

**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): **May 24, 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:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- 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 May 24, 2005, Bimini Mortgage Management, Inc. (the "Company") prepared updated portfolio information as of May 20, 2005. A copy of this information is attached hereto as Exhibit 99.1.

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 exhibits 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.

UNAUDITED as of 5/20/2005

Bimini Mortgage Management, Inc. - Asset Information

This Table Reflects All Transactions. Prices Used Have Been Internally Generated.

**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	\$ 741,583,035	19.94%	18.51%
Fixed Rate CMO	\$ 101,678,620	2.73%	2.54%
Fixed Rate Agency Debt	\$ 98,750,000	2.66%	2.47%
CMO Floaters (Monthly Resetting)	\$ 69,876,920	1.88%	1.74%
Adjustable Rate Mortgage Backed Securities (1)	\$ 1,929,175,991	51.87%	48.16%
Hybrid Adjustable Rate Mortgage Backed Securities	\$ 716,516,429	19.27%	17.89%
Balloon Maturity Mortgage Backed Securities	\$ 61,323,204	1.65%	1.53%
Total: Mortgage Assets (2)	\$ 3,718,904,199	100.00%	
Cash as of 5/20/2005	\$ 132,200,040		3.30%
P&I Receivables (Net of P&I Waiver Advance)	\$ 50,912,645		1.27%
Cash out on Margin (Encumbered Cash)	\$ 104,064,000		2.60%
Total: All Assets	\$ 4,006,080,884		100.00%

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

(2) This includes Forward Settling Purchases.

Note: The Value of Securities in the Box is \$1.05 million

Prepayment Speeds

Asset Category	Weighted Average One Month Prepayment Speeds (CPR)	Weighted Average Three Month Prepayment Speeds (CPR)
Fixed Rate Mortgage Backed Securities	25.22%	27.48%
Fixed Rate CMO	29.84%	23.24%
Fixed Rate Agency Debt	n/a	n/a
CMO Floaters	14.80%	16.72%
Adjustable Rate Mortgage Backed Securities	24.01%	26.73%
Hybrid Adjustable Rate Mortgage Backed Securities	25.79%	25.08%
Balloon Maturity Mortgage Backed Securities	19.23%	22.07%
Total: Mortgage Assets	24.45%	26.17%

On May 6, 2005 Prepayment Speeds were released for paydowns occurring in April 2005 (Feb-April for three month speeds). The numbers above reflect that data.

Portfolio Price and Duration

Weighted Average Purchase Price	\$ 103.10
Weighted Average Current Price	\$ 102.48
Modeled Effective Duration (as of 05/23/05)	0.785

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	6.94%	n/a	n/a	n/a	1-Jun-35	287
Fixed Rate CMO	5.61%	n/a	n/a	n/a	25-Jul-34	344
Fixed Rate Agency Debt	4.00%	n/a	n/a	n/a	25-Feb-10	57
CMO Floaters (Monthly Resetting)	3.47%	7.78%	n/a	0.43	25-May-34	328
Adjustable Rate Mortgage Backed Securities (3)	4.11%	10.69%	1.55%	4.18	1-Dec-42	340
Hybrid Adjustable Rate Mortgage Backed Securities	4.41%	10.03%	1.39%	24.20	20-Jan-35	344
Balloon Maturity Mortgage Backed Securities	4.08%	n/a	n/a	n/a	1-Feb-11	56
Total: Mortgage Assets	4.76%	10.44%	1.49%	9.36	1-Dec-42	318

(3) 41.0% (\$791.4 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	\$ 2,357,153,185	63.38%
Freddie Mac	\$ 722,714,034	19.43%
Ginnie Mae	\$ 639,036,980	17.18%
Total Portfolio	\$ 3,718,904,199	100.00%

Pool Status	Market Value	As a Percentage of Mortgage Assets
Whole Pool	\$ 2,146,617,744	57.72%
Non Whole Pool	\$ 1,572,286,455	42.28%
Total Portfolio	\$ 3,718,904,199	100.00%

	Internally Generated Market Value	% of Asset Class	% of Total Mortgage Assets
Adjustable Rate Mortgages			
One Month Libor	\$ 48,651,528	2.52%	1.31%
Moving Treasury Average	\$ 80,811,482	4.19%	2.17%
Cost Of Funds Index	\$ 455,091,627	23.59%	12.24%
Six Month LIBOR	\$ 300,466,874	15.57%	8.08%
Six Month CD Rate	\$ 3,871,679	0.20%	0.10%
One Year LIBOR	\$ 217,931,755	11.30%	5.86%
Conventional One Year CMT	\$ 475,878,132	24.67%	12.80%
FHA and VA One Year CMT	\$ 339,627,862	17.60%	9.13%
Other	\$ 6,845,052	0.35%	0.18%
Total ARMs	\$ 1,929,175,991	100.00%	51.87%
CMO Floaters (Monthly Resetting)			
Short Stable	\$ 32,816,828	46.96%	0.88%
Pass-Through	\$ 37,060,092	53.04%	1.00%
Locked Out	\$ 0	0.00%	0.00%
Total CMOs	\$ 69,876,920	100.00%	1.88%
Hybrid ARMs			
Generic Fannie or Freddie Hybrid ARMs			
13 - 18 Months to First Reset	\$ 193,548,195	27.01%	5.20%
19 - 24 Months to First Reset	\$ 168,652,949	23.54%	4.54%
25 - 36 Months to First Reset	\$ 28,281,505	3.95%	0.76%
37 - 38 Months to First Reset	\$ 11,234,411	1.57%	0.30%
Total	\$ 401,717,059	56.07%	10.80%
Agency Alt-A Hybrid ARMs			
13 - 18 Months to First Reset	\$ 7,907,323	1.10%	0.21%
19 - 24 Months to First Reset	\$ 26,861,768	3.75%	0.72%
25 - 36 Months to First Reset	\$ 23,571,127	3.29%	0.63%
37 - 50 Months to First Reset	\$ 15,442,441	2.16%	0.42%
Total	\$ 73,782,659	10.30%	1.98%
GNMA Hybrid ARMs			
13 - 24 Months to First Reset	\$ 0	0.00%	0.00%
25 - 36 Months to First Reset	\$ 241,016,711	33.64%	6.48%
Total	\$ 241,016,711	33.64%	6.48%
Total Hybrid ARMs	\$ 716,516,429	100.00%	19.27%
Balloons			
< = 4.5 Years to Balloon Date	\$ 12,404,257	20.23%	0.33%
4.6 - 5.5 Years to Balloon Date	\$ 33,033,293	53.87%	0.89%
5.6 - 6.0 Years to Balloon Date	\$ 15,885,654	25.90%	0.43%
Total Balloons	\$ 61,323,204	100.00%	1.65%
Fixed Rate Agency Debt			
5yr Stated Final Maturity	\$ 98,750,000	100.00%	2.66%
Total Fixed Rate Agency Debt	\$ 98,750,000	100.00%	2.66%
Fixed Rate Assets			
Fixed Rate CMO	\$ 101,678,620	12.06%	2.73%
10yr Other (Seasoned, Low Avg Bal, Low FICO, etc..)	\$ 2,602,931	0.31%	0.07%
15year \$85,000 Maximum Loan Size	\$ 87,560,636	10.38%	2.35%
15year \$110,000 Maximum Loan Size	\$ 5,742,706	0.68%	0.15%
15yr 100% Investor Property	\$ 919,247	0.11%	0.02%
15yr 100% FNMA Expanded Approval Level 3	\$ 1,971,962	0.23%	0.05%
15yr 100% Alt-A	\$ 49,777,721	5.90%	1.34%
15yr Geography Specific (NY, FL, VT, TX)	\$ 544,586	0.06%	0.01%
15yr Other (Seasoned, Low Avg Bal, Low FICO, etc..)	\$ 35,052,368	4.16%	0.94%
20yr Other (Seasoned, Low Avg Bal, Low FICO, etc..)	\$ 1,406,088	0.17%	0.04%
20yr 100% Alt-A	\$ 1,718,464	0.20%	0.05%
30year \$85,000 Maximum Loan Size	\$ 180,394,974	21.39%	4.85%
30year \$110,000 Maximum Loan Size	\$ 50,354,606	5.97%	1.35%
30yr 100% Investor Property	\$ 9,659,588	1.15%	0.26%
30yr 100% FNMA Expanded Approval Level 3	\$ 84,935,203	10.07%	2.28%
30yr 100% Alt-A	\$ 70,506,818	8.36%	1.90%
30yr Geography Specific (NY, FL, VT, TX)	\$ 6,109,010	0.72%	0.16%
30yr 100% GNMA Builder Buydown Program	\$ 10,668,533	1.27%	0.29%
30yr Other (Seasoned, Low Avg Bal, Low FICO, etc..)	\$ 141,657,594	16.80%	3.81%
Total Fixed Rate Collateral	\$ 843,261,655	100.00%	22.68%

Total (All Mortgage Assets)	\$ 3,718,904,199	100.00%
Cash or Cash Receivables	\$ 287,176,685	
Total Assets and Cash	\$ 4,006,080,884	
Total Forward Settling Purchases	\$ 463,058,748	12.45%

Unaudited Funding Information as of 5/20/2005

Repurchase Counterparties	Dollar Amount of Borrowings	Weighted Average Maturity in Days	Longest Maturity
Deutsche Bank	\$ 880,613,318	254	31-May-06
Nomura	\$ 537,208,000	142	1-May-06
WAMU	\$ 305,740,000	29	26-Aug-05
Cantor Fitzgerald	\$ 246,086,140	122	1-Dec-05
Bear Stearns	\$ 218,834,000	83	3-Oct-05
Goldman Sachs	\$ 199,835,069	61	15-Sep-05
Countrywide Securities	\$ 177,152,000	20	29-Jul-05
Bank of America	\$ 159,813,000	87	23-Sep-05
Merrill Lynch	\$ 97,196,000	56	22-Jul-05
UBS Securities	\$ 90,201,000	57	1-Aug-05
Citigroup	\$ 84,804,000	5	25-May-05
JP Morgan Securities	\$ 84,548,000	48	29-Aug-05
Lehman Brothers	\$ 57,982,000	154	21-Oct-05
Daiwa Securities	\$ 57,062,000	62	17-Jan-06
REFCO	\$ 52,376,000	24	15-Jun-05

Total	\$ 3,249,450,526	128	31-May-06
Total Forward Settling Purchases	463,058,748		
Estimated Haircut (at 3%)	13,891,762		
Estimated Forward Borrowings	449,166,985		

Asset Class	Weighted Average Maturity in Days	Longest Maturity
Fixed Rate MBS	94	27-May-06
Fixed Rate CMO	118	15-Sep-05
Fixed Rate Agency Debt	119	16-Sep-05
CMO Floaters (Monthly Resetting)	12	15-Jun-05
Adjustable Rate MBS	149	31-May-06
Hybrid Adjustable Rate MBS	121	25-May-06
Balloon Maturity MBS	61	27-Sep-05
	128	31-May-06