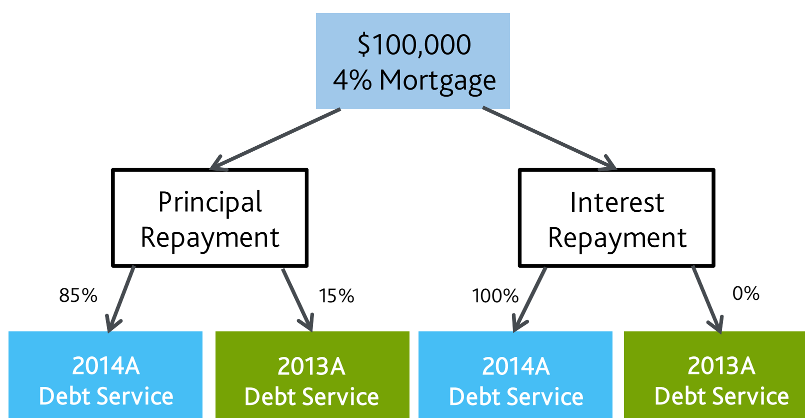
Blending 0% proceeds and 5% proceeds to fund a 4% mortgage



Source: Moody's Investors Service

To achieve full-spread as prescribed by the federal tax law, the HFA in this example will fund (or "participate") 85% of this mortgage with moneys from the non-zero pool and the remaining 15% from the zeroes pool. Going forward, 100% of the interest repayment from the mortgage will be used to pay debt service on 2014A bonds (whose proceeds funded the non-zeroes pool), with the principal repayment and prepayment split 85/15 between the 2014A and 2013A bonds (see Exhibit 3).

EXHIBIT 3
100% of interest repayment and 85% of principal repayment from the mortgage are used to pay 2014A debt service



Source: Moody's Investors Service

HFAs can lower borrowing costs by over-collateralizing bonds with surplus mortgages

HFA single-family bonds are generally subject to redemption prior to maturity from revenues of pledged assets. Bond issues usually begin with an asset-to-debt ratio that equals, or is very close to, 100%. Over time, the spread on the collateral strengthens the bond issue and becomes excess revenues which HFAs use for redeeming bonds or recycling into new mortgages. Therefore, profitable seasoned bond issues often have significantly more mortgage assets than bonds. When an HFA pays off or refunds an older, seasoned bond issue, the excess mortgage assets become surplus mortgages in the indenture, available to HFAs for future deployment.

When a bond structure doesn't generate competitive mortgage rates, an HFA can pledge surplus mortgages to the new bonds in order to lower its borrowing cost. When an HFA "over-collateralizes" bonds with more assets than the par amount of the bonds (starting asset-to-debt ratio greater than 100%), there will be more pledged revenues than needed to repay the bonds. The extra pledged revenues from surplus mortgages will prompt more frequent bond redemptions, therefore resulting in earlier retirement of the bonds. Since, in this case, investors expect a shorter repayment horizon; they are willing to accept a lower yield on an over-collateralized bond than on a bond with the same nominal maturity but is not over-collateralized. The lower yield translates into lower borrowing cost to the HFA, which allows the HFA to offer competitive mortgage products and maintain profitability.

HFAs can now recuperate hedging costs incurred in the secondary market over time via higher mortgage coupons which makes bond financings more attractive to HFAs

Since the 2008 financial crisis, many HFAs obtain hedges on MBS in the TBA market to mitigate interest rate risk during the 60-90 day origination period. After the mortgages are securitized into MBS, an HFA may decide its better option is to issue bonds, pledge these MBS as collateral to the bonds and pay its TBA counterparty a non-delivery fee ("hedging cost"). Some bond counsels now allow HFAs to factor qualified hedging costs into arbitrage calculations (required for all tax-exempt housing bond issues to ensure the cap on permissible spread is not breached) which means HFAs can recuperate hedging costs via higher mortgage coupons over time. This makes bond financings more attractive to HFAs than the time when their hedging costs were non-recoverable expenses.

Minnesota Housing Finance Agency (MHFA, Aa1 stable) is among the first HFAs to reap this benefit. MHFA sold 3% coupon bonds in June to finance MBS with coupon ranging from 3.5%-5.0%. Separately, MHFA paid a $410,000 fee to terminate its obligation to the TBA counterparty. Because MHFA was able to incorporate this hedging cost into its mandatory arbitrage calculations on the bonds, it is able to retain all spreads from these higher rate MBS, with no rebate obligation to the federal government.

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