## A Primer on Floating-Rate Notes

## March/April 2011

## Some investors

may invest in
Fannie Mae
floating-rate
notes in
expectation of
increasing rates
in the future.

Year-to-date through April 2011, floating-rate notes have been issued with increasing frequency in the primary bond market. As evidenced in the corporate sector, nearly $\$ 63$ billion, or 18 percent, of the marketed investment grade U.S. dollar bonds this year have floating rates ${ }^{1}$, as compared to approximately $\$ 75$ billion in 2010 and $\$ 47$ billion in 2009. Demand for floating-rate product typically increases when investors expect interest rates to rise as periodic rate resets allow investors to hedge interest rate risk.

Fannie Mae issues both callable and noncallable floating-rate notes ${ }^{2}$. To provide potential investors with a better understanding of floatingrate notes, this edition of FundingNotes explains the general features of floating-rate notes and discusses historic trends in Fannie Mae's issuance of floating-rate notes over the past few years as well as identifies the investor segments that may be interested in investing in floating-rate notes.

## General Features of Floating-Rate Notes

A floating-rate note, often known as a floater, is a debt security that offers interest payments which reset on predetermined dates based on a reference rate. The coupon is calculated in the following manner:

## coupon rate $=$ reference rate $\pm$ spread

The general features of floating-rate notes are listed below:
Spread. The spread is the margin that an issuer adjusts to the reference rate and is generally expressed in basis points. The spread is set when floaters are priced and does not change. For example, Fannie Mae issued a five-year floating-rate note on April 6, 2011 with CUSIP 3136FRGA5. This floater has a quarterly interest payment and accrues interest at a rate of three-month LIBOR minus five basis points. Changes in the reference rate will affect the rate at which interest accrues on the security, but does not affect the spread.
Reference rate ${ }^{3}$. The reference rate is the interest rate or index used in the coupon formula to determine the amount of interest that accrues on the security. The most common indices used for floaters include the London Interbank Offered Rate (LIBOR), Prime rate, Fed Funds Effective rate, and U.S. Treasury Bill rate (T-Bill). Other short-term indices such as Constant Maturity Treasury (CMT), Cost of Funds Index (COFI), and Federal Reserve Commercial Paper Composite (CP) can also be used as the reference rate. Please see Figure 1. Depending on the maturity and index type, the spread to the reference rate can be either positive or negative.

[^0]Fannie Mae floaters often accrue interest at a rate tied to a reference rate. For example, the $\$ 250$ million three-year quarterly Prime floater issued on March 7, 2011 with CUSIP 3135G0BB8 pays a quarterly coupon based on the reported Prime rate on certain designated dates, minus 2.82 percent. The quarterly payments of accrued interest for this security are based on a fixed spread to the reported daily Prime rate.

Reset periods. The interest rate on a floater can reset as often as daily or as infrequently as once per year. It is quite common for the interest rate to reset each time an interest payment is made on the security, and then remain constant until the next coupon payment date. If the interest resets within a payment period, accrued interest will be calculated by multiplying the principal amount of the floater by an accrued interest factor. This accrued interest factor will be calculated by totaling the interest factors calculated for all days in the payment period. The interest factor for each day will be computed by dividing the interest rate for that day by the number of days in the year.

Floaters with longer reset periods may be more vulnerable to interest rate and slight price volatility. The longer the reset period, the more a floater will behave similar to a short-dated fixed-rate security and the greater its price will potentially fluctuate. Conversely, the shorter the reset period, the smaller the potential price fluctuation will be.
Payment periods. Interest payments for a floater may be made monthly, quarterly, semiannually or annually. However, the interest payments are calculated based on an accrual basis when the underlying index resets more frequently such as daily and quarterly. Interest on floaters is usually not compounded, but the more frequent the coupon payments, the more the investor is likely to earn from reinvesting these proceeds.

As mentioned earlier, the Fannie Mae-issued floatingrate note indexed to the Prime rate has a quarterly interest payment period but the Prime rate resets on a daily basis. Therefore, the interest payment will be calculated using an accrual method with the day count convention of Actual/360.

Maturity. Floaters can be issued with any maturity, typically ranging between two to five years. Generally, for a fixed-rate debt security, the higher yield for longer maturity bonds is viewed as "compensating"
investors for credit and interest rate risk during the term of the security. While floating-rate debt securities minimize interest rate risk, the higher spreads for longer maturity on floaters presumably reflects the risk of credit changes.
Cap or Floor. Floaters may be issued with either a "cap," a "floor" or both. A cap is the maximum interest rate that the issuer will pay regardless of how high the reference rate may go, and therefore protects the issuer from escalating interest costs. Conversely, a floor sets the minimum rate that will be paid even if the coupon determined by the reference rate were lower, and protects the investor from a declining reference rate. Fannie Mae floating rate notes will not accrue interest at a negative rate, and have an effective floor of zero. Depending on the security, Fannie Mae floaters may have a cap, which would be stated in the security's pricing supplement.
Index exclusion. Major indices such as the Barclays Capital U.S. Aggregate Index and Citigroup U.S. Broad Investment-Grade Bond Index exclude floating-rate notes.

## Fannie Mae's Issuance of Floating-Rate Notes

Year-to-date through April 15, 2011, Fannie Mae issued approximately $\$ 3.8$ billion in floating-rate notes, as compared to $\$ 63.1$ billion in 2010 and $\$ 23.7$ billion in 2009. Fannie Mae has issued floating-rate notes tied to a number of different reference rates (Figure 1). Figure 2 shows Fannie Mae's issuance of floaters

| Common Reference Rates of Fannie Mae's |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3-month Treasury Bills | Prime Rate | Fed Funds, Daily | 1-month LIBOR | 3-month LIBOR |
| Page <br> Number in Offering Circular | D-9 | D-8 | D-4 | D-1 | D-1 |
| Underlying <br> Reference <br> Rate | Auction discount rate of the 3-month Treasury Bill, converted to a bond equivalent yield | Prime rate (quoted as a yield no conversion necessary) | Fed Funds Effective rate (quoted as a yield - no conversion necessary) | 1-month LIBOR quoted as yield | 3-month LIBOR quoted as yield |
| Day Count | Act/Act | Act/360 | Act/360 | Act/360 | Act/360 |
| Reference Rate Reset Frequency | Weekly, following Treasury Bill auction | Daily with 1 day lookback - <br> Fri/Sat/Sun use <br> Fri's effective | Daily with 1 day lookback - <br> Fri/Sat/Sun use Fri's effective | Monthly - reset determination London calendar 2 days prior/pays on NYB day calendar | Quarterly - reset determination London calendar 2 days prior/pays on NYB day calendar |
| Rate Cutoff <br> - if interest rat rate will reset within an inter period | 6 days lookback | 6 days lookback | 6 days lookback | 6 days lookback | 6 days lookback |
| Payment Frequency | Quarterly | Quarterly | Quarterly | Monthly | Quarterly |
| Average Method | Daily accrual | Daily accrual | Daily accrual | Daily accrual | Daily accrual |
| * Refer to the Fannie Mae Universal Debt Facility - Offering Circular dated April 8, 2011 http://www.fanniemae.com/markets/debt/pdf/udf 041811.pdf |  |  |  |  |  |


by reference rate from 2009 through year-to-date through April 15, 2011. In 2011, the most commonly used reference rates for Fannie Mae's floating-rate notes have been the Fed Funds Effective rate and Prime rate, followed by three-month T-Bill and LIBOR, as illustrated in Figure 2. In 2011, Fannie Mae has focused on issuing longer-dated floaters with maturities greater than two years.

So far, in 2011, the most commonly used reference rates for Fannie Mae floaters have included the Prime and Fed Funds Effective rates. Investors may have opted to invest in securities tied to the Prime rate as well as Fed Funds Effective rate because these indices reset daily. The coupon payment that investors receive will be an average of these daily reset rates times the notional principal. Interestingly, the spread between the Prime Rate and the Fed Funds Effective rate has been virtually stable since the end of 2008 (Figure 3). In addition, due to the amendments made to 2a-7 funds in 2010, many money market fund managers need to manage their weighted-average maturity (WAM) restrictions. Since Prime and Fed Funds Effective rates reset daily, the WAM for Prime-indexed floaters is one day.
It is also interesting to note that we issued a total of $\$ 600$ million three-month Treasury Bill indexed floaters in February 2011, the first such issuance since 2005. Investors who expect rates to rise may appreciate that floaters indexed to three-month Treasury Bills reset on a weekly basis, as compared to the quarterly reset rate as in the case with the three-month LIBOR

reference rate. If an investor expects a specific reference rate to rise in the future, they may choose to buy a bond that accrues interest based on a reference rate that includes frequent reset rates.

Fannie Mae issued floaters mostly using both onemonth and three-month LIBOR as the reference rates in 2011 as well as in 2010 and 2009. Investors may be incented to purchase floating-rate notes indexed to one- and three-month LIBOR due to the fact that they are widely publicized rates and they are easily observable and verifiable. They are also a cornerstone of the money markets because they represent the bank-to-bank lending rates. In addition, investors may have other assets or liabilities that are linked to these indices. Furthermore, floaters tied to LIBOR should perform well in a rising rate environment as investors are expecting rates to potentially increase in the future, and as a result, they will receive higher coupon payments.

Fannie Mae issues floating-rate notes via the reverse inquiry process, whereby investors propose a maturity, issue size, index, and frequency of interest payments that meet their investment objectives. One or more dealers may come together and underwrite large-sized floaters, and sell them to Fannie Mae's investor base. Detailed information regarding Fannie Mae floating-rate notes can be found in the Universal Debt Facility (UDF), which has been recently updated and is available on the Fannie Mae Web site: http://www.fanniemae.com/markets/debt/ pdf/udf 041811.pdf.

## Investors in Floating-Rate Notes

Various types of investor segments may invest in Fannie Mae floating-rate notes, including commercial banks, corporations managing cash portfolios, money market funds, and state/local government entities. Commercial banks as well as state/local government entities may invest in Fannie Mae floating-rate notes in an attempt to better match their assets with their liabilities. Money market funds and corporations may purchase shorter duration floating-rate notes to manage interest rate risk with floaters that include a spread above current short-term rates. In addition, investors such as money market funds and corporations who require a high degree of liquidity in their portfolios may benefit from the fact that since the accrued interest rate for floaters moves with its specified reference rate, their performance tends to be less volatile in response to changes to that reference rate.

## Conclusion

Fannie Mae continues to provide investors with choices of securities that meet different investment needs in order to diversify its investor base.
Fannie Mae's reverse inquiry process offers flexibility in customizing securities for the investor. Fannie Mae issues both callable and noncallable floating-rate notes that have the interest rate resets tied to indices, such as LIBOR, Treasury Bills, the Prime rate, and Fed Funds Effective rate. As some investors expect certain interest rates to rise in the future, investing in floating-rate notes protects these investors against those interest rate increases.

AFannieMae。 FUNDINGNOTES<br>For Fannie Mae's Investors and Dealers<br>FundingNotes is published by Fannie Mae's<br>Fixed-Income Securities Marketing Group<br>John The Losen<br>Vice President and Editor<br>Alice Yang<br>Senior Product Manager<br>(202) 752-1035<br>Website: http://www.fanniemae.com<br>E-mail: fixedincome marketing@fanniemae.com<br>Helpline: (888) BONDHLP

[^1]Fannie Mae Funding Liabilities and Debt Outstanding 2008 through March 31, 2011

Funding Liabilities and Debt Outstanding (in millions)
Federal Fund Borrowings
Other Short Term Funding Liabilities ${ }^{1}$
Total Federal Funds Purchased and Securities Sold under Agreements to Repurchase
Average maturity (in days)
Discount Notes
FX Discount Notes
Other Short Term Debt ${ }^{2}$
Total Short Term Debt ${ }^{3}$
Average maturity (in days)
Benchmark Notes \& Bonds ${ }^{4}$
Callable Benchmark Notes ${ }^{4}$
Subordinated Benchmark Notes
Callable Fixed Rate MTNs ${ }^{5,6}$
Noncallable Fixed Rate MTNs ${ }^{5,6}$
Callable Floating Rate MTNs ${ }^{5,6}$
Noncallable Floating Rate MTNs ${ }^{5,6}$
Other LongTerm Debt ${ }^{7}$
Total Long Term Debt ${ }^{8,9}$
Average maturity (in months)
Total Federal Funds Purchased and Securities Sold under
Agreements to Repurchase and Debt Outstanding
Average maturity (in months)

|  | 12/31/08 |  | 12/31/09 |  | 12/31/10 |  | 3/31/11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$ | - | \$ | - | \$ | - | \$ | - |
|  | 77 |  |  |  | 52 |  | 25 |
| \$ | 77 | \$ | - | \$ | 52 |  | 25 |
|  | - |  | - |  | 11 |  | - |
| \$ | 324,479 | \$ | 200,116 | \$ | 151,627 | \$ | 146,816 |
|  | 402 |  | 401 |  | 386 |  | 343 |
|  | 7,661 |  | 50 |  | - |  | - ${ }^{-}$ |
| \$ | 332,542 | \$ | 200,567 | \$ | 152,013 | \$ | 147,159 |
|  | 102 |  | 82 |  | 88 |  | 67 |
| \$ | 251,315 | \$ | 280,245 | \$ | 300,639 | \$ | 292,139 |
|  | 7,398 |  | 7,398 |  | 7,398 |  | 4,898 |
|  | 190,950 |  | 206,310 |  | 217,179 |  | 202,289 |
|  | 50,131 |  | 45,032 |  | 41,579 |  | 49,953 |
|  | 1,530 |  | 3,871 |  | 2,625 |  | 2,790 |
|  | 45,470 |  | 39,005 |  | 69,823 |  | 72,053 |
|  | 3,763 |  | 3,347 |  | 2,622 |  | 2,710 |
| \$ | 550,557 | \$ | 585,208 | \$ | 641,865 | \$ | 626,832 |
|  | 66 |  | 60 |  | 51 |  | 50 |
| \$ | 883,176 | \$ | 785,775 | \$ | 793,930 | \$ | 774,016 |
|  | 42 |  | 45 |  | 42 |  | 41 |

Fannie Mae Funding Liabilities and Debt Issuance 2008 through March 31, 2011

| Funding Liabilities and Debt Issuance (in millions) |  | 2008 |  | 2009 |  | 2010 |  | 2011 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Federal Fund Borrowings | \$ | 5,617 | \$ | 1,000 | \$ | 6,450 | \$ | - |
| Other Short Term Funding Liabilities ${ }^{1}$ |  | 60,888 |  | 5,822 |  | 5,930 |  | 510 |
| Total Federal Funds Purchased and Securities Sold under Agreements to Repurchase | \$ | 66,505 | \$ | 6,822 | \$ | 12,380 | \$ | 510 |
| Discount Notes |  | 1,547,462 | \$ | 1,373,711 | \$ | 438,146 | \$ | 87,577 |
| FX Discount Notes |  | 2,583 |  | 1,060 |  | 615 |  | 112 |
| Other Short Term Debt ${ }^{10}$ |  | 8,661 |  | 50 |  | - |  | - |
| Total Short Term Debt ${ }^{3}$ | \$ | 1,558,706 | \$ | 1,374,821 | \$ | 438,761 | \$ | 87,689 |
| Benchmark Notes \& Bonds |  | 50,500 | \$ | 75,500 | \$ | 82,000 | \$ | 14,000 |
| Callable Benchmark Notes |  | - |  |  |  |  |  | - |
| Subordinated Benchmark Notes |  | - |  | - |  | - |  | - |
| Callable Fixed Rate MTNs ${ }^{6}$ |  | 150,255 |  | 187,983 |  | 306,560 |  | 32,035 |
| Noncallable Fixed Rate MTNs ${ }^{6}$ |  | 84,336 |  | 4,517 |  | 8,834 |  | 2,000 |
| Callable Floating Rate MTNs ${ }^{6}$ |  | 1,280 |  | 3,846 |  | 2,630 |  | - |
| Noncallable Floating Rate MTNs ${ }^{6}$ |  | 41,284 |  | 23,180 |  | 63,100 |  | 3,700 |
| Other LongTerm Debt ${ }^{\text {² }}$ |  | 743 |  | 249 |  | 259 |  | 120 |
| Total Long Term Debt ${ }^{8}$ | \$ | 248,399 | \$ | 295,275 | \$ | 463,383 | \$ | 51,855 |
| Total Federal Funds Purchased and Securities Sold under Agreements to Repurchase and Debt Issued | \$ | 1,873,610 | \$ | 1,676,918 | \$ | 914,524 | \$ | 140,054 |
| Net Issuance Long Term Debt ${ }^{11}$ | \$ | $(18,363)$ | \$ | 34,511 | \$ | 56,610 | \$ | $(15,060)$ |

[^2]
## Endnotes

Footnotes for Tables 1 and 2
Other Short Term Funding Liabilities includes Benchmark repos, contingency repo lending, and other short term funding liabilities.
${ }^{2}$ Other Short Term Debt includes coupon bearing short term notes.
${ }_{4}^{3}$ Short term debt consists of borrowings with an original contractual maturity of one year or less.
${ }^{4}$ Outstanding Benchmark Notes \& Bonds with expired call options are reported as Benchmark Notes \& Bonds.
${ }^{5}$ Outstanding MTNs with expired call options are reported as Noncallable MTNs.
${ }^{6}$ MTNs include all long term non-Benchmark Securities such as globals, zero coupon securities, medium term notes, Final Maturity Amortizing Notes, and other long term debt securities.
${ }^{7}$ Other Long Term Debt consists of long term foreign currency debt, investment agreements and other long term securities
${ }^{8}$ Long term debt consists of borrowings with an original contractual maturity of greater than one year.
${ }^{9}$ Unamortized discounts and issuance costs of long term zero coupon securities are approximately $\$ 14.8$ billion at December 31, 2008, $\$ 14.9$ billion at December 31, 2009, $\$ 11.8$ billion at December 31, 2010 and $\$ 10.8$ billion at March 31, 2011.
${ }^{10}$ Other Short Term Debt includes coupon bearing short term notes.
${ }^{11}$ Net Issuance Long Term Debt amounts represent the difference between long term debt issued and long term debt repaid during the period. For any period, a positive value indicates that the amount of long term debt issued was greater than the amount of long term debt repaid, and a negative value indicates that the amount of long term debt repaid was greater than the amount of long term debt issued.

## General

Reported amounts represent the unpaid principal balance as of each reporting period or, in the case of the long term zero coupon bonds, at maturity. Unpaid principal balance does not reflect the effect of debt basis adjustments, including unamortized discounts, premiums, issuance costs and fair value adjustments.

Numbers may not foot due to rounding

## Debt Securities Index Reports

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Citigroup |  |  |  |  |  |  | Barclays Capital |  |  |  |  |  |  |
| Fannie Mae Index: | 2.21 | -0.05 | -0.84 | -0.78 | 0.07 | 3.60 | Fannie Mae Index: | 2.20 | 0.15 | 0.22 | -0.83 | 0.22 | 4.18 |
| 1-10 Years | 2.09 | -0.17 | -0.64 | -0.30 | 0.07 | 3.23 | 1-10 Years | 2.09 | 0.11 | 0.18 | -0.46 | 0.18 | 3.68 |
| 10+ Years | 0.12 | 1.74 | -3.77 | -7.19 | 0.06 | 7.46 | 10+ Years | 0.12 | 0.70 | 0.76 | -5.83 | 0.76 | 10.00 |
| Callable | 0.23 | -0.06 | -0.35 | -0.26 | 0.05 | 1.84 | Callable | 0.22 | 0.03 | 0.08 | -0.30 | 0.08 | 1.84 |
| Noncallable | 1.98 | -0.05 | -0.93 | -0.86 | 0.07 | 3.92 | Noncallable | 1.99 | 0.16 | 0.24 | -0.91 | 0.24 | 4.63 |
| Globals* | 2.09 | -0.05 | -0.84 | -0.80 | 0.06 | 3.40 | Globals | 2.08 | 0.15 | 0.21 | -0.83 | 0.21 | 3.99 |
| Agency: | 5.56 | -0.03 | -0.96 | -0.71 | 0.08 | 4.13 | Agency: | 5.61 | 0.15 | 0.23 | -0.71 | 0.23 | 4.78 |
| Callable | 0.31 | -0.11 | -0.28 | -0.14 | 0.03 | 1.56 | Callable | 0.29 | 0.08 | 0.11 | -0.15 | 0.11 | 1.61 |
| Noncallable | 5.25 | -0.02 | -1.02 | -0.76 | 0.09 | 4.40 | Noncallable | 5.32 | 0.15 | 0.24 | -0.76 | 0.24 | 5.14 |
| Globals | 4.65 | -0.05 | -0.84 | -0.81 | 0.09 | 3.32 | Globals**** | 4.69 | 0.14 | 0.23 | -0.86 | 0.23 | 3.91 |
| Citigroup |  |  |  |  |  |  | Barclays Aggregate |  |  |  |  |  |  |
| Index**: | 100.00 | 0.20 | -0.85 | -1.05 | 0.31 | 4.73 | Index: | 100.00 | 0.05 | 0.36 | -0.99 | 0.36 | 5.06 |
| U.S. Treasury | 35.99 | -0.08 | -1.86 | -2.69 | -0.13 | 3.66 | U.S. Treasury | 35.95 | -0.06 | -0.19 | -2.75 | -0.19 | 4.46 |
| GSE*** | 6.85 | -0.04 | -0.94 | -0.78 | 0.14 | 3.99 | Government-Related*** | 6.94 | 0.16 | 0.30 | -0.82 | 0.30 | 4.59 |
| Credit | 24.06 | 0.62 | -0.21 | -0.43 | 0.83 | 7.27 | Corporate | 24.22 | 0.00 | 0.82 | -0.87 | 0.82 | 7.06 |
| MBS | 32.87 | 0.24 | -0.21 | 0.25 | 0.44 | 4.28 | MBS | 32.67 | 0.18 | 0.61 | 0.84 | 0.61 | 4.53 |
| ABS | 0.22 | 0.00 | -0.59 | -0.19 | 0.35 | 5.77 | ABS | 0.21 | 0.26 | 0.61 | -0.65 | 0.61 | 5.84 |

* In July 2009 the definition of Globals changed due to a change in index methodology. Previously, if a bond was classified as the Eurodollar Index, then it was "Global." Currently, if a bond is cleared in DTC, Euroclear/Clearstream and/or other clearances, then it is "Global."
** Components of Broad (BIG) Index: Treasury, GSE, Corporate, Mortgage
*** Includes US agencies
**** Includes World Bank global issues
This data has been compiled from reports supplied by Citigroup and Barclays Capital and is reproduced here with their permission. The indexes are constructed according to rules developed by these firms and the index values are calculated by them.


## Summary Breakdown of 2011 Debt Issuances

Includes all settled callable debt issues with maturities greater than one year.

| Maturity/Call (Year) | Debt <br> March 2011 <br> Par Amount (in thousands) | \# Issues | YTD 2011 <br> Par Amount (in thousands) | \# Issues | Maturity/Call (Year) | March 2011 Par Amount (in thousands) | \# Issues | YTD 2011 Par Amount (in thousands) | \# Issues |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2.00 NC 0.50 |  |  | 1,810,000,000 | 9 | 4.00 NC 2.00 |  |  | 50,000,000 | 1 |
| 2.25 NC 0.50 |  |  | 400,000,000 | 4 | 4.25 NC 1.00 | 50,000,000 | 1 | 50,000,000 | 1 |
| 2.49 NC 0.49 |  |  | 50,000,000 | 1 | 4.50 NC 0.50 |  |  | 75,000,000 | 2 |
| 2.50 NC 0.50 |  |  | 215,000,000 | 4 | 5.00 NC 0.50 | 1,167,000,000 | 12 | 4,243,000,000 | 75 |
| 2.50 NC 1.00 |  |  | 50,000,000 | 1 | 5.00 NC 1.00 | 400,000,000 | 5 | 1,610,000,000 | 31 |
| 2.67 NC 0.33 | 75,000,000 | 2 | 75,000,000 | 2 | 5.50 NC 0.50 |  |  | 700,000,000 | 12 |
| 2.73 NC 0.39 |  |  | 75,000,000 | 2 | 5.50 NC 0.75 |  |  | 75,000,000 | 2 |
| 2.75 NC 0.50 |  |  | 150,000,000 | 2 | 5.50 NC 1.00 |  |  | 50,000,000 | 1 |
| 2.92 NC 0.42 |  |  | 425,000,000 | 11 | 5.50 NC 1.50 |  |  | 50,000,000 | 1 |
| 3.00 NC 0.24 |  |  | 50,000,000 | 1 | 5.51 NC 0.50 | 125,000,000 | 3 | 125,000,000 | 3 |
| 3.00 NC 0.50 | 1,250,000,000 | 10 | 4,975,000,000 | 29 | 5.51 NC 1.00 | 300,000,000 | 2 | 300,000,000 | 2 |
| 3.00 NC 0.75 | 50,000,000 | 1 | 50,000,000 | 1 | 5.75 NC 0.50 | 50,000,000 | 1 | 50,000,000 | 1 |
| 3.00 NC 1.00 | 1,050,000,000 | 2 | 5,465,000,000 | 37 | 6.00 NC 0.50 | 100,000,000 | 3 | 100,000,000 | 3 |
| 3.01 NC 1.00 |  |  | 250,000,000 | 1 | 6.00 NC 1.00 |  |  | 100,000,000 | 2 |
| 3.24 NC 0.50 |  |  | 75,000,000 | 1 | 6.92 NC 0.42 |  |  | 100,000,000 | 1 |
| 3.25 NC 0.50 | 250,000,000 | 1 | 250,000,000 | 1 | 7.00 NC 0.50 |  |  | 150,000,000 | 3 |
| 3.50 NC 0.25 | 125,000,000 | 1 | 125,000,000 | 1 | 7.50 NC 0.50 |  |  | 50,000,000 | 1 |
| 3.50 NC 0.50 | 150,000,000 | 3 | 900,000,000 | 12 | 10.00 NC 0.50 | 600,000,000 | 8 | 2,090,000,000 | 46 |
| 3.50 NC 0.75 |  |  | 250,000,000 | 2 | 10.00 NC 1.00 | 125,000,000 | 3 | 175,000,000 | 4 |
| 3.50 NC 1.00 |  |  | 250,000,000 | 6 | 12.00 NC 0.50 | 130,000,000 | 2 | 385,000,000 | 7 |
| 3.75 NC 0.50 | 65,000,000 | 1 | 165,000,000 | 3 | 15.00 NC 0.50 | 610,000,000 | 16 | 3,035,000,000 | 47 |
| 3.75 NC 0.75 | 150,000,000 | 3 | 150,000,000 | 3 | 15.00 NC 1.00 |  |  | 250,000,000 | 4 |
| 4.00 NC 0.50 | 200,000,000 | 4 | 832,000,000 | 15 | 15.00 NC 4.00 | 50,000,000 | 1 | 50,000,000 | 1 |
| 4.00 NC 0.75 | 50,000,000 | 1 | 50,000,000 | 1 | 20.00 NC 1.00 | 300,000,000 | 2 | 910,000,000 | 9 |
| 4.00 NC 1.00 | 50,000,000 | 1 | 175,000,000 | 4 | TOTAL | \$7,472,000,000 | 89 | \$32,035,000,000 | 414 |

## 2011 Debt Redemptions

Callable Debt Redeemed (in billions)

| January | $\$$ | 14.2 |
| :--- | :--- | :--- |
| February | $\$$ | 11.3 |
| March | $\$$ | 14.8 |
| TOTAL | $\$$ | $\mathbf{4 0 . 3}$ |

## Summary Breakdown of

 2011 Benchmark Notes IssuanceFannie Mae Noncallable Benchmark Notes

| Maturity | Mar 11 <br> Par Amount | \# Issues | YTD 2011 <br> Par Amount | \# Issues |
| :--- | :---: | :---: | :---: | :---: |
| 2 Years |  |  | $5,000,000,000$ | 1 |
| 3 Years |  |  | $5,000,000,000$ | 1 |
| 5 Years | $4,000,000,000$ | 1 | $4,000,000,000$ | 1 |
| TOTAL NEW |  |  | 1 |  |
| ISSUANCE | $4,000,000,000$ | $\mathbf{1}$ | $\mathbf{1 4 , 0 0 0 , 0 0 0 , 0 0 0}$ | $\mathbf{3}$ |

Recent Benchmark Notes Transaction

| Benchmark <br> Securities | Size/Cusip | Lead-Managers | Co-Managers | Pricing Date <br> and Spread | Geographic <br> Distribution | Investor Type <br> Distribution |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 5 year | \$4 billion | Barclays Capital Inc.; | BNP Paribas; | March 2, 2011 | U.S. $66.0 \%$ | Fund Manager 47.2\% |
| $2.375 \%$ | $3135 G 0 B A 0$ | Citigroup Global Markets Inc.; | FTN Financial Capital Markets; | +30 basis points | Asia 14.0\% | Comm. Banks 11.4\% |
| $4 / 11 / 2016$ |  | GBS Securities LLC | Goldman Sachs \& Co.; | 2.125\% | Europe 4.5\% | Insurance Companies $7.2 \%$ |
|  |  | J.P. Morgan Securites Inc.; | 2/29/2016 | Other 15.5\% | Central Banks 28.2\% |  |
|  |  | S.A. Ramirez \& Co., Inc.; | U.S. Treasury |  | State \& Local Gov't 3.6\% |  |
|  |  | Williams Capital Group L.P. |  | Corporate/Pensions 2.4\% |  |  |

Fannie Mae Funding Liabilities and Debt Outstanding 2008 through February 28, 2011

Funding Liabilities and Debt Outstanding (in millions)
Federal Fund Borrowings
Other Short Term Funding Liabilities ${ }^{1}$
Total Federal Funds Purchased and Securities Sold under Agreements to Repurchase
Average maturity (in days)

## Discount Notes

FX Discount Notes
Other Short Term Debt ${ }^{2}$
Total Short Term Debt ${ }^{3}$
Average maturity (in days)
Benchmark Notes \& Bonds ${ }^{4}$
Callable Benchmark Notes ${ }^{4}$
Subordinated Benchmark Notes
Callable Fixed Rate MTNs ${ }^{5,6}$
Noncallable Fixed Rate MTNs ${ }^{5,6}$
Callable Floating Rate MTNs ${ }^{5,6}$
Noncallable Floating Rate MTNs ${ }^{5,6}$
Other LongTerm Debt ${ }^{7}$
Total Long Term Debt ${ }^{8,9}$
Average maturity (in months)
Total Federal Funds Purchased and Securities Sold under
Agreements to Repurchase and Debt Outstanding
Average maturity (in months)

|  | 12/31/08 |  | 12/31/09 |  | 12/31/10 |  | 2/28/11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$ | - | \$ | - | \$ | - | \$ |  |
|  | 77 |  |  |  | 52 |  |  |
| \$ | 77 | \$ | - | \$ | 52 |  |  |
|  | - |  | - |  | 11 |  |  |
| \$ | 324,479 | \$ | 200,116 | \$ | 151,627 | \$ | 134,345 |
|  | 402 |  | 401 |  | 386 |  | 341 |
|  | 7,661 |  | 50 |  | - |  | - |
| \$ | 332,542 | \$ | 200,567 | \$ | 152,013 | \$ | 134,686 |
|  | 102 |  | 82 |  | 88 |  | 75 |
| \$ | 251,315 | \$ | 280,245 | \$ | 300,639 | \$ | 307,638 |
|  | 7,398 |  | 7,398 |  | 7,398 |  | 4,898 |
|  | 190,950 |  | 206,310 |  | 217,179 |  | 215,981 |
|  | 50,131 |  | 45,032 |  | 41,579 |  | 43,630 |
|  | 1,530 |  | 3,871 |  | 2,625 |  | 2,375 |
|  | 45,470 |  | 39,005 |  | 69,823 |  | 71,150 |
|  | 3,763 |  | 3,347 |  | 2,622 |  | 2,652 |
| \$ | 550,557 | \$ | 585,208 | \$ | 641,865 | \$ | 648,324 |
|  | 66 |  | 60 |  | 51 |  | 50 |
| \$ | 883,176 | \$ | 785,775 | \$ | 793,930 | \$ | 783,010 |
|  | 42 |  | 45 |  | 42 |  | 42 |

Fannie Mae Funding Liabilities and Debt Issuance 2008 through February 28, 2011

| Funding Liabilities and Debt Issuance (in millions) |  | 2008 |  | 2009 |  | 2010 |  | 2011 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Federal Fund Borrowings | \$ | 5,617 | \$ | 1,000 | \$ | 6,450 | \$ | - |
| Other Short Term Funding Liabilities ${ }^{1}$ |  | 60,888 |  | 5,822 |  | 5,930 |  | 100 |
| Total Federal Funds Purchased and Securities Sold under Agreements to Repurchase | \$ | 66,505 | \$ | 6,822 | \$ | 12,380 | \$ | 100 |
| Discount Notes | \$ | 1,547,462 | \$ | 1,373,711 | \$ | 438,146 | \$ | 43,642 |
| FX Discount Notes |  | 2,583 |  | 1,060 |  | 615 |  | 112 |
| Other Short Term Debt ${ }^{10}$ |  | 8,661 |  | 50 |  | - |  | - |
| Total Short Term Debt ${ }^{3}$ | \$ | 1,558,706 | \$ | 1,374,821 | \$ | 438,761 | \$ | 43,754 |
| Benchmark Notes \& Bonds | \$ | 50,500 | \$ | 75,500 | \$ | 82,000 | \$ | 10,000 |
| Callable Benchmark Notes |  | - |  | - |  | - |  | - |
| Subordinated Benchmark Notes |  | - |  | - |  | - |  | - |
| Callable Fixed Rate MTNs ${ }^{6}$ |  | 150,255 |  | 187,983 |  | 306,560 |  | 24,563 |
| Noncallable Fixed Rate MTNs ${ }^{6}$ |  | 84,336 |  | 4,517 |  | 8,834 |  | 2,000 |
| Callable Floating Rate MTNs ${ }^{6}$ |  | 1,280 |  | 3,846 |  | 2,630 |  | - |
| Noncallable Floating Rate MTNs ${ }^{6}$ |  | 41,284 |  | 23,180 |  | 63,100 |  | 2,350 |
| Other LongTerm Debt ${ }^{7}$, |  | 743 |  | 249 |  | 259 |  | 48 |
| Total Long Term Debt ${ }^{8}$ | \$ | 248,399 | \$ | 295,275 | \$ | 463,383 | \$ | 38,961 |
| Total Federal Funds Purchased and Securities Sold under Agreements to Repurchase and Debt Issued | \$ | 1,873,610 | \$ | 1,676,918 | \$ | 914,524 | \$ | 82,815 |
| Net Issuance Long Term Debt ${ }^{11}$ | \$ | $(18,363)$ | \$ | 34,511 | \$ | 56,610 | \$ | 6,432 |

[^3]
## Endnotes

Footnotes for Tables 1 and 2
Other Short Term Funding Liabilities includes Benchmark repos, contingency repo lending, and other short term funding liabilities.
${ }^{2}$ Other Short Term Debt includes coupon bearing short term notes.
${ }_{4}^{3}$ Short term debt consists of borrowings with an original contractual maturity of one year or less.
${ }^{4}$ Outstanding Benchmark Notes \& Bonds with expired call options are reported as Benchmark Notes \& Bonds.
${ }^{5}$ Outstanding MTNs with expired call options are reported as Noncallable MTNs.
${ }^{6}$ MTNs include all long term non-Benchmark Securities such as globals, zero coupon securities, medium term notes, Final Maturity Amortizing Notes, and other long term debt securities.
${ }^{7}$ Other Long Term Debt consists of long term foreign currency debt, investment agreements and other long term securities
${ }^{8}$ Long term debt consists of borrowings with an original contractual maturity of greater than one year.
${ }^{9}$ Unamortized discounts and issuance costs of long term zero coupon securities are approximately $\$ 14.8$ billion at December 31, 2008, $\$ 14.9$ billion at December 31, 2009, $\$ 11.8$ billion at December 31, 2010 and $\$ 11.7$ billion at February 28, 2011.
${ }^{10}$ Other Short Term Debt includes coupon bearing short term notes.
${ }^{11}$ Net Issuance Long Term Debt amounts represent the difference between long term debt issued and long term debt repaid during the period. For any period, a positive value indicates that the amount of long term debt issued was greater than the amount of long term debt repaid, and a negative value indicates that the amount of long term debt repaid was greater than the amount of long term debt issued.

## General

Reported amounts represent the unpaid principal balance as of each reporting period or, in the case of the long term zero coupon bonds, at maturity. Unpaid principal balance does not reflect the effect of debt basis adjustments, including unamortized discounts, premiums, issuance costs and fair value adjustments.

Numbers may not foot due to rounding

## Debt Securities Index Reports

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Citigroup |  |  |  |  |  |  | Barclays Capital |  |  |  |  |  |  |
| Fannie Mae Index: | 2.21 | -0.05 | -0.84 | -0.78 | 0.07 | 3.60 | Fannie Mae Index: | 2.50 | 0.03 | -0.69 | -0.69 | 0.16 | 3.20 |
| 1-10 Years | 2.09 | -0.17 | -0.64 | -0.30 | 0.07 | 3.23 | 1-10 Years | 2.32 | -0.08 | -0.52 | -0.28 | 0.16 | 2.83 |
| 10+ Years | 0.12 | 1.74 | -3.77 | -7.19 | 0.06 | 7.46 | 10+ Years | 0.18 | 1.36 | -2.78 | -5.41 | 0.19 | 6.73 |
| Callable | 0.23 | -0.06 | -0.35 | -0.26 | 0.05 | 1.84 | Callable | 0.69 | -0.05 | -0.24 | -0.26 | 0.13 | 1.75 |
| Noncallable | 1.98 | -0.05 | -0.93 | -0.86 | 0.07 | 3.92 | Noncallable | 1.81 | 0.05 | -0.88 | -0.87 | 0.17 | 3.92 |
| Globals* | 2.09 | -0.05 | -0.84 | -0.80 | 0.06 | 3.40 | Globals | 1.95 | -0.01 | -0.81 | -0.80 | 0.11 | 3.39 |
| Agency: | 5.56 | -0.03 | -0.96 | -0.71 | 0.08 | 4.13 | Agency: | 7.31 | 0.02 | -0.64 | -0.66 | 0.16 | 2.96 |
| Callable | 0.31 | -0.11 | -0.28 | -0.14 | 0.03 | 1.56 | Callable | 1.52 | -0.02 | -0.20 | -0.23 | 0.15 | 1.45 |
| Noncallable | 5.25 | -0.02 | -1.02 | -0.76 | 0.09 | 4.40 | Noncallable | 5.79 | 0.03 | -0.76 | -0.77 | 0.16 | 3.37 |
| Globals | 4.65 | -0.05 | -0.84 | -0.81 | 0.09 | 3.32 | Globals**** | 5.34 | -0.01 | -0.62 | -0.59 | 0.13 | 2.94 |
| Citigroup |  |  |  |  |  |  | Barclays Aggregate |  |  |  |  |  |  |
| Index**: | 100.00 | 0.20 | -0.85 | -1.05 | 0.31 | 4.73 | Index: | 100.00 | 0.25 | -0.72 | -0.83 | 0.37 | 4.93 |
| U.S. Treasury | 35.99 | -0.08 | -1.86 | -2.69 | -0.13 | 3.66 | U.S. Treasury | 32.98 | -0.07 | -1.90 | -2.72 | -0.10 | 3.71 |
| GSE*** | 6.85 | -0.04 | -0.94 | -0.78 | 0.14 | 3.99 | Government-Related*** | 12.26 | 0.19 | -0.66 | -1.09 | 0.37 | 3.73 |
| Credit | 24.06 | 0.62 | -0.21 | -0.43 | 0.83 | 7.27 | Corporate | 19.20 | 0.79 | 0.07 | 0.07 | 0.99 | 7.93 |
| MBS | 32.87 | 0.24 | -0.21 | 0.25 | 0.44 | 4.28 | MBS | 32.83 | 0.25 | -0.25 | 0.16 | 0.30 | 4.12 |
| ABS | 0.22 | 0.00 | -0.59 | -0.19 | 0.35 | 5.77 | ABS | 0.27 | -0.01 | -0.36 | -0.50 | 0.63 | 4.27 |

* In July 2009 the definition of Globals changed due to a change in index methodology. Previously, if a bond was classified as the Eurodollar Index, then it was "Global." Currently, if a bond is cleared in DTC, Euroclear/Clearstream and/or other clearances, then it is "Global."
** Components of Broad (BIG) Index: Treasury, GSE, Corporate, Mortgage
*** Includes US agencies
**** Includes World Bank global issues
This data has been compiled from reports supplied by Citigroup and Barclays Capital and is reproduced here with their permission. The indexes are constructed according to rules developed by these firms and the index values are calculated by them.


## Summary Breakdown of 2011 Debt Issuances

Includes all settled callable debt issues with maturities greater than one year.

| Fannie Mae Ca <br> Maturity/Call <br> (Year) | ebt <br> February 2011 Par Amount (in thousands) | \# Issues | YTD 2011 <br> Par Amount (in thousands) | \# Issues | Maturity/Call (Year) | February 2011 Par Amount (in thousands) | \# Issues | YTD 2011 Par Amount (in thousands) | \# Issues |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2.00 NC 0.50 |  |  | 1,810,000,000 | 9 | 4.00 NC 2.00 | 50,000,000 | 1 | 50,000,000 | 1 |
| 2.25 NC 0.50 | 100,000,000 | 2 | 400,000,000 | 4 | 4.50 NC 0.50 | 75,000,000 | 2 | 75,000,000 | 2 |
| 2.49 NC 0.49 | 50,000,000 | 1 | 50,000,000 | 1 | 5.00 NC 0.50 | 2,046,000,000 | 42 | 3,076,000,000 | 63 |
| 2.50 NC 0.50 | 60,000,000 | 1 | 215,000,000 | 4 | 5.00 NC 1.00 | 550,000,000 | 11 | 1,210,000,000 | 26 |
| 2.50 NC 1.00 |  |  | 50,000,000 | 1 | 5.50 NC 0.50 | 550,000,000 | 9 | 700,000,000 | 12 |
| 2.73 NC 0.39 | 75,000,000 | 2 | 75,000,000 | 2 | 5.50 NC 0.75 |  |  | 75,000,000 | 2 |
| 2.75 NC 0.50 |  |  | 150,000,000 | 2 | 5.50 NC 1.00 | 50,000,000 | 1 | 50,000,000 | 1 |
| 2.92 NC 0.42 |  |  | 425,000,000 | 11 | 5.50 NC 1.50 | 50,000,000 | 1 | 50,000,000 | 1 |
| 3.00 NC 0.24 | 50,000,000 | 1 | 50,000,000 | 1 | 6.00 NC 1.00 | 100,000,000 | 2 | 100,000,000 | 2 |
| 3.00 NC 0.50 | 3,050,000,000 | 10 | 3,725,000,000 | 19 | 6.92 NC 0.42 |  |  | 100,000,000 | 1 |
| 3.00 NC 1.00 | 1,025,000,000 | 12 | 4,415,000,000 | 35 | 7.00 NC 0.50 | 50,000,000 | 1 | 150,000,000 | 3 |
| 3.01 NC 1.00 |  |  | 250,000,000 | 1 | 7.50 NC 0.50 | 50,000,000 | 1 | 50,000,000 | 1 |
| 3.24 NC 0.50 | 75,000,000 | 1 | 75,000,000 | 1 | 10.00 NC 0.50 | 865,000,000 | 23 | 1,490,000,000 | 38 |
| 3.50 NC 0.50 | 400,000,000 | 6 | 750,000,000 | 9 | 10.00 NC 1.00 | 50,000,000 | 1 | 50,000,000 | 1 |
| 3.50 NC 0.75 | 250,000,000 | 2 | 250,000,000 | 2 | 12.00 NC 0.50 | 205,000,000 | 4 | 255,000,000 | 5 |
| 3.50 NC 1.00 | 50,000,000 | 1 | 250,000,000 | 6 | 15.00 NC 0.50 | 1,925,000,000 | 19 | 2,425,000,000 | 31 |
| 3.75 NC 0.50 | 100,000,000 | 2 | 100,000,000 | 2 | 15.00 NC 1.00 | 200,000,000 | 3 | 250,000,000 | 4 |
| 4.00 NC 0.50 | 282,000,000 | 6 | 632,000,000 | 11 | 20.00 NC 1.00 | 610,000,000 | 7 | 610,000,000 | 7 |
| 4.00 NC 1.00 | 125,000,000 | 3 | 125,000,000 | 3 | TOTAL | \$13,118,000,000 | 178 | \$24,563,000,000 | 325 |

2011 Debt Redemptions
Callable Debt Redeemed (in billions)

| January | $\$$ | 14.2 |
| :--- | :--- | :--- |
| February | $\$$ | 11.3 |
| TOTAL | $\$$ | $\mathbf{2 5 . 5}$ |

Summary Breakdown of
2011 Benchmark Notes Issuance Fannie Mae Noncallable Benchmark Notes

|  | Feb 11 <br> Par Amount | \# Issues | YTD 2011 <br> Par Amount |
| :--- | :---: | :---: | :---: |
| Maturity |  |  | $5,000,000,000$ |$⿻$| \# Issues |
| :--- |
| 2 Years |


[^0]:    As of April 15, 2011, SIFMA's U.S. corporate issuance report is broken out by investment grade/high yield, as well as callable and noncallable. http://www.sifma.org/research/statistics.aspx
    ${ }_{3}^{2}$ In this edition of FundingNotes, we focus on noncallable floating-rate notes.
    ${ }^{3}$ Appendix D of Fannie Mae's Universal Debt Facility Offering Circular provides a list of reference rates to which Fannie Mae's floating-rate notes may be indexed. http://www.fanniemae.com/markets/debt/pdf/udf 041811.pdf

[^1]:    
    
    
    
    
    
    
    
    
    
    
    
    
     Mae. This Agreement contains covenants that significantly restrict our operations. Refer to our periodic reports filed with the SEC for additional information about Fannie Mae.

[^2]:    Please see the Endnotes on the following page for more detail.

[^3]:    Please see the Endnotes on the following page for more detail.

