

State of California

MEMORANDUM

To: Board of Directors

Date: January 8, 2009



From: Bruce D. Gilbertson, Director of Financing
CALIFORNIA HOUSING FINANCE AGENCY

Subject: UPDATE ON VARIABLE RATE BONDS AND INTEREST RATE SWAPS

Over a number of years the Agency has integrated the use of variable rate debt as a primary issuance strategy in providing capital to support its programmatic goals. Most of our interest rate exposure from variable rate debt is hedged in the swap market. This strategy has enabled us to achieve a significantly lower cost of funds and a better match between assets and liabilities.

The following report describes our variable rate bond and interest rate swap positions as well as the related risks associated with this financing strategy. The report is divided into sections as follows:

- Variable Rate Debt Exposure
- Fixed-Payer Interest Rate Swaps
- Basis Risk and Basis Swaps
- Risk of Changes to Tax Law
- Amortization Risk
- Termination Risk
- Types of Variable Rate Debt
- Liquidity Providers
- Bond and Swap Terminology

VARIABLE RATE DEBT EXPOSURE

This report describes the variable rate bonds and notes of CalHFA and is organized programmatically by indenture as follows: HMRB (Home Mortgage Revenue Bonds--CalHFA's largest single family indenture), MHRB (Multifamily Housing Revenue Bonds III--CalHFA's largest multifamily indenture), HPB (Housing Program Bonds--CalHFA's multipurpose indenture, used to finance a variety of loans including the Agency's downpayment assistance loans), and DDB (Draw Down Bonds used to preserve tax-exempt authority.) The total amount of CalHFA variable rate debt is \$5.3 billion, 62% of our \$8.5 billion of total indebtedness as of January 1, 2009.

	VARIABLE RATE DEBT (<i>\$ in millions</i>)			
	Tied Directly to Variable Rate <u>Assets</u>	Swapped to Fixed Rate <u>Fixed Rate</u>	Not Swapped or Tied to Variable Rate <u>Assets</u>	Total Variable Rate Debt
HMRB	\$2	\$3,596	\$658	\$4,256
MHRB	39	721	201	961
HPB	0	35	60	95
DDB	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	\$41	\$4,352	\$919	\$5,312

As shown in the table above, our "net" variable rate exposure is \$919 million, 10.8% of our indebtedness. The net amount of variable rate bonds is the amount that is neither swapped to fixed rates nor directly backed by complementary variable rate loans or investments. The \$919 million of net variable rate exposure (\$545 million taxable and \$374 million tax-exempt) is offset by the Agency's balance sheet and excess swap positions. While our current net exposure is not tied directly to variable rate assets, we have approximately \$630 million (six month average balance as of 6/30/08) of other Agency funds invested in the State Treasurer's investment pool (SMIF) earning a variable rate of interest. From a risk management perspective, the \$630 million is a balance sheet hedge for the \$919 million of net variable rate exposure.

In order to maintain a certain level of confidence that the balance sheet hedge is effective, we have reviewed the historical interest rates earned on investments in the SMIF and LIBOR interest rate resets (most of our unhedged taxable bonds are index floaters that adjust at a spread to LIBOR). Using the data for the last ten years, we determined that there is a high degree of correlation between the two asset classes (SMIF and LIBOR) and that for every \$1 invested in SMIF we can potentially hedge \$1 of LIBOR-based debt.

The net variable rate exposure is further reduced by two other considerations: 1) as mentioned in the Amortization Risk section of this report, we have \$40 million notional amount of interest rate swaps in excess of the original bonds they were to hedge, and 2) a portion of our unhedged exposure is tax-exempt debt which resets at the theoretical ratio of 65% of Libor. These two

considerations serve to reduce the net effective variable rate exposure to the equivalent of \$762 million of LIBOR-based debt. As a result, the \$630 million of other Agency funds invested in SMIF effectively hedges approximately 83% of our current net variable rate exposure.

In addition, taking unhedged variable rate exposure mitigates the amortization risk without the added cost of purchasing swap optionality. Our unhedged variable rate bonds are callable on any date and allow for bond redemption or loan recycling without the cost of par termination rights or special bond redemption provisions. In addition, taking unhedged variable rate exposure diversifies our interest rate risks by providing benefits when short-term interest rates rise slower than the market consensus. In a liability portfolio that is predominately hedged using long-dated swaps, the unhedged exposure balances the interest rate profile of the Agency's outstanding debt.

FIXED-PAYER INTEREST RATE SWAPS

Currently, we have a total of 128 "fixed-payer" swaps with fourteen different counterparties for a combined notional amount of \$4.4 billion. All of these fixed-payer swaps are intended to establish synthetic fixed rate debt by converting our variable rate payment obligations to fixed rates. These interest rate swaps generate significant debt service savings in comparison to our alternative of issuing fixed-rate bonds. This savings has allowed us to offer loan products with exceptionally low interest rates to multifamily sponsors and to first-time homebuyers. The table below provides a summary of our swap notional amounts.

FIXED PAYER INTEREST RATE SWAPS

(notional amounts)

(\$ in millions)

	<u>Tax-Exempt</u>	<u>Taxable</u>	<u>Totals</u>
HMRB	\$3,058	\$557	\$3,615
MHRB	742	0	742
HPB	<u>35</u>	<u>0</u>	<u>35</u>
TOTALS	\$3,835	\$557	\$4,392

The following table shows the diversification of our fixed payer swaps among the fourteen firms acting as our swap counterparties. Note that our swaps with Bear Stearns, and Goldman Sachs are with highly-rated structured subsidiaries that are special purpose vehicles used only for derivative products. We have chosen to use these subsidiaries because the senior credit of those firms is not as strong as that of the other firms. Note also that our most recent swaps with Merrill Lynch are either with their highly-rated structured subsidiary or we are benefiting from the credit of this triple-A structured subsidiary through a guarantee.

SWAP COUNTERPARTIES

<u>Swap Counterparty</u>	<u>Credit Ratings</u>		<u>Notional Amounts Swapped</u> <i>(\$ in millions)</i>	<u>Number of Swaps</u>
	<u>Moody's</u>	<u>S & P</u>		
Bear Stearns Financial Products Inc.	Aaa	AAA	\$ 781.6 283.9*	15 8*
Citigroup Financial Products Inc.	A2	A	675.2	19
Merrill Lynch Derivative Products, AG	Aaa	AAA	625.8	28
Merrill Lynch Capital Services Inc.	Aa3	A+	615.1	18
Goldman Sachs Mitsui Marine Derivative Products, L.P.	Aaa	AAA	382.0 308.3*	10 5*
AIG Financial Products Corp.	A3	A-	290.2	6
Deutsche Bank AG	Aa1	A+	286.0	11
JP Morgan Chase Bank	Aaa	AA-	209.1	7
Bank of America, N.A.	Aaa	AA-	205.2	5
Morgan Stanley Capital Services Inc	A2	A	136.7	2
BNP Paribas	Aa1	AA+	86.6	2
UBS AG	Aa2	A+	46.1	2
Dexia Credit Local	Aa1	AA	27.3	2
The Bank of New York	Aaa	AA	<u>25.0</u>	<u>1</u>
			\$4,391.9	128

* *Basis Swaps (not included in totals)*

With interest rate swaps, the “notional amount” (equal to the principal amount of the swapped bonds) itself is not at risk. Instead, the risk is that a counterparty would default and, because of market changes, the terms of the original swap could not be replicated without additional cost.

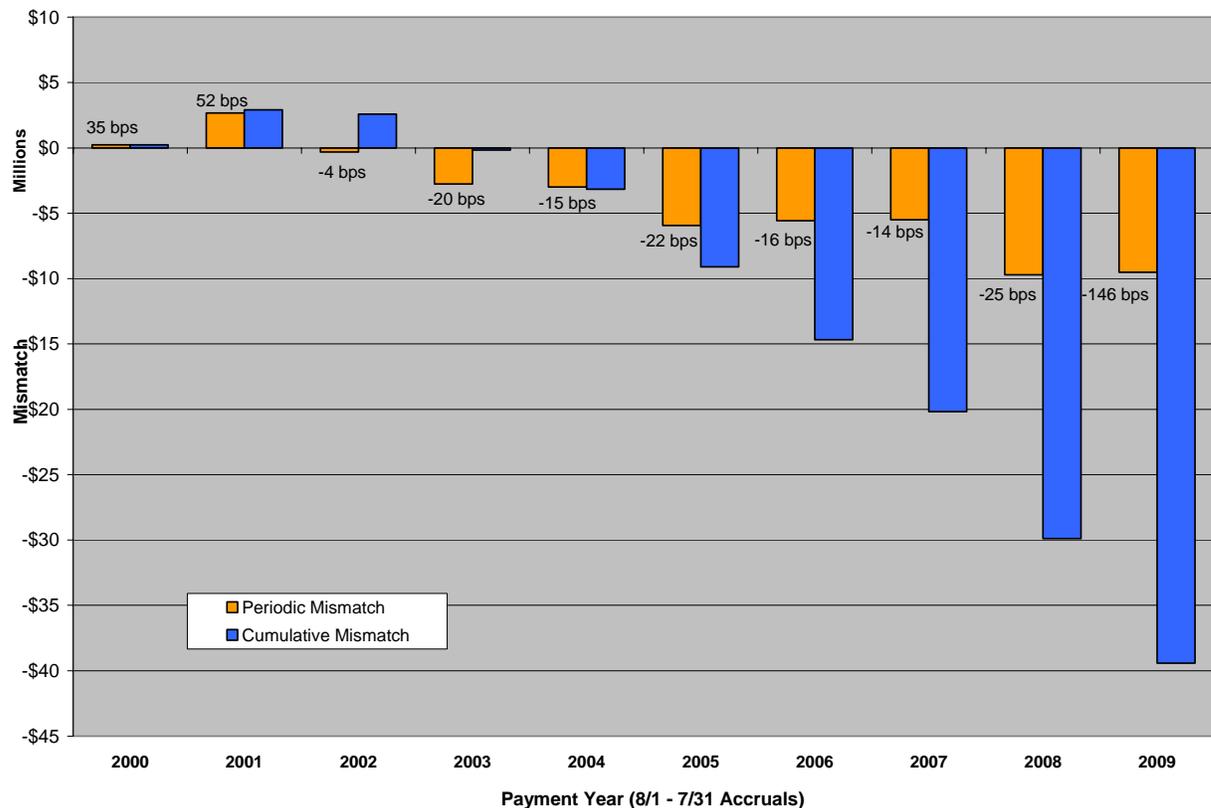
For all of our fixed-payer swaps, we receive floating rate payments from our counterparties in exchange for a fixed-rate obligation on our part. In today’s market, the net periodic payment owed under these swap agreements is from us to our counterparties. As an example, on our August 1, 2008 semiannual debt service payment date we made a total of \$44.9 million of net payments to our counterparties. Conversely, if short-term rates were to rise above the fixed rates of our swap agreements, then the net payment would run in the opposite direction, and we would be on the receiving end.

BASIS RISK AND BASIS SWAPS

Almost all of our swaps contain an element of what is referred to as “basis risk” – the risk that the floating rate component of the swap will not match the floating rate of the underlying bonds.

This risk arises because our swap floating rates are based on indexes, which consist of market-wide averages, while our bond floating rates are specific to our individual bond issues. The only exception is where our taxable floating rate bonds are index-based, as is the case of the taxable floaters we have sold to the Federal Home Loan Banks. The chart below is a depiction of the basis mismatch that we have encountered since 2000 when we entered the swap market.

Basis Mismatch through October 1, 2008
All Tax-Exempt Swaps



As the chart shows, the relationship between the two floating rates changes as market conditions change. Basis mismatch for our 2008 bond year (August 1, 2007 – July 31, 2008) has been primarily due to the collapse of the auction rate securities market and the impact of bond insurer downgrades on variable rate demand obligations. Auction rate securities account for 55% of the total mismatch and insured variable rate demand obligations have accounted for 45% of the total mismatch for 2008. We have responded to the market disruption by refunding, converting, or otherwise modifying many of the under performing auction rate securities and insured VRDOs. Some periodic divergence was expected when we entered into swaps.

Over the lifetime of our swaps we have experienced approximately \$30 million of additional interest expense due to this basis mismatch. However, we have since mitigated much of this risk by changing our swap formulas. The earliest swaps entered into utilized a floating rate formula of 65% of LIBOR, the London Inter-Bank Offered Rate which is the index used to benchmark taxable floating rate debt. These percentage-of-LIBOR swaps afforded great savings with minimal basis risk compared to fixed rate bonds when the average SIFMA/LIBOR ratio was steady at 65%. Short-term interest rates can be volatile and as short-term rates fall, the SIFMA/LIBOR ratio tends to increase. When short-term interest rates rise the SIFMA/LIBOR ratio usually falls to the theoretical ratio of one minus the marginal federal income tax rate. The SIFMA (Securities Industry and Financial Markets Association) index is the index used to benchmark tax-exempt variable rates. The following table displays the SIFMA/LIBOR ratio for the past eight years.

Average SIFMA/LIBOR Ratio			
2001	67.7%	2005	72.5%
2002	77.9%	2006	67.6%
2003	85.4%	2007	69.1%
2004	81.7%	2008	83.7%

When the SIFMA/LIBOR ratio is very high the swap payment we receive falls short of our bond payment, and the all-in rate we experience is somewhat higher. The converse is true when the percentage is low. In response, we and our advisors looked for a better formula than a flat 65% of LIBOR. After considerable study of California tax-exempt variable rate history, we revised the formula in December of 2002 to 60% of LIBOR plus 0.26% which resulted in comparable fixed-rate economics but performed better when short-term rates were low and the SIFMA/LIBOR percentage was high. In December 2005 we looked at the formula again and after completing a statistical analysis of CalHFA variable rate bonds as compared to the SIFMA and LIBOR indexes and taking into consideration the changing market conditions, we began using several different swap formulas for our different types of bonds. After careful monitoring of the new swap formulas and adjusting for changing market conditions, we modified the swap formulas again in September 2007. The new swap formulas for AMT bonds are: 63% of LIBOR plus 0.30% for weekly bond resets and 63% of LIBOR plus 0.24% for daily bond resets. We expect to use these new formulas for new swap transactions and we will continue to monitor the SIFMA/LIBOR relationship and the performance of the new swap formulas and make adjustments as necessary.

We currently have basis swaps for \$592 million of the older 65% of LIBOR swaps. The basis swaps had provided us with better economics in the past by exchanging the 65% of LIBOR formula for alternative formulas that alleviate the effects of high SIFMA/LIBOR ratios. We are actively exploring the benefits of terminating these basis swaps. Terminating the basis swap contracts would lower the counterparty exposure by approximately \$600 million and the Agency would also receive a termination payment, expected to be about \$5 million. The table on the next page shows the diversification of variable rate formulas used for determining the payments received from our interest rate swap counterparties.

BASIS FOR VARIABLE RATE PAYMENTS
RECEIVED FROM SWAP COUNTERPARTIES
(notional amounts)
(\$ in millions)

	<u>Tax-Exempt</u>	<u>Taxable</u>	<u>Totals</u>
60% of LIBOR + 26bps	\$1753	\$0	\$1,753
62% of LIBOR + 25bps	563	0	563
SIFMA – 15bps	416	0	416
3 mo. LIBOR + spread	0	356	356
Enhanced LIBOR ¹	308	0	308
Stepped % of LIBOR ²	284	0	284
65% of LIBOR	207	0	207
1 mo. LIBOR	0	162	162
97% of SIFMA	76	0	76
SIFMA – 20bps	58	0	58
63% of LIBOR + 24bps	50	0	50
6 mo. LIBOR	0	39	39
60% of LIBOR + 21bps	30	0	30
64% of LIBOR	26	0	26
63% of LIBOR + 30bps	25	0	25
SIFMA – 5bps	16	0	16
64% of LIBOR + 25bps	12	0	12
61% of LIBOR + 21bps	<u>11</u>	<u>0</u>	<u>11</u>
TOTALS	\$3,835	\$557	\$4,392

¹ Enhanced LIBOR – This formula is 50.6% of LIBOR plus 0.494% with the proviso that the end result can never be lower than 61.5% of LIBOR nor greater than 100% of LIBOR.

² Stepped % of LIBOR – This formula has seven incremental steps where at the low end of the spectrum the swap counterparty would pay us 85% of LIBOR if rates should fall below 1.25% and at the high end, they would pay 60% of LIBOR if rates are greater than 6.75%.

RISK OF CHANGES TO TAX LAW

For an estimated \$3.3 billion of the \$3.8 billion of tax-exempt bonds swapped to a fixed rate, we remain exposed to certain tax-related risks, another form of basis risk. In return for significantly higher savings, we have chosen through these interest rate swaps to retain exposure to the risk of changes in tax laws that would lessen the advantage of tax-exempt bonds in comparison to taxable securities. In these cases, if a tax law change were to result in tax-exempt rates being more comparable to taxable rates, the swap provider's payment to us would be less than the rate we would be paying on our bonds, again resulting in our all-in rate being higher.

We bear this same risk for \$134.9 million of our tax-exempt variable rate bonds which we have not swapped to a fixed rate. Together, these two categories of variable rate bonds total \$3.5 billion, 40.9% of our \$8.5 billion of bonds outstanding. This risk of tax law changes is the same risk that investors take when they purchase our fixed-rate tax-exempt bonds.

The following bar chart shows the current benefit of our ability to assume the risk of changes to tax laws. Over the last several years this benefit (the difference between the cost of fixed rate housing bonds and the cost of a LIBOR based interest rate swap financing) has been as great as 100 or more basis points, and was the engine that made our interest rate swap strategy effective. Even though current market conditions provide significant debt service savings for issuers willing to accept variable rate debt and tax-related risks, the financial markets are extraordinarily challenging. After discussing current market conditions, the Board and Agency staff has determined that issuing greater amounts of fixed rate debt is the preferred course of action to better balance our debt portfolio and lessen the economic impact of market events. As market conditions change we will alter our financing strategies to obtain the lowest cost of borrowing while balancing the associated risks and benefits of alternative structures.

Normally our Cost of Funds chart which shows the cost of issuing fixed-rate bonds as compared to the cost of issuing synthetic fixed-rate bonds (variable rate bonds that are swapped to fixed) is shown here. However, due to the current extreme market conditions, the Cost of Funds chart will not be updated at this time. We will provide the chart again when market conditions return to normal.

AMORTIZATION RISK

Our bonds are generally paid down (redeemed or paid at maturity) as our loans are prepaid. Our interest rate swaps amortize over their lives based on assumptions about the receipt of prepayments, and the single family transactions which include swapped bonds have generally been designed to accommodate prepayment rates between two and three times the “normal” rate. In other words, our interest rate swaps generally have had fixed amortization schedules that can be met under what we have believed were sufficiently wide ranges of prepayment speeds.

As market conditions change, we modify the structuring of new swaps by widening the band of expected prepayments. In addition, with the introduction of our interest only loan product we are structuring swap amortization schedules and acquiring swap par termination rights to coincide with the loan characteristics and expectations of borrower prepayment.

Also of interest is a \$40 million forced overswap mismatch between the notional amount of certain of our swaps and the outstanding amount of the related bonds. This mismatch has occurred as a result of the interplay between loan prepayments and the “10-year rule” of federal tax law. Under this rule, prepayments received 10 or more years beyond the date of the original issuance of bonds cannot be recycled into new loans and must be used to redeem tax-exempt bonds. In the case of many single family bond issues, a portion of the authority to issue them on a tax-exempt basis was related to older bonds.

While this mismatch has occurred (and will show up in the tables of this report), the small semiannual cost of the mismatch will be more than offset by the large interest cost savings from our “net” variable rate debt. In other words, while some of our bonds are “over-swapped”, there are significantly more than enough unswapped variable rate bonds to compensate for the mismatch. We will continue to monitor the termination value of our “excess swap” position looking for opportunities to unwind these positions when market terminations would be at minimal cost or a positive value to us.

In addition we plan to reuse unrestricted loan prepayments to purchase new loans when financially prudent to do so

TERMINATION RISK

Termination risk is the risk that, for some reason, our interest rate swaps must be terminated prior to their scheduled maturity. Our swaps have a market value that is determined based on current interest rates. When current fixed rates are higher than the fixed rate of the swap, our swaps have a positive value to us (assuming, as is the case on all of our swaps today, that we are the payer of the fixed swap rate), and termination would result in a payment from the provider of the swap (our swap “counterparty”) to us. Conversely, when current fixed rates are lower than the fixed rate of the swap, our swaps have a negative value to us, and termination would result in a payment from us to our counterparty.

Our swap documents allow for a number of termination “events”, i.e., circumstances under which our swaps may be terminated early, or (to use the industry phrase) “unwound”. One circumstance that would cause termination would be a payment default on the part of either counterparty. Another circumstance would be a sharp drop in either counterparty’s credit ratings and, with it, an inability (or failure) of the troubled counterparty to post sufficient collateral to offset its credit problem. It should be noted that, if termination is required under the swap documents, the market determines the amount of the termination payment and who owes it to whom. Depending on the market, it may be that the party who has caused the termination is owed the termination payment.

In recent months some of our swap counterparties have experienced credit rating downgrades and Lehman Brothers, specifically, has filed for bankruptcy. On November 18, 2009, in response to the bankruptcy filing, the Agency terminated all \$482.7 million notional amount of Lehman Brothers swaps via a market quotation process and paid Lehman Brothers \$42.6 million to terminate the swaps. At the same time, as part of the market quotation process, the Agency replaced some of the Lehman Brothers contracts with counterparties that are more highly rated.

The Agency accepted bids from Goldman Sachs for \$53.8 million notional amount and bids from Deutsche Bank for \$286 million notional amount. The Agency received \$28.9 million from the replacement counterparties for the swaps. We will continue to monitor the credit ratings of our swap counterparties and will respond accordingly to future counterparty downgrades.

Currently, the Government Accounting Standards Board only requires that our balance sheet and income statement be adjusted for the market value of our swaps in excess of the bonds being hedged. However, it does require that the market value be disclosed for all of our swaps in the notes to our financial statements.

Monthly we monitor the termination value of our swap portfolio as it grows and as interest rates change. The table below shows the history of the fluctuating negative value of our swap portfolio for the past year.

TERMINATION VALUE HISTORY

<u>Date</u>	<u>Termination Value (\$ in millions)</u>
12/31/07	(\$224.7)
1/31/08	not available
2/29/08	(\$281.3)
3/31/08	(\$314.2)
4/30/08	(\$245.1)
5/31/08	(\$190.9)
6/30/08*	(\$180.5)
7/31/08	(\$183.9)
8/31/08	(\$194.6)
9/30/08	(\$216.9)
10/31/08	(\$238.1)
11/30/08	(\$370.2)

* *As reported on the Financial Statements.*

TYPES OF VARIABLE RATE DEBT

The following table shows our variable rate debt sorted by type, i.e., whether auction rate, indexed rate, or variable rate demand obligations (VRDOs). Auction and indexed rate securities cannot be "put" back to us by investors; hence they typically bear higher rates of interest than do "put-able" bonds such as VRDOs.

TYPES OF VARIABLE RATE DEBT
(*\$ in millions*)

	<u>Auction Rate & Similar Securities</u>	<u>Indexed Rate Bonds</u>	<u>Variable Rate Demand Obligations</u>	<u>Total Variable Rate Debt</u>
HMRB	\$19	\$1,097	\$3,140	\$4,256
MHRB	198	0	763	961
HPB	0	0	95	95
DDB	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	\$217	\$1,097	\$3,998	\$5,312

LIQUIDITY PROVIDERS

The table below shows the financial institutions providing liquidity in the form of standby bond purchase agreements for our VRDOs.

LIQUIDITY PROVIDERS
(*\$ in millions*)

<u>Financial Institution</u>	<u>\$ Amount of Bonds</u>	<u>Indenture</u>
Dexia Credit Local	\$790.0	HMRB
Lloyds TSB	406.7	HMRB
Bank of America	405.1	HMRB
Fannie Mae	358.4	HMRB/MHRB
BNP Paribas	253.3	HMRB
KBC	240.5	HMRB
Bank of Nova Scotia	201.3	HMRB
Calyon	174.2	HMRB
JP Morgan Chase Bank	152.9	HMRB
Bank of New York	148.6	HMRB
Bayerische Landesbank	128.4	HMRB
Westdeutsche Landesbank	128.4	HMRB/MHRB
DEPFA Bank	134.1 ¹	MHRB
Landesbank Hessen-Thuringen	127.5	MHRB
Fortis	120.0	HMRB
State Street Bank	85.7	HMRB
LBBW	60.3	HPB
CalSTRS	48.0	HMRB/MHRB
Citibank	<u>35.0</u> ²	HPB
Total	\$3,998.4	

^{1.} \$5.9 million of liquidity with Depfa Bank expired on Nov. 3, 2008 and was not extended.

^{2.} \$35 million of liquidity with Citibank expired on Nov. 3, 2008 and was not extended.

Under these agreements, if our variable rate bonds cannot be remarketed these banks are required to buy the bonds from bondholders. Shown below are the amount of bonds that failed to be remarketed and as a result were put back to the liquidity providers.

Bank Bonds
(as of January 7, 2009)

<u>Liquidity Bank</u>	<u>\$ in millions</u>
Dexia Crecit Local	\$189.8
DEPFA Bank	133.0
WestLB/JPM/BLB	51.3
Citibank	35.0
Helaba/CalSTRS	6.6
Lloyds/CalSTRS	<u>1.0</u>
Total Bank Bonds	\$416.7

Unlike our interest rate swap agreements, our liquidity agreements do not run for the life of the related bonds. Instead, they are seldom offered for terms in excess of five years, and a portion of our agreements require annual renewal. Renewals were expected to take place as a matter of course; but in the current environment, liquidity banks are either unable to renew or are charging exorbitant fees for the renewals. Below is a table of the liquidity agreements that are expiring in the next six months.

Liquidity Expiring in Next Six Months
(\$ in millions)

<u>Expiring Liquidity</u>	<u>HMRB</u>	<u>MHRB</u>	<u>HPB</u>	<u>Totals (by month)</u>
Jan-09	\$89	\$0	\$0	\$89
Feb-09	71	0	0	71
Mar-09	0	0	0	0
Apr-09	265	0	0	265
May-09	123	0	0	123
Jun-09	<u>83</u>	<u>39</u>	<u>0</u>	<u>122</u>
Totals	\$631	\$39	\$0	\$670

BOND AND SWAP TERMINOLOGY

COUNTERPARTY

One of the participants in an interest rate swap

DATED DATE

Date from which first interest payment is calculated.

DELAYED START SWAP

A swap which delays the commencement of the exchange of interest rate payments until a later date.

DELIVERY DATE, OR ISSUANCE DATE

Date that bonds are actually delivered to the underwriters in exchange for the bond proceeds.

GENERAL OBLIGATION BOND

A type of security which is evidence of a debt secured by all revenues and assets of an organization.

INDENTURE

The legal instrument that describes the bonds and the pledge of assets and revenues to investors. The indenture often consists of a general indenture plus separate series indentures describing each issuance of bonds.

INTEREST RATE CAP

A financial instrument which pays the holder when market rates exceed the cap rate. The holder is paid the difference in rate between the cap rate and the market rate. Used to limit the interest rate exposure on variable rate debt.

INTEREST RATE SWAP

An exchange between two parties of interest rate exposures from floating to fixed rate or vice versa. A fixed-payer swap converts floating rate exposure to a fixed rate.

LIBOR

London Interbank Offered Rate. The interest rate highly rated international banks charge each other for borrowing U.S. dollars outside of the U.S. Taxable swaps often use LIBOR as a rate reference index. LIBOR swaps associated with tax-exempt bonds will use a percentage of LIBOR as a proxy for tax-exempt rates.

MARK-TO-MARKET

Valuation of securities or swaps to reflect the market values as of a certain date. Represents liquidation or termination value.

MATURITY

Date on which the principal amount of a bond is scheduled to be repaid.

NOTIONAL AMOUNT

The principal amount on which the exchanged swap interest payments are based.

OFFICIAL STATEMENT

The "prospectus" or disclosure document describing the bonds being offered to investors and the assets securing the bonds.

PRICING DATE

Date on which issuer agrees (orally) to sell the bonds to the underwriters at certain rates and terms.

REDEMPTION

Early repayment of the principal amount of the bond. Types of redemption: "special", "optional", and "sinking fund installment".

REFUNDING

Use of the proceeds of one bond issue to pay for the redemption or maturity of principal of another bond issue.

REVENUE BOND (OR SPECIAL OBLIGATION BOND) (OR LIMITED OBLIGATION BOND)

A type of security which is evidence of a debt secured by revenues from certain assets (loans) pledged to the payment of the debt.

SIFMA INDEX

Securities Industry and Financial Markets Association Municipal Swap Index. A weekly index of short-term tax-exempt rates.

SALE DATE

Date on which purchase contract is executed evidencing the oral agreement made on the pricing date.

SERIAL BOND

A bond with its entire principal amount due on a certain date, without scheduled sinking fund installment redemptions. Usually serial bonds are sold for any principal amounts to be repaid in early (10 or 15) years.

SERIES OF BONDS

An issuance of bonds under a general indenture with similar characteristics, such as delivery date or tax treatment. Example: "Name of Bonds", 1993 Series A. Each series of Bonds has its own series indenture.

SWAP CALL OPTION

The right (but not the obligation) to terminate a predetermined amount of swap notional amount, occurring or starting at a specific future date.

SYNTHETIC FIXED RATE DEBT

Converting variable rate debt into a fixed rate obligation through the use of fixed-payer interest rate swaps.

SYNTHETIC FLOATING RATE DEBT

Converting fixed rate debt into a floating rate obligation through the use of fixed-receiver interest rate swaps.

TERM BOND

A bond with a stated maturity, but which may be subject to redemption from sinking fund installments. Usually of longer maturity than serial bonds.

VARIABLE RATE BOND

A bond with periodic resets in its interest rate. Opposite of fixed rate bond.