UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

Form 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): October 7, 2005

Bimini Mortgage Management, Inc.

(Exact Name of Registrant as Specified in Charter)

Maryland

(State or Other Jurisdiction of Incorporation)

001-32171

(Commission File Number)

72-1571637

(IRS Employer Identification No.)

3305 Flamingo Drive, Vero Beach, Florida 32963

(Address of Principal Executive Offices) (Zip Code)

Registrant's telephone number, including area code (772) 231-1400

N/A

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

ITEM 7.01. REGULATION FD DISCLOSURE

On October 7, 2005, Bimini Mortgage Management, Inc. (the "Company") prepared updated portfolio information as of September 30, 2005. A copy of this information is attached hereto as Exhibit 99.1.

On October 7, 2005, the Company issued a press release announcing the implementation of a share repurchase program relating to its outstanding Class A Common Stock. A copy of this press release is attached hereto as Exhibit 99.2.

The Company believes that certain statements in the information attached may constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These statements are made on the basis of management's views and assumptions regarding future events and business performance as of the time the statements are made. Actual results may differ materially from those expressed or implied. Information concerning factors that could cause actual results to differ materially from those in forward-looking statements is contained from time to time in the Company's filings with the U.S. Securities and Exchange Commission.

This information furnished under this "Item 7.01 Regulation FD Disclosure," including the exhibit related hereto, shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, nor shall it be deemed incorporated by reference in any disclosure document of the Company, except as shall be expressly set forth by specific reference in such document.

ITEM 9.01. EXHIBITS

(c) Exhibits

The following exhibits are filed pursuant to Item 601 of Regulation S-K:

- 99.1 Updated Portfolio Information of Bimini Mortgage Management, Inc.
- 99.2 Press release dated October 7, 2005.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: October 7, 2005 BIMINI MORTGAGE MANAGEMENT, INC.

By: /s/ Jeffrey J. Zimmer
Jeffrey J. Zimmer

Chairman, Chief Executive Officer and

President

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EXHIBIT INDEX

Exhibit No.

- 99.1 Updated Portfolio Information of Bimini Mortgage Management, Inc.
- 99.2 Press release dated October 7, 2005.

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Bimini Mortgage Management, Inc. - Asset Information This Table Reflects All Transactions. Prices Used Are Compiled from Independent Third Party Sources.



Valuation

| Asset Category | Market Value | As a Percentage of Mortgage Assets | As a Percentage of Mortgage Assets, Cash and P&I Receivable |
|---|---------------------|---------------------------------------|---|
| Fixed Rate Mortgage Backed Securities | \$ 627,879,364 | 16.27% | 15.51% |
| Fixed Rate CMO | \$ 82,381,134 | 2.14% | 2.04% |
| Fixed Rate Agency Debt | \$ 98,859,380 | 2.56% | 2.44% |
| Adjustable Rate Mortgage Backed Securities (1) | \$ 2,166,581,043 | 56.15% | 53.52% |
| Hybrid Adjustable Rate Mortgage Backed Securities | \$ 829,053,560 | 21.49% | 20.48% |
| Balloon Maturity Mortgage Backed Securities | \$ 53,565,222 | 1.39% | 1.32% |
| Total: Mortgage Assets | \$ 3,858,319,703 | 100.00% | |
| | | | |
| Liquidity | | | |
| Cash as of 9/30/2005 | \$ 130,111,311 | | 3.21% |
| Dividend Payable | \$ (8,064,084) | | -0.20% |
| Bimini Capital Trust II Net Receivable | \$ 48,500,000 | | 1.20% |
| P&I Receivables (Net of P&I Waiver Advance) | \$ 19,294,495 | | 0.48% |
| Cash out on Margin (Encumbered Cash) | \$ _ | | 0.00% |
| Total Liquidity | \$ 189,841,722 | | 4.69% |
| Total: All Assets | \$ 4,048,161,425 | | 100.00% |

(1) Adjustable Rate MBS are those that reset coupons within one year's time.

Note: The Value of Securities in the Box is \$2,111,660

Prepayment Speeds

| Asset Category | Weighted Average One Month Prepayment Speeds (CPR) | Weighted Average Three Month Prepayment Speeds (CPR) |
|---|---|---|
| Fixed Rate Mortgage Backed Securities | 28.16% | 31.72% |
| Fixed Rate CMO | 33.08% | 34.36% |
| Fixed Rate Agency Debt | n/a | n/a |
| Adjustable Rate Mortgage Backed Securities | 37.35% | 38.79% |
| Hybrid Adjustable Rate Mortgage Backed Securities | 36.09% | 34.90% |
| Balloon Maturity Mortgage Backed Securities | 28.48% | 33.18% |
| Total: Mortgage Assets | 35.65% | 36.59% |

On September 8, 2005 Prepayment Speeds were released for paydowns occurring in August 2005 (June - August for three month speeds). The numbers above reflect that data.

Portfolio Price and Duration

| Weighted Average Purchase Price | \$ 102.68 |
|---------------------------------|--------------|
| Weighted Average Current Price | \$ 101.60 |
| Modeled Effective Duration | 1 184 |

Characteristics

| Asset Category | Weighted Average Coupon | Weighted Average Lifetime Cap | Weighted Average Periodic Cap Per Year (3) | Weighted Average Coupon Reset (in Months) | Longest Maturity | Weighted Average Maturity (in Months) |
|--|----------------------------|----------------------------------|--|---|---------------------|---|
| Fixed Rate Mortgage Backed Securities | 6.93% | n/a | n/a | n/a | 1-Jun-35 | 279 |
| Fixed Rate CMO | 5.53% | n/a | n/a | n/a | 25-Jul-34 | 329 |
| Fixed Rate Agency Debt | 4.00% | n/a | n/a | n/a | 25-Feb-10 | 53 |
| Adjustable Rate Mortgage Backed | | | | | | |
| Securities (3) | 4.26% | 10.49% | 1.76% | 4.44 | 1-Dec-42 | 337 |
| Hybrid Adjustable Rate Mortgage Backed | | | | | | |
| Securities | 4.22% | 9.92% | 1.64% | 20.82 | 1-Apr-44 | 342 |
| Balloon Maturity Mortgage Backed | | | | | • | |
| Securities | 4.07% | n/a | n/a | n/a | 1-Feb-11 | 51 |
| Total: Mortgage Assets | 4.71% | 10.33% | 1.72% | 8.97 | 1-Apr-44 | 317 |

(3) 35.2% (\$763.0 million) of The Adjustable Rate Mortgage Portfolio Have No Periodic Caps. These assets are excluded from the weighted average periodic cap per year calculation

| Agency | Market Value | As a Percentage of Mortgage Assets |
|-------------|---------------------|---------------------------------------|
| Fannie Mae | \$ 2,323,395,591 | 60.22% |
| Freddie Mac | \$ 832,257,477 | 21.57% |

| Ginnie Mae | \$ | 702,666,635 | 18.21% |
|-----------------|-------------|---------------|---------------------------------------|
| Total Portfolio | \$ | 3,858,319,703 | 100.00% |
| Pool Status | | Market Value | As a Percentage of Mortgage Assets |
| Whole Pool | | 2,241,580,818 | 58.10% |
| Non Whole Pool | \$ | 1,616,738,885 | 41.90% |
| Total Portfolio | \$ | 3,858,319,703 | 100.00% |
| | | | |
| | | | |
| | | % of Asset | % of Total Mortgage |

| | Market Value | % of Asset Class | % of Total Mortgage Assets |
|---|---------------------|---------------------|-------------------------------|
| Adjustable Rate Mortgages | | | |
| One Month Libor | \$ 59,309,112 | 2.74% | 1.54% |
| Moving Treasury Average | \$ 69,685,031 | 3.22% | 1.81% |
| Cost Of Funds Index | \$ 444,137,100 | 20.50% | 11.51% |
| Six Month LIBOR | \$ 261,551,260 | 12.07% | 6.78% |
| Six Month CD Rate | \$ 3,134,748 | 0.14% | 0.08% |
| One Year LIBOR | \$ 313,550,946 | 14.47% | 8.13% |
| Conventional One Year CMT | \$ 575,565,700 | 26.57% | 14.92% |
| FHA and VA One Year CMT | \$ 432,666,910 | 19.97% | 11.21% |
| Other | \$ 6,980,236 | 0.32% | 0.18% |
| Total ARMs | \$ 2,166,581,043 | 100.00% | 56.16% |
| Hybrid ARMs | | | |
| Generic Fannie or Freddie Hybrid ARMs | | | |
| 13 - 18 Months to First Reset | \$ 208,976,045 | 25.21% | 5.42% |
| 19 - 24 Months to First Reset | \$ 321,186,061 | 38.74% | 8.32% |
| 25 - 36 Months to First Reset | \$ 20,609,822 | 2.49% | 0.53% |
| 37 - 38 Months to First Reset | \$ 0 | 0.00% | 0.00% |
| Total | \$ 550,771,928 | 66.44% | 14.27% |
| Agency Alt-A Hybrid ARMs | | | |
| 13 - 18 Months to First Reset | \$ 8,925,280 | 1.08% | 0.23% |
| 19 - 24 Months to First Reset | \$ 23,724,334 | 2.86% | 0.61% |
| 25 - 36 Months to First Reset | \$ 10,946,893 | 1.32% | 0.28% |
| 37 - 50 Months to First Reset | \$ 14,531,537 | 1.75% | 0.38% |
| Total | \$ 58,128,044 | 7.01% | 1.50% |
| GNMA Hybrid ARMs | | | |
| 13 - 24 Months to First Reset | \$ 0 | 0.00% | 0.00% |
| 25 - 36 Months to First Reset | \$ 220,153,587 | 26.55% | 5.71% |
| Total | \$ 220,153,587 | 26.55% | 5.71% |
| Total Hybrid ARMs | \$ 829,053,560 | 100.00% | 21.49% |
| · | | % of Asset | % of Total Mortgage |
| | Market Value | Class | Assets |
| Balloons | | | |
| <= 4.0 Years to Balloon Date | \$ 22,635,978 | 42.26% | 0.59% |
| 4.01 - 5.0 Years to Balloon Date | \$ 17,434,937 | 32.55% | 0.45% |
| 5.01 - 5.5 Years to Balloon Date | \$ 13,494,307 | 25.19% | 0.35% |
| Total Balloons | \$ 53,565,222 | 100.00% | 1.39% |
| Fixed Rate Agency Debt | | | |
| 4.5yr Stated Final Maturity | \$ 98,859,380 | 100.00% | 2.56% |
| Total Fixed Rate Agency Debt | \$ 98,859,380 | 100.00% | 2.56% |
| Fixed Rate CMOs | | | |
| Fixed Rate CMOs | \$ 82,381,134 | 100.00% | 2.14% |
| Total Fixed Rate CMOs | \$ 82,381,134 | 100.00% | 2.14% |
| Fixed Rate Assets | | | |
| 10yr Other (Seasoned, Low Avg Bal, Low FICO, etc) | \$ 2,297,668 | 0.37% | 0.06% |
| 15yr \$85,000 Maximum Loan Size | \$ 79,429,703 | 12.65% | 2.06% |

| | | 0.000/ | |
|---|---------------------|---------|---------|
| 15yr \$110,000 Maximum Loan Size | \$ 5,182,848 | 0.83% | 0.13% |
| 15yr 100% Investor Property | \$ 630,079 | 0.10% | 0.02% |
| 15yr 100% FNMA Expanded Approval Level 3 | \$ 1,270,982 | 0.20% | 0.03% |
| 15yr 100% Alt-A | \$ 43,790,976 | 6.97% | 1.13% |
| 15yr Geography Specific (NY, FL, VT, TX) | \$ 1,892,095 | 0.30% | 0.05% |
| 15yr Other (Seasoned, Low Avg Bal, Low FICO, etc) | \$ 30,344,524 | 4.83% | 0.79% |
| 20yr Other (Seasoned, Low Avg Bal, Low FICO, etc) | \$ 1,292,648 | 0.21% | 0.03% |
| 20yr 100% Alt-A | \$ 1,123,503 | 0.18% | 0.03% |
| 30yr \$85,000 Maximum Loan Size | \$ 162,255,421 | 25.84% | 4.21% |
| 30yr \$110,000 Maximum Loan Size | \$ 43,816,743 | 6.98% | 1.14% |
| 30yr 100% Investor Property | \$ 7,569,242 | 1.21% | 0.20% |
| 30yr 100% FNMA Expanded Approval Level 3 | \$ 66,669,883 | 10.62% | 1.73% |
| 30yr 100% Alt-A | \$ 48,659,757 | 7.75% | 1.26% |
| 30yr Geography Specific (NY, FL, VT, TX) | \$ 5,162,774 | 0.82% | 0.13% |
| 30yr 100% GNMA Builder Buydown Program | \$ 7,585,038 | 1.21% | 0.20% |
| 30yr Other (Seasoned, Low Avg Bal, Low FICO, etc) | \$ 118,905,479 | 18.93% | 3.08% |
| Total Fixed Rate Collateral | \$ 627,879,363 | 100.00% | 16.28% |
| | | | |
| Total (All Mortgage Assets) | \$ 3,858,319,703 | | 100.00% |
| Cash or Cash Receivables | \$ 189,841,722 | | |
| Total Assets and Cash | \$ 4,048,161,425 | | |
| | | | |
| Total Forward Settling Purchases | \$ 0 | | 0.00% |

Unaudited Funding Information as of 9/30/2005

| Repurchase Counterparties | Dollar Amount of Borrowings | | Weighted Average Maturity in Days | Longest Maturity |
|---------------------------|-----------------------------|----------------|--------------------------------------|---------------------|
| Deutsche Bank (1) | \$ | 941,027,154.11 | 129 | 29-Apr-06 |
| Nomura | \$ | 817,596,000.00 | 174 | 18-Sep-06 |
| Cantor Fitzgerald | \$ | 530,931,000.00 | 160 | 25-Apr-06 |
| REFCO | \$ | 323,273,000.00 | 115 | 15-Sep-06 |
| WAMU | \$ | 233,932,000.00 | 14 | 13-Jan-06 |
| Bear Stearns | \$ | 196,476,000.00 | 217 | 7-Jul-06 |
| Goldman Sachs | \$ | 188,989,009.62 | 39 | 30-Jan-06 |
| JP Morgan Secs | \$ | 132,035,719.93 | 142 | 10-Jul-06 |
| Merrill Lynch | \$ | 128,119,000.00 | 188 | 19-Apr-06 |
| UBS Securities | \$ | 109,052,000.00 | 123 | 25-Apr-06 |
| Lehman Bros | \$ | 57,982,000.00 | 21 | 21-Oct-05 |
| Countrywide Secs | \$ | 45,975,000.00 | 82 | 22-Dec-05 |
| Daiwa Secs | \$ | 19,825,000.00 | 279 | 7-Jul-06 |
| Morgan Stanley | \$ | 4,160,758.53 | 95 | 3-Jan-06 |
| | | | | |
| Total | \$ | 3,729,373,642 | 136 | 18-Sep-06 |

(1) Includes \$507 Million floating rate repo obligations



BIMINI MORTGAGE MANAGEMENT, INC. AUTHORIZES STOCK BUYBACK PROGRAM

RELEASES INFORMATION PERTINENT TO THE MERGER WITH OPTEUM FINANCIAL SERVICES

SETS THIRD QUARTER 2005 EARNINGS RELEASE AND CONFERENCE CALL DATES

VERO BEACH, Fla. (October 7, 2005) – Bimini Mortgage Management, Inc. (NYSE:BMM) today announced that its Board of Directors has authorized Bimini to acquire up to 1,800,000 shares of its common stock, or approximately 9% of its total shares of Class A Common Stock outstanding as of October 7, 2005. The shares are expected to be acquired at prevailing prices through open-market transactions which will be subject to restrictions related to volume, price, timing, market conditions, and applicable Securities and Exchange Commission rules.

The Company also announced that it has and will continue to release information relevant to the merger with Opteum Financial Services, Inc. through 8-K filings with the Securities and Exchange Commission. This information can also be found on the Company's Website.

The Company said it will release third quarter 2005 earnings after 4:00 p.m. Eastern Time on Thursday, October 13, 2005. The Company expects to file a 10-Q for the quarter ended September 30, 2005, prior to the end of the month. That filing will be available on the Company's Web site at www.biminireit.com.

Senior management from Bimini Mortgage Management and Opteum Financial Services will hold a conference call to discuss the third quarter press release on Friday, October 14, 2005, at 10:00 a. m. Eastern Time. In addition, management will discuss the stock buyback program and the merger with Opteum Financial Services. Investors will have the opportunity to listen to a live broadcast of the conference call through the Company's Web site at www.biminireit.com and at www.earnings.com. To listen to the live call, please go to the Web site at least 15 minutes early to register, download, and install any necessary audio software. For those who cannot listen to the live broadcast, an Internet replay will be available shortly after the call and continue through October 21, 2005.

Bimini Mortgage Management, Inc., a real estate investment trust, invests primarily in residential mortgage-related securities issued by the Federal National Mortgage Association (Fannie Mae), the Federal Home Loan Mortgage Corporation (Freddie Mac) and the Government National Mortgage Association (Ginnie Mae). It earns returns on the spread between the yield on its assets and its costs, including the interest expense on the funds it borrows.

This news release contains forward-looking statements made pursuant to the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. The reader is cautioned that such forward-looking statements are based on information available at the time and on management's good faith belief with respect to future events, and are subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in the statements. Important factors that could cause such differences are described in the Company's periodic filings with the Securities and Exchange Commission, including the Company's Registration Statement on Form S-11. The Company assumes no obligation to update forward-looking information to reflect subsequent results, changes in assumptions or changes in other factors affecting forward-looking information.

Contact: Robert E. Cauley

Chief Financial Officer (772) 231-1400 www.biminireit.com