

Dreyfus Premier GNMA Fund, Inc.

ANNUAL REPORT April 30, 2008



BNY MELLON
ASSET MANAGEMENT

Dreyfus

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A LETTER FROM THE CEO

Dear Shareholder:

We are pleased to present this annual report for Dreyfus Premier GNMA Fund, Inc., covering the 12-month period from May 1, 2007, through April 30, 2008.

Although the U.S. economy has teetered on the brink of recession and the financial markets encountered heightened volatility due to an ongoing credit crisis over the reporting period, we recently have seen signs of potential improvement. The Federal Reserve Board's aggressive easing of monetary policy and innovative measures to inject liquidity into the banking system appear to have reassured many investors. At Dreyfus, we believe that the current economic downturn is likely to be relatively brief by historical standards, but the ensuing recovery may be gradual and prolonged as financial deleveraging and housing price deflation continue to weigh on economic activity.

The implications of our economic outlook for the U.S. Treasury and other bond markets generally are positive. Selling pressure among overleveraged investors has created attractive values in a number of fixed-income asset classes, including some that currently offer highly competitive yields. Your financial advisor can help you assess current risks and take advantage of these longer-term opportunities within the context of your overall investment portfolio.

For information about how the fund performed during the reporting period, as well as market perspectives, we have provided a Discussion of Fund Performance given by the fund's Portfolio Manager.

Thank you for your continued confidence and support.

Sincerely,

Jonathan R. Baum
Chief Executive Officer
The Dreyfus Corporation
May 15, 2008



DISCUSSION OF FUND PERFORMANCE

For the period of May 1, 2007, through April 30, 2008, as provided by Robert Bayston, Portfolio Manager

Fund and Market Performance Overview

For the 12-month period ended April 30, 2008, Dreyfus Premier GNMA Fund's Class Z shares achieved a total return of 5.84%. Between their inception on May 3, 2007, through April 30, 2008, the fund's Class A shares achieved a total return of 5.73%, Class B shares achieved a total return of 5.12% and Class C shares achieved a total return of 4.96%.¹ In comparison, the fund's benchmark, the Lehman Brothers GNMA Index (the "Index"), achieved a total return of 7.45% for the full 12-month period.²

GNMA securities fared relatively well amid a credit crisis and economic downturn, as investors engaged in a "flight to quality" that favored government-backed investments and punished most other fixed-income market sectors. The fund produced lower returns than its benchmark, primarily due to the performance of GNMA project loans and non-agency residential mortgages, which the fund owned and which lagged the performance of GNMA pass-through securities that comprise the Index.

The Fund's Investment Approach

The fund seeks to maximize total return, consisting of capital appreciation and current income. To pursue this goal, the fund invests at least 80% of its assets in Government National Mortgage Association ("GNMA" or "Ginnie Mae") securities. The remainder may be allocated to other mortgage-related securities, including U.S. government agency securities and privately issued mortgage-backed securities, as well as to asset-backed securities, U.S. Treasuries and repurchase agreements.

Credit Woes Weighed on Spread Sectors

Although the reporting period began in a generally favorable investment climate, a credit crisis originating in the sub-prime mortgage market intensified over the summer of 2007 and dampened investor sentiment for the remainder of the reporting period. The impact of the credit crunch was particularly severe in higher-yielding market sectors,

such as corporate bonds and non-agency mortgage-backed securities, which are known as “spread sectors” for their yield premiums over nominal U.S. Treasury securities. In addition, slumping housing markets and soaring food and energy prices sparked a sharp downturn in the U.S. economy, putting pressure on securities that tend to be sensitive to economic conditions. In contrast, U.S. Treasury securities and GNMA pass-through securities gained value over the reporting period as risk-averse investors flocked to the relatively safe haven provided by government-backed investments.

The Federal Reserve Board (the “Fed”) responded aggressively to the credit crisis and economic slowdown by injecting liquidity into the U.S. banking system and reducing short-term interest rates from 5.25% at the start of the reporting period to 2% at the end. As a result of these moves, yield differences generally widened along the bond market’s maturity range.

GNMA Pass-Through Securities Performed Well

Although GNMA pass-through mortgages underperformed comparable U.S. Treasury securities, they nonetheless benefited from a flight to quality in which investors shunned lower-rated investments and flocked to those with government guarantees as to the payment of interest and the timely repayment of principal.³ In addition, the fund’s interest rate strategies contributed positively to its relative results, as an emphasis on securities in the two- to five-year maturity range positioned the fund for widening yield differences along the maturity spectrum.

Unlike its benchmark, however, the fund typically holds securities other than GNMA pass-through mortgages (up to 20%) in an attempt to boost current income, participate in opportunities for capital appreciation, or diversifying GNMA pass-through exposure. Despite their high credit ratings, such investments were punished during the credit crisis. The fund received relatively disappointing contributions to its performance from GNMA project loans, which are issued to finance multi-family housing, and mortgage-backed securities from non-agency issuers, which were hurt by liquidity and credit concerns despite their “triple-A” ratings and fixed rates of interest.

A small position in commercial mortgage-backed securities also constrained returns relative to the benchmark. Finally, the fund sometimes

executes “TBA” trades, which are short-term “forward” transactions backed by collateral. TBA trades often are used as a cash management tool in anticipation of the delivery of actual GNMA securities after a trade is placed but before it is settled. As interbank lending dried up and short-term swap spreads spiked higher during the credit crisis, these TBA trades proved to be relatively costly.

Maintaining a Cautious Approach

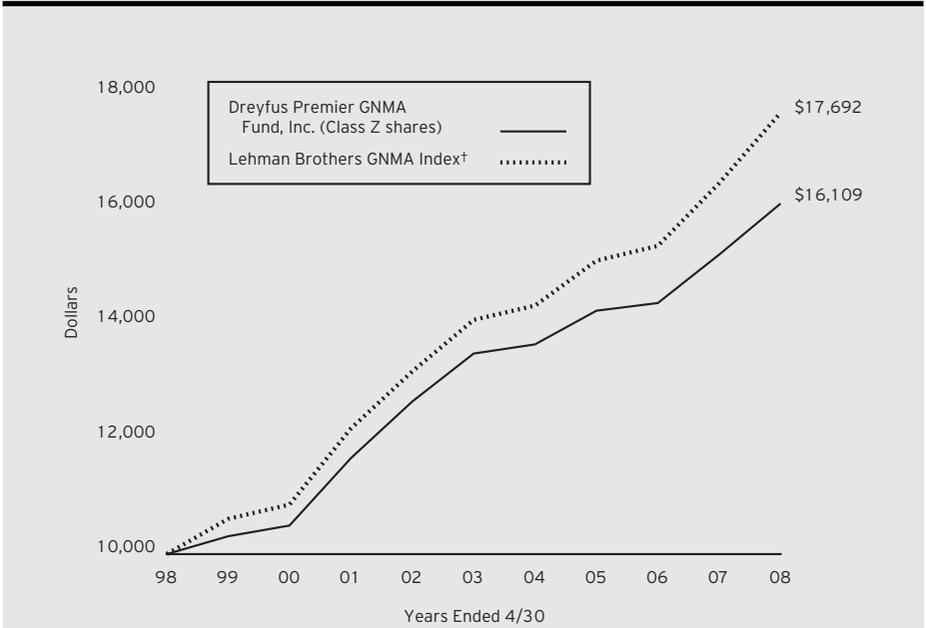
While fixed-income markets remained volatile well into 2008, we began to see signs of improvement after the Fed announced in mid-March that it would participate in a plan to prevent the insolvency of a major investment bank from damaging other financial institutions. Market liquidity appeared to ease through the end of the reporting period, and spread sectors rebounded, offsetting some of their earlier weakness.

In our judgment, most of the damage inflicted on banks by the sub-prime meltdown has been recognized, and most of the deleveraging of institutional portfolios has already occurred. However, the U.S. economy remains weak and additional rate cuts may be in the offing. Consequently, we have maintained the fund’s interest-rate strategies and have modestly increased the fund’s holdings of GNMA pass-through securities. In our view, these are prudent strategies until we see clearer signs of an eventual rebound.

May 15, 2008

- ¹ *Total return includes reinvestment of dividends and any capital gains paid, and does not take into consideration the maximum initial sales charge in the case of Class A shares, or the applicable contingent deferred sales charges imposed on redemptions in the case of Class B and Class C shares. Had these charges been reflected, returns would have been lower. Class Z is not subject to any initial or deferred sales charge. Past performance is no guarantee of future results. Share price, yield and investment return fluctuate such that upon redemption, fund shares may be worth more or less than their original cost. Return figures provided reflect the absorption of certain fund expenses by The Dreyfus Corporation pursuant to an agreement in effect through November 30, 2008, at which time it may be extended, modified or terminated. Had these expenses not been absorbed, the fund’s returns would have been lower.*
- ² *SOURCE: LIPPER INC. — Reflects reinvestment of dividends and, where applicable, capital gain distributions. The Lehman Brothers GNMA Index is an unmanaged, total return performance benchmark for the GNMA market consisting of 15- and 30-year fixed-rate securities backed by mortgage pools of the Government National Mortgage Association. Index returns do not reflect fees and expenses associated with operating a mutual fund.*
- ³ *Neither the market value of Ginnie Maes, nor the fund’s shares, carry this guarantee.*

FUND PERFORMANCE



Comparison of change in value of \$10,000 investment in Dreyfus Premier GNMA Fund, Inc. Class Z shares and the Lehman Brothers GNMA Index

† Source: Lipper Inc.

Past performance is not predictive of future performance.

The above graph compares a \$10,000 investment made in Class Z shares of Dreyfus Premier GNMA Fund, Inc. on 4/30/98 to a \$10,000 investment made in the Lehman Brothers GNMA Index (the "Index") on that date. All dividends and capital gain distributions are reinvested. Performance for Class A, Class B and Class C shares will vary from the performance of Class Z shares shown above due to differences in charges and expenses.

The fund invests primarily in Ginnie Maes and its performance shown in the line graph takes into account all applicable fees and expenses for Class Z shares. Unlike the fund, the Index is an unmanaged total return performance benchmark for the GNMA market, consisting of 15- and 30-year fixed-rate GNMA securities. All issues have at least one year to maturity and an outstanding par value of at least \$100 million. These factors can contribute to the Index potentially outperforming or underperforming the fund. Unlike a mutual fund, the Index is not subject to charges, fees and other expenses. Investors cannot invest directly in any index. Further information relating to fund performance, including expense reimbursements, if applicable, is contained in the Financial Highlights section of the prospectus and elsewhere in this report.

Average Annual Total Returns *as of 4/30/08*

	Inception Date	1 Year	5 Years	10 Years
Class Z shares		5.84%	3.61%	4.88%
Class A shares				
<i>with maximum sales charge (4.5%)</i>	5/3/07	0.85%^{†††}	2.62%^{†††}	4.38%^{†††}
<i>without sales charge</i>	5/3/07	5.62%^{†††}	3.56%^{†††}	4.86%^{†††}
Class B shares				
<i>with applicable redemption charge [†]</i>	5/3/07	1.00%^{†††}	3.10%^{†††}	4.86%^{†††,††††}
<i>without redemption</i>	5/3/07	5.00%^{†††}	3.44%^{†††}	4.86%^{†††,††††}
Class C shares				
<i>with applicable redemption charge ^{††}</i>	5/3/07	3.84%^{†††}	3.41%^{†††}	4.78%^{†††}
<i>without redemption</i>	5/3/07	4.84%^{†††}	3.41%^{†††}	4.78%^{†††}

Past performance is not predictive of future performance. The fund's performance shown in the graph and table does not reflect the deduction of taxes that a shareholder would pay on fund distributions or the redemption of fund shares.

[†] *The maximum contingent deferred sales charge for Class B shares is 4%. After six years Class B shares convert to Class A shares.*

^{††} *The maximum contingent deferred sales charge for Class C shares is 1% for shares redeemed within one year of the date of purchase.*

^{†††} *The total return performance figures presented for Class A, B and C shares of the fund reflect the performance of the fund's Class Z shares for periods prior to 05/03/07 (the inception date for Class A, B and C shares), adjusted to reflect the applicable sales load for that class and the applicable distribution/servicing fees thereafter.*

^{††††} *Assumes the conversion of Class B shares to Class A shares at the end of the sixth year following the date of purchase.*

UNDERSTANDING YOUR FUND'S EXPENSES (Unaudited)

As a mutual fund investor, you pay ongoing expenses, such as management fees and other expenses. Using the information below, you can estimate how these expenses affect your investment and compare them with the expenses of other funds. You also may pay one-time transaction expenses, including sales charges (loads) and redemption fees, which are not shown in this section and would have resulted in higher total expenses. For more information, see your fund's prospectus or talk to your financial adviser.

Review your fund's expenses

The table below shows the expenses you would have paid on a \$1,000 investment in Dreyfus Premier GNMA Fund, Inc. from November 1, 2007 to April 30, 2008. It also shows how much a \$1,000 investment would be worth at the close of the period, assuming actual returns and expenses.

Expenses and Value of a \$1,000 Investment

assuming actual returns for the six months ended April 30, 2008

	Class A	Class B	Class C	Class Z
Expenses paid per \$1,000 [†]	\$ 5.26	\$ 7.99	\$ 8.84	\$ 4.30
Ending value (after expenses)	\$1,035.00	\$1,032.70	\$1,031.20	\$1,036.00

COMPARING YOUR FUND'S EXPENSES

WITH THOSE OF OTHER FUNDS (Unaudited)

Using the SEC's method to compare expenses

The Securities and Exchange Commission (SEC) has established guidelines to help investors assess fund expenses. Per these guidelines, the table below shows your fund's expenses based on a \$1,000 investment, assuming a hypothetical 5% annualized return. You can use this information to compare the ongoing expenses (but not transaction expenses or total cost) of investing in the fund with those of other funds. All mutual fund shareholder reports will provide this information to help you make this comparison. Please note that you cannot use this information to estimate your actual ending account balance and expenses paid during the period.

Expenses and Value of a \$1,000 Investment

assuming a hypothetical 5% annualized return for the six months ended April 30, 2008

	Class A	Class B	Class C	Class Z
Expenses paid per \$1,000 [†]	\$ 5.22	\$ 7.92	\$ 8.77	\$ 4.27
Ending value (after expenses)	\$1,019.69	\$1,017.01	\$1,016.16	\$1,020.64

[†] Expenses are equal to the fund's annualized expense ratio of 1.04% for Class A, 1.58% for Class B, 1.75% for Class C and 0.85% for Class Z, multiplied by the average account value over the period, multiplied by 182/366 (to reflect the one-half year period).

STATEMENT OF INVESTMENTS

April 30, 2008

Bonds and Notes—105.8%	Coupon Rate (%)	Maturity Date	Principal Amount (\$)	Value (\$)
Asset-Backed Ctfs./				
Auto Receivables—5.7%				
Capital Auto Receivables Asset Trust, Ser. 2006-2, Cl. A3A	4.98	5/15/11	5,900,000	5,951,437
Capital Auto Receivables Asset Trust, Ser. 2006-1, Cl. A3	5.03	10/15/09	4,223,361	4,240,589
Daimler Chrysler Auto Trust, Ser. 2006-A, Cl. A3	5.00	5/8/10	5,401,116	5,435,538
Ford Credit Auto Owner Trust, Ser. 2005-B, Cl. A4	4.38	1/15/10	5,163,892	5,166,270
Ford Credit Auto Owner Trust, Ser. 2006-A, Cl. A3	5.05	3/15/10	1,395,499	1,403,958
Ford Credit Auto Owner Trust, Ser. 2007-A, Cl. A2A	5.42	4/15/10	6,111,268	6,163,010
Honda Auto Receivables Owner Trust, Ser. 2004-3, Cl. A4	3.28	2/18/10	2,861,310	2,862,030
USAA Auto Owner Trust, Ser. 2005-4, Cl. A3	4.83	4/15/10	2,490,721	2,500,181
USAA Auto Owner Trust, Ser. 2006-3, Cl. A3	5.36	2/15/11	1,387,274	1,400,854
USAA Auto Owner Trust, Ser. 2007-1, Cl. A2	5.40	4/15/10	1,085,121	1,092,877
WFS Financial Owner Trust, Ser. 2004-3, Cl. C	3.60	2/17/12	1,195,125	1,193,897
WFS Financial Owner Trust, Ser. 2005-3, Cl. A3A	4.25	6/17/10	976,185	978,252
WFS Financial Owner Trust, Ser. 2005-2, Cl. A4	4.39	11/19/12	1,455,424	1,460,724
WFS Financial Owner Trust, Ser. 2005-2, Cl. B	4.57	11/19/12	2,150,000	2,163,295
				42,012,912
Asset-Backed Ctfs./Credit Cards—.7%				
MBNA Credit Card Master Note Trust, Ser. 2003-A9, Cl. A9	2.85	2/15/11	5,250,000 ^a	5,244,465
Asset-Backed Ctfs./				
Home Equity Loans—2.8%				
Citicorp Residential Mortgage Securities, Ser. 2007-2, Cl. A1A	5.98	6/25/37	5,073,993 ^a	5,067,141
Citigroup Mortgage Loan Trust, Ser. 2007-AHL1, Cl. A2A	2.94	12/25/36	2,369,319 ^a	2,116,814

STATEMENT OF INVESTMENTS (continued)

Bonds and Notes (continued)	Coupon Rate (%)	Maturity Date	Principal Amount (\$)	Value (\$)
Asset-Backed Ctfs./				
Home Equity Loans (continued)				
Countrywide Asset-Backed Certificates, Ser. 2007-4, Cl. M5	6.92	9/25/37	875,000	119,842
Equivantage Home Equity Loan Trust, Ser. 1997-1, Cl. A4	7.78	3/25/28	623,159 ^a	501,028
Federal National Mortgage Association, Whole Loan, Ser. 2001-W1, Cl. AF6	6.90	7/25/31	2,001,194 ^a	1,996,642
GE Capital Mortgage Services, Ser. 1999-HE1, Cl. A7	6.27	4/25/29	687,342	685,744
JP Morgan Mortgage Acquisition, Ser. 2007-HE1, Cl. AF1	3.00	4/1/37	5,905,664 ^a	5,418,394
JP Morgan Mortgage Acquisition, Ser. 2007-CH1, Cl. MF2	5.84	11/25/36	2,325,000 ^a	919,687
Morgan Stanley ABS Capital I, Ser. 2007-HE2, Cl. A2A	2.94	1/25/37	3,514,564 ^a	3,392,303
				20,217,595
Commercial Mortgage				
Pass-Through Ctfs.—.5%				
Bayview Commercial Asset Trust, Ser. 2006-SP2, Cl. A	3.18	1/25/37	2,322,949 ^{a,b}	1,868,812
Goldman Sachs Mortgage Securities Corporation II, Ser. 2007-EOP, Cl. F	3.22	3/6/20	2,275,000 ^{a,b}	2,129,937
				3,998,749
Residential Mortgage				
Pass-Through Ctfs.—.3.1%				
Countrywide Home Loan Mortgage Pass-Through Trust, Ser. 2005-31, Cl. 2A1	5.50	1/25/36	1,151,319 ^a	1,118,540
First Horizon Alternative Mortgage Securities, Ser. 2004-FA1, Cl. 1A1	6.25	10/25/34	4,769,001	4,591,002
GSR Mortgage Loan Trust, Ser. 2004-12, Cl. 2A2	6.55	12/25/34	2,275,636 ^a	2,144,549
J.P. Morgan Alternative Loan Trust, Ser. 2007-A1, Cl. 1A2A	2.96	3/25/37	3,940,047 ^a	3,529,832

Bonds and Notes (continued)	Coupon Rate (%)	Maturity Date	Principal Amount (\$)	Value (\$)
Residential Mortgage Pass-Through Ctfs. (continued)				
JP Morgan Mortgage Trust, Ser. 2003-A1, Cl. 1A1	4.34	10/25/33	4,824,045 ^a	4,629,131
JP Morgan Mortgage Trust, Ser. 2005-A7 Cl. 1A2	4.98	10/25/35	1,925,000 ^a	1,846,302
JP Morgan Mortgage Trust, Ser. 2007-A1, Cl. 3A1	5.01	7/25/35	2,984,333 ^a	2,946,774
Nomura Asset Acceptance, Ser. 2005-WF1, Cl. 2A5	5.16	3/25/35	2,225,000 ^a	1,924,126
				22,730,256
U.S. Government Agencies/ Mortgage-Backed-92.1%				
Federal Home Loan Mortgage Corp. :				
5.00%, 3/1/20			983,296	991,612
6.00%, 8/1/22			3,396,402	3,501,254
Federal National Mortgage Association:				
6.00%			6,960,000 ^c	7,167,714
6.50%			39,700,000 ^c	41,083,307
6.00%, 7/1/22-9/1/22			6,955,218	7,169,937
Gtd. Pass-Through Ctfs., Ser. 2003-49, Cl. JE, 3.00%, 4/25/33			1,201,980	1,118,752
Pass-Through Ctfs., Ser. 2004-58, Cl. LJ, 5.00%, 7/25/34			3,948,047	4,021,294
Government National Mortgage Association I:				
6.00%			57,680,000 ^c	59,257,202
6.50%			37,345,000 ^c	38,751,263
5.00%, 5/15/33-10/15/35			56,393,222	55,986,855
5.50%, 6/15/20-6/15/36			139,587,152	141,841,852
6.00%, 10/15/19-4/15/38			107,718,003	110,923,978
6.50%, 10/15/08-8/15/37			8,903,806	9,248,602
7.00%, 11/15/22-12/15/22			14,706	15,772
7.50%, 2/15/17-5/15/26			6,257,344	6,733,855
8.00%, 8/15/21-12/15/22			2,686,911	2,933,152
8.50%, 12/15/16-12/15/22			2,383,796	2,618,181
9.00%, 1/15/19-12/15/22			2,004,268	2,198,671
9.50%, 3/15/18-1/15/25			477,472	532,876

STATEMENT OF INVESTMENTS (continued)

Bonds and Notes (continued)	Principal Amount (\$)	Value (\$)
U.S. Government Agencies/ Mortgage-Backed (continued)		
Government National Mortgage Association I (continued):		
Ser. 2004-43, Cl. A, 2.82%, 12/16/19	730,799	718,606
Ser. 2005-34, Cl. A, 3.96%, 9/16/21	2,962,072	2,954,075
Ser. 2005-50, Cl. A, 4.02%, 10/16/26	4,000,503	3,983,514
Ser. 2005-29, Cl. A, 4.02%, 7/16/27	2,972,933	2,950,500
Ser. 2005-42, Cl. A, 4.05%, 7/16/20	8,476,557	8,456,243
Ser. 2004-51, Cl. A, 4.15%, 2/16/18	351,663	351,091
Ser. 2005-67, Cl. A, 4.22%, 6/16/21	1,486,896	1,486,010
Ser. 2005-52, Cl. A, 4.29%, 1/16/30	2,664,651	2,660,979
Ser. 2005-59, Cl. A, 4.39%, 5/16/23	3,057,181	3,058,079
Ser. 2005-32, Cl. B, 4.39%, 8/16/30	3,887,767	3,887,799
Ser. 2005-87, Cl. A, 4.45%, 3/16/25	1,083,675	1,084,539
Ser. 2004-39, Cl. LC, 5.50%, 12/20/29	4,260,000	4,319,269
Government National Mortgage Association II:		
5.00%, 9/20/33-7/20/35	31,428,330	31,066,480
5.50%, 1/20/34-1/20/36	64,339,194 ^a	65,207,885
5.63%, 9/20/27-8/20/32	4,737,273 ^a	4,771,493
6.00%, 12/20/28-2/20/36	26,088,771	26,841,090
6.38%, 2/20/27-6/20/32	2,721,882 ^a	2,753,397
6.50%, 5/20/31-7/20/31	2,054,568	2,144,461
7.00%, 4/20/24-4/20/32	10,386,934	11,116,435
7.50%, 9/20/30	140,068	150,134
9.00%, 7/20/25	131,358	144,077
9.50%, 9/20/17-2/20/25	115,989	128,722
		676,331,007
U.S. Treasury Notes--9%		
4.00%, 6/15/09	594,000 ^d	607,551
4.50%, 2/28/11	815,000 ^e	861,290
4.63%, 7/31/12	4,560,000 ^e	4,865,666
		6,334,507
Total Bonds and Notes		
(cost \$776,881,060)		776,869,491

	Face Amount Covered by Contracts (\$)	Value (\$)
Options—0.3%		
Call Options		
3-Month Floor USD Libor-BBA Interest Rate, June 2009 @ 2.50	37,500,000	34,039
6-Month USD Libor-BBA, Swaption	22,000,000	2,026,930
Total Options (cost \$1,713,187)		2,060,969
	Principal Amount (\$)	Value (\$)
Short-Term Investments—12.3%		
U.S. Government Agencies—12.2%		
Federal Home Loan Bank, 1.85%, 5/19/08	55,000,000	54,949,200
Federal Home Loan Bank, 2.03%, 5/12/08	11,000,000	10,993,176
Federal Home Loan Bank, 2.05%, 5/21/08	9,000,000	8,989,750
Federal National Mortgage Association, 2.00%, 6/12/08	15,000,000	14,965,000
		89,897,126
U.S. Treasury Bills—0.1%		
1.03%, 5/15/08	400,000 ^d	399,850
Total Short-Term Investments (cost \$90,296,967)		90,296,976
	Shares	Value (\$)
Other Investment—1.4%		
Registered Investment Company;		
Dreyfus Institutional Preferred Plus Money Market Fund (cost \$10,630,000)	10,630,000 ^f	10,630,000

STATEMENT OF INVESTMENTS (continued)

Investment of Cash Collateral for Securities Loaned—.8%	Shares	Value (\$)
Registered Investment Company;		
Dreyfus Institutional Cash Advantage Fund (cost \$5,880,119)	5,880,119 ^f	5,880,119
Total Investments (cost \$885,401,333)	120.6%	885,737,555
Liabilities, Less Cash and Receivables	(20.6%)	(151,372,823)
Net Assets	100.0%	734,364,732

^a Variable rate security—interest rate subject to periodic change.

^b Securities exempt from registration under Rule 144A of the Securities Act of 1933. These securities may be resold in transactions exempt from registration, normally to qualified institutional buyers. At April 30, 2008, these securities amounted to \$3,998,749 or 0.5% of net assets.

^c Purchased on a forward commitment basis.

^d All or partially held by a broker as collateral for open financial futures positions.

^e All or a portion of these securities are on loan. At April 30, 2008, the total market value of the fund's securities on loan is \$5,726,955 and the total market value of the collateral held by the fund is \$5,880,119.

^f Investment in affiliated money market mutual fund.

Portfolio Summary (Unaudited)†

	Value (%)		Value (%)
U.S. Government & Agencies	93.0	Asset/Mortgage-Backed	12.8
Short-Term/ Money Market Investments	14.5	Options	.3
			120.6

† Based on net assets.

See notes to financial statements.

STATEMENT OF FINANCIAL FUTURES

April 30, 2008

	Contracts	Market Value Covered by Contracts (\$)	Expiration	Unrealized (Depreciation) at 4/30/2008 (\$)
Financial Futures Long				
U.S. Treasury 5 Year Notes	255	28,556,016	June 2008	(450,141)
U.S. Treasury 2 Year Notes	931	198,012,063	June 2008	(801,578)
Financial Futures Short				
U.S. Treasury 10 Year Notes	385	(44,587,813)	June 2008	(8,515)
				(1,260,234)

See notes to financial statements.

STATEMENT OF ASSETS AND LIABILITIES

April 30, 2008

	Cost	Value		
Assets (\$):				
Investments in securities—See Statement of Investments (including securities on loan, valued at \$5,726,955)—Note 1 (b):				
Unaffiliated issuers	868,891,214	869,227,436		
Affiliated issuers	16,510,119	16,510,119		
Cash		20,604		
Receivable for investment securities sold		7,567,361		
Dividends and interest receivable		3,192,113		
Unrealized appreciation on swap contracts—Note 4		373,562		
Receivable for futures variation margin—Note 4		288,906		
Receivable for shares of Common Stock subscribed		58,221		
Prepaid expenses		53,697		
		897,292,019		
Liabilities (\$):				
Due to The Dreyfus Corporation and affiliates—Note 3(c)		553,798		
Payable for open mortgage-backed dollar rolls—Note 4		145,501,377		
Payable for investment securities purchased		10,589,822		
Liability for securities on loan—Note 1 (b)		5,880,119		
Payable for shares of Common Stock redeemed		221,176		
Accrued expenses		180,995		
		162,927,287		
Net Assets (\$)		734,364,732		
Composition of Net Assets (\$):				
Paid-in capital		770,774,583		
Accumulated undistributed investment income—net		2,641,111		
Accumulated net realized gain (loss) on investments		(38,500,512)		
Accumulated net unrealized appreciation (depreciation) on investments [including (\$1,260,234) net unrealized (depreciation) on financial futures]		(550,450)		
Net Assets (\$)		734,364,732		
Net Asset Value Per Share				
	Class A	Class B	Class C	Class Z
Net Assets (\$)	55,456,965	12,041,028	9,380,361	657,486,378
Shares Outstanding	3,814,679	828,946	645,564	45,185,327
Net Asset Value Per Share (\$)	14.54	14.53	14.53	14.55

See notes to financial statements.

STATEMENT OF OPERATIONS

Year Ended April 30, 2008

Investment Income (\$):

Income:

Interest	38,891,631
Dividends;	
Affiliated issuers	261,625
Income from securities lending	9,111

Total Income **39,162,367**

Expenses:

Management fee—Note 3(a)	4,492,893
Shareholder servicing costs—Note 3(c)	939,750
Service plan and prospectus fees—Note 3(b)	898,026
Distribution fees—Note 3(b)	143,980
Custodian fees—Note 3(c)	131,434
Professional fees	84,534
Directors' fees and expenses—Note 3(d)	71,973
Registration fees	71,032
Prospectus and shareholders' reports	39,486
Loan commitment fees	1,354
Interest expense—Note 2	87
Miscellaneous	158,142

Total Expenses **7,032,691**

Less—reduction in management fee
 due to undertaking—Note 3(a) (341,961)

Less—reduction in fees due to
 earnings credits—Note 1(b) (45,557)

Net Expenses **6,645,173**

Investment Income—Net **32,517,194**

Realized and Unrealized Gain (Loss) on Investments—Note 4 (\$):

Net realized gain (loss) on investments	1,788,411
Net realized gain (loss) on options transactions	844,897
Net realized gain (loss) on financial futures	1,825,052
Net realized gain (loss) on swap transactions	607,680

Net Realized Gain (Loss) **5,066,040**

Net unrealized appreciation (depreciation) on investments [including
 (\$1,321,175) net unrealized (depreciation) on financial futures] 4,413,245

Net Realized and Unrealized Gain (Loss) on Investments **9,479,285**

Net Increase in Net Assets Resulting from Operations **41,996,479**

See notes to financial statements.

STATEMENT OF CHANGES IN NET ASSETS

	Year Ended April 30,	
	2008 ^a	2007
Operations (\$):		
Investment income—net	32,517,194	31,566,079
Net realized gain (loss) on investments	5,066,040	(1,175,924)
Net unrealized appreciation (depreciation) on investments	4,413,245	11,064,862
Net Increase (Decrease) in Net Assets Resulting from Operations	41,996,479	41,455,017
Dividends to Shareholders from (\$):		
Investment income—net:		
Class A Shares	(2,091,091)	—
Class B Shares	(550,886)	—
Class C Shares	(295,309)	—
Class Z Shares	(30,277,802)	(32,674,971)
Total Dividends	(33,215,088)	(32,674,971)
Capital Stock Transactions (\$):		
Net proceeds from shares sold:		
Class A Shares	14,618,552	—
Class B Shares	848,841	—
Class C Shares	1,984,922	—
Class Z Shares	14,875,097	20,927,239
Net assets received in connection with reorganization—Note 1	83,027,745	—
Dividends reinvested:		
Class A Shares	1,531,255	—
Class B Shares	410,831	—
Class C Shares	162,917	—
Class Z Shares	25,062,977	26,910,689
Cost of shares redeemed:		
Class A Shares	(14,809,919)	—
Class B Shares	(9,375,473)	—
Class C Shares	(2,632,571)	—
Class Z Shares	(87,402,029)	(124,882,339)
Increase (Decrease) in Net Assets from Capital Stock Transactions	28,303,145	(77,044,411)
Total Increase (Decrease) in Net Assets	37,084,536	(68,264,365)
Net Assets (\$):		
Beginning of Period	697,280,196	765,544,561
End of Period	734,364,732	697,280,196
Undistributed investment income—net	2,641,111	1,851,213

	Year Ended April 30,	
	2008 ^a	2007
Capital Share Transactions:		
Class A^b		
Shares sold	1,015,164	-
Shares issued in connection with reorganization—Note 1	3,725,384	-
Shares issued for dividends reinvested	106,640	-
Shares redeemed	(1,032,509)	-
Net Increase (Decrease) in Shares Outstanding	3,814,679	-
Class B^b		
Shares sold	59,638	-
Shares issued in connection with reorganization—Note 1	1,394,507	-
Shares issued for dividends reinvested	28,683	-
Shares redeemed	(653,882)	-
Net Increase (Decrease) in Shares Outstanding	828,946	-
Class C		
Shares sold	135,819	-
Shares issued in connection with reorganization—Note 1	682,110	-
Shares issued for dividends reinvested	11,351	-
Shares redeemed	(183,716)	-
Net Increase (Decrease) in Shares Outstanding	645,564	-
Class Z		
Shares sold	1,033,417	1,465,918
Shares issued for dividends reinvested	1,745,591	1,890,399
Shares redeemed	(6,082,257)	(8,758,328)
Net Increase (Decrease) in Shares Outstanding	(3,303,249)	(5,402,011)

^a As of the close of business on May 3, 2007, the fund began to offer four classes of shares. The existing shares were redesignated Class Z shares and the fund added Class A, Class B and Class C shares.

^b During the period ended April 30, 2008, 25,416 Class B shares representing \$376,159, were automatically converted to 25,416 Class A shares.

See notes to financial statements.

FINANCIAL HIGHLIGHTS

The following tables describe the performance for each share class for the fiscal periods indicated. All information (except portfolio turnover rate) reflects financial results for a single fund share. Total return shows how much your investment in the fund would have increased (or decreased) during each period, assuming you had reinvested all dividends and distributions. These figures have been derived from the fund's financial statements.

	Year Ended April 30, 2008 ^a		
	Class A Shares	Class B Shares	Class C Shares
Per Share Data (\$):			
Net asset value, beginning of period	14.31	14.31	14.31
Investment Operations:			
Investment income-net ^b	.60	.53	.49
Net realized and unrealized gain (loss) on investments	.20	.19	.21
Total from Investment Operations	.80	.72	.70
Distributions:			
Dividends from investment income-net	(.57)	(.50)	(.48)
Net asset value, end of period	14.54	14.53	14.53
Total Return (%)^{c,d}	5.73	5.12	4.96
Ratios/Supplemental Data (%):			
Ratio of total expenses to average net assets ^c	1.09	1.63	1.81
Ratio of net expenses to average net assets ^c	1.04	1.58	1.75
Ratio of net investment income to average net assets ^c	4.17	3.65	3.46
Portfolio Turnover Rate ^e	221.12	221.12	221.12
Net Assets, end of period (\$ x 1,000)	55,457	12,041	9,380

^a From May 3, 2007 (commencement of initial offering) to April 30, 2008.

^b Based on average shares outstanding at each month end.

^c Annualized.

^d Exclusive of sales charge.

^e The portfolio turnover rate excluding mortgage dollar roll transactions for the period ended April 30, 2008, was 60.06%.

See notes to financial statements.

Class Z Shares	Year Ended April 30,				
	2008	2007	2006	2005	2004
Per Share Data (\$):					
Net asset value, beginning of period	14.38	14.21	14.67	14.66	15.14
Investment Operations:					
Investment income—net ^a	.63	.62	.53	.51	.53
Net realized and unrealized gain (loss) on investments	.19	.19	(.39)	.11	(.35)
Total from Investment Operations	.82	.81	.14	.62	.18
Distributions:					
Dividends from investment income—net	(.65)	(.64)	(.60)	(.61)	(.66)
Net asset value, end of period	14.55	14.38	14.21	14.67	14.66
Total Return (%)	5.84	5.90	.89	4.32	1.20
Ratios/Supplemental Data (%):					
Ratio of total expenses to average net assets	.90	.89	.88	.87	.90
Ratio of net expenses to average net assets	.85	.89	.79	.87	.90
Ratio of net investment income to average net assets	4.38	4.33	3.68	3.45	3.58
Portfolio Turnover Rate ^b	221.12	271.49	393.65	468.97	466.25
Net Assets, end of period (\$ x 1,000)	657,486	697,280	765,545	871,414	949,447

^a Based on average shares outstanding at each month end.

^b The portfolio turnover rates excluding mortgage dollar roll transactions for the periods ended April 30, 2008, April 30, 2007, April 30, 2006, April 30, 2005 and April 30, 2004, were 60.06%, 95.55%, 108.38%, 127.81% and 207.20%, respectively.

See notes to financial statements.

NOTE 1—Significant Accounting Policies:

Dreyfus Premier GNMA Fund, Inc. (the “fund”) is registered under the Investment Company Act of 1940, as amended (the “Act”), as a diversified open-end management investment company. The fund’s investment objective is to seek to maximize total return consisting of capital appreciation and current income. The Dreyfus Corporation (the “Manager” or “Dreyfus”) serves as the fund’s investment adviser.

On July 1, 2007, Mellon Financial Corporation and The Bank of New York Company, Inc. merged, forming The Bank of New York Mellon Corporation (“BNY Mellon”). As part of this transaction, Dreyfus became a wholly-owned subsidiary of BNY Mellon.

On November 8, 2006, the fund’s Board of Directors approved a conditional change of the fund’s name from “Dreyfus GNMA Fund, Inc.” to “Dreyfus Premier GNMA Fund, Inc.” coinciding with the conditional implementation for the fund of a multiple class structure if shareholders of the Dreyfus Premier GNMA Fund (the “Acquired Fund”) approved a proposal to merge into the fund. On May 3, 2007, the fund implemented this multiple class structure, corresponding with the consummation of the merger. Along with the effectiveness of the name change, outstanding shares were classified as Class Z shares. The fund also began offering Class A, Class B (on a limited basis) and Class C shares on that date.

As of the close of business on May 3, 2007, the Acquired Fund exchanged all of its assets, subject to liabilities, for corresponding Class A, Class B, and Class C shares of the fund of equal value. Such shares were distributed pro rata to stockholders of the Acquired Fund so that each stockholder received a number of Class A, Class B, and Class C shares of the fund equal to the aggregate net asset value of the stockholder’s Acquired Fund’s shares. The net asset value of the fund’s Class A, Class B and Class C shares at the close of business on May 3, 2007, after the reorganization, was \$14.31 per share, and a total of 3,725,384

Class A, 1,394,507 Class B and 682,110 Class C shares representing net assets of \$83,027,745 (including \$970,391 net unrealized depreciation on investments) were issued to the Acquired Fund's stockholders in the exchange. The exchange was a tax-free event to stockholders.

MBSC Securities Corporation (the "Distributor"), a wholly-owned subsidiary of the Manager, is the distributor of the fund's shares. The fund is authorized to issue an unlimited number of \$.001 par value shares of Beneficial Interest in each of the following classes of shares: Class A, Class B, Class C and Class Z. Class A shares are subject to a sales charge imposed at the time of purchase. Class B shares are subject to a contingent deferred sales charge ("CDSC") imposed on Class B share redemptions made within six years of purchase and automatically convert to Class A shares after six years. The fund does not offer Class B shares, except in connection with dividend reinvestment and permitted exchanges of Class B shares. Class C shares are subject to a CDSC imposed on Class C shares redeemed within one year of purchase. Class Z shares are sold at net asset value per share. Class Z shares generally are not available for new accounts. Other differences between the classes include the services offered to and the expenses borne by each class, the allocation of certain transfer agency costs and certain voting rights. Income, expenses (other than expenses attributable to a specific class) and realized and unrealized gains or losses on investments are allocated to each class of shares based on its relative net assets.

The fund's financial statements are prepared in accordance with U.S. generally accepted accounting principles, which may require the use of management estimates and assumptions. Actual results could differ from those estimates.

The fund enters into contracts that contain a variety of indemnifications. The fund's maximum exposure under these arrangements is unknown. The fund does not anticipate recognizing any loss related to these arrangements.

(a) Portfolio valuation: Investments in securities (excluding short-term investments (other than U.S. Treasury Bills), financial futures and options transactions) are valued each business day by an independent pricing service (the “Service”) approved by the Board of Directors. Investments for which quoted bid prices are readily available and are representative of the bid side of the market in the judgment of the Service are valued at the mean between the quoted bid prices (as obtained by the Service from dealers in such securities) and asked prices (as calculated by the Service based upon its evaluation of the market for such securities). Other investments (which constitute a majority of the portfolio securities) are valued as determined by the Service, based on methods which include consideration of: yields or prices of securities of comparable quality, coupon, maturity and type; indications as to values from dealers; and general market conditions. Securities for which there are no such valuations are valued at fair value as determined in good faith under the direction of the Board of Directors. Restricted securities, as well as securities or other assets for which recent market quotations are not readily available, that are not valued by a pricing service approved by the Board of Directors, or are determined by the fund not to reflect accurately fair value (such as when an event occurs after the close of the exchange on which the security is principally traded and that is determined by the fund to have changed the value of the security), are valued at fair value as determined in good faith under the direction of the Board of Directors. The factors that may be considered when fair valuing a security include fundamental analytical data, the nature and duration of restrictions on disposition, an evaluation of the forces that influence the market in which the securities are purchased and sold and public trading in similar securities of the issuer or comparable issuers. Short-term investments, excluding U.S. Treasury Bills, are carried at amortized cost, which approximates value. Investments in registered investment companies are valued at their net asset value. Financial futures and options, which are traded on an exchange, are valued at the last sales price on the securities exchange on which such securities are primarily traded or at the last sales price on the national

securities market on each business day. Options traded over-the-counter are priced at the mean between the bid and asked price.

The Financial Accounting Standards Board (“FASB”) released Statement of Financial Accounting Standards No. 157 “Fair Value Measurements” (“FAS 157”). FAS 157 establishes an authoritative definition of fair value, sets out a framework for measuring fair value, and requires additional disclosures about fair-value measurements. The application of FAS 157 is required for fiscal years beginning after November 15, 2007 and interim periods within those fiscal years. Management does not believe that the application of this standard will have a material impact on the financial statements of the fund.

(b) Securities transactions and investment income: Securities transactions are recorded on a trade date basis. Realized gains and losses from securities transactions are recorded on the identified cost basis. Interest income including, where applicable, accretion of discount and amortization of premium on investments is recognized on the accrual basis.

The fund has arrangements with the custodian and cash management banks whereby the fund may receive earnings credits when positive cash balances are maintained, which are used to offset custody and cash management fees. For financial reporting purposes, the fund includes net earnings credits as an expense offset in the Statement of Operations.

Pursuant to a securities lending agreement with Mellon Bank, N.A. (“Mellon Bank”), a subsidiary of BNY Mellon and a Dreyfus affiliate, the fund may lend securities to qualified institutions. It is the fund’s policy, that at origination, all loans are secured by collateral of at least 102% of the value of U.S. securities loaned and 105% of the value of foreign securities loaned. Collateral equivalent to at least 100% of the market value of securities on loan is maintained at all times. Collateral is either in the form of cash, which can be invested in certain money market mutual funds managed by Dreyfus, U.S Government and Agency securities or Letters of Credit. The fund is entitled to receive all income on securities loaned, in addition to income earned as a result of the lend-

ing transaction. Although each security loaned is fully collateralized, the fund bears the risk of delay in recovery of, or loss of rights in, the securities loaned should a borrower fail to return the securities in a timely manner. During the period ended April 30, 2008, Mellon Bank earned \$4,906 from lending fund portfolio securities, pursuant to the securities lending agreement.

(c) Affiliated issuers: Investments in other investment companies advised by the Manager are defined as “affiliated” in the Act.

(d) Dividends to shareholders: Dividends are recorded on the ex-dividend date. Dividends from investment income-net are declared and paid monthly. Dividends from net realized capital gains, if any, are normally declared and paid annually, but the fund may make distributions on a more frequent basis to comply with the distribution requirements of the Internal Revenue Code of 1986, as amended (the “Code”). To the extent that net realized capital gains can be offset by capital loss carryovers, it is the policy of the fund not to distribute such gains. Income and capital gain distributions are determined in accordance with income tax regulations, which may differ from U.S. generally accepted accounting principles.

On April 30, 2008, the Board of Directors declared a cash dividend of \$.045 for Class A, \$.037 for Class B, \$.038 for Class C and \$.050 for Class Z shares per share from undistributed investment income-net, payable on May 1, 2008 (ex-dividend date) to shareholders of record as of the close of business on April 30, 2008.

(e) Federal income taxes: It is the policy of the fund to continue to qualify as a regulated investment company, if such qualification is in the best interests of its shareholders, by complying with the applicable provisions of the Code, and to make distributions of taxable income sufficient to relieve it from substantially all federal income and excise taxes.

During the current year, the fund adopted FASB Interpretation No. 48 “Accounting for Uncertainty in Income Taxes” (“FIN 48”). FIN 48 provides guidance for how uncertain tax positions should be recog-

nized, measured, presented and disclosed in the financial statements. FIN 48 requires the evaluation of tax positions taken or expected to be taken in the course of preparing the fund's tax returns to determine whether the tax positions are "more-likely-than-not" of being sustained by the applicable tax authority. Tax positions not deemed to meet the more-likely-than-not threshold would be recorded as a tax expense in the current year. The adoption of FIN 48 had no impact on the operations of the fund for the period ended April 30, 2008.

Each of the tax years in the three-year period ended April 30, 2008, remains subject to examination by the Internal Revenue Service and state taxing authorities.

At April 30, 2008, the components of accumulated earnings on a tax basis were as follows: undistributed ordinary income \$2,641,111, accumulated capital losses \$37,072,745 and unrealized appreciation \$257,269. In addition, the fund had \$2,235,486 of capital losses realized after October 31, 2007 which were deferred for tax purposes to the first day of the following fiscal year.

The accumulated capital loss carryover is available to be applied against future net securities profits, if any, realized subsequent to April 30, 2008. If not applied, \$1,913,534 of the carryover expires in fiscal 2009, \$1,244,345 expires in fiscal 2011, \$7,022,535 expires in fiscal 2012, \$5,177,376 expires in fiscal 2013, \$16,760,214 expires in fiscal 2014 and \$4,954,741 expires in fiscal 2015.

The tax character of distributions paid to shareholders during the fiscal periods ended April 30, 2008 and April 30, 2007, were as follows: ordinary income \$33,215,088 and \$32,674,971, respectively.

During the period ended April 30, 2008, as a result of permanent book to tax differences, primarily due to the tax treatment for pay-down gains and losses on mortgage backed securities, amortization of premiums, expiration of capital loss carryovers and capital loss carryovers from the fund merger, the fund increased accumulated undis-

tributed investment income-net by \$562,836, decreased accumulated net realized gain (loss) on investments by \$174,354 and decreased paid-in capital by \$388,482. Net assets and net asset value per share were not affected by this reclassification.

NOTE 2—Bank Lines of Credit:

The fund may borrow up to \$20 million for leveraging purposes under a short-term unsecured line of credit and participates with other Dreyfus-managed funds in a \$100 million unsecured line of credit primarily to be utilized for temporary or emergency purposes, including the financing of redemptions. Interest is charged to the fund based on prevailing market rates in effect at the time of borrowing.

The average daily amount of borrowings outstanding under the line of credit during the period ended April 30, 2008 was approximately \$1,500, with a related weighted average annualized interest rate of 5.88%.

NOTE 3—Management Fee and Other Transactions With Affiliates:

(a) Pursuant to a Management Agreement (“Agreement”) with the Manager, the management fee is computed at the annual rate of .60% of the value of the fund’s average daily net assets and is payable monthly. The Agreement provides that if in any full year the aggregate expenses of Class Z shares, exclusive of taxes, brokerage fees, interest on borrowings and extraordinary expenses, exceed 1½% of the value of Class Z shares average daily net assets, the fund may deduct from payments to be made to the Manager, or the Manager will bear, of such excess expense with respect to Class Z shares. The Manager had contractually agreed from May 1, 2007 through April 30, 2008 to waive receipt of its fees and/or assume the expenses of the fund so that total annual fund operating expenses, excluding expenses as noted above, do not exceed 1.15% for Class A, 1.65% for Class B and 1.87% for Class C shares. Subsequently, the Manager agreed, until November 30, 2008, to waive receipt of a portion of the

fund's management fee, in the amount of .05% of the value of the fund's average daily net asset (which would apply equally to Class A, B, C and Z shares). The reduction in management fee, pursuant to the undertaking to waive a portion of the fund's management fee, amounted to \$341,961 during the period ended April 30, 2008.

(b) Under the Distribution Plan (the "Plan") adopted pursuant to Rule 12b-1 under the Act, Class B and Class C shares pay the Distributor for distributing their shares at an annual rate of .50% of the value of the average daily net assets of Class B shares and .75% of the value of the average daily net assets of Class C shares. During the period ended April 30, 2008, Class B and Class C shares were charged \$77,289 and \$66,691, respectively, pursuant to the Plan.

Under the Service Plan (the "Plan") adopted pursuant to Rule 12b-1 under the Act, Class Z shares reimburse the Distributor for distributing Class Z's shares, for servicing shareholder accounts and for advertising and marketing relating to Class Z shares. The Plan provides for reimbursement to be made at an aggregate annual rate not to exceed .20% of the value of the fund's average daily net assets. The Distributor determines the amounts, if any, to be paid to Service Agents (a securities dealer, financial institution or other industry professional) to which it will make payments and the basis on which such payments are made. The Plan also separately provides for the fund to bear the costs of preparing, printing and distributing certain of the fund's prospectuses and statements of additional information and costs associated with implementing and operating the Plan, not to exceed the greater of \$100,000 or .005% of the value of the fund's average daily net assets for any full fiscal year. During the period ended April 30, 2008, Class Z was charged \$898,026 pursuant to the Plan.

(c) Under the Shareholder Services Plan, Class A, Class B and Class C pay the Distributor at an annual rate of .25% of the value of the average daily net assets of Class A, Class B and Class C shares, for the pro-

vision of certain services. The services provided may include personal services relating to shareholder accounts, such as answering shareholder inquiries regarding the fund and providing reports and other information, and services related to the maintenance of shareholder accounts. The Distributor may make payments to Service Agents (a securities dealer, financial institution or other industry professional) in respect of these services. The Distributor determines the amounts to be paid to Service Agents. During the period ended April 30, 2008, Class A, Class B and Class shares were charged \$131,062, \$38,644 and \$22,230, respectively, pursuant to the Shareholder Services Plan.

The fund compensates Dreyfus Transfer, Inc., a wholly-owned subsidiary of the Manager, under a transfer agency agreement for providing personnel and facilities to perform transfer agency services for the fund. During the period ended April 30, 2008, the fund was charged \$493,689 pursuant to the transfer agency agreement.

The fund compensates The Bank of New York, a subsidiary of BNY Mellon and a Dreyfus affiliate, under a cash management agreement for performing cash management services related to fund subscriptions and redemptions. During the period ended April 30, 2008, the fund was charged \$38,761 pursuant to the cash management agreement.

The fund compensates Mellon Bank under a custody agreement for providing custodial services for the fund. During the period ended April 30, 2008, the fund was charged \$131,434 pursuant to the custody agreement.

During the period ended April 30, 2008, the fund was charged \$5,629 for services performed by the Chief Compliance Officer.

The components of "Due to The Dreyfus Corporation and affiliates" in the Statement of Assets and Liabilities consist of: management fees \$412,566, Rule 12b-1 distribution plan fees \$86,639, shareholder services plan fees \$15,886, chief compliance officer fees \$1,880 and transfer agency per account fees \$66,736, which are offset against an expense reimbursement currently in effect in the amount of \$29,909.

(d) Each Board member also serves as a Board member of other funds within the Dreyfus complex. Annual retainer fees and attendance fees are allocated to each fund based on net assets.

NOTE 4–Securities Transactions:

The aggregate amount of purchases and sales (including paydowns) of investment securities, excluding short-term securities, financial futures and options, during the period ended April 30, 2008, amounted to \$1,827,234,138 and \$1,892,808,021, respectively, of which \$1,330,931,016 in purchases and \$1,331,857,397 in sales were from mortgage dollar roll transactions.

A mortgage dollar roll transaction involves a sale by the fund of mortgage related securities that it holds with an agreement by the fund to repurchase similar securities at an agreed upon price and date. The securities purchased will bear the same interest rate as those sold, but generally will be collateralized by pools of mortgages with different prepayment histories than those securities sold.

The fund may purchase and write (sell) call/put options in order to gain exposure to or protect against changes in the market.

As a writer of call options, the fund receives a premium at the outset and then bears the market risk of unfavorable changes in the price of the financial instruments underlying the options. Generally, the fund would incur a gain, to the extent of the premium, if the price of the underlying financial instrument decreases between the date the option is written and the date on which the option is terminated. Generally, the fund would realize a loss if the price of the financial instrument increases between those dates.

As a writer of put options, the fund receives a premium at the outset and then bears the market risk of unfavorable changes in the price of the financial instruments underlying the options. Generally, the fund would incur a gain, to the extent of the premium, if the price of the underlying financial instrument increases between the date the option

is written and the date on which the option is terminated. Generally, the fund would realize a loss if the price of the financial instrument decreases between those dates.

In addition, the following table summarizes the fund's call/put options written during the period ended April 30, 2008:

Options Written:	Face Amount Covered by Contracts (\$)	Premiums Received (\$)	Options Terminated	
			Cost (\$)	Net Realized Gain (Loss) (\$)
Contracts outstanding April 30, 2007	-	-	-	-
Contracts written	151,800,000	480,469		
Contracts Terminated:				
Closed	151,800,000	480,469	152,312	328,157
Contracts outstanding April 30, 2008	-	-		

The fund may enter into swap agreements to exchange the interest rate on, or return generated by, one nominal instrument for the return generated by another nominal instrument.

The fund accrues for the interim payments on swap contracts on a daily basis, with the net amount recorded within unrealized appreciation (depreciation) on swap contracts in the Statement of Assets and Liabilities. Once the interim payments are settled in cash, the net amount is recorded as realized gain (loss) on swaps, in addition to realized gain (loss) recorded upon the termination of swap contracts in the Statement of Operations. Fluctuations in the value of swap contracts are recorded as a component of net change in unrealized appreciation (depreciation) on investments.

Credit default swaps involve commitments to pay a fixed interest rate in exchange for payment if a credit event affecting a third party (the referenced company) occurs. Credit events may include a failure to pay interest or principal, bankruptcy, or restructuring. For those credit default swaps in which the fund is receiving a fixed rate, the fund is providing credit protection on the underlying instrument. The maximum payouts

for these contracts are limited to the notional amount of each swap. At April 30, 2008, the fund did not have any open credit default swaps.

The fund may enter into interest rate swaps which involve the exchange of commitments to pay and receive interest based on a notional principal amount. The following summarizes open interest rate swaps entered into by the fund at April 30, 2008:

Notional Amount (\$)	Reference Entity	Counterparty	(Pay)/Receive Fixed Rate (%)	Expiration	Unrealized Appreciation (\$)
33,000,000	IRS REC FXD 3.7925%	Citigroup Global Markets	3.79	1/15/2013	373,562

Risks may arise upon entering into these agreements from the potential inability of the counterparties to meet the terms of the agreement and are generally limited to the amount of net payments to be received, if any, at the date of default.

The fund may invest in financial futures contracts in order to gain exposure to or protect against changes in the market. The fund is exposed to market risk as a result of changes in the value of the underlying financial instruments. Investments in financial futures require the fund to “mark to market” on a daily basis, which reflects the change in the market value of the contracts at the close of each day’s trading. Accordingly, variation margin payments are received or made to reflect daily unrealized gains or losses. When the contracts are closed, the fund recognizes a realized gain or loss. These investments require initial margin deposits with a broker, which consist of cash or cash equivalents. The amount of these deposits is determined by the exchange or Board of Trade on which the contract is traded and is subject to change. Contracts open at April 30, 2008, are set forth in the Statement of Financial Futures.

At April 30, 2008, the cost of investments for federal income tax purposes was \$885,547,787; accordingly, accumulated net unrealized appreciation on investments was \$189,768, consisting of \$7,607,404 gross unrealized appreciation and \$7,417,636 gross unrealized depreciation.

NOTE 5—Reverse Repurchase Agreements:

The fund may enter into reverse repurchase agreements with banks, brokers or dealers. This form of borrowing involves the transfer by the fund of an underlying debt instrument in return for cash proceeds based on a percentage of the value of the security. The fund retains the right to receive interest and principal payments on the security. At an agreed upon future date, the fund repurchases the security at principal plus accrued interest. Reverse repurchase agreements may subject the fund to interest rate risk and counter party credit risk. During the period ended April 30, 2008, the fund did not enter into reverse repurchase agreements.

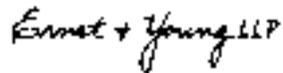
REPORT OF INDEPENDENT REGISTERED
PUBLIC ACCOUNTING FIRM

**Shareholders and Board of Directors
Dreyfus Premier GNMA Fund, Inc.**

We have audited the accompanying statement of assets and liabilities of Dreyfus Premier GNMA Fund, Inc., including the statements of investments and financial futures, as of April 30, 2008, and the related statement of operations for the year then ended, the statement of changes in net assets for each of the two years in the period then ended, and financial highlights for each of the periods indicated therein. These financial statements and financial highlights are the responsibility of the Fund's management. Our responsibility is to express an opinion on these financial statements and financial highlights based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements and financial highlights are free of material misstatement. We were not engaged to perform an audit of the Fund's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Fund's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements and financial highlights, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our procedures included confirmation of securities owned as of April 30, 2008 by correspondence with the custodian and others. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements and financial highlights referred to above present fairly, in all material respects, the financial position of Dreyfus Premier GNMA Fund, Inc. at April 30, 2008, the results of its operations for the year then ended, the changes in its net assets for each of the two years in the period then ended, and the financial highlights for each of the indicated periods, in conformity with U.S. generally accepted accounting principles.

The signature of Ernst & Young LLP is written in a cursive, handwritten style in black ink.

New York, New York
June 24, 2008

IMPORTANT TAX INFORMATION (Unaudited)

For federal tax purposes the fund hereby designates 100.00% of ordinary income dividends paid during the fiscal year ended April 30, 2008 as qualifying “interest related dividends.”

BOARD MEMBERS INFORMATION (Unaudited)

Joseph S. DiMartino (64) **Chairman of the Board (1995)**

Principal Occupation During Past 5 Years:

- Corporate Director and Trustee

Other Board Memberships and Affiliations:

- The Muscular Dystrophy Association, Director
- Century Business Services, Inc., a provider of outsourcing functions for small and medium size companies, Director
- The Newark Group, a provider of a national market of paper recovery facilities, paperboard mills and paperboard converting plants, Director
- Sunair Services Corporation, a provider of certain outdoor-related services to homes and businesses, Director

No. of Portfolios for which Board Member Serves: 163

David W. Burke (72) **Board Member (1994)**

Principal Occupation During Past 5 Years:

- Corporate Director and Trustee.

Other Board Memberships and Affiliations:

- John F. Kennedy Library Foundation, Director

No. of Portfolios for which Board Member Serves: 85

William Hodding Carter III (73) **Board Member (2006)**

Principal Occupation During Past 5 Years:

- Professor of Leadership & Public Policy, University of North Carolina, Chapel Hill (January 1, 2006-present)
- President and Chief Executive Officer of the John S. and James L. Knight Foundation (February 1, 1998-February 1, 2006)

Other Board Memberships and Affiliations:

- The Century Foundation, a tax-exempt research foundation, Emeritus Director
- The Enterprise Corporation of the Delta, a non-profit economic development organization, Director

No. of Portfolios for which Board Member Serves: 26

Gordon J. Davis (66) **Board Member (1995)**

Principal Occupation During Past 5 Years:

- Partner in the law firm of Dewey & LeBoeuf LLP
- President, Lincoln Center for the Performing Arts, Inc. (2001)

Other Board Memberships and Affiliations:

- Consolidated Edison, Inc., a utility company, Director
- Phoenix Companies, Inc., a life insurance company, Director
- Board Member/Trustee for several not-for-profit groups

No. of Portfolios for which Board Member Serves: 35

Joni Evans (66)
Board Member (1985)

Principal Occupation During Past 5 Years:

- Chief Executive Officer, www.wowOwow.com, an online community dedicated to women's conversations and publications
- Principal, Joni Evans Ltd.
- Senior Vice President of the William Morris Agency (2005)

No. of Portfolios for which Board Member Serves: 26

Ehud Houminer (67)
Board Member (2006)

Principal Occupation During Past 5 Years:

- Executive-in-Residence at the Columbia Business School, Columbia University

Other Board Memberships and Affiliations:

- Avnet Inc., an electronics distributor, Director
- International Advisory Board to the MBA Program School of Management, Ben Gurion University, Chairman

No. of Portfolios for which Board Member Serves: 67

Richard C. Leone (68)
Board Member (2006)

Principal Occupation During Past 5 Years:

- President of The Century Foundation (formerly, The Twentieth Century Fund, Inc.), a tax exempt research foundation engaged in the study of economic, foreign policy and domestic issues

Other Board Memberships and Affiliations:

- The American Prospect, Director
- Center for American Progress, Director

No. of Portfolios for which Board Member Serves: 26

Hans C. Mautner (70)
Board Member (2006)

Principal Occupation During Past 5 Years:

- President – International Division and an Advisory Director of Simon Property Group, a real estate investment company (1998-present)
- Director and Vice Chairman of Simon Property Group (1998-2003)
- Chairman and Chief Executive Officer of Simon Global Limited (1999-present)

Other Board Memberships and Affiliations:

- Capital and Regional PLC, a British co-investing real estate asset manager, Director
- Member – Board of Managers of:
Mezzacappa Long/Short Fund LLC
Mezzacappa Partners LLC
- Member, Advisory Board, Lehman Brothers European Real Estate Private Equity Fund

No. of Portfolios for which Board Member Serves: 26

Robin A. Melvin (44)
Board Member (2006)

Principal Occupation During Past 5 Years:

- Director, Boisi Family Foundation, a private family foundation that supports youth-serving organizations that promote the self sufficiency of youth from disadvantaged circumstances
- Senior Vice President, Mentor, a national non-profit youth mentoring organization (2005)

No. of Portfolios for which Board Member Serves: 26

Burton N. Wallack (57)
Board Member (1991)

Principal Occupation During Past 5 Years:

- President and co-owner of Wallack Management Company, a real estate management company

No. of Portfolios for which Board Member Serves: 26

John E. Zuccotti (70)
Board Member (2006)

Principal Occupation During Past 5 Years:

- Chairman of Brookfield Financial Properties, Inc.
- Senior Counsel of Weil, Gotshal & Manges, LLP
- Emeritus Chairman of the Real Estate Board of New York

Other Board Memberships and Affiliations:

- Emigrant Savings Bank, Director
- Wellpoint, Inc., Director
- Columbia University, Trustee
- Doris Duke Charitable Foundation, Trustee

No. of Portfolios for which Board Member Serves: 26

Once elected all Board Members serve for an indefinite term, but achieve Emeritus status upon reaching age 80. The address of the Board Members and Officers is in c/o The Dreyfus Corporation, 200 Park Avenue, New York, New York 10166. Additional information about the Board Members is available in the fund's Statement of Additional Information which can be obtained from Dreyfus free of charge by calling this toll free number: 1-800-554-4611.

Arnold S. Hiatt, Emeritus Board Member

OFFICERS OF THE FUND (Unaudited)

J. DAVID OFFICER, President since December 2006.

Chief Operating Officer, Vice Chairman and a Director of the Manager, and an officer of 78 investment companies (comprised of 163 portfolios) managed by the Manager. He is 59 years old and has been an employee of the Manager since April 1998.

PHILLIP N. MAISANO, Executive Vice President since July 2007.

Chief Investment Officer, Vice Chair and a director of the Manager, and an officer of 78 investment companies (comprised of 163 portfolios) managed by the Manager. Mr. Maisano also is an officer and/or Board member of certain other investment management subsidiaries of The Bank of New York Mellon Corporation, each of which is an affiliate of the Manager. He is 60 years old and has been an employee of the Manager since November 2006. Prior to joining the Manager, Mr. Maisano served as Chairman and Chief Executive Officer of EACM Advisors, an affiliate of the Manager, since August 2004, and served as Chief Executive Officer of Evaluation Associates, a leading institutional investment consulting firm, from 1988 until 2004.

MICHAEL A. ROSENBERG, Vice President and Secretary since August 2005.

Associate General Counsel of the Manager, and an officer of 79 investment companies (comprised of 180 portfolios) managed by the Manager. He is 48 years old and has been an employee of the Manager since October 1991.

JAMES BITETTO, Vice President and Assistant Secretary since August 2005.

Associate General Counsel and Secretary of the Manager, and an officer of 79 investment companies (comprised of 180 portfolios) managed by the Manager. He is 41 years old and has been an employee of the Manager since December 1996.

JONI LACKS CHARATAN, Vice President and Assistant Secretary since August 2005.

Associate General Counsel of the Manager, and an officer of 79 investment companies (comprised of 180 portfolios) managed by the Manager. She is 52 years old and has been an employee of the Manager since October 1988.

JOSEPH M. CHIOFFI, Vice President and Assistant Secretary since August 2005.

Associate General Counsel of the Manager, and an officer of 79 investment companies (comprised of 180 portfolios) managed by the Manager. He is 46 years old and has been an employee of the Manager since June 2000.

JANETTE E. FARRAGHER, Vice President and Assistant Secretary since August 2005.

Associate General Counsel of the Manager, and an officer of 79 investment companies (comprised of 180 portfolios) managed by the Manager. She is 45 years old and has been an employee of the Manager since February 1984.

JOHN B. HAMMALIAN, Vice President and Assistant Secretary since August 2005.

Associate General Counsel of the Manager, and an officer of 79 investment companies (comprised of 180 portfolios) managed by the Manager. He is 44 years old and has been an employee of the Manager since February 1991.

ROBERT R. MULLERY, Vice President and Assistant Secretary since August 2005.

Associate General Counsel of the Manager, and an officer of 79 investment companies (comprised of 180 portfolios) managed by the Manager. He is 56 years old and has been an employee of the Manager since May 1986.

JEFF PRUSNOFSKY, Vice President and Assistant Secretary since August 2005.

Associate General Counsel of the Manager, and an officer of 79 investment companies (comprised of 180 portfolios) managed by the Manager. He is 42 years old and has been an employee of the Manager since October 1990.

JAMES WINDELS, Treasurer since November 2001.

Director – Mutual Fund Accounting of the Manager, and an officer of 79 investment companies (comprised of 180 portfolios) managed by the Manager. He is 49 years old and has been an employee of the Manager since April 1985.

RICHARD CASSARO, Assistant Treasurer since September 2007.

Senior Accounting Manager – Money Market and Municipal Bond Funds of the Manager, and an officer of 79 investment companies (comprised of 180 portfolios) managed by the Manager. He is 49 years old and has been an employee of the Manager since September 1982.

GAVIN C. REILLY, Assistant Treasurer since December 2005.

Tax Manager of the Investment Accounting and Support Department of the Manager, and an officer of 79 investment companies (comprised of 180 portfolios) managed by the Manager. He is 39 years old and has been an employee of the Manager since April 1991.

ROBERT ROBOL, Assistant Treasurer since August 2005.

Senior Accounting Manager – Fixed Income Funds of the Manager, and an officer of 79 investment companies (comprised of 180 portfolios) managed by the Manager. He is 44 years old and has been an employee of the Manager since October 1988.

ROBERT SALVILOLO, Assistant Treasurer since May 2007.

Senior Accounting Manager – Equity Funds of the Manager, and an officer of 79 investment companies (comprised of 180 portfolios) managed by the Manager. He is 41 years old and has been an employee of the Manager since June 1989.

ROBERT SVAGNA, Assistant Treasurer since August 2005.

Senior Accounting Manager – Equity Funds of the Manager, and an officer of 79 investment companies (comprised of 180 portfolios) managed by the Manager. He is 41 years old and has been an employee of the Manager since November 1990.

JOSEPH W. CONNOLLY, Chief Compliance Officer since October 2004.

Chief Compliance Officer of the Manager and The Dreyfus Family of Funds (79 investment companies, comprised of 180 portfolios). From November 2001 through March 2004, Mr. Connolly was first Vice-President, Mutual Fund Servicing for Mellon Global Securities Services. In that capacity, Mr. Connolly was responsible for managing Mellon's Custody, Fund Accounting and Fund Administration services to third-party mutual fund clients. He is 50 years old and has served in various capacities with the Manager since 1980, including manager of the firm's Fund Accounting Department from 1997 through October 2001.

WILLIAM GERMENIS, Anti-Money Laundering Compliance Officer since October 2002.

Vice President and Anti-Money Laundering Compliance Officer of the Distributor, and the Anti-Money Laundering Compliance Officer of 75 investment companies (comprised of 176 portfolios) managed by the Manager. He is 37 years old and has been an employee of the Distributor since October 1998.

For More Information

**Dreyfus Premier
GNMA Fund, Inc.**
200 Park Avenue
New York, NY 10166

Manager

The Dreyfus Corporation
200 Park Avenue
New York, NY 10166

Custodian

Mellon Bank, N.A.
One Mellon Bank Center
Pittsburgh, PA 15258

Transfer Agent & Dividend Disbursing Agent

Dreyfus Transfer, Inc.
200 Park Avenue
New York, NY 10166

Distributor

MBSC Securities Corporation
200 Park Avenue
New York, NY 10166

Ticker Symbols: Class A: GPGAX Class B: GPGBX Class C: GPNCX Class Z: DRGMX

For Class Z shareholders

Telephone 1-800-645-6561

For Class A, B and C shareholders

Telephone Call your financial representative or 1-800-554-4611

Mail The Dreyfus Family of Funds, 144 Glenn Curtiss Boulevard, Uniondale, NY 11556-0144

E-mail Send your request to info@dreyfus.com

Internet Information can be viewed online or downloaded at: <http://www.dreyfus.com>

The fund files its complete schedule of portfolio holdings with the Securities and Exchange Commission ("SEC") for the first and third quarters of each fiscal year on Form N-Q. The fund's Forms N-Q are available on the SEC's website at <http://www.sec.gov> and may be reviewed and copied at the SEC's Public Reference Room in Washington, DC. Information on the operation of the Public Reference Room may be obtained by calling 1-202-551-8090.

A description of the policies and procedures that the fund uses to determine how to vote proxies relating to portfolio securities, and information regarding how the fund voted these proxies for the 12-month period ended June 30, 2007, is available at <http://www.dreyfus.com> and on the SEC's website at <http://www.sec.gov>.

The description of the policies and procedures is also available without charge, upon request, by calling 1-800-645-6561.

