

**BOARD MORTGAGE REVENUE BOND WORKSHOP**  
**TEXAS DEPARTMENT OF HOUSING AND COMMUNITY AFFAIRS**  
Offices of RBC Dain Rauscher Inc., Cityplace, 2711 N. Haskell Avenue, #2400,  
Dallas, Texas 75204  
February 10, 2004 2:00 p.m.

**A G E N D A**

**CALL TO ORDER, ROLL CALL  
CERTIFICATION OF QUORUM**

Elizabeth Anderson  
Chair of Board

**PUBLIC COMMENT**

The Board will solicit Public Comment at the beginning of the workshop and will also provide for Public Comment on each agenda item after the presentation made by staff.

The Board of the Texas Department of Housing and Community Affairs will meet to consider the following:

1. Welcome and Introductions Edwina Carrington
2. Legal Aspects of Mortgage Revenue Bonds in Texas Elizabeth Rippey/Mark Malveaux
  - (a) Federal Tax Law – Private Activity Bonds
  - (b) Texas State Law – TDHCA Enabling Act and Bond Issuance Authority
  - (c) Texas Private Activity Bond Volume Cap Allocation
  - (d) Bond Review Board Rules for Multifamily Bond Volume Cap
  - (e) Bond Review Board Rules for Single Family Bond Volume Cap
3. Housing Finance/Bond Finance William Dally, Byron Johnson,  
Gary Machak, Robert Onion
  - (a) Bond Finance Division Functions
  - (b) Outstanding Bond Programs
  - (c) 2004 Prospective Transaction Schedule
  - (d) Investment Banking Pool, Team Rotation and Performance
  - (e) Buydown History
  - (f) Quarterly Investment Report
  - (g) Bonds Outstanding
  - (h) Unencumbered Funds Calculation
  - (i) Bond Ratings
  - (j) Open vs. Closed Bond Indentures
  - (k) Cashflows
  - (l) Prepayments
  - (m) Bond Transaction Documents
4. TDHCA Credit Rating Matters Standard & Poor's
  - (a) Credit Ratings and Municipal Issue Ratings Definitions
  - (b) Issuer Credit Rating (General Obligation Rating)
5. Open Discussion on Mortgage Revenue Bonds Elizabeth Anderson
6. Adjourn Elizabeth Anderson

*To access this agenda and details on each agenda item in the board book, please visit our website at [www.tdhca.state.tx.us](http://www.tdhca.state.tx.us) or contact the Board Secretary, Delores Groneck, TDHCA, 507 Sabine, Austin, Texas 78701, 512-475-3934 and request the information.*

*Individuals who require auxiliary aids, services or sign language interpreters for this meeting should contact Gina Esteves, ADA Responsible Employee, at 512-475-3943 or Relay Texas at 1-800-735-2989 at least two days before the meeting so that appropriate arrangements can be made.*

*Non-English speaking individuals who require interpreters for this meeting should contact Delores Groneck, 512-475-3934 at least three days before the meeting so that appropriate arrangements can be made.*

**Texas Department of Housing and Community Affairs**  
**TDHCA Mortgage Revenue Bond Workshop**  
**Tuesday, February 10, 2004**  
**RBC Dain Rauscher Inc. Offices, Dallas, Texas**  
**2:00 PM – 6:00 PM**

Workshop Agenda

- |   |             |
|---|-------------|
| 1) Welcome and Introductions (Edwina Carrington)  | 2:00 – 2:15 |
| 2) Legal Aspects of Mortgage Revenue Bonds in Texas (Mark Malveaux, Elizabeth Rippy)  | 2:15 – 3:00 |
| <ul style="list-style-type: none"><li>(a) Federal Tax Law – Private Activity Bonds</li><li>(b) Texas State Law – TDHCA Enabling Act and Bond Issuance Authority</li><li>(c) Texas Private Activity Bond Volume Cap Allocation</li><li>(d) Bond Review Board Rules for Multifamily Bond Volume Cap</li><li>(e) Bond Review Board Rules for Single Family Bond Volume Cap</li></ul>   |             |
| 3) Housing Finance/Bond Finance (William Dally, Byron Johnson, Gary Machak)   | 3:00 – 4:00 |
| <ul style="list-style-type: none"><li>(a) Bond Finance Division Functions</li><li>(b) Outstanding Bond Programs</li><li>(c) 2004 Prospective Transaction Schedule</li><li>(d) Investment Banking Pool, Team Rotation and Performance</li><li>(e) Buydown History</li><li>(f) Quarterly Investment Report</li><li>(g) Bonds Outstanding</li><li>(h) Unencumbered Funds Calculation</li><li>(i) Bond Ratings</li><li>(j) Open vs. Closed Bond Indentures</li><li>(k) Cashflows</li><li>(l) Prepayments</li><li>(m) Bond Transaction Documents</li></ul> |             |
| 4) TDHCA Credit Rating Matters (Standard & Poor's)  | 4:15 – 5:15 |
| <ul style="list-style-type: none"><li>(a) Credit Ratings and Municipal Issue Ratings Definitions</li><li>(b) Issuer Credit Rating (General Obligation Rating)</li></ul>   |             |
| 5) Open Discussion  | 5:15 – 6:00 |
| 6) Adjourn  | 6:00        |

# Federal Tax Law

## Private Activity Bonds

<http://uscode.house.gov/usc.htm>

Single Family (Title 26 Section 143)

Multifamily (Title 26 Section 142)

TEFRA Hearings: Single Family & Multifamily (Title 26 Section 147)

# Texas State Law - TDHCA Enabling Act and Bond Issuance Authority

<http://www.capitol.state.tx.us/statutes/go/go0230600toc.html>

## Subchapter "A": General Provisions

2306.001 Purpose

2306.002 Policy

2306.003 Public Purpose

## Subchapter "P" through "X": Housing Finance Division Bonds

2306.351 - 2306.498

# Texas Private Activity Bond Volume Cap Allocation

Bond Review Board 2004 Estimated Volume Cap Summary:

<http://www.brb.state.tx.us/brbpages/Pub/pab/2004/2004volumeap.xls>

**STATE OF TEXAS  
PRIVATE ACTIVITY BOND ALLOCATION PROGRAM**

		SB1664/ SB264/ SB284/ HB1247	2004* \$ 1,769,480,720
SUBCEILING	%	SET-ASIDE \$\$	
<b>SC #1-SINGLE FAMILY HOUSING</b>	<b>28.0%</b>	<b>\$</b>	<b>495,454,602</b>
TDHCA	1/3	\$	165,151,534
Sub-Total		\$	330,303,068
TSAHC Police/Firefighter Program		\$	25,000,000
TSAHC Teacher Program		\$	25,000,000
LOCAL ISSUERS maximum application amount		\$	280,303,068 Varies upon population
<b>SC #2-STATE VOTED ISSUES</b>	<b>8.00%</b>		<b>141,558,458</b>
<b>SC #3-QUALIFIED SMALL ISSUES</b>	<b>2.0%</b>	<b>\$</b>	<b>35,389,614</b>
TX. Ag. Finance Authority	1/3	\$	11,796,538
<b>SC #4-MULTIFAMILY HOUSING</b>	<b>22.0%</b>	<b>\$</b>	<b>389,285,758</b>
TDHCA	20%	\$	77,857,152
TSAHC	10%	\$	38,928,576
LOCAL ISSUERS	70%		272,500,031
maximum application amount		\$	15,000,000
<b>SC #5-STUDENT LOAN BONDS</b>	<b>10.5%</b>	<b>\$</b>	<b>185,795,476</b>
<b>SC #6-ALL OTHER ISSUES</b>	<b>29.5%</b>	<b>\$</b>	<b>521,996,812</b>
<b>TOTALS</b>	<b>100%</b>	<b>\$</b>	<b>1,769,480,720</b>

\* The 2004 volume cap is based on the 7/1/03 population estimate of \$22,118,509 released 12/18/2003 and applying a bond cap of \$80 per capita (H.R. 4577).

# Bond Review Board Rules for Multifamily Bond Volume Cap

Allocation of State's Limit on Certain Private Activity Bonds:

<http://www.brb.state.tx.us/brbpages/Pub/pab/0405statuterules/finalrules.doc>

# Bond Review Board Rules for Single Family Bond Volume Cap

Allocation of State's Limit on Certain Private Activity Bonds:

<http://www.brb.state.tx.us/brbpages/Pub/agency/BRBNew04.doc>

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# **Single Family Mortgage Revenue Bond Finance**

**Texas Department of Housing and Community Affairs**

**February 2004**



## *Bond Finance Division Personnel*

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- **BYRON JOHNSON**  
*Director of Bond Finance*
  
- **MATT POGOR**  
*Bond Finance Project Manager*
  
- **HEATHER HODNETT**  
*Bond Finance Associate*
  
- **MARITA HOLTMAN**  
*Bond Finance Analyst*

- **Structure and issue single family mortgage revenue bonds**
- **Issue single family commercial paper**
- **Manage bond proceeds after bond closing \***
- **Ensure compliance with bond covenants \***
- **Ensure compliance with disclosure requirements \***

\* Single family and multifamily bonds

## *Definitions*

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- ***Bonds*** – Debt instrument requiring the issuer to repay to the investor the amount borrowed plus interest over some specified period of time. Bonds are usually long-term debt.
- ***Certificates*** – Aaa/AAA debt instruments issued by Ginnie Mae, Fannie Mae and Freddie Mac secured by mortgages satisfying their underwriting criteria. Mortgage principal and interest payments guaranteed.
- ***Commercial Paper*** – A short-term promissory note issued in the money market.
- ***Guaranteed Investment Contract (“GIC”)*** – Contract whereby a highly rated financial company guarantees an interest rate for a specified sum of money for a specified period of time.
- ***Master Servicer*** – Entity providing loan administration services, including collection of monthly payments, customer service, certificate pooling and asset management.

## *Definitions*

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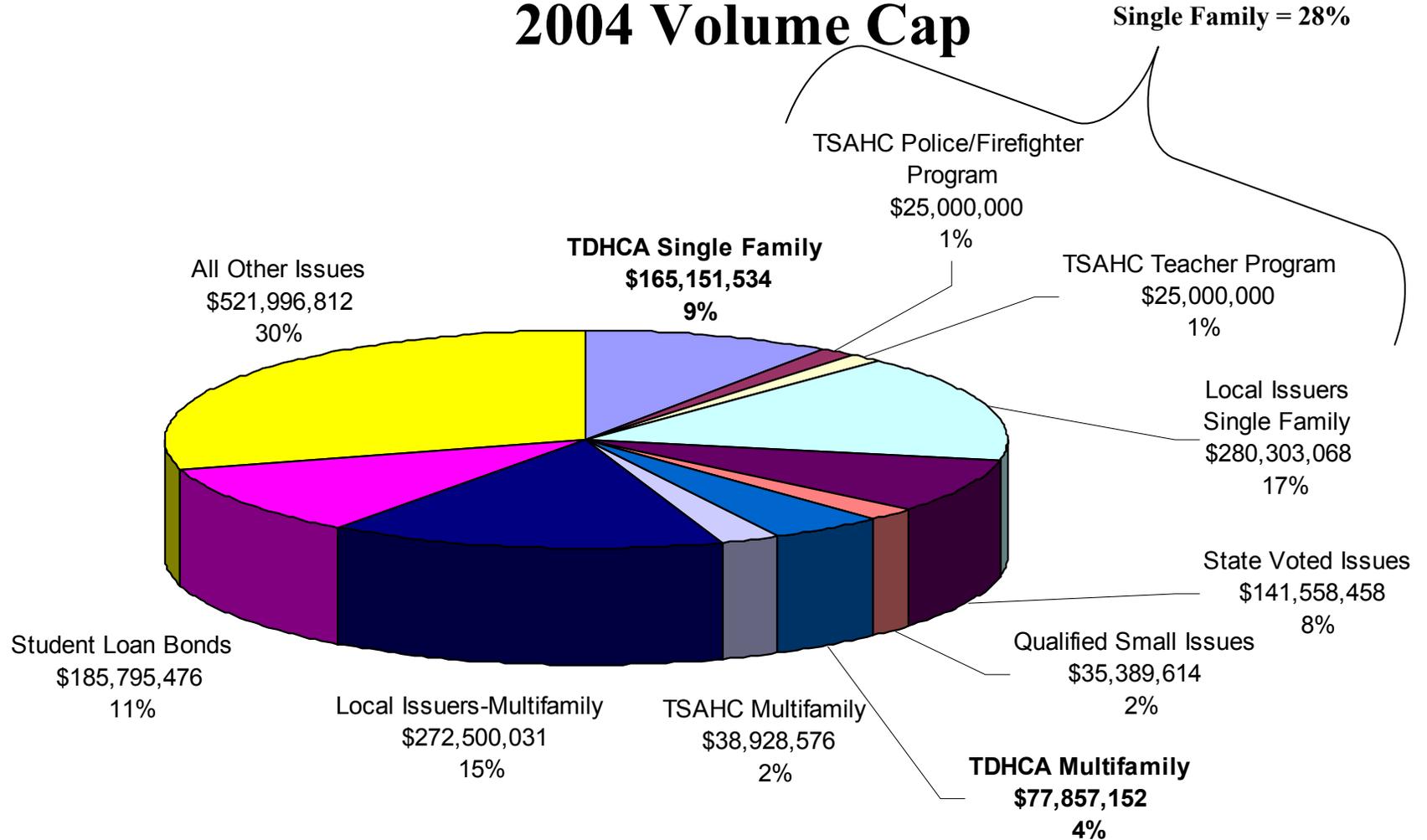
- ***Prepayments*** – Mortgage payments made in excess of the scheduled principal repayments.
- ***Private Activity Bonds*** – Tax-exempt bond issued for the express purpose of benefiting private users and that are substantially repaid with revenues provided by private users. For Qualified Mortgage Revenue Bonds, a permissible private activity bond allowed by the Internal Revenue Code, private users are low-to-moderate income first-time homebuyers.
- ***Private Activity Bond Volume Cap*** – Internal Revenue Code regulation imposing a population-based “ceiling” on the total amount of private activity bonds that can be issued each calendar year in any given state. Texas’ 2003 Private Activity Bond Volume Cap equals \$1,633,491,975 (Population of 21,779,893 multiplied by \$75).
- ***Trustee*** – Mortgage payments made in excess of the scheduled principal repayments.

## ***Single Family Mortgage Revenue Bond Program***

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- **Finances below-market interest mortgage loans to benefit extremely low to moderate income households, primarily through the Texas First-Time Homebuyer Program and the Down Payment Assistance Program**
- **State Law allocates one-third of the private activity bond authority reserved for single family use to TDHCA**
- **For 2004, TDHCA's single family PAB authority equals roughly \$165 million**
- **TDHCA combines tax-exempt private activity bonds with taxable municipal bonds to increase the number of households that can be served through the program**

## 2004 Volume Cap



**SFMRB – Single Family Mortgage Revenue Bonds**

*(Mortgages, Certificates, Insured Bonds)*

**RMRB – Residential Mortgage Revenue Bonds**

*(99% Certificates, No Bond Insurance Required )*

**CHMRB – Collateralized Home Mortgage Revenue Bonds**

*(100% Certificates, Inverse Floating Rate Bonds)*

**SF - CHMRB – Collateralized Home Mortgage Revenue Bonds**

*(100% Certificates, Privately Placed Bonds)*

## ***TDHCA's Commercial Paper Program***

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- **TDHCA's Commercial Paper Program was started in 1994 with a \$75 million limit**
- **TDHCA's Program developed to address demand for below-market interest rate mortgages in Texas**
- **Tax Code allows TDHCA to utilize prepayments on mortgages previously funded with bond proceeds to issue commercial paper for the purpose of financing additional loans for ten years subsequent to the bond closing date**
- **Tax Code allows TDHCA to use unexpended bond proceeds from previous issuances to issue commercial paper. This allows TDHCA to pay off the previous, higher interest bonds and still have money available to make loans**
- **Use of Commercial Paper has allowed TDHCA to increase its lendable funds 15%-20% in recent years**
- **Can be used to temporarily manage bond cap more cost effectively**

# *Commercial Paper Program Comparison*

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## *Prior Commercial Paper Program*

1. **\$75 million Issuance Limit**
2. **Recycling Mortgage Prepayments**
3. **Recycling Unexpended Bond Proceeds**

## *Commercial Paper Program With Requested Enhancements*

1. **\$200 million Issuance Limit**
2. **Recycling Mortgage Prepayments**
3. **Recycling Unexpended Bond Proceeds**
4. **Manage Private Activity Volume Cap**

**Bonds**

**Mortgages**

**Ginnie Mae Certificates**

(“Aaa/AAA” rated)

**Fannie Mae Certificates**

(“Aaa/AAA” rated)

**Freddie Mac Certificates**

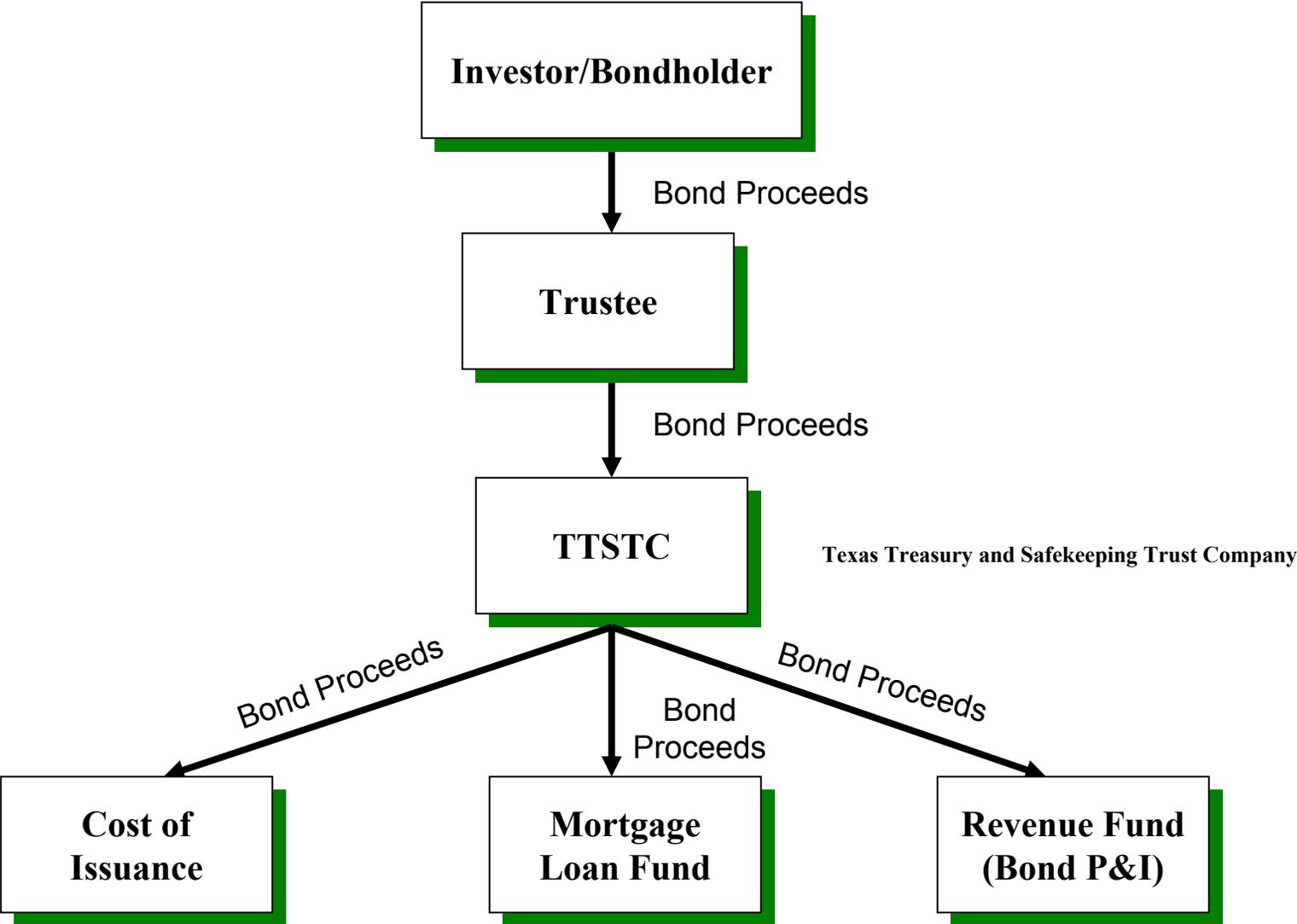
(“Aaa/AAA” rated)

**Commercial Paper**

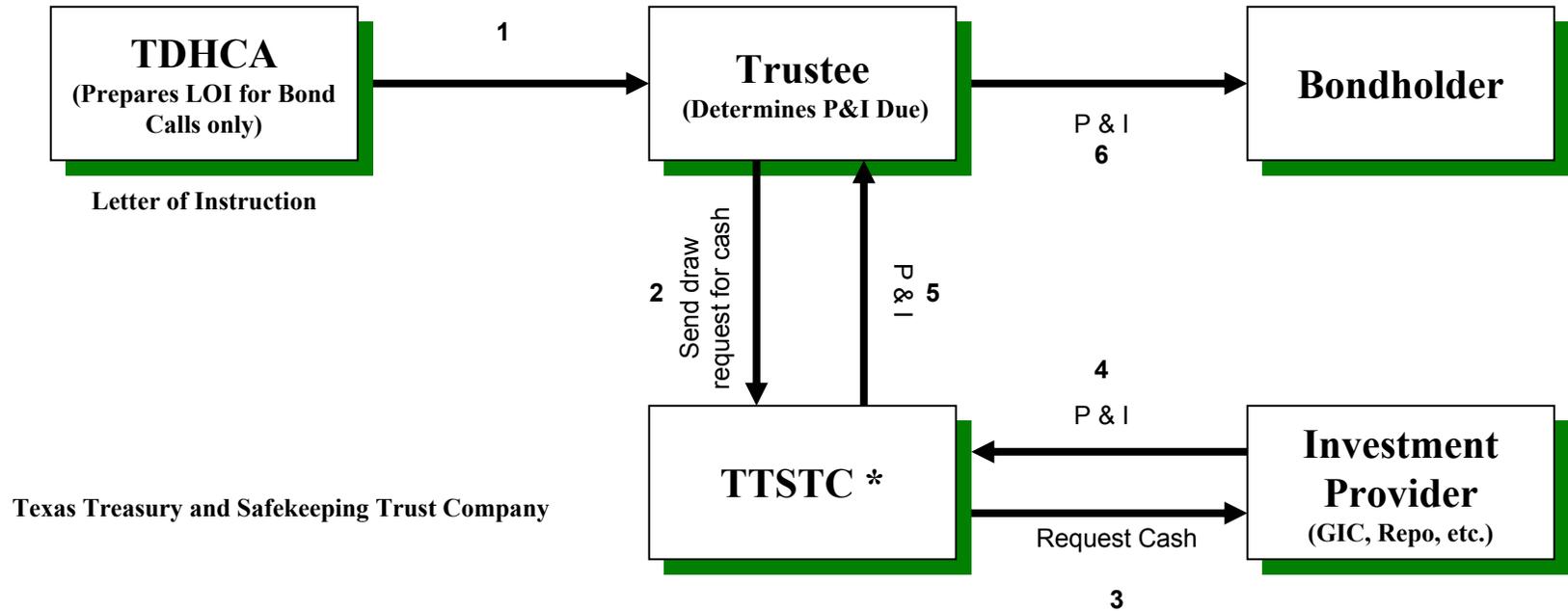
**Cash (prepayments, unexpended  
proceeds, volume cap) deposited in a  
“AAA” Rated Guaranteed  
Investment Contract**

*Flow of Funds at Closing*

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# Debt Service & Bond Redemption Flow of Funds



\*Funds Dr/Cr include Principal Fund, Interest Fund, Revenue Fund and Residual Fund.

**Objectives**

- ❖ **Minimize interest rate risk**
- ❖ **Increase first-time homebuyer mortgage volume**

**Strategies**

- ❖ **Continue frequent and smaller bond issues**
- ❖ **Use down payment assistance, extremely competitive mortgage rates and alternative credit products to diversify mortgage offerings**

**Objectives**

- ❖ **Consolidate bond indentures from five to two (seven outstanding in 1999)**
- ❖ **Increase economic efficiency of bond indentures**

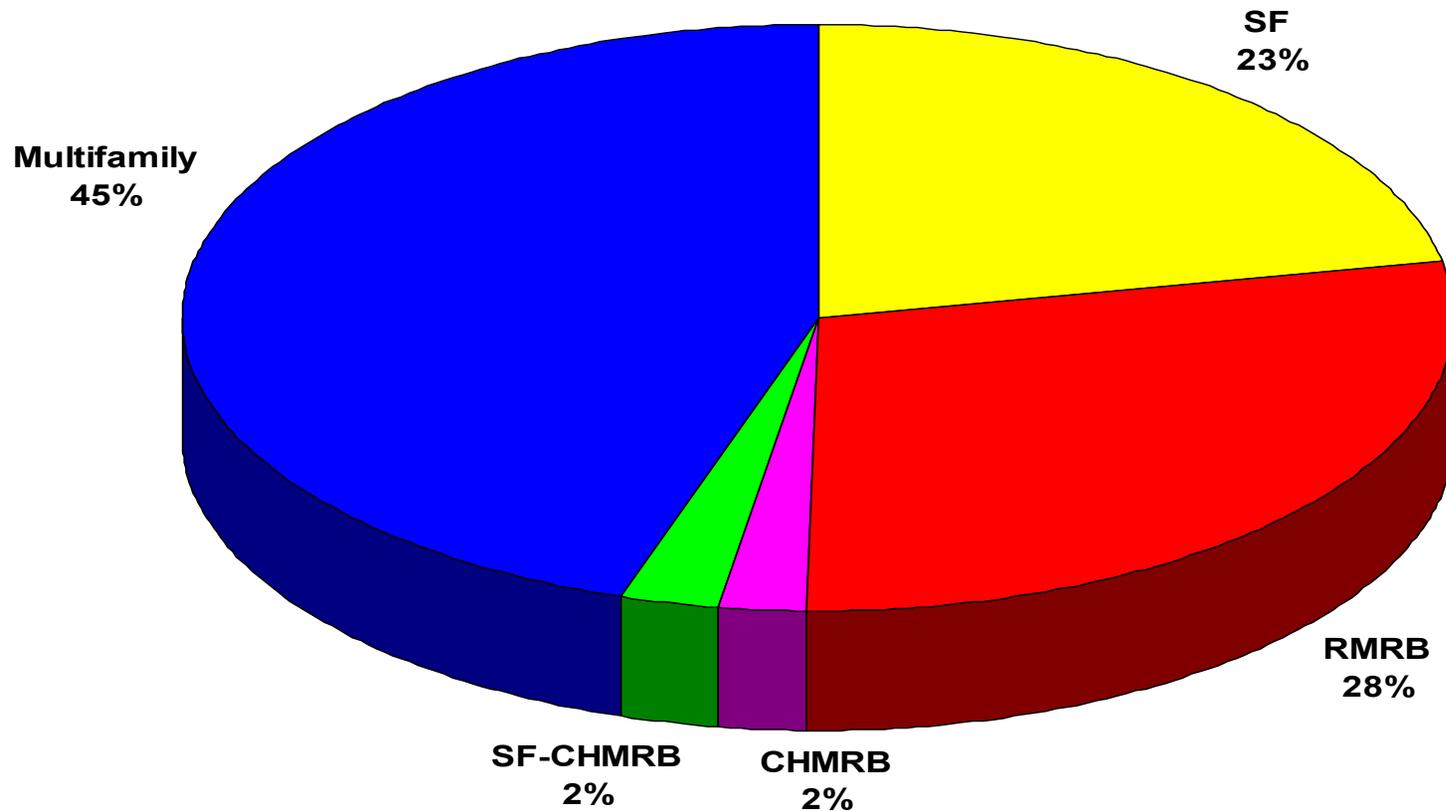
**Strategies**

- ❖ **Continue refunding prior bonds using SFMRB and RMRB indentures**
- ❖ **Continuously analyze indenture surplus and excess revenues and allocate to bond redemptions**

# *TDHCA Total Mortgage Revenue Bonds Outstanding*

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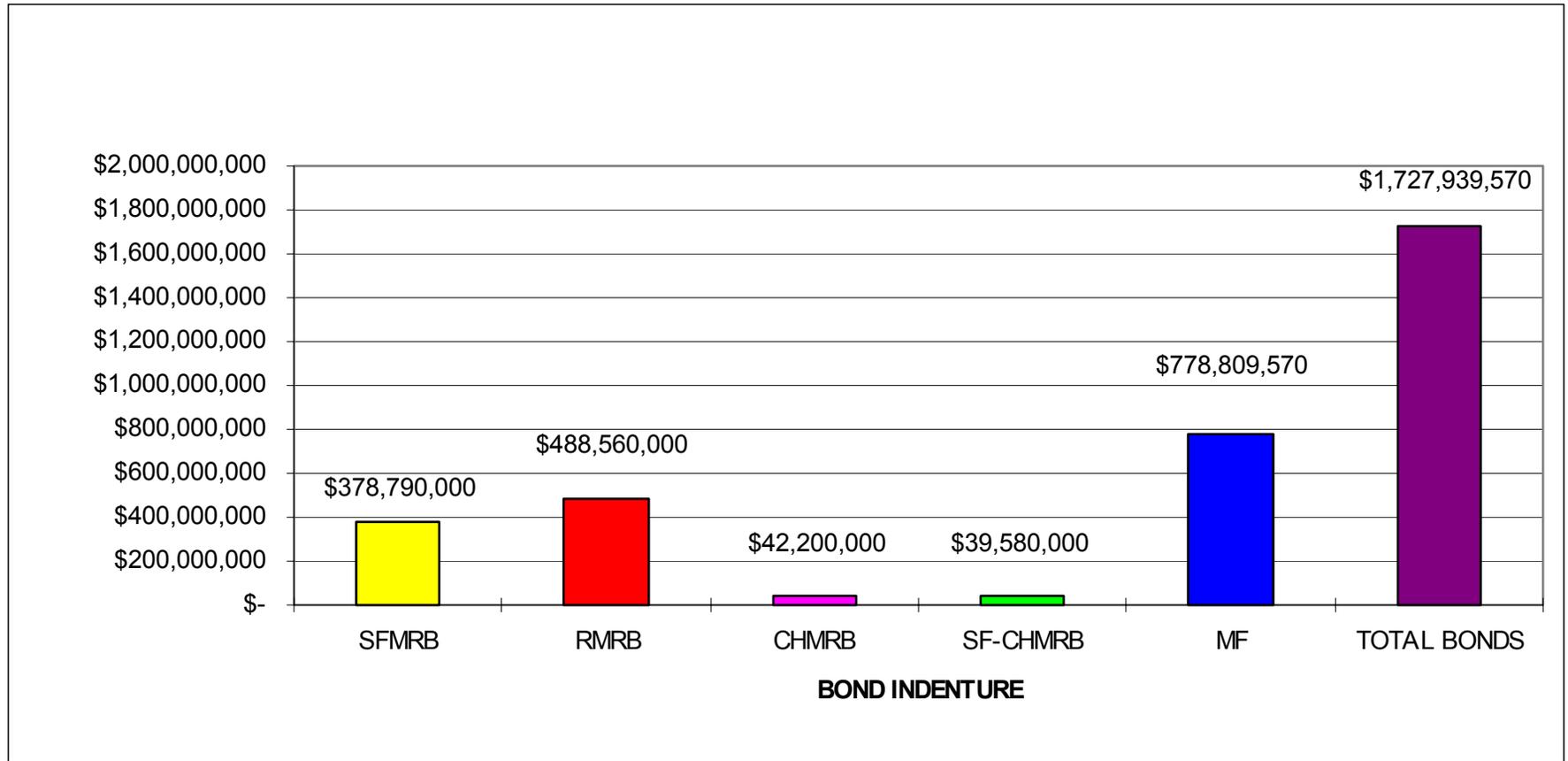
**As of January 31, 2004**  
**Listed by Bond Indenture**



All Bond Indentures are Single Family Except as Noted

# *TDHCA Total Mortgage Revenue Bonds Outstanding*

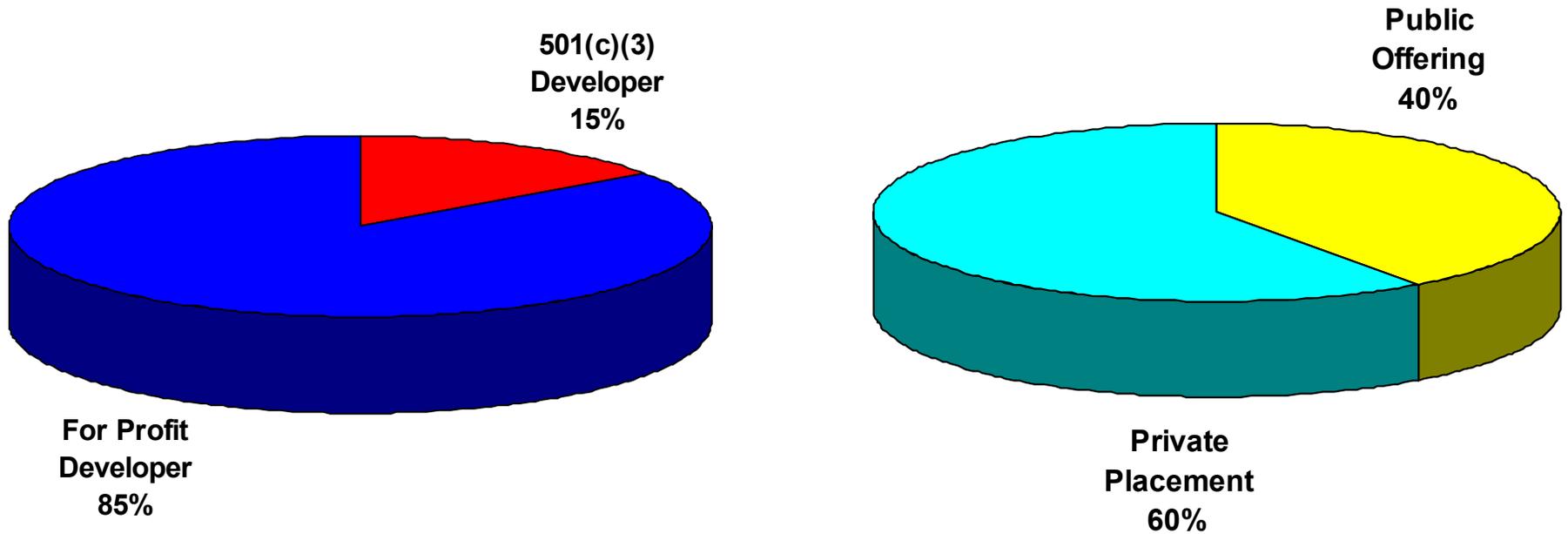
**As of January 31, 2004**



# *TDHCA Multifamily Bonds Outstanding*

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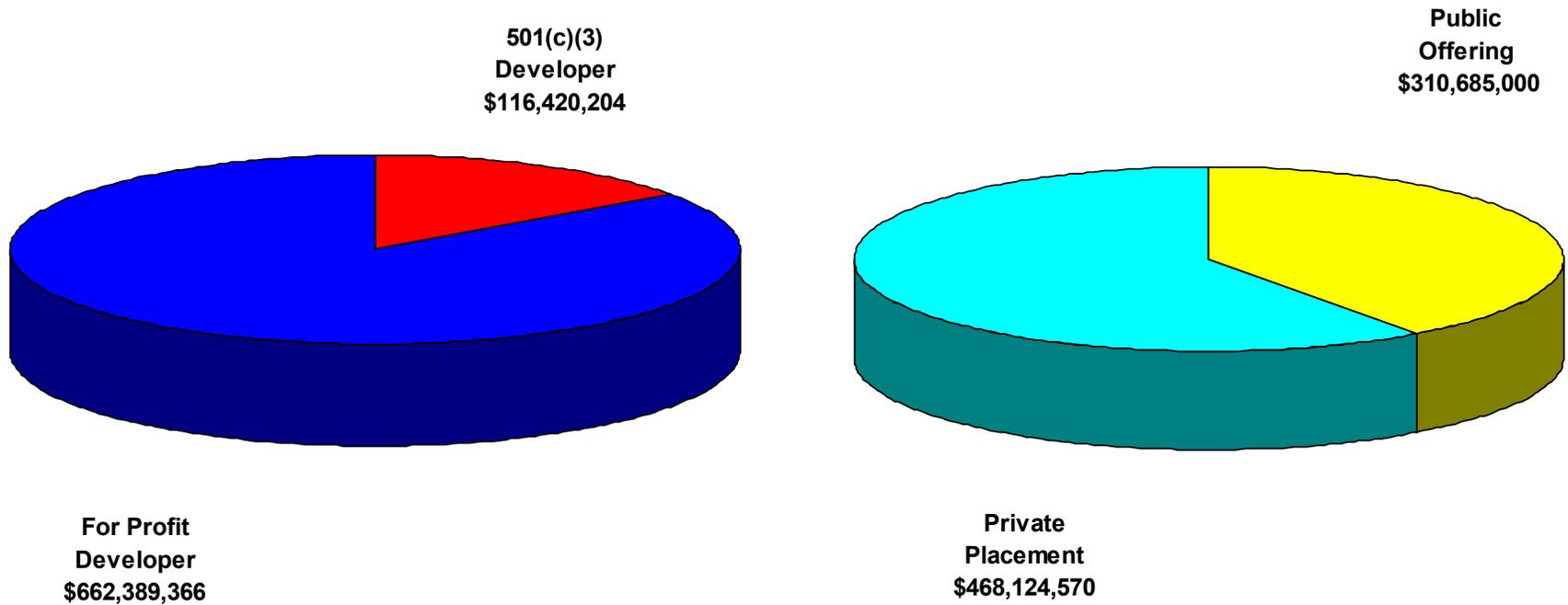
**As of January 31, 2004**



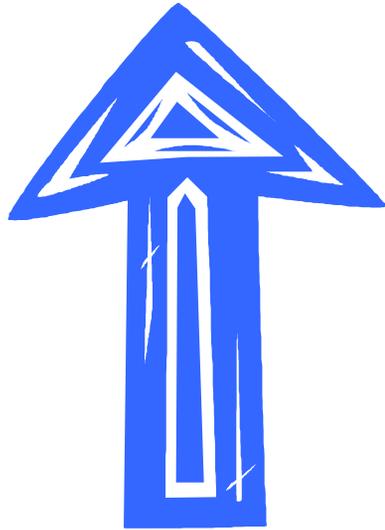
# *TDHCA Multifamily Bonds Outstanding*

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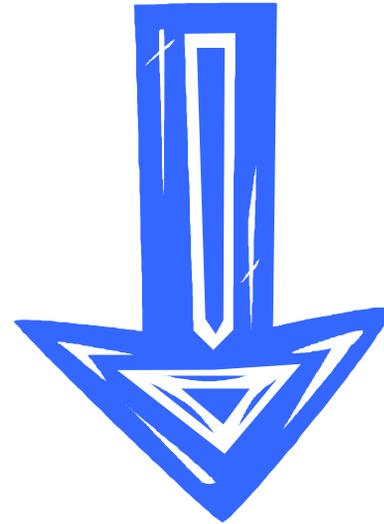
**As of January 31, 2004**



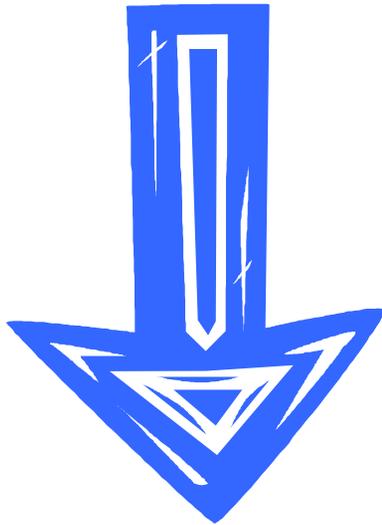
**Interest Rates**



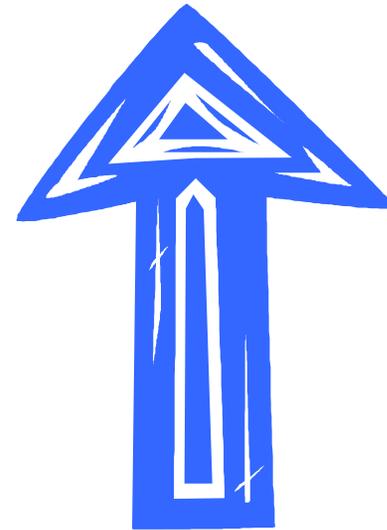
**Prepayments**



**Interest Rates**



**Prepayments**



- ***TDHCA***

- [www.tdhca.state.tx.us](http://www.tdhca.state.tx.us)

- ***Bond Finance***

- [www.tdhca.state.tx.us/hf\\_bond\\_finance.htm](http://www.tdhca.state.tx.us/hf_bond_finance.htm)

- ***Single Family Finance Production***

- [www.tdhca.state.tx.us/hf\\_sfbp.htm](http://www.tdhca.state.tx.us/hf_sfbp.htm)

**Texas Department of Housing and Community Affairs  
Outstanding Bond Programs**

Release Date	Program	Pre - Program 57A Restructuring		Post - Program 57A Restructuring		Comments	
		Assisted	Unassisted	Assisted	Unassisted		
In-progress	57	\$390,170	\$0	\$390,170	\$0	Balance as of January 5, 2004; Waiting for pipeline to clear before ending program.	
In-progress	EA	\$9,776,560	\$0	\$9,776,560	\$0	Reviewing PMI and lender compensation options	
Monday, November 03, 2003	59A	\$0	\$25,598,147	\$0	\$25,598,147	Balance as of January 5, 2004; \$45 million originally available.	
Tuesday, January 27, 2004	59	\$5,122,412	\$0	\$5,122,412	\$0	Balance as of January 5, 2004; 5.99% assisted funds; target area reservation expires January 27	
Thursday, January 29, 2004	56	\$13,512,434	\$0	\$13,512,434	\$0	Tax-exempt unexpended proceeds call due April 1, 2004; Series 2000C, Series 2000D, and Series 2000E not subject to redemption.	
Thursday, January 29, 2004	59A	\$25,572,238	\$0	\$25,572,238	\$0	5.99% assisted funds	
Monday, March 01, 2004	57A	\$14,836,535	\$53,147,411	\$67,983,946	\$0	Balance as of January 5, 2003; Restructuring finalized in February 2004.	
Monday, May 03, 2004	61	\$177,920,000	\$0	\$177,920,000	\$0	New issue	
Wednesday, August 25, 2004	62	\$0	\$175,500,000	\$0	\$175,500,000	New issue	
	<b>Total</b>	<u>\$247,130,349</u>	49% <u>\$254,245,558</u>	51%	<u>\$300,277,760</u>	60% <u>\$201,098,147</u>	40%
	<b>Aggregate Total</b>		<u>\$501,375,907</u>		<u>\$501,375,907</u>		

**Texas Department of Housing and Community Affairs  
Bond Finance Division  
2004 Prospective Bond Issues \***

	<u>January 1, 2004 Balance</u>	<u>Volume Cap Issued</u>	<u>Volume Cap Balance</u>									
2003 Volume Cap (1)	\$ 101,171,208	\$ 101,170,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -			
2004 Volume Cap	\$ 165,151,534	\$ -	\$ 165,151,534	\$ 165,150,000	\$ 1,534	\$ -	\$ 1,534	\$ -	\$ 1,534			
CP Series A	\$ 75,000,000	\$ 55,000,000	\$ 20,000,000	\$ 20,000,000	\$ -	\$ -	\$ -	\$ -	\$ -			
CP Series C	\$ 22,920,000	\$ 22,920,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -			
<b>Total</b>	<b>\$ 364,242,742</b>	<b>\$ 179,090,000</b>	<b>\$ 185,151,534</b>	<b>\$ 185,150,000</b>	<b>\$ 1,534</b>	<b>\$ -</b>	<b>\$ 1,534</b>	<b>\$ -</b>	<b>\$ 1,534</b>			
<b>Series</b>	<b>2004A</b>			<b>2004B</b>			<b>To Be Determined</b>			<b>To Be Determined</b>		
<b>Par Amount of Bonds Issued</b>	<b>\$179,090,000</b>			<b>\$185,150,000</b>			<b>To Be Determined</b>			<b>To Be Determined</b>		
Month	Jan-04	Mar-04	Apr-04	May-04	Jul-04	Aug-04	To Be Determined			To Be Determined		
Activities	Cashflows Documents	Authorization Pricing	Closing (2)	Cashflows Documents	Authorization Pricing	Closing (3)	Cashflows Documents	Authorization Pricing	Closing	Cashflows Documents	Authorization Pricing	Closing

(1) Commercial Paper Series C

(2) All assisted loans; downpayment assistance funded by junior lien proceeds

(3) All unassisted loans

# Texas Department of Housing and Community Affairs Overview of Investment Banking Pool

## Senior Manager Teams

Bear Stearns	George K. Baum	Salomon Smith Barney
Piper Jaffray	PaineWebber	Siebert Branford

## Factors Considered for Senior Manager Teams

National Presence

Retail Distribution Capacity

Institutional Distribution Capacity

Cashflow Structuring and Quantitative Capabilities

Knowledge of Department's Bond Indentures

Derivatives Structuring Capabilities

# Texas Department of Housing and Community Affairs

## Overview of Investment Banking Pool

### Co-Manager Teams

Estrada Hinojosa & Company, Inc.	A.G. Edwards & Sons, Inc.	Bank of America Securities LLC
Lehman Brothers	First Southwest Company	Loop Capital Markets, LLC
M.R. Beal & Company	Goldman, Sachs & Co.	Merrill Lynch & Co.
Morgan Stanley	Samuel A. Ramirez & Co.	Morgan Keegan & Company, Inc.

### Factors Considered for Co-Manager Teams

Retail Distribution Capacity

Institutional Distribution Capacity

Should an investment bank appointed as a Co-Manager offer a truly unique and feasible idea which adds economic value to TDHCA's bond programs, TDHCA will consider, on a case-by-case basis, assigning that firm as a senior managing underwriter for that particular transaction.

Each co-manager team will rotate as transactions occur. Bond Finance may adjust the co-manager teams from time-to-time as warranted by transaction structures, market conditions, industry consolidation and individual firm performance.

# Texas Department of Housing and Community Affairs

## Investment Banking Pool Rotation

<b>Transaction Issue Date</b>	<b>Approximate Amount (Lendable Proceeds)</b>	<b>Recommended Senior Manager and Co-Senior Manager</b>	<b>Recommended Co-Managers</b>
June 2002	\$99,400,000	Salomon Smith Barney M.R. Beal	First Southwest Company Goldman Sachs Siebert Branford
December 2002	\$40,000,000	Bear Stearns Piper Jaffray	Estrada Hinojosa Lehman Brothers Morgan Keegan
August 2003	\$70,000,000	Bear Stearns Piper Jaffray	George K. Baum (1) Salomon Smith Barney Siebert Branford UBS/PaineWebber
TBD 1	TBD	UBS Financial or Piper Jaffray (2)	Estrada Hinojosa Lehman Brothers M.R. Beal Morgan Stanley
TBD 2	TBD	UBS Financial or Piper Jaffray (3) (4)	A.G. Edwards First Southwest Company Goldman Sachs Samuel A. Ramirez & Co.

- (1) This co-manager team consists of firms assigned to the senior manager pool. Bond Finance will recommend this arrangement to reward senior managers for waiting through the six-firm semi-final rotation.
- (2) Bond Finance will recommend the firm which presents the best plan of finance to achieve TDHCA's stated funding objectives at that time.
- (3) For the TBD 2 transaction, Bond Finance will recommend the senior manager not awarded the TBD 1 transaction.
- (4) The six-firm senior manager rotation will be complete. Bond Finance will recommend at least three of the six firms presently in the senior manager pool to serve indefinitely as rotating senior managers. The remaining firms in the senior manager pool will be assigned as co-senior managers.

Thereafter, TDHCA will have three investment banking teams each comprised of at least five or six diversified firms. Bond Finance anticipates executing at least three single family bond transactions annually.

**TEXAS DEPARTMENT OF HOUSING AND COMMUNITY AFFAIRS**  
**SOURCES AND USES OF SINGLE FAMILY BOND FUNDS**  
As of January 31, 2004

<b>Uses</b>	<b>Sources (millions)</b>					<b>Percentage</b>
	<b>Zeroes</b>	<b>Bond Residuals</b>	<b>Jr. Lien</b>	<b>Total</b>		
Mortgage Buydowns	\$ 12.3	\$ 1.5	\$ 15.1	28.9	43.01%	
Special Non-MRB Programs	0.0	8.2	13.6	21.8	32.44%	
Down Payment Assistance	7.8	3.1	5.6	16.5	24.55%	
<b>Total</b>	20.1	12.8	34.3	67.2	100.00%	

**TEXAS DEPARTMENT OF HOUSING AND COMMUNITY AFFAIRS  
MORTGAGE BUYDOWNS  
As of January 31, 2004**

<u>Bond Issue</u>	<u>Program</u>	<u>Old Mortgage Rate</u>	<u>New Mortgage Rate</u>	<u>Bonds Refunded - Source of Zeroes</u>	<u>Sources</u>		
					<u>Zeroes</u>	<u>Bond Residuals</u>	<u>Jr. Lien</u>
Single Family 1995ABC	48	new issue	6.65%				4,625,000
Single Family 1996ABC	49	6.95%	5.95%	SF 1986A	1,610,120		
Single Family 1997ABC	52	new issue	6.75%				1,300,000
Single Family 1997ABC	52	6.75%	5.95%				3,711,624
Single Family 1997DEF	53	6.75%	5.95%				4,547,550
Single Family 2002ABCD	57A	new issue	5.90%/6.65%*	SF 1991A	4,545,791		
Single Family 2002ABCD	57A	new issue	5.90%/6.65%/7.20%/7.45%**	SF 1991A	1,150,000		
Single Family 2002ABCD EA Loans	57A	7.20%/7.45%	6.20%/6.50%***				918,782
RMRB 2000ABCDE	56	6.60%	5.90%			1,500,000	
RMRB 2002A	59	new issue	5.30%/5.99%*	RMRB 1987A/1987D	914,000		
RMRB 2002A	59	new issue	5.30%/5.99%*	RMRB 1988A/1989A	4,076,000		
					<u>12,295,911</u>	<u>1,500,000</u>	<u>15,102,956</u>

\* Unassisted/Assisted Rates

\*\* Unassisted/Assisted/Expanded Approval I/Expanded Approval II Rates

\*\*\* Expanded Approval I/Expanded Approval II Rates

## Refunding Tax-Exempt Revenue Bonds Secured by Single Family Mortgages

### The business of funding single family mortgages

*The following article was published in the July-September 2001 edition of "Breaking Ground" the quarterly newsletter of the Texas Department of Housing and Community Affairs.*

A certain financial concept, commonly known as the present value of money, dictates that a dollar today is worth more than a dollar sometime in the future. This concept spans all facets of finance from checking account interest to mortgage payments and further, to the design and valuation of stocks, bonds, options and other financial instruments.

Present value concepts heavily influence the valuation of bonds. A bond is an interest bearing security which obligates the *issuer (borrower)* to pay the *bondholder (investor)* a specified sum of money (*interest*), usually at specific time intervals, and to repay the amount borrowed (*principal*). Essentially, the price or value of a bond is the combined present value of the stream of future interest and principal payments.

It is commonly known that when mortgage interest rates decline, an economic advantage i.e., a certain level of savings in the monthly payment, may be obtained by *refinancing* an existing, higher interest rate mortgage. The spread between the existing mortgage's interest rate and the current market's mortgage interest rates determine the level of monthly payment savings achieved through the refinancing.

In a similar fashion, tax-exempt bonds may be refinanced or *refunded*, to realize similar economic advantages. The spread between the existing bond's interest rate and the current market's bond interest rates determine the level of present value savings achieved through the refinancing. However, the Tax Reform Act of 1986 limits the ability of an issuer to refund outstanding tax-exempt bonds. Nonetheless issuers of bonds secured by the good faith and credit of the issuer or revenues from municipal water systems, transportation systems, utilities and other *governmental purpose bonds* typically may refund existing bonds and immediately realize mostly all of the economic present value savings produced by the refunding.

Conversely, the Tax Reform Act of 1986 severely limits the ability of an issuer to refund existing tax-exempt bonds secured by single family mortgages. These bonds are typically referred to as *private activity bonds*, meaning that although a public purpose is served, the primary beneficiaries of the tax-exempt financing are private individuals and not the governmental entity issuing the bonds.

Relevant Internal Revenue Code restrictions include limitations on types of refundings, the Ten Year Rule and the Thirty-Two Year Rule. The Ten Year Rule states that all repayments on the mortgage loans received 10 years after the original issuance of the bonds must be used to redeem the bonds. This affects private activity bond refundings, because certain refundings are permitted only with payments received on the single family mortgages within 10 years from original issuance. The Thirty-Two Year Rule states that the maturity date of refunding bonds

cannot exceed 32 years from the original date of issuance of the bonds that are being refunded. This restriction may create cash flow challenges due a disparity in bond and mortgage loan maturities.

Typically, economic refundings of tax-exempt bonds secured by single family mortgages do not release cash to the issuer. Rather, the mortgages pledged to the outstanding bonds are merely transferred and pledged to the new refunding bonds. Subsequently, all of the economic savings generated by refunding tax-exempt bonds secured by single family mortgages may not be realized by an issuer due to extremely stringent Internal Code restrictions.

Because the issuer is earning interest on the mortgage loans at a higher rate than the interest the issuer is paying on the bonds, the Internal Code places limitations on the spread between the interest rate on the transferred mortgages and the refunded bond yield. If the spread is greater than allowed, in order to maintain the tax-exempt status of the bonds, this *positive arbitrage* must be used to provide zero percent mortgage loans, very low rate mortgage loans or loan forgiveness. Loans receiving these subsidies, however, must still comply with the same first-time homebuyers criteria stipulated by federal tax code. Such limitations on positive arbitrage greatly restrict the use of present value savings generated by refunding single family mortgage bonds.

In some instances, bond investors and the bond markets impose restrictions on refunding tax-exempt bonds. The bond indenture, which is the contract between the bondholders and the issuer, dictates timeframes allowable for refunding, mandates requirements for refunding bonds and states whether or not a specific series may be refunded at all.

Single family mortgage revenue bond indentures generally state that the issuer must pass refunding present value savings on to the borrowers in the form of an interest rate subsidy as described above. As noted above, these subsidized loans however, must still comply with the same mortgage underwriting criteria as the mortgage loans under the indenture.

Finally, current bond market conditions greatly impact the ability of the issuer to refund bonds. Obviously, current bond rates must be low enough to generate adequate present value savings and justify the costs of issuing refunding bonds.

Outlined above are only a few of the numerous factors constraining and affecting refundings of tax-exempt bonds secured by single family mortgages.

**TEXAS DEPARTMENT OF HOUSING AND COMMUNITY AFFAIRS  
HOUSING FINANCE DIVISION**

**PUBLIC FUNDS INVESTMENT ACT  
INTERNAL MANAGEMENT REPORT (SEC. 2256.023)  
QUARTER ENDING NOVEMBER 30, 2003**

**PUBLIC FUNDS INVESTMENT ACT  
INTERNAL MANAGEMENT REPORT (SEC. 2256.023)  
QUARTER ENDING NOVEMBER 30, 2003**

- 1) Summary of Investments by Fund (Bond Indenture)
- 2) Bar Graph - Comparison of Market by Fund between quarters
- 3) Summary of Investments by Type
- 4) Bar Graph - Comparison of Market valuation by Investment Type between quarters
- 5) Analysis of Portfolio Interest Rate Trends and Maturities

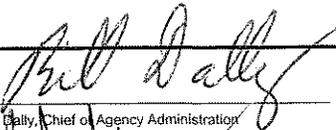
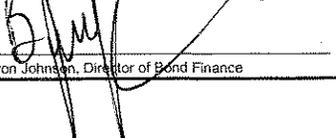
TEXAS DEPARTMENT OF HOUSING AND COMMUNITY AFFAIRS  
HOUSING FINANCE DIVISION  
PUBLIC FUNDS INVESTMENT ACT  
Internal Management Report (Sec. 2256.023)  
Quarter Ending November 30, 2003

(b) (4) Summary statement of each pooled fund group:

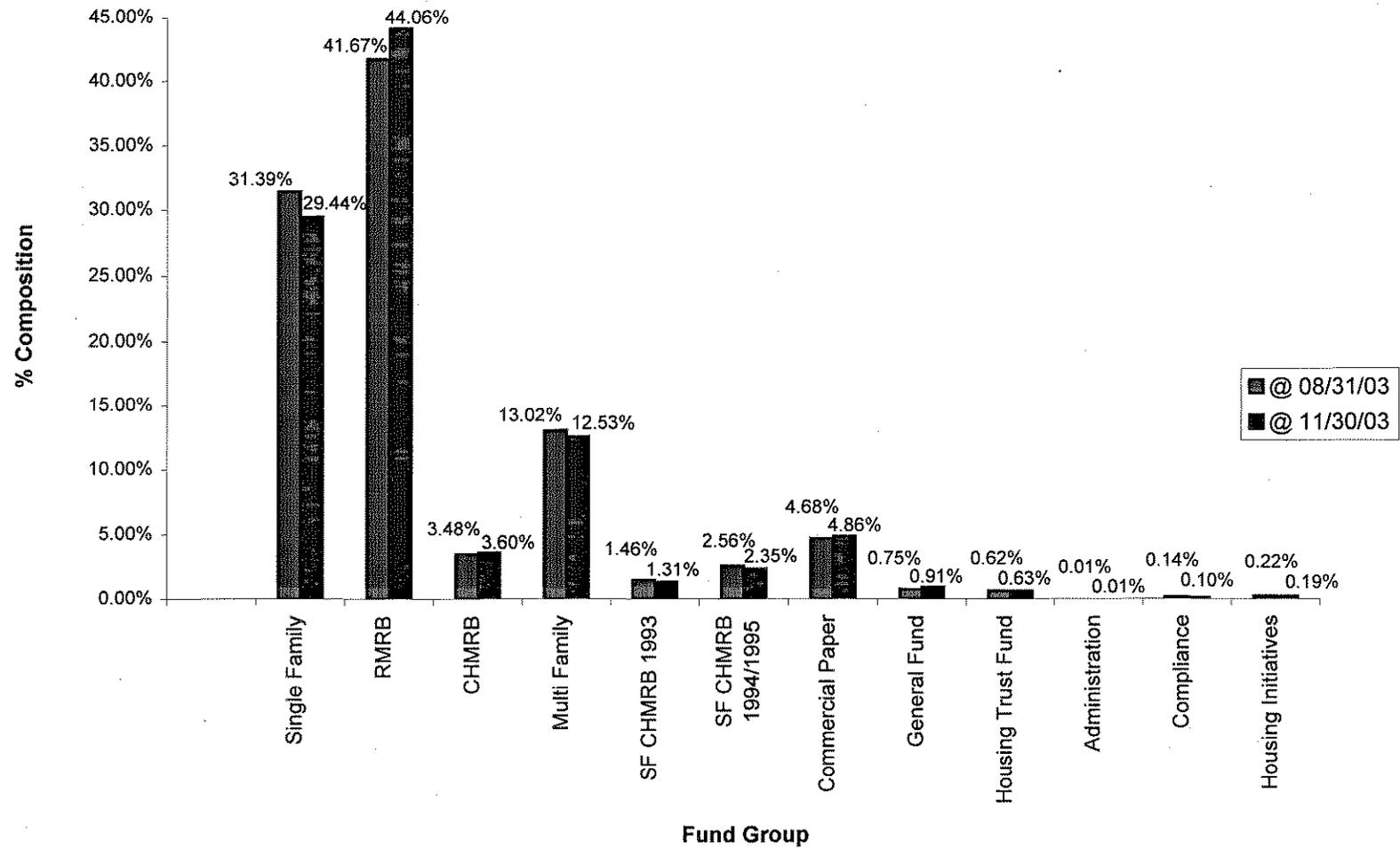
INDENTURE	FAIR VALUE (MARKET) @ 08/31/03	CARRYING VALUE @ 08/31/03	CHANGE IN CARRYING VALUE				CARRYING VALUE @ 11/30/03	FAIR VALUE (MARKET) @ 11/30/03	CHANGE IN FAIR VALUE (MARKET)	ACCRUED INT RECVBL @ 11/30/03	RECOGNIZED GAIN
			ACCRETION/ PURCHASES	AMORTIZATION/ SALES	MATURITIES	TRANSFERS					
Single Family	413,519,407.16	406,815,567.70	107,100,623.33	(135,880,534.40)	(14,474,812.63)	0.00	363,560,844.00	373,281,822.81	3,017,139.15	1,590,690.11	0.00
RMRB	548,890,352.33	542,107,507.87	42,377,605.04	(18,302,221.80)	(18,829,797.41)	0.00	547,353,093.70	558,585,871.59	4,449,933.43	3,752,146.55	0.00
CHMRB	45,780,903.02	43,358,601.56	4,750,197.90	(217,397.35)	(4,601,459.90)	0.00	43,289,942.21	45,629,902.25	(82,341.42)	204,851.76	0.00
Multi Family	171,503,300.78	171,503,300.78	71,890,663.08	(84,550,157.49)	0.00	0.00	158,843,806.37	158,843,806.37	-	209,743.82	0.00
SF CHMRB 1993	19,227,416.70	18,273,764.83	87,326.68	(814,109.07)	(1,914,214.30)	0.00	15,632,768.14	16,607,381.84	20,961.83	81,637.33	0.00
SF CHMRB 1994/1995	33,693,611.17	31,870,496.93	99,680.15	(569,055.42)	(3,372,208.39)	0.00	28,028,913.27	29,851,612.50	(415.01)	154,422.92	0.00
Commercial Paper	61,641,909.47	61,641,909.47	40,638,518.34	(40,625,000.00)	0.00	0.00	61,655,427.81	61,655,427.81	-	129,544.62	0.00
General Fund	9,838,047.34	9,838,047.34	1,880,587.69	(130,500.50)	0.00	0.00	11,588,134.53	11,588,134.53	-	1,641.65	0.00
Housing Trust Fund	8,180,956.77	8,180,956.77	2,837,202.06	(2,984,441.74)	0.00	0.00	8,033,717.09	8,033,717.09	-	1,117.07	0.00
Administration	133,383.70	133,383.70	524.48	0.00	0.00	0.00	133,908.18	133,908.18	-	18.97	0.00
Compliance	1,857,720.90	1,857,720.90	0.00	(543,603.62)	0.00	0.00	1,314,117.08	1,314,117.08	-	186.17	0.00
Housing Initiatives	2,903,311.46	2,903,311.46	59,818.88	(586,621.40)	0.00	0.00	2,376,508.94	2,376,508.94	-	338.68	0.00
<b>TOTAL</b>	<b>1,317,170,320.80</b>	<b>1,298,484,569.31</b>	<b>271,722,747.63</b>	<b>(285,203,642.99)</b>	<b>(43,192,492.63)</b>	<b>0.00</b>	<b>1,241,611,181.32</b>	<b>1,267,902,210.79</b>	<b>7,405,277.98</b>	<b>6,126,337.65</b>	<b>0.00</b>

\* No relationship can be drawn between the "ACCRUED INT RECVBL @ 11/30/03" figures and the corresponding investment values, because of various factors (e.g. purchase date of investment; interest payment terms-daily, monthly & semi-annual; etc.). In addition to the aforementioned factors with regards to the Multi Family Indenture, the Department is carrying \$ 155,212,958 of investments pledged as reserves by participating entities. The Department is carrying these investments with their corresponding liability purely for tracking the flow of funds.

(b) (8) The Department is in compliance with regards to investing its funds in a manner which will provide by priority the following objectives: (1) safety of principal, (2) sufficient liquidity to meet Department cash flow needs, (3) a market rate of return for the risk assumed, and (4) conformation to all applicable state statutes governing the investment of public funds including Section 2306 of the Department's enabling legislation and specifically, Section 2256 of the Texas Government Code, the Public Funds Investment Act.

	Date <u>1/26/04</u>
Bill Dally, Chief of Agency Administration	
	Date <u>1/21/04</u>
Byron Johnson, Director of Bond Finance	

### Market Valuation Comparison By Fund Group

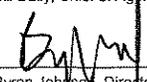


TEXAS DEPARTMENT OF HOUSING & COMMUNITY AFFAIRS  
HOUSING FINANCE DIVISION  
PUBLIC FUNDS INVESTMENT ACT  
Supplemental Schedule  
Quarter Ending November 30, 2003

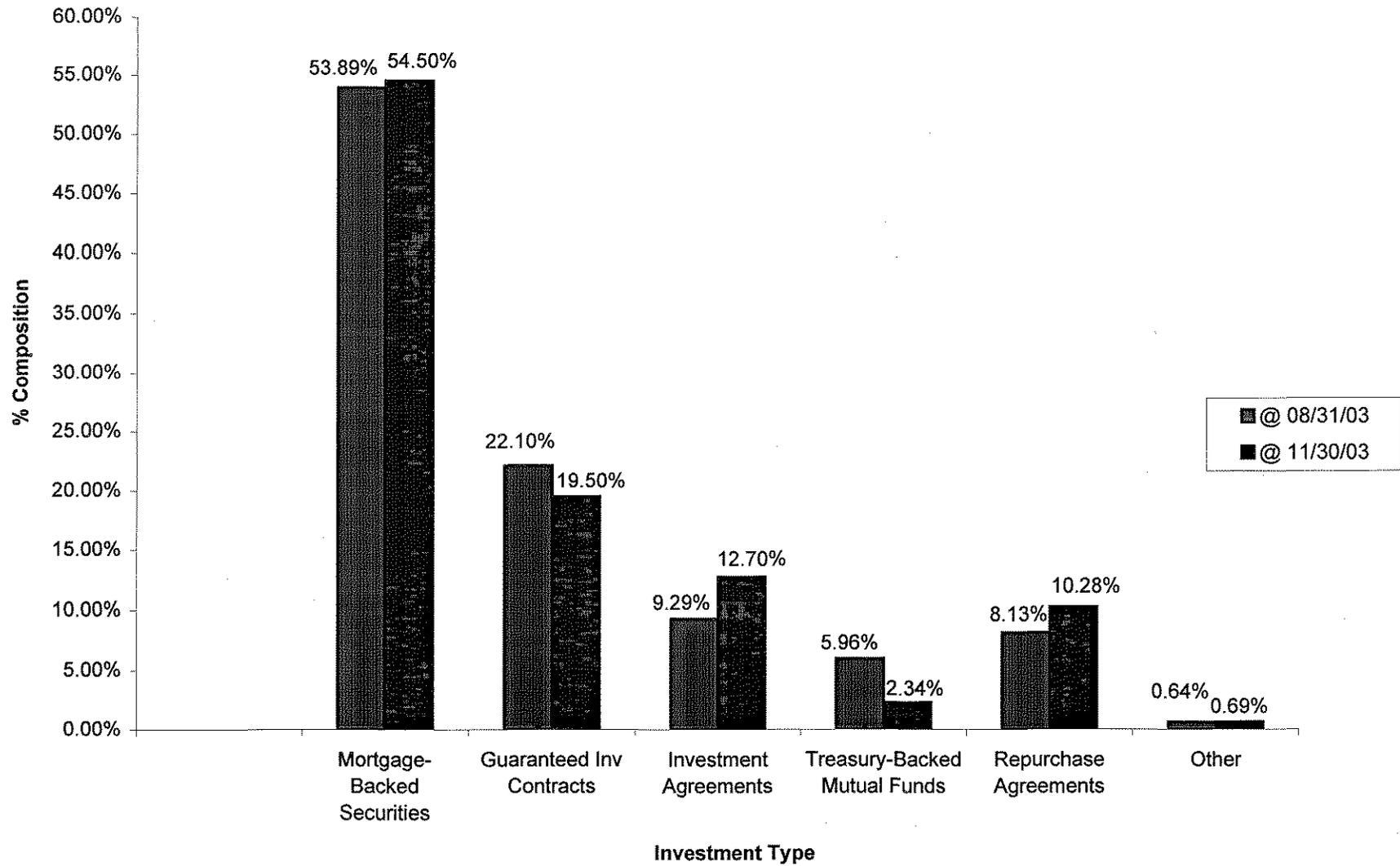
(b) (4) Summary statement of each pooled investment group:

INVESTMENT TYPE	FAIR VALUE (MARKET) @ 08/31/03	CARRYING VALUE @ 08/31/03	CHANGE IN CARRYING VALUE				CARRYING VALUE @ 11/30/03	FAIR VALUE (MARKET) @ 11/30/03	CHANGE IN FAIR VALUE (MARKET)	RECOGNIZED GAIN
			ACCRETION/ PURCHASES	AMORTIZATION/ SALES	MATURITIES	TRANSFERS				
Mortgage-Backed Securities	709,786,922.00	692,702,958.64	16,896,041.00	0.00	(43,192,492.63)	0.00	686,406,507.01	690,996,651.28	7,506,180.91	0.00
Guaranteed Inv Contracts	291,110,381.58	291,110,381.58	87,921,848.48	(131,808,719.00)	0.00	0.00	247,223,511.06	247,223,511.06	-	0.00
Investment Agreements	122,315,495.73	122,315,495.73	73,089,312.88	(34,400,578.70)	0.00	0.00	161,004,229.91	161,004,229.91	-	0.00
Treasury-Backed Mutual Funds	78,464,561.22	78,464,561.22	4,734,904.91	(53,570,398.44)	0.00	0.00	29,629,067.69	29,629,067.69	-	0.00
Repurchase Agreements	107,035,480.93	107,035,480.93	87,500,785.77	(64,225,083.27)	0.00	0.00	130,311,183.43	130,311,183.43	-	0.00
Money Markets	995,697.77	995,697.77	396,281.35	(397,253.24)	0.00	0.00	994,725.88	994,725.88	-	0.00
Treasury Bills	319,985.16	319,985.16	0.00	(2,954.69)	0.00	0.00	317,030.47	317,030.47	-	0.00
Treasury Bonds/Notes	7,141,796.41	5,540,008.28	1,183,573.24	(798,655.65)	0.00	0.00	5,924,925.87	7,425,811.07	(100,902.93)	0.00
<b>TOTAL</b>	<b>1,317,170,320.80</b>	<b>1,298,484,569.31</b>	<b>271,722,747.63</b>	<b>(285,203,642.99)</b>	<b>(43,192,492.63)</b>	<b>0.00</b>	<b>1,241,811,181.32</b>	<b>1,267,902,210.79</b>	<b>7,405,277.98</b>	<b>0.00</b>

(b) (8) The Department is in compliance with regards to investing its funds in a manner which will provide by priority the following objectives: (1) safety of principal, (2) sufficient liquidity to meet Department cash flow needs, (3) a market rate of return for the risk assumed, and (4) conformation to all applicable state statutes governing the investment of public funds including Section 2306 of the Department's enabling legislation and specifically, Section 2256 of the Texas Government Code, the Public Funds Investment Act.

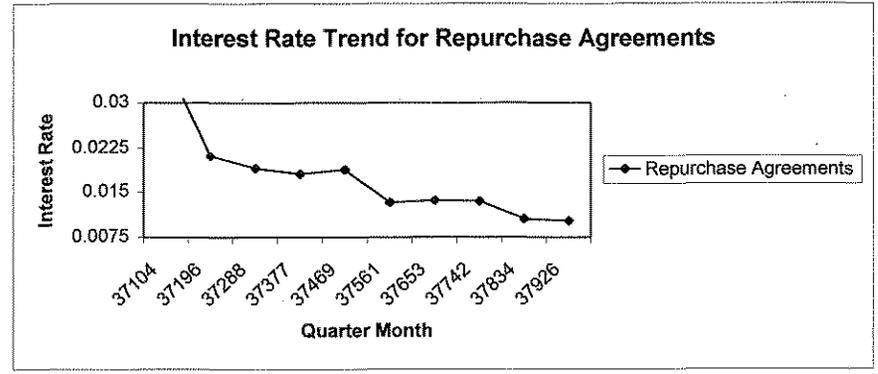
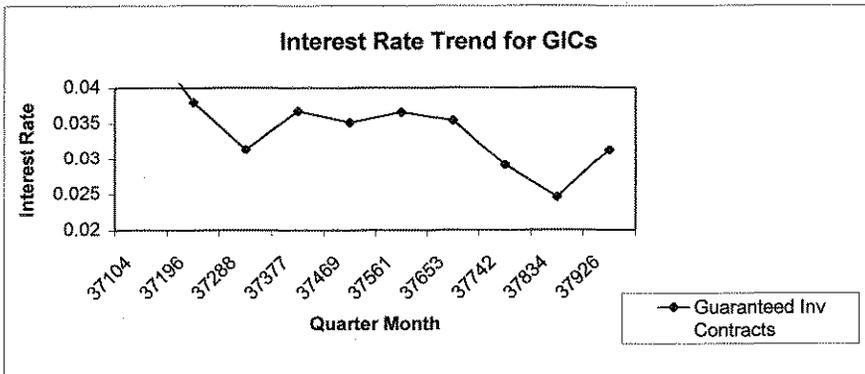
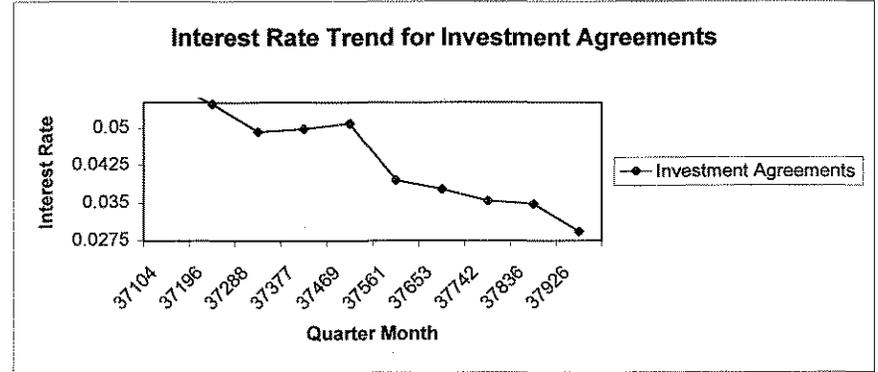
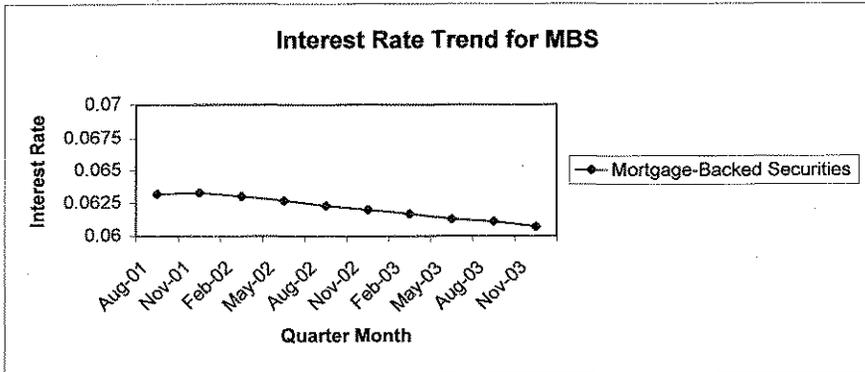
 Bill Dally, Chief of Agency Administration	Date <u>1/26/04</u>
 Byron Johnson, Director of Bond Finance	Date <u>1/21/04</u>

### Market Valuation Comparison by Investment Type



TEXAS DEPARTMENT OF HOUSING & COMMUNITY AFFAIRS  
HOUSING FINANCE DIVISION  
PUBLIC FUNDS INVESTMENT ACT  
Supplemental Schedule of Portfolio Interest Rate Trends and Maturities  
Quarter Ending November 30, 2003

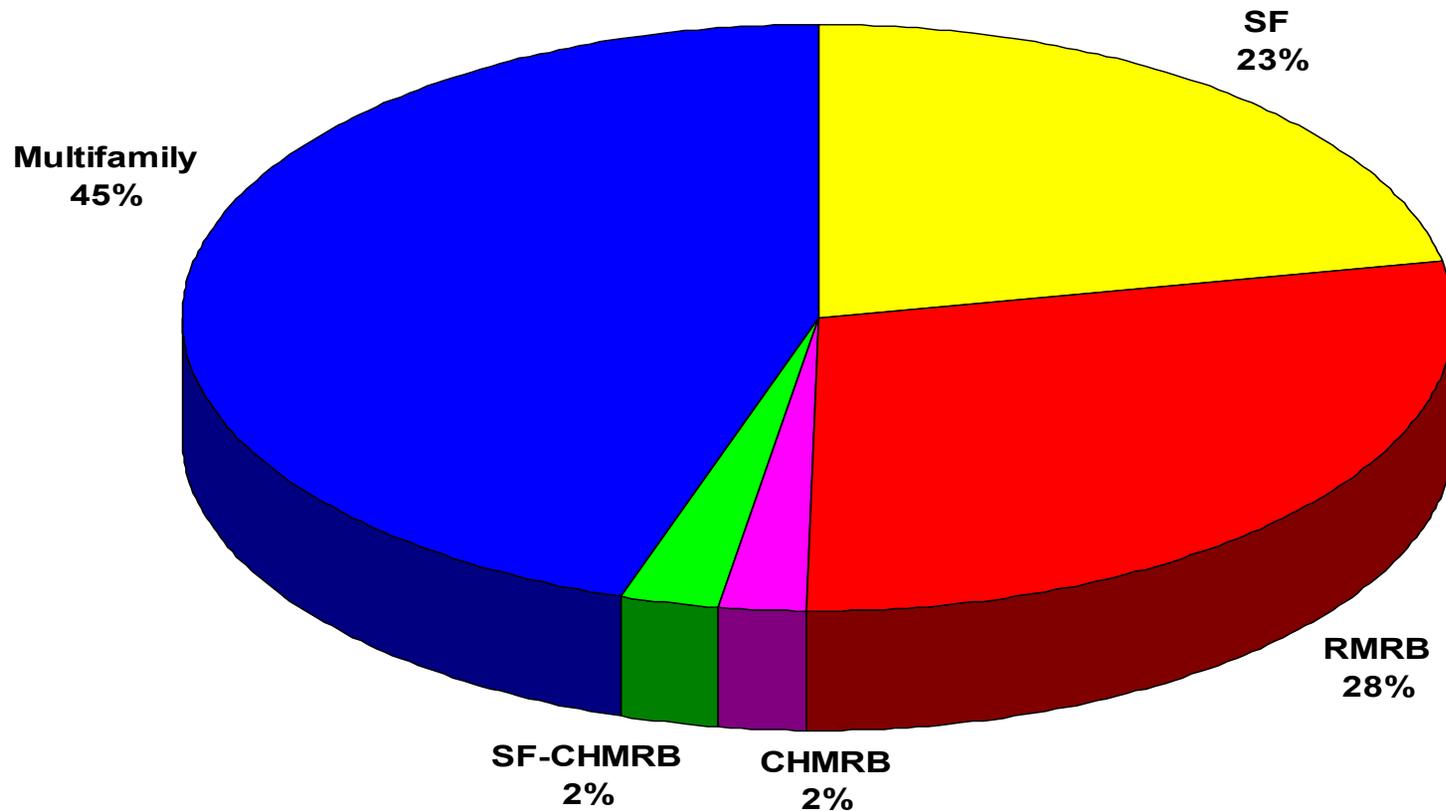
INVESTMENT TYPE	Range of Interest for Current Quarter		Portfolio % Composition	Weighted Avg Rate Beg Carrying Value	Weighted Avg Rate Beg Market Value	Weighted Avg Rate End Carrying Value	Weighted Avg Rate End Market Value	Weighted Avg Maturity Beg Carrying Value		Weighted Avg Maturity Beg Market Value		Weighted Avg Maturity End Carrying Value		Weighted Avg Maturity End Market Value	
	HI	LOW		@ 08/31/03	@ 08/31/03	@ 11/30/03	@ 11/30/03	Months	Days	Months	Days	Months	Days	Months	Days
Mortgage-Backed Securities	8.75%	4.80%	54.50%	6.09%	6.08%	6.05%	6.07%	307	2	306	5	306	15	305	21
Guaranteed Inv Contracts	6.09%	1.22%	19.50%	2.46%	2.46%	3.13%	3.13%	160	16	160	16	127	26	127	26
Investment Agreements	7.55%	1.10%	12.70%	3.48%	3.48%	2.93%	2.93%	55	6	55	6	62	29	62	29
Money Markets	0.53%	0.12%	0.08%	0.55%	0.55%	0.52%	0.52%	1	0	1	0	1	0	1	0
Treasury-Backed Mutual Funds	0.53%	0.46%	2.34%	0.49%	0.49%	0.48%	0.48%	1	0	1	0	1	0	1	0
Repurchase Agreements	1.02%	1.02%	10.25%	1.05%	1.05%	1.02%	1.02%	0	2	0	2	0	1	0	1
Treasury Bills	5.81%	3.25%	0.03%	3.99%	3.99%	3.98%	3.98%	1	0	1	0	0	25	0	25
Treasury Bonds/Notes	13.88%	3.25%	0.59%	12.45%	12.45%	11.99%	11.99%	86	6	90	10	78	26	76	26



# *TDHCA Total Mortgage Revenue Bonds Outstanding*

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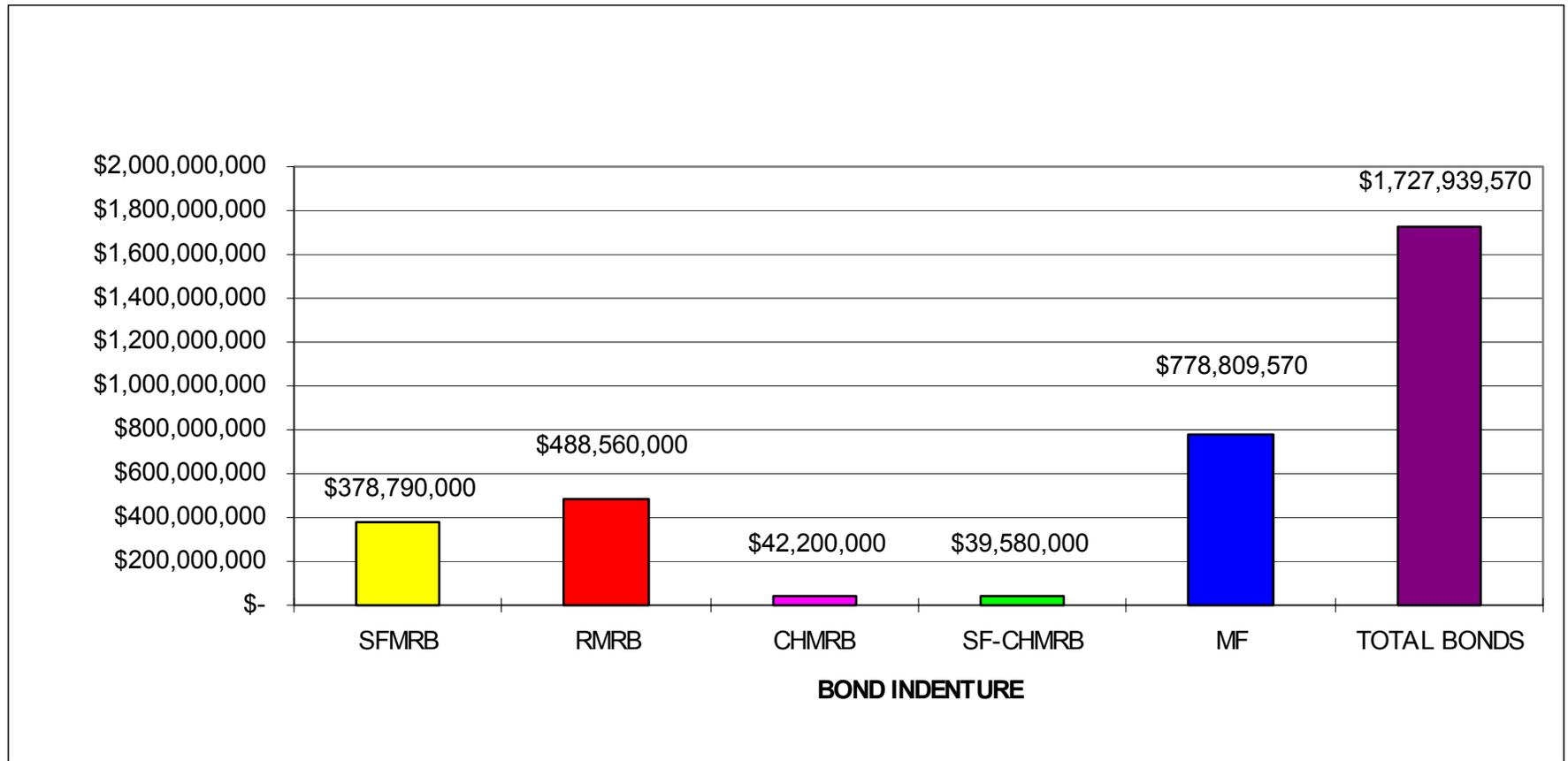
**As of January 31, 2004**  
**Listed by Bond Indenture**



All Bond Indentures are Single Family Except as Noted

# *TDHCA Total Mortgage Revenue Bonds Outstanding*

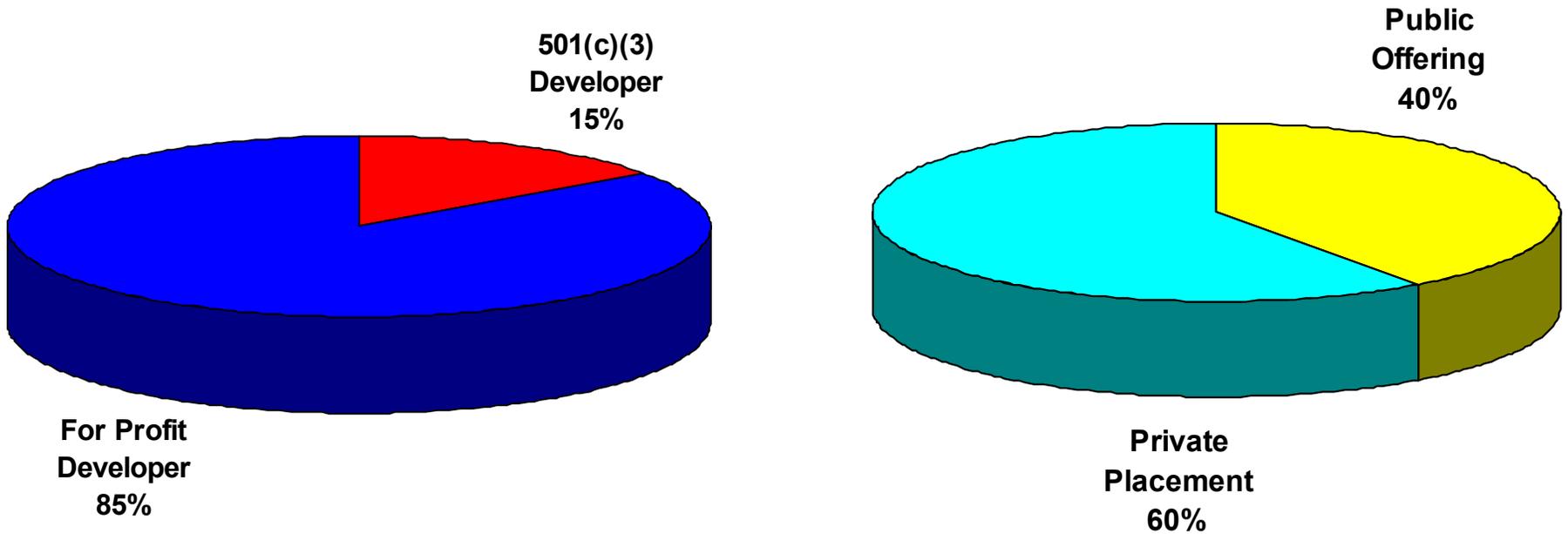
**As of January 31, 2004**



# *TDHCA Multifamily Bonds Outstanding*

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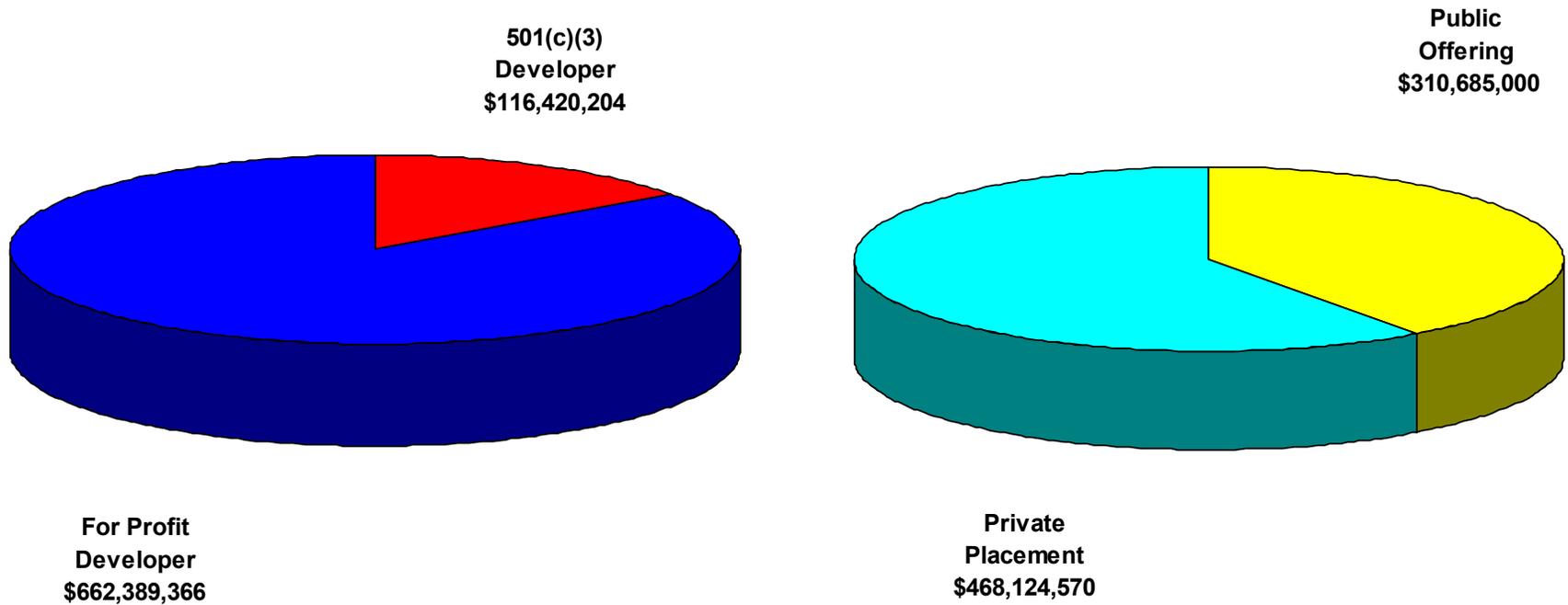
**As of January 31, 2004**



# *TDHCA Multifamily Bonds Outstanding*

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**As of January 31, 2004**



## LIST OF BONDS ISSUED BY TDHCA - SINGLE FAMILY

Issuance Date	Description of Bonds	BOND	
		Original Issue Amt.	1/31/2004 Balances
<b>Single Family Mortgage Revenue Bonds</b>			
11/06/80	1980 A Single Family	150,000,000	0.00
08/04/82	1982 A Single Family	100,000,000	0.00
09/20/83	1983 A Single Family	238,800,000	0.00
08/08/84	1984 A Single Family	238,800,000	0.00
08/08/84	1984 B Single Family	65,400,000	0.00
08/15/85	1985 A Single Family	200,000,000	0.00
11/26/85	1985 B Single Family	112,765,000	0.00
11/26/85	1985 B Single Family -- CAB's	5,954,737	0.00
11/26/85	1985 B Single Family -- LIMO's	5,276,420	0.00
11/26/85	1985 C Single Family	30,000,000	0.00
08/06/86	1986 A Single Family	83,425,000	0.00
12/04/86	1986 B Single Family	90,280,000	0.00
04/14/87	1987 A Single Family (1984A Partial Refunded---REO Program)	14,840,000	0.00
03/01/88	1987 B Single Family	77,700,000	0.00
08/29/91	1991 A Single Family Refunding (1980 A Refunded)	81,605,000	0.00
06/08/94	1994 A Single Family Jr. Lien Refunding (1983 A Refunded)	5,000,000	0.00
06/08/94	1994 A Single Family Jr. Lien Refunding (1983 A Refunded) -- CAB's	30,000,932	0.00
06/08/94	1994 B Single Family Jr. Lien Refunding (1983 A Refunded) Taxable	55,995,000	0.00
11/16/95	1995 A-1 Single Family	85,760,000	46,230,000
11/16/95	1995 B-1 Single Family Refunding (CP Refunding)	9,605,000	0.00
11/16/95	1995 C-1 Single Family Refunding (1985 A & Portion of B Refunded) Taxable	71,760,000	17,245,000
10/01/96	1996 A Single Family	15,000,000	9,975,000
10/01/96	1996 B Single Family Refunding (1986 A Refunded)	42,140,000	5,650,000
10/01/96	1996 C Single Family Taxable	2,000,000	0.00
11/14/96	1996 D Single Family	70,760,000	40,690,000
11/14/96	1996 E Single Family Refunding (Portion of 1985B; All 1985C & 1986 B; & \$14,685,000 of CP Refunding)	98,730,000	33,810,000
09/17/97	1997 A Single Family { ONLY \$4,000,000 ARE PRIVATE PLACEMENT w/ FNMA}	44,465,000	41,690,000
09/17/97	1997 B Single Family Refunding (CP Refunding)	9,510,000	9,510,000
09/17/97	1997 C Single Family Taxable	25,525,000	7,030,000
12/04/97	1997 D Single Family	44,795,000	32,995,000
12/04/97	1997 E Single Family Refunding (1987 B Refunding)	20,295,000	0.00
12/04/97	1997 F Single Family Taxable	20,000,000	9,475,000
03/27/02	2002 A Jr. Lien Single Family Mortgage Revenue Bonds Taxable	10,000,000	10,000,000
06/26/02	2002 A Single Family (New)	38,750,000	38,710,000
06/26/02	2002 B Single Family Refunding (New-rollout of 2001E COB)	52,695,000	52,410,000
06/26/02	2002 C Single Family Refunding (Commercial Paper Refunding)	12,950,000	12,940,000
06/26/02	2002 D Single Family Refunding (1991A Refunding)	13,605,000	10,430,000
		2,274,187,089	378,790,000
<b>Single Family Mortgage Revenue Bonds - (Collateralized Home Mortgage Revenue Bonds) - 1993</b>			
06/30/94	1993 A Single Family Mortgage Revenue Bonds (CHMRB) -- 5.85% Private Placement w/ FNMA	11,695,000	3,695,000
08/17/94	1993 B Single Family Mortgage Revenue Bonds (CHMRB) -- 6.62% Private Placement w/ FNMA	15,000,000	3,575,000
08/17/94	1993 C Single Family Mortgage Revenue Bonds (CHMRB) -- 6.68% Private Placement w/ FNMA	15,000,000	3,655,000
08/17/94	1993 D Single Family Mortgage Revenue Bonds (CHMRB) -- 6.76% Private Placement w/ FNMA	8,000,000	1,740,000
02/22/95	1993 E Single Family Mortgage Revenue Bonds (CHMRB) -- 6.85% Private Placement w/ FNMA	8,780,000	1,645,000
		58,475,000	14,310,000
<b>Single Family Mortgage Revenue Bonds - (Collateralized Home Mortgage Revenue Bonds) - 1994</b>			
02/22/95	1994 A Single Family Mortgage Revenue Bonds (CHMRB) -- 6.85% Private Placement w/ FNMA	35,395,000	10,440,000
04/26/95	1994 B Single Family Mortgage Revenue Bonds (CHMRB) -- 6.40% Private Placement w/ FNMA	33,385,000	10,000,000
06/27/96	1994 C Single Family Mortgage Revenue Bonds (CHMRB) -- 6.25% Private Placement w/ FNMA	15,360,000	4,830,000
		84,140,000	25,270,000
<b>Single Family Mortgage Revenue Refunding Bonds - (Collateralized Home Mortgage Revenue Bonds) - 1994</b>			
02/22/95	1995 A Single Family Mortgage Revenue Refunding Bonds (CHMRB) -- 6.26% Refund CP Private Placement w/ FNMA	5,825,000	-
04/26/95	1995 B Single Family Mortgage Revenue Refunding Bonds (CHMRB) -- 5.70% Refund CP Private Placement w/ FNMA	2,030,000	-
		7,855,000	-
<b>Residential Mortgage Revenue Bonds</b>			
12/01/87	1987 A Residential Mortgage Revenue Bonds	30,000,000	0.00
12/01/87	1987 B Residential Mortgage Revenue Bonds	25,000,000	0.00
12/01/87	1987 C Residential Mortgage Revenue Bonds	47,000,000	0.00
12/01/87	1987 D Residential Mortgage Revenue Bonds (Reoffering on 4/3/89--Not a New Issue)	47,000,000	0.00
09/07/88	1988 A Residential Mortgage Revenue Bonds	40,920,000	0.00

07/03/89	1989 A Residential Mortgage Revenue Bonds		44,000,000	0.00
07/03/89	1989 B Residential Mortgage Revenue Bonds		45,000,000	0.00
12/03/98	1998 A Residential Mortgage Revenue Bonds		102,055,000	76,285,000
12/03/98	1998 B Residential Mortgage Revenue Refunding Bonds (Commercial Paper Refunding)		14,300,000	12,450,000
05/20/99	1999 A Residential Mortgage Revenue Refunding Bonds (1987A & 1987D Forward Refunding 5/20/99)		25,615,000	10,815,000
12/02/99	1999 B-1 Residential Mortgage Revenue Bonds (New)		52,260,000	42,945,000
12/02/99	1999 B-2 Residential Mortgage Revenue Bonds (COB)		50,000,000	0.00
12/02/99	1999 C Residential Mortgage Revenue Refunding Bonds (Commercial Paper Refunding)		12,150,000	6,705,000
12/02/99	1999 D Residential Mortgage Revenue Refunding Bonds (GNMA 1989A & 1989B Refunding)		26,355,000	-
05/01/00	2000 A Residential Mortgage Revenue Refunding Bonds (1999 B-2 Refunding)		50,000,000	32,980,000
10/26/00	2000 B Residential Mortgage Revenue Bonds (New)		82,975,000	74,715,000
10/26/00	2000 C Residential Mortgage Revenue Refunding Bonds (Commercial Paper Refunding)		13,675,000	11,775,000
10/26/00	2000 D Residential Mortgage Revenue Refunding Bonds (Commercial Paper Refunding)		18,265,000	14,100,000
10/26/00	2000 E Residential Mortgage Revenue Bonds (New) Taxable		10,000,000	4,360,000
10/30/01	2001 A Residential Mortgage Revenue Bonds (New)		52,715,000	49,225,000
10/30/01	2001 B Residential Mortgage Revenue Refunding Bonds (Commercial Paper Refunding)		15,585,000	14,570,000
10/30/01	2001 C Residential Mortgage Revenue Refunding Bonds (1988A & 1989A Refunding)		32,225,000	21,710,000
10/30/01	2001 D Residential Mortgage Revenue Bonds (New)		300,000	235,000
10/30/01	2001 E Residential Mortgage Revenue Bonds (COB)		54,300,000	0.00
12/18/02	2002 A Residential Mortgage Revenue Bonds (New)		42,310,000	42,060,000
12/18/02	2002 B Residential Mortgage Revenue Bonds (COB)		74,655,000	0
08/20/03	2003 A Residential Mortgage Revenue Bonds (New-Rollout of 2002 B COB)		73,630,000	73,630,000
			<u>1,082,290,000</u>	<u>488,560,000</u>

**Collateralized Home Mortgage Revenue Bonds**

07/12/90	1990 A Collateralized Home Mortgage Revenue Bonds (RTC) (Various SF Refundings)		46,600,000	0.00
07/12/90	1990 B Collateralized Home Mortgage Revenue Bonds (RTC)		93,445,000	0.00
11/05/91	1991 A Collateralized Home Mortgage Revenue Bonds		36,000,000	0.00
11/05/91	1991 B Collateralized Home Mortgage Revenue Bonds -- (Remarketed on 6/23/92 as part of the 1992A-C)		25,000,000	0.00
11/05/91	1991 C Collateralized Home Mortgage Revenue Bonds -- (Remarketed on 6/23/92 as part of the 1992A-C)		30,000,000	0.00
06/29/92	1992 A-1 Collateralized Home Mortgage Revenue Bonds SAVRS (\$77M in new money, \$55M in refunding of 1991B&C)		14,750,000	0.00
06/29/92	1992 A-2 Collateralized Home Mortgage Revenue Bonds RIBS (\$77M in new money, \$55M in refunding of 1991B&C)		14,750,000	0.00
06/29/92	1992 B-1 Collateralized Home Mortgage Revenue Bonds SAVRS (\$77M in new money, \$55M in refunding of 1991B&C)		15,000,000	0.00
06/29/92	1992 B-2 Collateralized Home Mortgage Revenue Bonds RIBS (\$77M in new money, \$55M in refunding of 1991B&C)		15,000,000	0.00
06/29/92	1992 C-1 Collateralized Home Mortgage Revenue Bonds SAVRS (\$77M in new money, \$55M in refunding of 1991B&C)		36,350,000	21,100,000
06/29/92	1992 C-2 Collateralized Home Mortgage Revenue Bonds RIBS (\$77M in new money, \$55M in refunding of 1991B&C)		36,350,000	21,100,000
			<u>363,245,000</u>	<u>42,200,000</u>

**Consolidated Collateralized Mortgage Obligation Bonds**

05/04/87	1987 A Collateralized Mortgage Obligation (CMO)		100,000,000	0.00
	Mortgage Credit Certificate (MCC) - 85 Authority			0.00
	Low Income Tax Credit Program - No Bonds			0.00

**Government National Mortgage Association Bonds - (Collateralized Home Mortgage Revenue Bonds)**

03/29/89	1989 A GNMA Collateralized Home Mortgage Revenue Bonds (Refund RMRB '87 B&C)		72,000,000	0.00
10/19/89	1989 B GNMA Collateralized Home Mortgage Revenue Bonds		48,250,000	0.00
			<u>120,250,000</u>	<u>0.00</u>

## LIST OF BONDS ISSUED BY TDHCA - MULTI-FAMILY

Issuance Date	Description of Bonds	BOND	
		Original Issue Amt.	1/31/2004 Balances
	<b>Multi-Family Bonds</b>		
	1982 Turnkey Public Housing Development - No Bonds	0.00	0.00
11/09/82	1982 A Multi-Family (Amistad)	69,920,000	0.00
04/01/83	1983 A Multi-Family (FSLIC)	7,900,000	0.00
04/01/83	1983 B Multi-Family (FSLIC)	13,400,000	0.00
04/01/83	1983 C Multi-Family (FSLIC)	6,100,000	0.00
04/01/83	1983 D Multi-Family (FSLIC)	7,300,000	0.00
04/01/83	1983 E Multi-Family (FSLIC)	6,100,000	0.00
08/30/82	1983 A Multi-Family (MuBen)	8,250,000	0.00
08/30/82	1983 B Multi-Family (MuBen)	13,500,000	0.00
12/29/83	1983 A Multi-Family (Phoenix Mutual)	13,005,000	0.00
12/29/83	1983 B Multi-Family (Phoenix Mutual)	9,385,000	0.00
03/29/84	1984 A Multi-Family (Carpenter Oxford)	16,900,000	0.00
03/29/84	1984 B Multi-Family (Dallas Oxford)	17,500,000	0.00
10/26/84	1984 A Multi-Family (Summer Bend) (See 3rd Supplement-8/23/95) Private Placement w/ Merrill Lynch	10,100,000	8,120,000
01/22/85	1984 A Multi-Family (Sum Meadow/Cross)	14,300,000	0.00
01/22/85	1984 B Multi-Family (Sum Meadow/Cross)	10,675,000	0.00
04/04/85	1985 A Multi-Family (MacArthur I) (MuBen)	12,250,000	0.00
04/04/85	1985 A Multi-Family (Folsom IV)	7,560,000	0.00
10/02/85	1985 Multi-Family (Preston Bend)	9,000,000	0.00
12/20/85	1985 C Multi-Family (MacArthur II)	9,600,000	0.00
12/17/85	1985 D Multi-Family (Rem Hill/HighPt)	13,880,000	0.00
12/17/85	1985 E Multi-Family (Rem Hill/HighPt)	12,490,000	0.00
12/20/85	1985 G Multi-Family (Wildwood)	8,200,000	0.00
12/13/85	1985 H Multi-Family (Southridge)	8,000,000	0.00
12/27/85	1985 I Multi-Family (Colorado Club)	8,800,000	0.00
08/25/87	1987 A Multi-Family Refunding (Rem Hill/HighPt) - 1985 E Rem Hill/High Pt Refunded	12,490,000	0.00
08/25/87	1987 B Multi-Family Refunding (Rem Hill/HighPt) - 1985 D Rem Hill/High Pt Refunded	13,880,000	0.00
12/22/87	1987 South Texas Rental Housing Revenue Bonds Taxable Private Placement w/ 5 investors See Matt for list.	1,400,000	880,540
	1987 Houston Cooperative Loan Fund - No Bonds	0.00	0.00
04/28/88	1988 A Multi-Family Refunding (Sum Meadow/Cross) - 1984 A Sum Meadow/Cross Refunded	12,905,000	0.00
04/28/88	1988 B Multi-Family Refunding (Sum Meadow/Cross) - 1984 B Sum Meadow/Cross Refunded	9,630,000	0.00
10/18/88	1988 C Multi-Family (Westborough & Oak Run)	7,100,000	0.00
10/18/88	1988 D Multi-Family (Westborough & Oak Run)	3,520,000	0.00
11/01/91	1991 A Multi-Family Refunding (Phoenix Mutual) - 1983 A Phoenix Mutual Refunded	12,180,000	0.00
11/01/91	1991 B Multi-Family Refunding (Phoenix Mutual) - 1983 B Phoenix Mutual Refunded	8,905,000	0.00
12/30/93	1993 National Center (5 properties)	16,775,000	0.00
04/01/93	1993 A Multi-Family Refunding (Colorado Club) - 1985 I Colorado Club Refunded	8,690,000	0.00
03/11/93	1993 A Multi-Family Refunding (HighPoint) - 1987 A High Pt Refunded (Remarketed 6/98) <i>Interest Rate Cap</i>	12,490,000	12,490,000
03/11/93	1993 B Multi-Family Refunding (Rem Hill) - 1987 B Rem Hill Refunded	13,880,000	0.00
06/23/94	1994 A Multi-Family Refunding (Sum Med/Cross) - 1988 A Sum Med/Cross Refunded	12,580,000	0.00
06/23/94	1994 B Multi-Family Refunding (Sum Med/Cross) - 1988 B Sum Med/Cross Refunded	9,390,000	0.00
08/01/96	1996 A Multi-Family (Dallas-Forth Worth Apartments Pool Project)	17,415,000	16,080,000
08/01/96	1996 B Multi-Family (Dallas-Forth Worth Apartments Pool Project) Taxable	510,000	0.00
08/01/96	1996 C Multi-Family (Dallas-Forth Worth Apartments Pool Project)	1,250,000	1,145,000
08/01/96	1996 D Multi-Family (Dallas-Forth Worth Apartments Pool Project)	2,975,000	2,845,000
08/12/96	1996 A Multi-Family Refunding (Brighton's Mark Development) - 1983A MuBen Refunded GEBAM	8,075,000	8,075,000
08/12/96	1996 B Multi-Family Refunding (Brighton's Mark Development) - 1983A MuBen Refunded Taxable GEBAM	1,673,140	0.00
08/12/96	1996 A Multi-Family Refunding (Marks Las Colinas Development) - 1983B MuBen Refunded GEBAM	12,670,000	12,670,000
08/12/96	1996 B Multi-Family Refunding (Marks Las Colinas Development) - 1983B MuBen Refunded Taxable GEBAM	2,199,512	2,199,512
08/12/96	1996 A Multi-Family Refunding (Braxton's Mark Development) - 1985A MuBen Refunded GEBAM	12,250,000	12,250,000
08/12/96	1996 B Multi-Family Refunding (Braxton's Mark Development) - 1985A MuBen Refunded Taxable GEBAM	2,023,700	2,023,700
11/05/96	1996 A Multi-Family (Harbors Plumtree Apartments Pool Project)	9,665,000	9,150,000
11/05/96	1996 B Multi-Family (Harbors Plumtree Apartments Pool Project) Taxable	550,000	0.00
11/05/96	1996 C Multi-Family (Harbors Plumtree Apartments Pool Project)	1,060,000	880,000
11/05/96	1996 D Multi-Family (Harbors Plumtree Apartments Pool Project)	1,775,000	1,675,000
11/21/96	1996 A Multi-Family (NHP Foundation--Asmara Project)	26,920,000	0.00
11/21/96	1996 B Multi-Family (NHP Foundation--Asmara Project) Taxable	640,000	0.00
12/18/97	1997 Multi-Family (Meadow Ridge Apartments Project)	13,575,000	12,950,000
04/23/98	1998 Multi-Family (Pebble Brook Apartments Project)	10,900,000	10,480,000
04/24/98	1998 A Multi-Family (Residence at the Oaks Project) Private Placement w/ Bank of America	5,280,000	5,069,000
04/24/98	1998 B Multi-Family (Residence at the Oaks Project) Private Placement w/ Bank of America	2,820,000	2,707,000
04/24/98	1998 C Multi-Family (Residence at the Oaks Project) Taxable Private Placement w/ Bank of America	100,000	94,000
05/14/98	1998 Multi-Family (Volente Project)	10,850,000	10,420,000
07/16/98	1998 Multi-Family Refunding (Dallas/Oxford) - 1984B Dallas/Oxford Refunded Oxford Limited Partnership	10,300,000	10,300,000

09/10/98	1998 A Multi-Family (Greens of Hickory Trail Apartments)		10,800,000	10,800,000
09/10/98	1998 B Multi-Family (Greens of Hickory Trail Apartments)	Taxable	2,700,000	2,230,000
05/12/99	1999 A Multi-Family (Mayfield Apartments)		8,175,000	8,132,000
05/12/99	1999 B Multi-Family (Mayfield Apartments)		2,939,000	2,923,000
05/12/99	1999 C Multi-Family (Mayfield Apartments)	Taxable	331,000	0.00
12/23/99	1999 Multi-Family (Woodglen Village Apartments)		10,660,000	10,587,139
04/26/00	2000 Multi-Family (Timber Point Apartments)	Interest Rate Cap	8,100,000	8,100,000
04/27/00	2000 A Multi-Family (Oaks at Hampton Apartments)		9,535,000	9,535,000
04/27/00	2000 B Multi-Family (Oaks at Hampton Apartments)	Taxable	525,000	437,518
05/23/00	2000 Multi-Family (Deerwood Pines Apartments)		6,435,000	6,355,000
05/24/00	2000 Multi-Family (Creek Point Apartments)	Interest Rate Cap	7,200,000	7,200,000
07/17/00	2000 A Multi-Family (Parks at Westmoreland Apartments)		9,535,000	9,535,000
07/17/00	2000 B Multi-Family (Parks at Westmoreland Apartments)	Taxable	455,000	383,808
07/21/00	2000 Multi-Family (Honey Creek Apartments)		20,485,000	20,485,000
09/26/00	2000 A Multi-Family (Highland Meadow Village Apartments)		10,115,000	10,115,000
09/26/00	2000 B Multi-Family (Highland Meadow Village Apartments)		2,635,000	2,635,000
09/26/00	2000 C Multi-Family (Highland Meadow Village Apartments)	Taxable	750,000	678,000
11/07/00	2000 A Multi-Family (Greenbridge at Buckingham Apartments)		19,735,000	19,735,000
11/07/00	2000 B Multi-Family (Greenbridge at Buckingham Apartments)	Taxable	350,000	279,017
11/15/00	2000 A Multi-Family (Collingham Park Apartments)		10,400,000	10,400,000
11/15/00	2000 B Multi-Family (Collingham Park Apartments)		2,350,000	2,350,000
11/15/00	2000 C Multi-Family (Collingham Park Apartments)	Taxable	750,000	750,000
12/06/00	2000 A Multi-Family (Williams Run Apartments)		12,650,000	12,610,000
12/06/00	2000 B Multi-Family (Williams Run Apartments)	Taxable	200,000	36,187
12/14/00	2000 A Multi-Family (Red Hills Villas Apartments)		9,900,000	9,900,000
12/14/00	2000 B Multi-Family (Red Hills Villas Apartments)	Taxable	400,000	355,789
05/01/01	2001 Multi-Family (Bluffview Apartments)		10,700,000	10,668,254
05/01/01	2001 Multi-Family (Knollwood Apartments)		13,750,000	13,709,205
07/10/01	2001 A Multi-Family (Skyway Villas Apartments)		10,600,000	10,600,000
07/10/01	2001 B Multi-Family (Skyway Villas Apartments)		2,650,000	2,650,000
07/31/01	2001 A Multi-Family (Cobb Park Apartments)		7,500,000	7,500,000
07/31/01	2001 B Multi-Family (Cobb Park Apartments)	Taxable	285,000	271,031
09/06/01	2001 Multi-Family (Greens Road Apartments)		3,645,000	3,645,000
09/06/01	2001 Multi-Family (Greens Road Apartments)		4,730,000	4,730,000
09/11/01	2001 A-1 Multi-Family (Wildwood Apartments)		8,920,000	8,920,000
09/11/01	2001 A-2 Multi-Family (Wildwood Apartments)	Taxable	2,570,000	2,570,000
09/11/01	2001 B Multi-Family (Wildwood Apartments)		2,875,000	2,875,000
09/12/01	2001 A-1 Multi-Family (Meridian Apartments)		8,130,000	8,130,000
09/12/01	2001 A-1 Multi-Family (Meridian Apartments)	Taxable	3,315,000	3,315,000
09/12/01	2001 B Multi-Family (Meridian Apartments)		2,865,000	2,865,000
12/19/01	2001 A Multi-Family (Hillside Apartments)		12,500,000	12,500,000
12/19/01	2001 B Multi-Family (Hillside Apartments)	Taxable	400,000	391,461
12/19/01	2001 Multi-Family (Oak Hollow Apartments)		8,625,000	8,618,409
12/21/01	2001 A Multi-Family (Fallbrook Apartments)		12,030,000	12,030,000
12/21/01	2001 B Multi-Family (Fallbrook Apartments)		1,470,000	1,470,000
12/21/01	2001 C Multi-Family (Fallbrook Apartments)	Taxable	1,200,000	1,200,000
01/30/02	2002 A-1 Multi-Family (Millstone Apartments)		9,960,000	9,960,000
01/30/02	2002 A-2 Multi-Family (Millstone Apartments)	Taxable	200,000	200,000
01/30/02	2002 B Multi-Family (Millstone Apartments)		2,540,000	2,540,000
02/01/02	2002 Multi-Family (Sugar Creek Apartments)		11,950,000	11,950,000
02/01/02	2002 Multi-Family (West Oaks Apartments)		10,150,000	10,150,000
04/25/02	2002 Multi-Family (Park Meadows Apartments)		4,600,000	4,600,000
09/05/02	2002 Multi-Family (Clarkridge Villas Apartments)		14,600,000	14,600,000
11/08/02	2002 Multi-Family (Hickory Trace Apartments)		11,920,000	11,920,000
11/12/02	2002 Multi-Family (Green Crest Apartments)		12,500,000	12,500,000
11/15/02	2002 A Multi-Family (Ironwood Crossing)		15,000,000	15,000,000
11/15/02	2002 B Multi-Family (Ironwood Crossing)	Taxable	1,970,000	1,970,000
12/05/02	2002 Multi-Family (Woodway Village)		9,100,000	9,100,000
02/12/03	2003 A Multi-Family (Reading Road)		9,760,000	0.00
02/12/03	2003 B Multi-Family (Reading Road)		2,440,000	0.00
07/29/03	2003 A Multi-Family Refunding (Reading Road)	Interest Rate Cap	10,250,000	10,250,000
07/29/03	2003 B Multi-Family Refunding (Reading Road)	Interest Rate Cap	1,950,000	1,950,000
03/14/03	2003 A Multi-Family (North Vista)		11,200,000	11,200,000
03/14/03	2003 B Multi-Family (North Vista)		2,800,000	2,800,000
05/02/03	2003 A Multi-Family (West Virginia Apartments)		7,560,000	7,560,000
05/02/03	2003 B Multi-Family (West Virginia Apartments)		1,890,000	1,890,000
05/13/03	2003 A Multi-Family (Sphinx @ Murdeaux)		13,400,000	13,400,000
05/13/03	2003 B Multi-Family (Sphinx @ Murdeaux)	Taxable	1,685,000	1,685,000
05/23/03	2003 A Multi-Family (Primrose Houston School Apartments)	Interest Rate Cap	15,000,000	15,000,000
05/23/03	2003 B Multi-Family (Primrose Houston School Apartments)	Taxable Int Rate Cap	1,900,000	1,900,000
07/29/03	2003 A Multi-Family (Timber Oaks Apartments)		10,900,000	10,900,000

07/29/03	2003 B Multi-Family (Timber Oaks Apartments) Taxable	2,300,000	2,300,000
08/26/03	2003 A Multi-Family (Ash Creek Apartments) Interest Rate Cap	15,000,000	15,000,000
08/26/03	2003 B Multi-Family (Ash Creek Apartments) Taxable Interest Rate Cap	1,375,000	1,375,000
08/28/03	2003 A Multi-Family (Peninsula Apartments)	12,000,000	12,000,000
08/28/03	2003 B Multi-Family (Peninsula Apartments) Taxable	400,000	400,000
08/29/03	2003 A-1 Multi-Family (Evergreen at Mesquite Apartments)	8,800,000	8,800,000
08/29/03	2003 A-2 Multi-Family (Evergreen at Mesquite Apartments)	2,200,000	2,200,000
10/31/03	2003 A Multi-Family (Arlington Villas Apartments)	15,000,000	15,000,000
10/31/03	2003 B Multi-Family (Arlington Villas Apartments) Taxable	2,100,000	2,100,000
12/15/03	2003 Multi-Family (NHP Foundation-Asmara Project) Refinancing	31,500,000	31,500,000
12/23/03	2003 A Multi-Family (Parkview Townhomes Apartments)	15,000,000	15,000,000
12/23/03	2003 B Multi-Family (Parkview Townhomes Apartments) Taxable	1,600,000	1,600,000
01/06/04	2004 A Multi-Family (Timber Ridge II Apartments)	7,000,000	7,000,000
01/06/04	2004 B Multi-Family (Timber Ridge II Apartments) Taxable	500,000	500,000
01/13/04	2004 A Multi-Family (Century Park Townhomes)	10,400,000	10,400,000
01/13/04	2004 B Multi-Family (Century Park Townhomes)	2,600,000	2,600,000
01/20/04	2004 Multi-Family (Addison Park Apartments)	14,000,000	14,000,000
01/27/04	2004 A Multi-Family (Providence at Veterans Memorial Townhomes)	15,000,000	15,000,000
01/27/04	2004 A Multi-Family (Providence at Veterans Memorial Townhomes) Taxable	1,300,000	1,300,000
01/29/04	2004 Multi-Family (Providence at Rush Creek)	10,000,000	10,000,000
		<u>1,275,576,352</u>	<u>778,809,570</u>

***Texas Department of Housing  
and Community Affairs—  
Housing Finance Division***

*Computation of Unencumbered Fund Balances  
August 31, 2003 and  
Independent Auditors' Report*



## INDEPENDENT AUDITORS' REPORT

Governing Board  
Texas Department of Housing and Community Affairs

We have audited the accompanying Computation of Unencumbered Fund Balances (the "Computation") of the Texas Department of Housing and Community Affairs—Housing Finance Division (the "Division") as of August 31, 2003. The Computation is the responsibility of Division management. Our responsibility is to express an opinion based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the Computation is free from material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the Computation. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the Computation. We believe that our audit provides a reasonable basis for our opinion.

The Computation is presented on the basis of criteria described in Note 2 to the Computation for compliance with the provisions of Chapter 2306, Texas Government Code, Sections 2306.204 and 2306.205. The Computation is not intended to present unencumbered fund balances in accordance with accounting principles generally accepted in the United States of America. Unencumbered fund balances determined under the basis of presentation described in Note 2 may materially differ from those determined under accounting principles generally accepted in the United States of America.

In our opinion, the aforementioned Computation presents fairly, in all material respects, the unencumbered fund balances of the Division as of August 31, 2003, in conformity with the criteria specified by management of the Division for compliance with the computations described in the Texas Government Code, Sections 2306.204 and 2306.205, as set forth in Note 2 to the Computation.

This report is intended solely for the information and use of the Division's management and the Governing Board in accordance with the Texas Government Code, Sections 2306.204 and 2306.205, and is not intended to be and should not be used by anyone other than these specific parties.

*Deloitte + Touche LLP*

December 15, 2003

HOUSING FINANCE DIVISION

COMPUTATION OF UNENCUMBERED FUND BALANCES  
AUGUST 31, 2003 (Dollars in thousands)

	SFMRB Program	RMRB Program	CHMRB Program	M/F Program	1993 SF CHMRB Program	1994/1995 SF CHMRB Program	Commercial Paper Program	Operating Fund	
<b>BOND LIABILITIES:</b>									
Bonds payable/commercial paper notes payable	\$419,570	\$529,165	\$42,200	\$692,982	\$17,970	\$31,020	\$61,470	\$ -	
Accrued interest payable on bonds	12,314	4,295	144	6,174	97	169	124		
<b>Total</b>	<b>\$431,884</b>	<b>\$533,460</b>	<b>\$42,344</b>	<b>\$699,156</b>	<b>\$18,067</b>	<b>\$31,189</b>	<b>\$61,594</b>	<b>\$ -</b>	
<b>ASSET TEST RATIO</b>	102.00%	102.00%	102.00%	100.00%	100.00%	100.00%	100.00%	0.00%	
<b>QUALIFYING ASSETS:</b>									
Cash and temporary investments	\$ 65,606	\$ 14,487	\$ 450	\$ 82,011	\$ 1,984	\$ 888	\$ 194	\$11,192	
Investments at fair value	102,861	158,670	5,434	90,113		988	61,470		
Mortgage-backed securities at fair value	245,222	375,826	39,897		17,243	31,817			
Less fair value adjustment	(6,704)	(6,783)	(2,422)		(954)	(1,823)			
Unamortized premium/discount	435	1,277	299	3	143	263			
Loans/notes receivable—net	71,683	3,011		692,747				2,600	
Real estate owned—net	748	8							
Accrued interest receivable	2,091	2,634	243	4,608	93	174	130	15	
<b>Subtotal</b>	<b>481,942</b>	<b>549,130</b>	<b>43,901</b>	<b>869,482</b>	<b>18,509</b>	<b>32,307</b>	<b>61,794</b>	<b>13,807</b>	
<b>LESS RESTRICTIONS:</b>									
Self-insurance fund	1,743	401							
Operating reserve fund	4,271	387	24	526	15	26	11	33	
Debt service fund	1,889	561		3,102				23	
Rebate payable	605	1,835			2	13	172		
Due to lenders/other departments				169,407				48	
Housing assistance programs	17,592	6,066							
Board/department restrictions	2,000	1,500					17	9,838	
Amounts reserved for special redemptions subsequent to August 31, 2003	2,285								
<b>Subtotal</b>	<b>30,385</b>	<b>10,750</b>	<b>24</b>	<b>173,035</b>	<b>17</b>	<b>39</b>	<b>200</b>	<b>9,942</b>	
<b>Total qualifying assets less restrictions</b>	<b>451,557</b>	<b>538,380</b>	<b>43,877</b>	<b>696,447</b>	<b>18,492</b>	<b>32,268</b>	<b>61,594</b>	<b>3,865</b>	
<b>LESS ASSET TEST REQUIREMENT</b>	<b>440,522</b>	<b>544,129</b>	<b>43,191</b>	<b>699,156</b>	<b>18,067</b>	<b>31,189</b>	<b>61,594</b>		
<b>AMOUNT NEEDED TO MEET ASSET TEST REQUIREMENT</b>		<b>5,749</b>		<b>2,709</b>				<b>(3,865)</b>	<b>TOTAL</b>
<b>UNENCUMBERED FUND BALANCES</b>	<b>\$ 11,035</b>	<b>\$ -</b>	<b>\$ 686</b>	<b>\$ -</b>	<b>\$ 425</b>	<b>\$ 1,079</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$13,225</b>

See accompanying independent auditors' report and accompanying notes to the Computation.

# TEXAS DEPARTMENT OF HOUSING AND COMMUNITY AFFAIRS— HOUSING FINANCE DIVISION

## NOTES TO THE COMPUTATION OF UNENCUMBERED FUND BALANCES AUGUST 31, 2003 (IN THOUSANDS)

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### 1. BACKGROUND OF THE TEXAS DEPARTMENT OF HOUSING AND COMMUNITY AFFAIRS

*General Statement*—The Texas Department of Housing and Community Affairs (the “Department”), was created effective September 1, 1991 by an act of the 72nd Texas Legislature, pursuant to Senate Bill 546 (subsequently codified as Chapter 2306, Texas Government Code) (the “Department Act”), passed by the Texas Legislature on May 24, 1991 and signed by the Governor of the State of Texas. Effective September 1, 1991, the Department was established to assist local governments in helping residents overcome financial, social and environmental problems; to address low- to moderate-income housing needs; to contribute to the preservation and redevelopment of neighborhoods and communities; to assist the Governor and the Legislature in coordinating federal and state programs affecting local governments; and to continually inform the State and the public about the needs of local government. The Department was created by merging two former agencies: the Texas Housing Agency and the Texas Department of Community Affairs.

The Department is governed by a Governing Board composed of seven members appointed by the Governor with advice and consent of the Senate. The Department is administered by an Executive Director to be employed by the Board with the approval of the Governor. The Department is authorized to issue tax-exempt or taxable bonds, notes or other obligations to finance or refinance multifamily housing developments and single-family residential housing. Bonds and notes of the Department do not constitute a debt of the State or any political subdivision thereof. The Department Act specifically provides for the assumption by the Department of the outstanding indebtedness of the former agencies. The Housing Finance Division (the “Division”) of the Department is required to continue to carry out all covenants with respect to any bonds outstanding, including the payments of any bonds from the sources provided in the proceedings authorizing such bonds. The Department Act requires a portion of the unencumbered fund balances, as defined, of the Division of the Department to be transferred to the Housing Trust Fund from the bond programs should certain conditions be met.

The Division operates several bond programs under separate trust indentures, as follows:

- *General—Single-Family*—Since 1979, the year of creation of the Texas Housing Agency (the “Agency”), a predecessor to the Department, through August 31, 2003, the Agency or the Department has issued 27 series of Residential Mortgage Revenue Bonds, 31 series of Single-Family Mortgage Revenue Bonds, three series of Junior Lien Single-Family Mortgage Revenue Refunding Bonds, 10 series of GNMA/FNMA Collateralized Home Mortgage Revenue Bonds, 11 series of Collateralized Home Mortgage Revenue Bonds and two series of Government National Mortgage Association (“GNMA”) Collateralized Home Mortgage Revenue Bonds. As of August 31, 2003, the outstanding principal amount of bonded indebtedness of the Department for single-family housing purposes was \$1,039,925.

**NOTES TO THE COMPUTATION OF UNENCUMBERED FUND BALANCES  
AUGUST 31, 2003 (IN THOUSANDS) (CONTINUED)**

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- *General—Multifamily*—The Department and the Agency have issued 128 multifamily housing revenue bonds, which have been issued pursuant to separate trust indentures and are secured by individual trust estates, which are separate and distinct from each other. As of August 31, 2003, 57 series were outstanding, with an aggregate outstanding principal amount of \$692,982.
- *Single-Family Mortgage Revenue Bonds (“SFMRBs”)*—The Department has issued 31 series of Single-Family Mortgage Revenue and Refunding Bonds under a Single-Family Mortgage Revenue Bond Trust Indenture, dated as of October 1, 1980, and 35 indentures supplemental thereto, which are secured on an equal and ratable basis by the trust estate established by the SFMRB Indenture. As of August 31, 2003, 16 series were outstanding, with an aggregate outstanding principal amount totaling \$419,570.
- *Junior Lien Bonds*—The Department has issued three series of its Junior Lien Single-Family Mortgage Revenue Refunding Bonds (the “Junior Lien Bonds”) pursuant to a Junior Lien Trust Indenture, as supplemented by the First Supplemental Junior Lien Trust Indenture and the Second Supplemental Junior Lien Trust Indenture, each dated as of May 1, 1994, and the Third Supplemental Junior Lien Trust Indenture dated as of March 27, 2002, by and between the Department and Bank One, Texas, NA, as trustee. The Junior Lien Bonds are secured on an equal and ratable basis with each other and on a subordinated basis to the SFMRBs by the trust estate held under the SFMRB Indenture. As of August 31, 2003, one series is outstanding, with an aggregate outstanding principal of \$10,000.
- *Residential Mortgage Revenue Bonds (“RMRBs”)*—As of August 31, 2003, the Department has issued 27 series of Residential Mortgage Revenue and Refunding Bonds pursuant to the Residential Mortgage Revenue Bond Trust Indenture and 24 separate Series Supplements, which are secured on an equal and ratable basis by the trust estate established by the RMRB Indenture. As of August 31, 2003, 16 series were outstanding, with an aggregate outstanding principal amount of \$529,165.
- *Collateralized Home Mortgage Revenue Bonds (“CHMRBs”)*—The Department has issued 11 series of Collateralized Home Mortgage Revenue Bonds pursuant to the Collateralized Home Mortgage Revenue Bond Master Indenture and six separate Series Supplements, which are secured on an equal and ratable basis by the trust estate established by such trust indentures. As of August 31, 2003, one series of CHMRBs was outstanding, with an aggregate outstanding principal amount of \$42,200.
- *Single-Family Collateralized Home Mortgage Revenue Bonds—1993 (“SFCHMRB—1993”)*—The Department has issued five series of Single-Family Mortgage Revenue Bonds under a GNMA/FNMA Collateralized Home Mortgage Revenue Bond Trust Indenture dated as of November 1, 1993, amended as of February 1, 1995, by and between the Department and Bank One, Texas, NA, as trustee. As of August 31, 2003, five series of the SFCHMRB—1993s were outstanding, with an aggregate outstanding principal amount of \$17,970.

**NOTES TO THE COMPUTATION OF UNENCUMBERED FUND BALANCES  
AUGUST 31, 2003 (IN THOUSANDS) (CONTINUED)**

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- *Single-Family Collateralized Home Mortgage Revenue Bonds—1994 (“SFCHMRB—1994”)*—The Department has issued three series of Single-Family Mortgage Revenue Bonds in 1994 and 1995 under a GNMA/FNMA Collateralized Home Mortgage Revenue Bond Master Trust Indenture dated as of November 1, 1994, supplemented by a First Supplemental GNMA/FNMA Collateralized Home Mortgage Revenue Bond Trust Indenture dated as of November 1, 1994, as amended as of February 1, 1995, by and between the Department and Bank One, Texas, NA, as trustee. As of August 31, 2003, three series of the SFCHMRB—1994s were outstanding, with an aggregate outstanding principal amount of \$30,930.
- *Single-Family Collateralized Home Mortgage Revenue Bonds—1995 (“SFCHMRB—1995”)*—The Department has issued two series of single family mortgage revenue refunding bonds in 1995 for the purpose of refunding certain notes that previously refunded certain bonds outstanding, under a GNMA/FNMA Collateralized Home Mortgage Revenue Bond Master Trust Indenture, First Supplemental GNMA/FNMA Collateralized Home Mortgage Revenue Bond Trust Indenture and Second Supplemental GNMA/FNMA Collateralized Home Mortgage Revenue Bond Trust Indenture, each dated as of November 1, 1994, each amended as of February 1, 1995, and each by and between the Department and Bank One, Texas, NA, as trustee. As of August 31, 2003, one series of SFCHMRB—1995s was outstanding, with an aggregate outstanding principal amount of \$90.
- *Housing Trust Fund*—The Department Act provided for a transfer of a portion of the unencumbered fund balance from the bond programs for use in the Housing Trust Fund. The fund will be used to provide assistance for low- and very-low-income persons and families in financing, acquiring, rehabilitating and developing affordable, decent and safe housing. The fund will be made available to local units of government, public housing authorities, the Department, community housing development organizations and nonprofit organizations, as well as eligible low- and very-low-income individuals and families.
- *Commercial Paper Notes*—By resolution adopted November 10, 1994, the Department’s Governing Board has authorized the issuance of two series of commercial paper notes, its Single-Family Mortgage Revenue Refunding Tax-Exempt Commercial Paper Notes, Series A, and its Single-Family Mortgage Revenue Refunding Tax-Exempt Commercial Paper Notes, Series B (the “Notes”). Pursuant to the resolution, the Department is authorized to issue the Notes in an aggregate principal amount not to exceed \$75,000 outstanding. Proceeds of the initial issuance of the Notes and of future issues not issued to refund outstanding Notes will be used to redeem certain of the Department’s single-family mortgage revenue bonds, which are subject to redemption as a result of the receipt by the Department of prepayments of the related underlying mortgage loans. Such prepayments may, at a future date, be recycled into new mortgage loans by the Department. The Notes are being issued in anticipation of the issuance of refunding bonds that will refund the Notes.

**NOTES TO THE COMPUTATION OF UNENCUMBERED FUND BALANCES  
AUGUST 31, 2003 (IN THOUSANDS) (CONTINUED)**

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**2. BASIS OF PRESENTATION**

Management of the Department has determined the following criteria and definitions should be used in the computation of unencumbered fund balances specified by the Department Act, Texas Government Code, Sections 2306.204 and 2306.205. These criteria and definitions were determined based on the requirements of the bond trust indentures, the Department Governing Board's designated purposes and financial advisors' recommendations for credit rating purposes.

**Definition of Unencumbered Fund Balance**—The bond trust indentures of the Department include certain restrictions and encumbrances on Department assets for the benefit, protection and security of the owners of the outstanding Department bonds. In addition, the Department's financial advisor has recommended that additional restrictions be maintained in the determination of unencumbered fund balance for ensuring the maintenance of parity over the immediate future.

The unencumbered fund balances of the Department represent qualifying assets less restrictions in excess of a percentage (the "Asset Test Ratio") of the total bond liabilities specified in the respective bond trust indentures. Unencumbered fund balances cannot be less than zero.

Generally, the unencumbered fund balances cannot be distributed or utilized except when certain conditions have been met within the bond trust indentures, including filing of a statement of projected revenues that projects that anticipated cash flows will be sufficient to pay Department expenses of the Division—Revenue Bond Enterprise Fund and aggregate debt service through the maturity of the bonds and to maintain all other reserve fund requirements of the respective bond trust indentures.

**Total Bond Liabilities**—The following represents the amounts included in determination of total bond liabilities:

- The bonds and commercial paper notes payable represent the contractual balance of bonds and commercial paper notes outstanding at August 31, 2003. Where the bonds are concerned, the amount excludes unamortized bond premiums or discounts.
- Accrued interest on bonds and commercial paper notes payable represents contractual interest due on outstanding balances at August 31, 2003.

**Asset Test Ratio**—This represents the ratio in excess of total bond liabilities considered necessary by the respective bond trust indentures.

**Asset Test Requirement**—This represents the encumbered qualifying assets considered necessary by the respective bond trust indentures. These amounts are calculated by multiplying the total bond liabilities by the Asset Test Ratio for the related programs.

**Qualifying Assets**—Qualifying assets exclude deferred issuance costs, deferred commitment fees, other assets and the interfund receivables (payables). The following is a summary of amounts considered to be qualifying assets in determination of unencumbered fund balance by the respective bond trust indentures and the Bond Rating Agencies:

- Cash, cash equivalents and investments are included at fair value.

**NOTES TO THE COMPUTATION OF UNENCUMBERED FUND BALANCES  
AUGUST 31, 2003 (IN THOUSANDS) (CONTINUED)**

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- Fair value adjustment represents the adjustment to eliminate the unrealized gain or loss in investments marked to fair value, since these funds are not currently available.
- Mortgage-backed securities are included at fair value. Deferred commitment fees are excluded.
- Unamortized premium/discount represents adjustment to value investments at par.
- Loans are included at their current contractual balances outstanding, net of the estimated allowance for estimated loan losses. Deferred commitment fees are excluded.
- Real estate owned is included at the carrying amount, net of the estimated allowance for estimated losses.
- Accrued interest receivable is included at the contractual balances of accrued interest on investments, mortgage-backed securities and loans.

**Restrictions**—The restrictions represent amounts to be deducted from qualifying assets for amounts required by the respective bond trust indentures, other Governing Board-designated purposes, or recommendations by the Department's financial advisors in the determination of unencumbered fund balance. The restrictions consist of the following:

- Self-insurance fund represents a required fund within the single-family and RMRB programs that is restricted for losses on self-insured loan pool programs.
- Operating reserve fund represents a restriction of approximately six months' operating expenses of the related bond programs. The single-family operating reserve also includes an estimate for 2004 cost of issuance.
- Debt service fund represents qualifying assets restricted for debt service requirements by the respective bond trust indentures.
- Rebate payable represents a restriction for amounts calculated to be payable under the rebate rules of the U.S. Treasury.
- Amounts due to lenders/other funds represents qualifying assets that are due to lenders under the bond trust indentures, as well as due to other Department funds, and are not available for any other purposes.
- Amounts reserved for Housing Assistance Programs represent amounts that are restricted for certain Department programs as designated by the Governing Board and respective bond trust indentures and therefore are not available for any other purpose as of August 31, 2003.
- Board/Department restrictions represent funds designated for a specific purpose by either Board action or management decision.
- Amounts reserved for special redemptions subsequent to August 31, 2003 represent amounts calculated for the redemption of bonds (debt service) according to provisions stipulated in each bond series' respective supplemental indenture.

**NOTES TO THE COMPUTATION OF UNENCUMBERED FUND BALANCES  
AUGUST 31, 2003 (IN THOUSANDS) (CONTINUED)**

A summary of the restrictions within the Housing Assistance Programs follows:

	<b>Single- Family Program</b>
Mortgage/housing development:	
Down Payment Assistance Program	\$ 356
REO Foreclosure Expense for Special Loan Programs	41
1991 Series A:	
Self-help/HCA&IL Prog	767
1994 Series A Jr. Lien Mortgage Loan Revenue (designated for future DPAP)	1,488
1994 Series A Jr. Lien Acquisition:	
Down Payment Assistance	15
Mortgage Loan Rate Buydown Prog	810
1994 Series B Jr. Lien Acquisition:	
Contract for Deed Conversion Program	77
1996 Series A-C Special Mortgage Loan Fund (designated for P57A)	682
1996 Series D&E Special Mortgage Loan Fund (designated for P57A)	2,889
1997 Series D-F Special Mortgage Loan Fund (designated for P57A)	747
2002 Jr. Lien Acquisition Fund Account	173
2002 Jr. Lien Preservation Program	3,961
2002 Jr. Lien Bootstrap	2,000
2002 Jr. Lien Down Payment Assistance	1,066
2002 A-C Special Mortgage Loan Fund	1,157
2002 A-C Servicing Release Premium Fund (designated for SF Debt Service)	197
2002 A-C Down Payment Assistance Program	<u>1,166</u>
	<u>\$ 17,592</u>
	<b>RMRB Program</b>
1998 A/B RMRB Special Mortgage Loan Fund	\$ 1,072
1999 B-D RMRB Down Payment Assistance Prog	5
2000 B-E Servicing Release Premium Fund (designated for RMRB Debt Service)	295
2000 A RMRB Down Payment Assistance Program	15
2001 A-C RMRB Servicing Release Premium Fund (designated for RMRB Debt Service)	32
2001 DE RMRB Servicing Release Premium Fund (designated for RMRB Debt Service)	3
2001 Down Payment Assistance Program	78
2001 ABC Special Mortgage Loan Fund (designated for P59)	2,739
2001 DE Special Mortgage Loan Fund (designated for P59)	126
2002 A Down Payment Assistance	572
2002 A Servicing Release Premium Fund (designated for RMRB Debt Service)	108
2003 A Down Payment Assistance	<u>1,021</u>
	<u>\$ 6,066</u>

**NOTES TO THE COMPUTATION OF UNENCUMBERED FUND BALANCES  
AUGUST 31, 2003 (IN THOUSANDS) (CONTINUED)**

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As of 2003 the following additional restrictions existed:

	Operating Fund
Pending arbitrage computation:	
Residual—CMO Defeasance	\$ 619
90 CHMRB/Colonias Contract for Deed	350
90 CHMRB/Colonias Contract for Deed—Interest	59
90 CHMRB/Colonias Contract for Deed (SB 867 Reserve)	163
91 CHMRB Residual/Bootstrap FY03	596
Arkansas Development Finance Authority/Below Market Interest Rate Program	2,159
Multi-Family Housing Preservation	100
Bond Programs/COI	188
Colonias project/bond contingency reserve	2,365
Future operating and general contingencies	2,509
M/F bond issuance fees reserved for HTF and/or other program use	<u>730</u>
	<u><b>\$9,838</b></u>

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**Bonded Indebtedness as of August 31, 2003**

	<b>Bonds Outstanding</b>	<b>TDHCA (Bond Finance) Top Tier Bonded Indebtedness</b>
Single-family	\$ 419,570,000	\$ 419,570,000
RMRB	529,165,000	529,165,000
CHMRB	42,200,000	42,200,000
Multifamily (South Texas Rental is bonded indebtedness)	692,982,279	906,233
93 S/F CHMRB	17,970,000	17,970,000
94/95 S/F CHMRB	31,020,000	31,020,000
Commercial Paper	61,470,000	61,470,000
Premiums and discounts, net	461,441	-
	<u>\$ 1,794,838,720</u>	<u>\$ 1,102,301,233</u>
2% of bonded indebtedness		<u>2%</u>
Minimum unencumbered fund balance requirements for top tier status		\$ 22,046,000
Amount of unencumbered fund balance per audited report		<u>\$ 13,225,491</u>
Unencumbered fund balance in excess of 2% of bonded indebtedness		\$ -
<b>Amount of required transfer to Housing Trust Fund</b>		<u><u>\$ -</u></u>

**Texas Department of Housing and Community Affairs**  
**Housing Finance Division**  
**Credit Ratings**  
As of February 1, 2004

	Single Family Program Funds	Residential Mortgage Revenue Bond Funds	Collateralized Home Mortgage Revenue Funds	Single Family CHMRB 1993 Funds	Single Family CHMRB 1994 Funds	Multi-Family Program Funds	Combined Totals
	<b>Indenture</b>						
Credit Ratings:	Senior Lien	Junior Lien					
Standard and Poor's	A+	A+	AAA	AAA	AAA	AAA	Various
Moody's	Aa1	Aa2 *	Aaa	Not Rated	Not Rated	Not Rated	Various
Fitch's	N/A	N/A	N/A	N/A	N/A	N/A	N/A

\* Moody's updated the rating of the Junior Lien Indenture on 4/17/2000 from A1 to Aa2.

**TEXAS DEPARTMENT OF HOUSING AND COMMUNITY AFFAIRS**  
**Multifamily Bond Ratings for 501(c)(3) Transactions**  
**As of 1/31/04**

<b>Bond Issue</b>	<b>Type</b>	<b>Bonds Outstanding</b>	<b>Rating</b>
1996 A DFW Apartments Pool Project	501(c)(3)	\$ 16,080,000	B
1996 C DFW Apartments Pool Project	501(c)(3)	1,145,000	D
1996 D DFW Apartments Pool Project	501(c)(3)	2,845,000	D
1996 A Harbors Plumtree Apartments Pool Project	501(c)(3)	9,150,000	A
1996 C Harbors Plumtree Apartments Pool Project	501(c)(3)	880,000	BBB
1996 D Harbors Plumtree Apartments Pool Project	501(c)(3)	1,675,000	Not rated
1996 A NHP Foundation Asmara Project	501(c)(3)	31,500,000	AAA
2000 Honey Creek Apartments	501(c)(3)	20,485,000	Private placement
2000 A Greenbridge at Buckingham Apartments	501(c)(3)	19,735,000	Private placement
2000 B Greenbridge at Buckingham Apartments	501(c)(3)	279,017	Private placement
2000 A Williams Run Apartments	501(c)(3)	12,610,000	Private placement
2000 B Williams Run Apartments	501(c)(3)	<u>36,187</u>	Private placement
	Total	116,420,204	

**\* Note: The Department's multifamily revenue bond issuances are either sold through public offerings and are credit enhanced and rated AAA, or are privately placed with a financial institution.**

# **Open vs. Closed Bond Indentures**

Information to be provided by RBC Dain Rauscher, Inc., McCall Parkhurst & Horton L.L.P., and Vinson & Elkins, L.L.P.

## CASH FLOW PROJECTIONS

Moody's assessment of the performance of a program throughout the life of the bonds is a critical component in assigning the Aaa rating. To that end, Moody's analysts review cash flow projections in which the program is subjected to various stressful loan origination and prepayment scenarios. The cash flows must demonstrate that revenues are sufficient to pay debt service and program expenses in these stressful scenarios while accurately reflecting the program parameters set out in the indenture.

This section will review the following topics:

Moody's generally reviews the following origination and prepayment scenarios but may require additional stress tests depending on a program's structure and bond redemption provisions:

- First vs. Last Day MBS Delivery
- Cash Flow Stress Scenarios
- Minimum Origination Cash Flow Run
- Supersinker / PAC Bonds
- Premium / Call-Protected / Capital Accretion Bonds
- Different MBS Pass-Through Rates
- Cash Flows Reflect All Indenture Directives and Parameters
- Program Asset-to-Debt Ratio (PADR)
- Additional Lag in MBS Payment Receipt
- Receipt of First MBS Payment
- Notice of Redemption
- Investment Rate Assumptions

- *First vs. Last Day MBS Delivery*

If the MBS pass-through rate less any excess interest portions and MBS- or loan-based fees is higher than the investment rate on acquisition funds during the acquisition period, the cash flows should show the MBSs being purchased no earlier than the last possible date allowed by the indenture. Conversely, if the pass-through rate less any excess interest portions and MBS- or loan-based fees is lower than the investment rate, the cash flows should assume first-day delivery of the MBS. These scenarios are the most stressful because there is less revenue to support debt service during the acquisition period.

- *Cash Flow Stress Scenarios*

The four basic scenarios include non-origination of loans and full origination with three different loan prepayment speed assumptions – 0% PSA<sup>2</sup>, 100% PSA, and three-year average life for the loans. If no loans are originated, investment earnings on unexpended bond proceeds and capitalized interest reserves normally provide the only revenue from which debt service and program expenses can be paid until the bonds are called for redemption or mandatory tender. A non-origination scenario tests the ability to make these payments as well as the sufficiency of funds to pay redemption or purchase price when the bonds are eventually redeemed or purchased. The full origination scenario at 100% PSA tests for cash flow sufficiency when mortgagors prepay loans as expected based on historical averages. Since the events that influence loan prepayment are frequently unexpected, Moody's also reviews full origination runs at the 0% PSA, which assumes no loan prepayments, and three-year average life speeds which demonstrate program behavior when mortgagors pay more slowly or more rapidly than expected.

- *Minimum Origination Cash Flow Run*

If any fee or expense has a minimum dollar amount that is not ratably reduced as the principal balance of either the bonds or the MBSs is reduced, then Moody's examines a minimum origination cash flow run at 0% PSA. This scenario assumes that exactly one MBS is purchased, testing the ability of the program to support the minimum expense, in addition to debt service, with revenues from only one MBS. The 0% PSA assumption extends the life of the program and thus requires that the minimum expense be supported for a longer period of time.

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<sup>2</sup> Throughout this publication, prepayment speeds based on FHA's historical averages may also be used wherever PSA is referenced.

- *Supersinker / PAC Bonds*

If the structure includes low interest rate supersinker or planned amortization class (PAC) bonds, Moody's seeks a stress test in which loan prepayments are used to call those bonds pursuant to the redemption provisions of the indenture until they have been paid in full. Thereafter, the prepayment speed falls to 0% PSA. Supersinkers and PAC bonds are low interest rate bonds which receive a pre-determined share of loan prepayments before other bonds in a program. The average interest cost of the bonds goes up once the lower rate bonds are paid, possibly resulting a dramatic shift in the ability of a program to generate expected surpluses. Moody's reviews this test to determine whether or not revenues will continue to support the higher rate bonds for a prolonged period of time. The initial speed at which loans are prepaid should be chosen so that the lower rate bonds are redeemed as quickly as possible while redeeming as few of the other higher rate bonds as necessary.

- *Premium / Call-Protected / Capital Accretion Bonds*

If the structure includes high interest rate bonds, such as call-protected, premium, or capital accretion bonds (CAB), Moody's analyzes a scenario in which loans are prepaid rapidly (three-year average life speed) until all bonds other than the call-protected, premium, or CAB bonds are paid off. The prepayment speed is then reduced to 0% PSA. The average interest cost of the bonds will increase with only call-protected, premium, or CAB bonds outstanding. This stress run tests the ability to continue payment on the higher rate bonds for an extended period of time.

- *Different MBS Pass-Through Rates*

If there is more than one net MBS pass-through rate (MBS pass-through rate less any excess interest portions and program expenses) as a consequence of having differing loan rates, Moody's may request a stress test in which loans of different rates are originated. The higher rate loans are prepaid at a rapid speed, at least that of the three-year average life run, while the lower rate loans experience no prepayments. The program quickly loses the higher source of income and is left with the lower source for an extended period of time. This scenario tests whether or not the lower rate loan revenue will be sufficient to continue timely payment of debt service on the bonds. Moody's will assess the need for this stress run on a transaction-by-transaction basis.

Moody's expects the cash flows of an MBS-secured transaction to meet the following criteria in order for the bonds to receive our Aaa rating:

- *Cash Flows Reflect All Indenture Directives and Parameters*

The cash flows and assumptions should reflect the parameters of the program as they are described in the indenture so that the program's behavior over the life of the bonds is accurately depicted in the stress runs. These parameters include, among other things, MBS purchase prices and pass-through rates, servicing and guarantee fees, scheduled sinking fund payments, redemption provisions, program expenses, and investment rates.

- *Program Asset-to-Debt Ratio (PADR)*

The program should begin with an asset-to-debt ratio of at least 100% (parity) and should maintain a level at or above parity throughout the life of the bonds. If, for example, the bonds are accelerated or the MBSs prepay in full and trigger a mandatory redemption of the bonds in whole, the trustee would have to rely upon proceeds from the sale of or prepayments on the MBSs, along with any other assets held in the trust estate, to pay bondholders. Unless assets equal or exceed liabilities, there will not be sufficient funds to pay off the bonds in full, thereby causing a default.

- *Additional Lag In MBS Payment Receipt*

Moody's looks for an additional five day lag in the receipt of an MBS payment to account for any delays by an MBS guarantor in honoring the trustee's claim should there be a late or missed MBS payment. We believe this is a critical stress given that MBSs provides the ultimate support for the bonds. If more than one type of MBS is purchased, the longest lag period among them should be used. The following table indicates on

MBS TYPE	CASH FLOWS ASSUME MBS PAYMENT RECEIVED ON
Ginnie Mae I	20 <sup>th</sup> of the month
Ginnie Mae II	25 <sup>th</sup> of the month
Fannie Mae	30 <sup>th</sup> of the month
Freddie Mac Gold	20 <sup>th</sup> of the month

which day of the month the cash flows should assume an MBS payment is received:

- *Receipt of First MBS Payment*

The cash flows should accurately reflect the payment delay from the first day of the month of MBS issuance to the date of first payment on an MBS. The first payment on a Ginnie Mae, Fannie Mae, or Freddie Mac Gold certificate is made in the first month following the month of issuance. For example, assume that a Fannie Mae security is issued on September 15. It would be dated September 1, and the first interest payment would be due on October 25. Adding the five day lag for guaranteed payment, the cash flows should reflect receipt of the first payment from that MBS on October 30.

- *Notice of Redemption*

The lag assumed in the cash flows between notice of redemption to bondholders and the actual redemption date should be the maximum number of days allowed by the indenture. This potentially increases the amount of MBS prepayments received by the trustee after notice of redemption has already been given. Because these prepayments may not be used to redeem bonds on the nearest redemption date, they will have to be invested at the lower float rate until the next possible redemption date, usually six months later. This puts greater stress on the program. For example, if the indenture allows the trustee 30 to 60 days to give notice of redemption, the cash flows should assume a redemption lag of 60 days. If a semiannual redemption date occurs on June 1 and the indenture allows up to 60 days' notice, the trustee could give notice of redemption on April 10 before receiving the April MBS distribution. Prepayments included therein could not be used to redeem bonds on June 1 and would have to be invested until the December 1 redemption date. A 30-day lag assumption would imply that the April's MBS prepayments are used to redeem bonds on June 1, a less stressful scenario.

- *Investment Rate Assumptions*

If a guaranteed investment rate for investment of unexpended bonds proceeds and other funds held under the indenture is not secured, the cash flows may assume an investment rate of no more than 2.5%. Moody's believes that this is a conservative but reasonable assumption for the rate of earnings on a basic, short-term investment vehicle.

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## **Moody's Approach To Single Family Prepayments; Innovations and Analysis**

### **Summary Opinion**

- Moody's believes that assumptions should be made about both expected and stress prepayment speeds in order to examine the various revenue streams which may occur over the life of the loan portfolio.
- A number of factors may impact prepayment experience, including current mortgage rates, the housing market and economy, the underlying loan portfolio and seasonal variations.
- Moody's believes the following prepayment scenarios are fundamental in evaluating a bond structure's future strength: 0%, 100%, Three Year Average Life, and Non-Origination Scenario.
- A Supersinker/Planned Amortization Class (PAC) Stress Scenario and a High Coupon Stress Scenario may need to be run on those bond structures which create a bond redemption priority which is not pro rata.
- Although Moody's may review some state Housing Finance Authority (HFA) open-ended single family programs which run a cash flow stress assuming a prepayment rate which is slightly above 0%, the level of the prepayment speed any program should meet will be decided on a case-by-case basis taking many factors into consideration. Moody's will continue to expect that most housing programs should withstand the 0% prepayment stress run, including all local programs and state HFA closed indenture programs.
- Moody's believes that many factors contribute to the flexibility and resources available to an HFA and, if used prudently, may mitigate certain prepayment and liquidity concerns. These factors include the role of management, the nature of the obligation, open vs. closed indentures and portfolio composition.

## **Introduction**

A fundamental component to the rating process of single family bonds is the analysis of program cash flows. In structuring a single family bond transaction, assumptions must be made in order to predict the cash flow of all assets and the timely payment of interest and principal on the bonds. These assumptions include bond and mortgage rates, fees for all bond and loan related expenses and services, and an estimation of loan prepayments. One role of the credit analyst is to determine a conservative approach to incorporating prepayment assumptions in the rating analysis through cash flow projections.

When Moody's assigns an investment grade rating to single family bond programs, we are confident that the structure meets certain cash flow sufficiency tests. This would include a 0% prepayment stress run - meaning that the only loan revenue received is regularly scheduled principal and interest. Although theoretically possible, it is highly unlikely that there would be a sustained time period when there would be no loan prepayments in a portfolio for the entire life of the bond issue.

Under certain circumstances, Moody's may consider some state HFA open-ended single family programs that assume a prepayment rate which is slightly above 0% in the program cash flows; however, the level of the prepayments a given program will need to meet will be decided on a case-by-case basis taking many factors into consideration. These factors include the historical prepayment experience of the program as tracked by the HFA, the caliber of program management oversight, HFA sophistication and resources, size of portfolio, the range of loan interest rates, and bond program wealth.

Moody's will continue to expect that most housing programs withstand the 0% prepayment stress run, including all local programs and state HFA closed indenture programs, reflecting a stress of the generally limited role of local HFA management and the limited resources of most HFAs at the local level. Closed indentures, or stand alone programs, are usually composed of a separately secured bond series which rely upon the single issue and its related investments to generate all revenues necessary for debt service payments and related expenses. These structures are often particularly vulnerable to dramatic shifts in prepayment revenues and the overcollateralization levels needed for payment of debt service as the bond nears maturity.

This article reviews Moody's approach to incorporating single family prepayment assumptions through cash flows projections. The discussion of cash flow projections and prepayment focuses largely on loan prepayments as a function of credit risk, not market risk. This emphasis on credit risk explores the impact that loan prepayments may have on the overall revenue stream, debt service and the valuation of the portfolio, rather than market risk which focuses largely on bond yield and the likelihood of bond redemption.

## **Factors Affecting Prepayment Behavior**

Homeowners, including those in mortgage pools supporting single family bond programs, may prepay their existing loan for a number of reasons such as upgrading their home, refinancing their loan, or retiring and moving on to another location. Foreclosure and subsequent sale of the property or receipt of insurance proceeds are also considered loan prepayments. So what is the likelihood that prepayments would drop off to 0% or very low levels and how long could this level be sustained? What are the factors that drive prepayments in the single family bond portfolios? What factors could offset concerns over liquidity shortfalls? The following are some of the factors that affect prepayment behavior:

### **CURRENT MORTGAGE RATES**

The propensity for a homeowner to voluntarily prepay a loan through refinancing is largely a function of the interest rate on their loan relative to current loan rates. Today more than ever, homeowners are refinancing early and often, sometimes within a year of buying the home. Over the last few years refinancings have surged as a result of historically low interest rates, aggressive mortgage bankers, access to competitive information through vehicles such as the internet, lower closing costs, and the proliferation of mortgage brokers. Traditionally accessible to jumbo and conventional mortgagors, lower and moderate income borrowers are now more apt to refinance. Whereas the benchmark to refinance just a few years ago was a decline in interest rates by roughly 200 basis points, it is now more likely to be 100 basis points for most borrowers.

## **ECONOMY**

The state of the economy is another determinant for the likelihood of prepayment. In a strong economic environment, low interest rates, low unemployment, housing price appreciation and consumer confidence combine to create a market where many homebuyers are looking to 'trade up', which ultimately means paying off the mortgage on their existing home upon a sale. Conversely, in times of high unemployment and devaluing home prices, owners are often less likely to move. However, as the economy shrinks, the borrower may be more likely to default on an existing loan, which would be considered an involuntary prepayment.

## **UNDERLYING LOAN PORTFOLIO**

Loan characteristics such as type of loan, seasoning, fixed vs. adjustable rate, and geographic location can all affect the prepayment behavior of a pool of loans. For various reasons, loans in different parts of the nation prepay faster than others. Borrowers with high rate loans that have experienced one or more periods of low interest rate environments without refinancing may not have the funds or credit to do so.

In certain instances, GNMA pools (portfolios with GNMA mortgage backed securities guaranteeing the loans) may prepay at slower rates than Fannie Mae and Freddie Mac pools because the latter pools include conventional loans and higher income borrowers, presumably with greater access to refinancing and moving opportunities. Theoretically, prepayment rates for the state HFA single family bond programs should more closely resemble GNMA pools because the profiles of the borrowers are similar and GNMA pools consist of FHA and VA loans, as do many of the single family bond programs. However, despite these similarities, Moody's does not expect the pools to prepay at the same rates consistently, as the HFA single family bond programs often vary in a number of ways from GNMA pools, particularly with the inclusion of private mortgage insurance and highly seasoned, uninsured loans within the pools.

## **SEASONAL FACTORS**

Seasonal trends such as homebuyers being more apt to buy and sell a home in the spring and summer months indicate that prepayments resulting from turnover would tend to increase in those months and fall off in the fall and winter.

## **What Do the Prepayment Numbers Mean?**

There are three fundamental measures of prepayments that are widely used in the fixed income community - CPR, PSA and FHA. FHA and PSA rates are widely used within the tax-exempt market. Although the FHA index was once the most commonly used standard for both taxable and tax-exempt markets, the FHA index has been largely replaced within the taxable market by other indices, including the PSA index.

The Public Securities Association (now the Bond Market Association) standard benchmark, or the PSA rate represents an assumed rate of prepayment each month relative to the then outstanding principal balance of a pool of mortgage loans. Basically, the PSA assumes that prepayment rates will be low for newly originated mortgages and will be higher as mortgages become more seasoned. The PSA rate assumes constant prepayment rates of 0.2% per annum of the then outstanding principal balance of such mortgage loan in the first month of the life of the loan and an additional 0.2% per annum in each month thereafter, until the thirtieth month. Beginning in the thirtieth month and in each month thereafter during the life of the mortgage loans, the PSA rate assumes a constant prepayment rate of 6% per annum.

The Federal Housing Administration experience, or FHA rate, is based upon data drawn from the actual prepayment experience on FHA-insured and VA-guaranteed loans. One of the reasons the FHA rate became widely used in the tax-exempt market is that a 100% FHA prepayment run is required to demonstrate yield compliance for bond financed transactions. FHA tables show the percentage of mortgages expected to remain outstanding from an original pool of 100,000 30-year mortgages at the end of each year. The rate of prepayment is constant within a given year, as opposed to changing monthly during the early portion of the PSA standard. Beginning in 1981, these tables were updated nearly every year through 1991 which is the last update.

Although not widely used within the tax-exempt market, the CPR, or constant prepayment rate assumes some fraction of the remaining pool is prepaid each month. The CPR is an annual rate but can easily be converted to a monthly rate. The CPR for a pool is based on characteristics of that pool and the current and expected future economic environment.

## **Standard Cash Flow Projections**

Moody's believes that assumptions must be made about both expected speeds and worst case stress scenario speeds, given that prepayment speeds, and consequently, revenue streams cannot be known with total certainty. Prepayments on some loans may alter the weighted average mortgage rate of the portfolio. If the weighted average mortgage rate of the pool is reduced by the prepayment of higher rate mortgages, then the excess interest available to cover losses and provide liquidity may be reduced. Over time, this reduction in excess interest could reduce both overcollateralization levels and the capacity for redemption of high coupon outstanding debt.

Although bond resolution provisions which direct a pro rata redemption of debt will generally sustain a more stable spread ratio throughout the life of the bonds, spreads may still shift given the prepayment of higher mortgage rate loans before lower mortgage rate loans and other prepayment pressures. Given the many variables which may impact prepayment revenue streams, Moody's believes that the following cash-flow stress scenarios are instrumental in evaluating a bond structure's future strength:

- 0% Prepayment
- 100% Prepayment
- Three Year Average Life
- Non-Origination

### **0% PREPAYMENT SCENARIO**

The 0% prepayment stress scenario assumes that no prepayments are received throughout the life of the bonds, whether through a refinancing, a partial prepayment of a loan, or a loan default. The projection is viewed as a significant stress to the program, allowing an analysis of the revenue stresses which occur as only minimal excess revenues flow in.

Given that some portion of surplus is usually used for redemption, little or no surplus will generally lengthen average life. The 0% prepayment scenario examines the bond structure as the average life of the bonds are extended, requiring maximum debt service amounts, while the revenues are minimally composed of the spread between mortgage rate and coupon, and related interest earnings. Moody's generally expects this prepayment run to be one of the most stressful scenarios because, as the incoming revenues are devoid of any excesses, the average life of the bond is lengthened and little or no surplus is available to redeem any higher coupon debt.

### **100% PREPAYMENT SCENARIO**

The 100% prepayment run may be viewed as the 'standard' prepayment experience of the FHA or PSA index. The 100% scenario generally exhibits a reduction in the average life of the bonds, as surpluses are increased and redemptions occur. Moody's generally expects that much of the liquidity stress is mitigated as these surpluses create greater flexibility for both overcollateralization, reserves and redemptions.

Despite the greater flexibility provided by increased revenue, Moody's believes that the cashflow model should incorporate reasonable assumptions as to which loans prepay. A portfolio composed of various mortgage rates should assume that higher mortgage rate loans will prepay uniformly to those at a lower mortgage rate. This is particularly critical in smaller portfolios, in which the weighted average of the remaining loans within the pool may be easily shifted, and can dramatically alter surplus projections within a cashflow scenario.

### **THREE YEAR AVERAGE LIFE SCENARIO**

The three year average life prepayment scenario usually falls within a range of a 500% to 750% FHA or PSA prepayment speed. This stress assumes that prepayments may again be received from any voluntary partial prepay amount, refinancing, or default. As in the 100% prepayment scenario, the assumption as to which loans prepay is critical to a meaningful representation of the stress on the bond structure. Additionally, as redemptions will usually occur very rapidly, and the average life of the bonds is only three years, the bonds which are to be redeemed from these loans must precisely match the resolution directives.

As the speed of prepayments increases and the average life of the bonds decreases, the risk becomes greater that the spread between the mortgage rate and debt service could shift early in the bonds' life, either from a change in the weighted average mortgage rate or a shift in the average interest cost of the bonds.

Moody's views this shift as of particular concern early in the bonds' life, since during the early years it is less likely that the program has significantly overcollateralized and has accrued enough interest revenue to offset a substantial narrowing in spread. Additionally, in some cases negative arbitrage may occur when large prepayment amounts cannot be immediately applied to bond redemption and must be reinvested at lower float return rates.

### **NON-ORIGINATION SCENARIO**

Moody's views the non-origination run as a potentially significant stress scenario as proceeds held within an investment agreement during the acquisition period generally earn below the intended mortgage rate and often below the bond rate. This negative spread may be enough to force the program below parity during the acquisition phase and create a circumstance in which the balance of the invested bond proceeds is not sufficient to fully redeem all outstanding bonds.

This stress assumes a last day origination if the acquisition investment rate is below the mortgage rate in order to maximize the stress of a negative carry period. If the acquisition investment rate is above the intended mortgage rate, then a first day origination day is required, to minimize the revenue benefits of a positive arbitrage acquisition period.

## **Unique Structures and Additional Cash flow Runs**

### **CALL PROTECTED HIGH COUPON DEBT STRESS SCENARIO**

If the issue is structured with high coupon debt which may not be redeemed until a portion or all of the lower interest bonds are paid off, an additional stress test should be included. The high coupon debt often consists of capital accretion bonds (CAB), premium bonds, or taxable bonds, but could include any bonds which have a coupon significantly above the weighted average mortgage rate.

This stress scenario assumes a rapid prepayment, three year average life, of the loans until all bonds except the call protected, high coupon bonds are redeemed. When only this high coupon debt is outstanding, the cash flows must assume no further prepayments for the remainder of the bonds' life. In this structure, the average interest cost of the bonds will generally increase substantially with only high coupon debt outstanding. Moody's believes this prepayment stress is critical in evaluating the program's ability to support the high coupon debt with no unscheduled surplus amounts.

#### **Lessons Learned: Call Protected CABs of the Early Eighties Created Cash Flow Problems:**

In the early 1980s, it was common practice to structure tax-exempt housing bonds with non-callable or call protected capital appreciation bonds (CABs). Very often, these bonds carried a rate that was much greater than the loan rate and were sold at a deep discount with interest and principal accreting to full value at maturity. These CABs were often structured with either full or partial call protection, specifying either a time period during which the CABs could not be called, or providing that the CABs could not be redeemed until all other bonds had been called.

Non-origination calls combined with prepayment calls of lower rate debt increased the average weighted cost of the bonds, and in some cases this cost surpassed the rate on the loans and investments. This effect intensified as prepayments slowed and the accreted value of the CABs approached maturity. Although many of the state level programs were able to offset this revenue drain with aggressive redemption of other parity bonds and high reserves, many smaller, local HFA programs ran into trouble as the high rate CABs were the only bonds outstanding and cash flow from loans and investments couldn't support the high cost of the debt.

Proper cash flow tests could have eliminated these structuring flaws. Today a CAB remainder cash flow stress is requested for any transaction which includes a call protected CAB. This scenario assumes that all loans prepay at a three-year average life speed until all but the CABs are retired; then all loan prepayments are shut off for the remaining life of the bonds. Additionally, if the non-origination call is something other than pro-rata across all bonds, different non-origination scenarios coupled with the CAB remainder run would also be required. These cash flow tests, if met, should provide comfort that the inclusion of the CABs would not pose a potential threat to financial health of the program.

## **Supersinker/Planned Amortization Class (PAC) Stress Test**

The supersinker and planned amortization class (PAC) structures are largely investor driven structures which attempt to minimize the uncertainty surrounding call risk. These structures are detailed in the bond series resolution and generally specify the priority in which prepayment revenues are to be applied to certain bond maturities. The PAC varies from the supersinker structure in that the PAC generally sets out a detailed schedule of redemption tranches, as opposed to selecting a few maturities which are required to receive all prepayment revenues until completely redeemed.

If supersinker or PAC bonds are used in the structure, an additional supersinker/PAC stress test should be included in the cashflow scenarios. This scenario assumes that prepayments on the underlying mortgages are made at a specified rate and are used to call supersinker or PAC bonds as required by the redemption provisions. These prepayments occur until all the supersinker or PAC bonds have been called, at which point the prepayment assumption switches to 0% prepayment for the remaining life of the bonds.

Moody's views this stress scenario as combining the revenue strain which may occur when surpluses are generated and redemptions occur early in the life of the bonds, and the stresses which occur when no prepayments are received thereafter. Supersinker and PAC bonds are usually low interest rate bonds which will receive a predetermined share of loan prepayments before other bonds in the program. Given that the average interest cost of the bonds will often increase once the supersinker or PAC bonds are paid, Moody's views a shift in either the weighted average mortgage rate or the average interest cost of the bonds as a potentially critical variable. This stress scenario demonstrates that the portfolio could absorb any shift in the spread between mortgage rate and debt service, and then could sustain debt service at that level with no surplus revenues for the remaining life of the bonds.

### **Exception: Monthly Pass-Through Structure - Certain Runs May Not Be Required**

Moody's believes that one exception to the need for multiple prepayment scenarios in our cash flow analysis is the MBS-backed monthly pass-through structure. In a typical monthly pass-through, all bonds bear interest at the same rate and bond interest payment dates and redemption dates occur on a monthly basis. Other common characteristics include:

- bond authorized denominations of \$1.00, \$0.01, or no minimum denomination;
- an initial bond rate that is less than or equal to the effective acquisition fund investment rate;
- a step up in the bond rate to an amount less than or equal to the MBS pass-through rate less program fees; and
- program fees that are based on the outstanding principal amount of MBSs.

From the date MBS principal is received to the date it is used to redeem bonds, it will earn the float rate while the corresponding liability, a like principal amount of bonds, continues to accrue interest at the bond rate. In a typical situation where the float rate is lower than the average bond cost, the program loses money due to this "negative arbitrage." Faster prepayment speeds and less frequent interest payment and redemption dates will lead to greater negative arbitrage.

In a pass-through structure where bonds may be redeemed monthly, MBS principal payments and prepayments, no matter how large, cannot create negative arbitrage. This is because each MBS payment will include one month of interest at the pass-through rate on any principal portion of that payment. The MBS principal will be used to redeem a like amount of bonds on the next monthly redemption date. The MBS interest on that principal will be used to pay the accrued interest portion of redemption price which, because of monthly bond interest payment dates, will equal one month's worth. To examine cash flows with accelerated prepayments would generally add little value to Moody's analysis, so on a transaction-by-transaction basis, Moody's will evaluate the need for prepayment stress runs in monthly pass-through structures.

## **Taxable Bonds Structured at Levels Above 0% Prepayment Rates**

With the limitation on private activity volume cap and the heavy demand for below market rate loans for qualifying first-time homebuyers, issuers have been employing different strategies to stretch tax-exempt bonding authority. One successful way has been to blend tax-exempt proceeds with taxable bonds, thereby enabling the HFA to continue to offer below-market rate mortgages. State housing authorities have become a large issuer of taxable debt recently and we expect this trend to continue as long as demand outpaces the available supply of private activity cap.

In order to make taxable housing bonds attractive to taxable investors, issues may include structuring elements not seen in the traditional tax-exempt structures. These include variable rate bonds - which tend to lengthen average life - as well as constructing the debt schedule assuming that some level of loan prepayments are received. Assuming some level of prepayments are received may assist the issuer in keeping the costs of funds lower by front loading the debt, while enabling the taxable investor to better predict the bonds' average life.

Under the assumed prepayment structure, these bonds may not cash flow adequately under a 0% prepayment projection on a stand alone basis and Moody's would look to surpluses in the resolution cash flows to demonstrate program cash flow sufficiency. Many of the large state HFA single family programs rated Aa3 and better have built up enough equity to offset a moderate amount of presumed prepayments in their resolutions. However, continued use of this type of structuring could eventually result in cash flow shortfalls under very low prepayment speeds and so is only considered in certain circumstances.

## **Factors that May Mitigate Concern Over Aggressive Prepayment Strategies**

Demonstrating cash flow sufficiency under all stressful scenarios has long been one of the most important elements of a Moody's housing rating. It is the elimination of the market risk associated with different prepayment scenarios which cannot be predicted. The change in our approach to consider a low prepayment stress, rather than a 0% stress, reflects the increasing sophistication and financial resources of the state HFAs as well as a reaction to the ever evolving fixed-income marketplace.

In order for Moody's to address liquidity shortfalls under the 0% run, we will look to the HFA to provide historical prepayment information for the particular portfolio. Moody's will continue to review the 0% prepayment stress run and it will be incumbent upon the HFA to demonstrate how they would handle the liquidity shortfall under the 0% scenario. The following are some of the factors that, if present, can mitigate the concern over these shortfalls.

### **ROLE OF MANAGEMENT**

The State HFA's approach to financial and portfolio management will be very influential in the analysis. Do staff members actively manage the loan portfolio or is oversight done by third parties only? Is the HFA willing and able to contribute general fund monies to prevent a bond payment default? Actively cross-calling high coupon debt and recycling loan prepayments when appropriate are also positive indicators of proactive financial management. State HFAs with large undesignated fund balances will have more flexibility than those without.

### **NATURE OF THE OBLIGATION/ISSUER RATINGS**

A program that has the backing of the HFA's general obligation has an additional legal pledge from the authority which enables Moody's to rely on the HFA to cover cash flow holes, provided the HFA has the liquidity to do so. Moody's Issuer Ratings generally reflect the financial resources available to the HFA to cover its obligations.

### **OPEN VS. CLOSED INDENTURES**

An important tool to have available if a program finds itself in a shortfall position is the option of issuing additional bonds to redeem current maturities. Although generally not a sustainable course of action, additional bonds may be issued to avoid a bond payment shortfall in a liquidity crunch.

## **PORTFOLIO SIZE AND DIVERSIFICATION**

Diversification of the loan portfolio helps to lessen the likelihood that all loans will behave similarly under the same set of economic conditions. State HFA single family bond portfolios tend to be large - often with more than 25,000 loans and over one billion in principal, newly originated as well as seasoned loans, and usually have significantly varying loan rates.

### **Conclusion: Prepayment Scenarios as a Tool in the Rating Process**

Moody's believes that many factors contribute to the flexibility and resources available to an HFA and, if used prudently, may mitigate certain prepayment and liquidity concerns. Prepayment assumptions incorporate both expected and stress scenarios in order to examine the various revenue streams which may occur over the life of the loan portfolio. As with any cash flow projection, the information generated is only as strong as its underlying assumptions, and so must be viewed as a component of the many analytic resources drawn upon to develop a greater appreciation of a program's strengths and weaknesses.

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\$12,950,000  
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TEXAS DEPARTMENT OF HOUSING AND COMMUNITY AFFAIRS

\$11,200,000  
Multifamily Housing Revenue Senior Bonds  
(North Vista Apartments)  
2003 Series A

\$2,800,000  
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# **Investment Banking Team Performance**

Analysis prepared but not verified. RBC Dain Rauscher, Inc. will provide information after verifying data and methodology.

# Standard & Poor's Role in the Financial Markets

Standard & Poor's traces its history back to 1860. Today it is a leading credit rating organization and a major publisher of financial information and research services on U.S. and foreign corporate and municipal debt obligations. Standard & Poor's was an independent, publicly owned corporation until 1966, until it was acquired by McGraw-Hill Inc., a major publishing company. Standard & Poor's Ratings Services is now a business unit of McGraw-Hill. In matters of credit analysis and ratings, Standard & Poor's operates independently of McGraw-Hill.

Standard & Poor's Capital Markets, Funds Services, Investment Services, and Research Services are the other units of McGraw-Hill's financial services businesses. These units provide investment, financial and trading information, data, and analyses—including on equity securities—but operate separately from the ratings group.

Standard & Poor's Ratings Services rates more than \$11 trillion in bonds and other financial obligations of obligors in more than 50 countries. Standard & Poor's rates and monitors developments pertaining to these issues and issuers from an office network based in 19 world financial centers.

Despite the changing environment, Standard & Poor's core values remain the same—to provide high-quality, objective, value-added analytical information to the world's financial markets.

### What is Standard & Poor's?

- Standard & Poor's is an organization of professionals that provides analytical services and operates under the basic principles of:
- Independence,
- Objectivity,
- Credibility, and
- Disclosure.

Standard & Poor's operates with no government mandate and is independent of any investment banking firm, bank, or similar organization.

Standard & Poor's recognition as a rating agency ultimately depends on investors' willingness to accept its judgments. Standard & Poor's believes it is important that all users of its ratings understand how it arrives at the ratings, and it regularly publishes ratings definitions and detailed reports on ratings criteria and methodology.

## Credit Ratings

Standard & Poor's began rating the debt of corporate and government issuers more than 75 years ago. Since then, its credit rating criteria and methodology have grown in sophistication and have kept pace with the introduction of new financial products. For example, Standard & Poor's was the first major rating agency to assess the credit quality of, and assign credit ratings to, the claims-paying ability of insurance companies (1971), financial guarantees (1971), mortgage-backed bonds (1975), mutual funds (1983), and asset-backed securities (1985).

A credit rating is Standard & Poor's opinion of the general creditworthiness of an obligor, or the creditworthiness of an obligor with respect to a particular debt security or other financial obligation, based on relevant risk factors. A rating does not constitute a recommendation to purchase, sell, or hold a particular security. In addition, a rating

does not comment on the suitability of an investment for a particular investor.

Standard & Poor's credit ratings and symbols originally applied to debt securities. As described below, Standard & Poor's has developed credit ratings that may apply to an issuer's general creditworthiness or to a specific financial obligation. Standard & Poor's has historically maintained separate and well-established rating scales for long-term and short-term instruments. Over the years, these credit ratings have achieved wide investor acceptance as easily usable tools for differentiating credit quality, because a Standard & Poor's credit rating is judged by the market to be reliable and credible.

### Rating Types

An *issuer credit rating* is a current opinion of the obligor's overall capacity to meet its financial obligations. An issuer credit rating focuses on the obligor's

or's capacity and willingness to meet its financial commitments as they come due. The opinion is not specific to any particular financial obligation, as it does not take into account the specific nature or provisions of any particular obligation.

An *issue credit rating* is a current opinion of the creditworthiness of an obligor with respect to a specific financial obligation, a specific class of financial obligations, or a specific financial program. This opinion may reflect the creditworthiness of guarantors, insurers or other forms of credit enhancement on the obligation and takes into account statutory and regulatory preferences.

A *Standard & Poor's Published Underlying Rating* (SPUR) is a rating of the stand-alone capacity of an issuer to pay debt service on a credit-enhanced debt issue, without giving effect to the enhancement that applies to it.

#### Rating Process

Standard & Poor's provides a rating only when there is adequate information available to form a credible opinion and only after applicable quantitative, qualitative, and legal analyses are performed.

The analytical framework is divided into several categories to ensure salient qualitative and quantitative issues are considered. The rating process is not limited to an examination of various financial measures. Proper assessment of credit quality involves an evaluation of the basic underlying eco-

nommic strength of the entity, as well as the effectiveness of the governing process to manage performance and address problems. Standard & Poor's assembles a team of analysts with appropriate expertise to review information pertinent to the rating. A lead analyst is responsible for the conduct of the rating process. Several of the members of the analytical team meet with management of the organization to review, in detail, key factors that have an effect on the rating, including operating and financial plans and management policies. The meeting also helps analysts develop the qualitative assessment of management itself, an important factor in the rating decision.

Following this review and discussion, a rating committee meeting is convened. At the meeting, the committee discusses the lead analyst's recommendation and the pertinent facts supporting the rating. Finally, the committee votes on the recommendation.

The issuer is subsequently notified of the rating and the major considerations supporting it. A rating can be appealed prior to its publication, if meaningful new or additional information is to be presented by the issuer. Obviously, there is no guarantee that any new information will alter the rating committee's decision.

Once a final rating is assigned, it is disseminated to the public via Standard & Poor's web site ([www.standardandpoors.com](http://www.standardandpoors.com)), through the news media and through Standard & Poor's publications.

## Municipal Issue Ratings Definitions

Issue credit ratings are based on current information furnished by the obligors or obtained by Standard & Poor's from other sources it considers reliable. Standard & Poor's does not perform an audit in connection with any credit rating and may, on occasion, rely on unaudited financial information. Credit ratings may be changed, suspended, or withdrawn as a result of changes in, or unavailability of, such information, or based on other circumstances.

Issue credit ratings can be either long term or short term. Short-term ratings are generally assigned to those obligations considered short term in the relevant market. In the U.S., for example, that means obligations with an original maturity of no more than 365 days—including commercial paper. Short-term ratings are also used to indicate the creditworthiness of an obligor with respect to put features on long-term obligations. The result is a dual rating, in which the short-term ratings address the put feature, in addition to the usual long-term rating. Medium-term notes are assigned long-term ratings.

#### Long-Term Issue Credit Ratings

Issue credit ratings are based in varying degrees, on the following considerations:

- Likelihood of payment—capacity and willingness of the obligor to meet its financial commitment on an obligation in accordance with the terms of the obligation;
- Nature of and provisions of the obligation; and
- Protection afforded by, and relative position of, the obligation in the event of bankruptcy, reorganization, or other arrangement under the laws of bankruptcy and other laws affecting creditors' rights.

The issue ratings definitions are expressed in terms of default risk. As such, they pertain to senior obligations of an entity. Junior obligations are typically rated lower than senior obligations, to reflect the lower priority in bankruptcy, as noted above.

**AAA** An obligation rated 'AAA' has the highest rating assigned by Standard & Poor's. The obligor's capacity to meet its financial commitment on the obligation is extremely strong.

**AA** An obligation rated 'AA' differs from the highest-rated obligations only in small degree. The obligor's capacity to meet its financial commitment on the obligation is very strong.

**A** An obligation rated 'A' is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher-rated categories. However, the obligor's capacity to meet its financial commitment on the obligation is still strong.

**BBB** An obligation rated 'BBB' exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitment on the obligation.

**BB, B, CCC, CC, and C** Obligations rated 'BB', 'B', 'CCC', 'CC', and 'C' are regarded as having significant speculative characteristics. 'BB' indicates the least degree of speculation and 'C' the highest. While such obligations will likely have some quality and protective characteristics, these may be outweighed by large uncertainties or major exposures to adverse conditions.

**BB** An obligation rated 'BB' is less vulnerable to nonpayment than other speculative issues. However, it faces major ongoing uncertainties or exposure to adverse business, financial, or economic conditions, which could lead to the obligor's inadequate capacity to meet its financial commitment on the obligation.

**B** An obligation rated 'B' is more vulnerable to nonpayment than obligations rated 'BB', but the obligor currently has the capacity to meet its financial commitment on the obligation. Adverse business, financial, or economic conditions will likely impair the obligor's capacity or willingness to meet its financial commitment on the obligation.

**CCC** An obligation rated 'CCC' is currently vulnerable to nonpayment and is dependent upon favorable business, financial, and economic conditions for the obligor to meet its financial commitment on the obligation. In the event of adverse business, financial, or economic conditions, the obligor is not likely to have the capacity to meet its financial commitment on the obligation.

**CC** An obligation rated 'CC' is currently highly vulnerable to nonpayment.

**C** The 'C' rating may be used to cover a situation where a bankruptcy petition has been filed or similar action has been taken, but payments on this obligation are being continued.

**D** An obligation rated 'D' is in payment default. The 'D' rating category is used when payments on an obligation are not made on the date due even if the applicable grace period has not expired, unless Standard & Poor's believes that such payments will be made during such grace period. The 'D' rating also will be used upon the filing of a bankruptcy

petition or the taking of a similar action if payments on an obligation are jeopardized.

**Plus (+) or minus (-)** The ratings from 'AA' to 'CCC' may be modified by the addition of a plus or minus sign to show relative standing within the major rating categories.

#### **Active Qualifiers (currently applied and/or outstanding)**

**L** Ratings qualified with 'L' apply only to amounts invested up to federal deposit insurance limits.

**p** The letter 'p' indicates that the rating is provisional. A provisional rating assumes the successful completion of the project financed by the debt being rated and indicates that payment of debt service requirements is largely or entirely dependent upon the successful, timely completion of the project. This rating, however, while addressing credit quality subsequent to completion of the project, makes no comment on the likelihood of or the risk of default upon failure of such completion. The investor should exercise his own judgment with respect to such likelihood and risk.

**Pi** Ratings with a 'pi' subscript are based on an analysis of an issuer's published financial information, as well as additional information in the public domain. They do not, however, reflect in-depth meetings with an issuer's management and are therefore based on less comprehensive information than ratings without a 'pi' subscript. Ratings with a 'pi' subscript are reviewed annually based on a new year's financial statements, but may be reviewed on an interim basis if a major event occurs that may affect the issuer's credit quality.

**t** This symbol indicates termination structures that are designed to honor their contracts to full maturity or, should certain events occur, to terminate and cash settle all their contracts before their final maturity date.

#### **Inactive Qualifiers (no longer applied or outstanding)**

**\*** This symbol indicated continuance of the ratings is contingent upon Standard & Poor's receipt of an executed copy of the escrow agreement or closing documentation confirming investments and cash flows. Discontinued use in August 1998.

**C** This qualifier was used to provide additional information to investors that the bank may terminate its obligation to purchase tendered bonds if the long-term credit rating of the issuer is below an investment-grade level and/or the issuer's bonds are deemed taxable. Discontinued use in January, 2001.

**q** A 'q' subscript indicates that the rating is based solely on quantitative analysis of publicly available information. Discontinued use in April, 2001.

**r** The 'r' modifier was assigned to securities containing extraordinary risks, particularly market risks, that are not covered in the credit rating. The absence of an 'r' modifier should not be taken as an

indication that an obligation will not exhibit extraordinary non-credit related risks. Standard & Poor's discontinued the use of the "r" modifier for most obligations in June 2000 and for the balance of obligations (mainly structure finance transactions) in November 2002.

Debt obligations of issuers outside the United States and its territories are rated on the same basis as domestic corporate and municipal issues. The ratings measure the creditworthiness of the obligor but do not take into account currency exchange and related uncertainties.

#### Bond Investment Quality Standards

Under present commercial bank regulations issued by the Comptroller of the Currency, bonds rated in the top four categories ('AAA', 'AA', 'A', 'BBB', commonly known as investment-grade ratings) generally are regarded as eligible for bank investment. Also, the laws of various states governing legal investments impose certain rating or other standards for obligations eligible for investment by savings banks, trust companies, insurance companies, and fiduciaries in general.

#### Short-Term Issue Credit Ratings

##### Notes

A Standard & Poor's U.S. municipal note rating reflects the liquidity factors and market access risks unique to notes. Notes due in three years or less will likely receive a note rating. Notes maturing beyond three years will most likely receive a long-term debt rating. The following criteria will be used in making that assessment:

- Amortization schedule—the larger the final maturity relative to other maturities, the more likely it will be treated as a note; and
- Source of payment—the more dependent the issue is on the market for its refinancing, the more likely it will be treated as a note.

Note rating symbols are as follows:

*SP-1* Strong capacity to pay principal and interest.

An issue determined to possess a very strong capacity to pay debt service is given a plus (+) designation.

*SP-2* Satisfactory capacity to pay principal and interest, with some vulnerability to adverse financial and economic changes over the term of the notes.

#### Issuer Credit Rating Definitions

A Standard & Poor's Issuer Credit Rating is a current opinion of an obligor's overall financial capacity (its creditworthiness) to pay its financial obligations. This opinion focuses on the obligor's capacity and willingness to meet its financial commitments as they come due. It does not apply to any specific financial obligation, as it does not take into account the nature of and provisions of the

obligation, its standing in bankruptcy or liquidation, statutory preferences, or the legality and enforceability of the obligation. In addition, it does not take into account the creditworthiness of the guarantors, insurers, or other forms of credit enhancement on the obligation. The Issuer Credit Rating is not a recommendation to purchase, sell or hold a financial obligation issued by an obligor, as it does not comment on market price or suitability for a particular investor.

#### CreditWatch and Rating Outlooks

A Standard & Poor's rating evaluates default risk over the life of a debt issue, incorporating an assessment of all future events to the extent they are known or considered likely. But Standard & Poor's also recognizes the potential for future performance to differ from initial expectations. Rating outlooks and CreditWatch listings address this possibility by focusing on the scenarios that could result in a rating change.

CreditWatch highlights potential changes in ratings of bonds, short-term, and other fixed-income securities. Issues appear on CreditWatch when an event or deviation from an expected trend has occurred or is expected and additional information is necessary to take a rating action. Such rating reviews normally are completed within 90 days, unless the outcome of a specific event is pending. A listing does not mean a rating change is inevitable. However, in some cases, it is certain that a rating change will occur and only the magnitude of the change is unclear.

Wherever possible, a range of alternative ratings that could result is shown. CreditWatch is not intended to include all issues under review, and rating changes will occur without the issue appearing on CreditWatch. An issuer cannot automatically appeal a CreditWatch listing, but analysts are sensitive to issuer concerns and the fairness of the process.

A Standard & Poor's Rating Outlook assesses the potential direction of a long-term credit rating over the intermediate term (typically six months to two years). In determining a Rating Outlook, consideration is given to any changes in the economic and/or fundamental business conditions. An Outlook is not necessarily a precursor of a rating change or future CreditWatch action.

- Positive means that a rating may be raised.
- Negative means that a rating may be lowered.
- Stable means that a rating is not likely to change.
- Developing means a rating may be raised or lowered.
- N.M. means not meaningful.

CreditWatch designations and outlooks may be "positive," which indicates a rating may be raised, or "negative," which indicates a rating may be lowered. "Developing" is used for those unusual situa-

tions in which future events are so unclear that the rating potentially may be raised or lowered. "Stable" is the outlook assigned when ratings are not likely to be changed, but should not be confused with expected stability of the company's financial performance.

### Commercial Paper

A Standard & Poor's commercial paper rating is a current assessment of the likelihood of timely payment of debt having an original maturity of no more than 365 days. Ratings are graded into several categories, ranging from 'A' for the highest-quality obligations to 'D' for the lowest. These categories are as follows:

A-1 This designation indicates that the degree of safety regarding timely payment is strong. Those issues determined to possess extremely strong safety characteristics are denoted with a plus sign (+) designation.

A-2 Capacity for timely payment on issues with this designation is satisfactory. However, the relative degree of safety is not as high as for issues designated 'A-1'.

A-3 Issues carrying this designation have an adequate capacity for timely payment. They are, however, more vulnerable to the adverse effects of

changes in circumstances than obligations carrying the higher designations.

B Issues rated 'B' are regarded as having only speculative capacity for timely payment.

C This rating is assigned to short-term debt obligations with a doubtful capacity for payment.

D Debt rated 'D' is in payment default. The 'D' rating category is used when interest payments of principal payments are not made on the date due, even if the applicable grace period has not expired, unless Standard & Poor's believes such payments will be made during such grace period.

### Variable-Rate Demand Bonds

Standard & Poor's assigns "dual" ratings to all debt issues that have a put option or demand feature as part of their structure.

The first rating addresses the likelihood of repayment of principal and interest as due, and the second rating addresses only the demand feature. The long-term debt rating symbols are used for bonds to denote the long-term maturity and the commercial paper rating symbols for the put option (for example, 'AAA/A-1+'). With short-term demand debt, note rating symbols are used with the commercial paper rating symbols (for example, 'SP-1+/A-1+').

## Investment Guidelines

With regard to the investment of issuers' operating funds, no formal rating requirements exist, as state and local government finance officers tend to invest conservatively, based on internal policies or state-legislated restrictions that emphasize the safety of principal and liquidity over the desire for higher yields. In the event that losses were to occur, most governments and enterprises have the financial capacity to take budget balancing actions to reduce the pressures derived from lost investment earnings. Standard & Poor's belief in the traditional conservatism of municipal investment practices is grounded in experience and has been confirmed in discussions with issuers on investment policy as participation in exotic and more volatile derivative securities has climbed. That is good news, because with the proliferation of new investment structures, which change dramatically by the day, it would be virtually impossible to regulate investment requirements to keep up with the changing environment.

Standard & Poor's rating analysis—particularly for short-term notes and commercial paper—is based on the presumption that government funds are invested with the preservation of capital as the issuer's highest priority. The following investment

guidelines are "common sense" investing policies that Standard & Poor's believes are followed by the vast majority of rated governmental issuers; they might be called "normal prudent practice." If Standard & Poor's identifies issuers whose practices diverge from these guidelines, it would not automatically warrant a lower rating, but it would prompt further questioning and analysis of that issuer's cash flow and liquidity needs.

Regular borrowers of short-term, seasonal cash flow notes have greater needs for liquidity and safety of principal, because of the large debt service exposure that occurs at maturity of the notes; for these reasons, the guidelines presented here for investing operating funds would take on more importance for such issuers, and investment practices that veer from them could be cause for rating concern. Nonoperating funds, such as endowments and pension funds, can be invested long term while ensuring that assets and liabilities are maturity matched.

The following guidelines are suggested for investing general operating funds. Operating funds, as defined by Standard & Poor's, are those needed to pay recurring expenses, such as payroll, maintenance, debt service, and other expenses needed to

## Ratings Definitions

## **RATINGS OF ISSUES**

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Moody's issue-specific ratings, which express our opinions of the credit quality of individual securities, are of five principal types: long-term debt ratings, medium term note ratings, syndicated loans ratings, preferred stock ratings, and municipal short-term loan ratings.

### **A. Long-Term Ratings**

#### **Aaa**

Bonds rated Aaa are judged to be of the best quality. They carry the smallest degree of investment risk and are generally referred to as "gilt edged." Interest payments are protected by a large or by an exceptionally stable margin, and principal is secure. While the various protective elements are likely to change, such changes as can be visualized are most unlikely to impair the fundamentally strong position of such issues.

#### **Aa**

Bonds rated Aa are judged to be of high quality by all standards. Together with the Aaa group, they comprise what are generally known as high-grade bonds. They are rated lower than the best bonds because margins of protection may not be as large as in Aaa-rated securities, or the fluctuation of protective elements may be of greater amplitude, or there may be other elements present that make the long-term risk in Aa-rated bonds appear somewhat larger than those securities rated Aaa.

#### **A**

Bonds rated A possess many favorable investment attributes and are to be considered as upper-medium-grade obligations. The factors that give security to principal and interest are considered adequate, but elements may be present that suggest a susceptibility to impairment some time in the future.

#### **Baa**

Bonds rated Baa are considered to be medium-grade obligations (i.e., they are neither highly protected nor poorly secured). Interest payments and principal security appear adequate for the present, but certain protective elements may be lacking or may be characteristically unreliable over any great length of time. Such bonds lack outstanding investment characteristics and, in fact, possess speculative characteristics as well.

#### **Ba**

Bonds rated Ba are judged to have speculative elements; their future cannot be considered as being well-assured. Often the protection of interest and principal payments may be very moderate, and thereby not well-safeguarded during both good and bad times over the future. Uncertainty of position characterizes bonds in this class.

#### **B**

Bonds rated B generally lack characteristics of the desirable investment. Assurance of interest and principal payments or of maintenance of other terms of the contract over any long period of time may be small.

#### **Caa**

Bonds rated Caa are of poor standing. Such issues may be in default, or there may be present elements of danger with respect to principal or interest.

#### **Ca**

Bonds rated Ca represent obligations that are speculative in a high degree. Such issues are often in default or have other marked shortcomings.

#### **C**

Bonds rated C are the lowest-rated class of bonds. Issues so rated can be regarded as having extremely poor prospects of ever attaining any real investment standing.

**Note:** Moody's applies numerical modifiers 1, 2, and 3 in each generic rating classification from Aa through Caa. The modifier 1 indicates that the obligation ranks in the higher end of its generic rating category; the modifier 2 indicates a mid-range ranking; and the modifier 3 indicates a ranking in the lower end of that generic rating category.

## **B.Short-Term Ratings**

In municipal debt issuance, there are three rating categories for short-term obligations that are considered investment grade. These ratings are designated as Moody's Investment Grade (MIG) and are divided into three levels -- MIG 1 through MIG 3.

In addition, those short-term obligations that are of speculative quality are designated SG, or speculative grade.

In the case of variable rate demand obligations (VRDOs), a two-component rating is assigned. The first element represents Moody's evaluation of the degree of risk associated with scheduled principal and interest payments. The second element represents Moody's evaluation of the degree of risk associated with the demand feature, using the MIG rating scale.

The short-term rating assigned to the demand feature of VRDOs is designated as VMIG. When either the long- or short-term aspect of a VRDO is not rated, that piece is designated NR, e.g., Aaa/NR or NR/VMIG 1.

MIG ratings expire at note maturity. By contrast, VMIG rating expirations will be a function of each issue's specific structural or credit features.

### **MIG 1/VMIG 1**

This designation denotes superior credit quality. Excellent protection is afforded by established cash flows, highly reliable liquidity support, or demonstrated broad-based access to the market for refinancing.

### **MIG 2/VMIG 2**

This designation denotes strong credit quality. Margins of protection are ample, although not as large as in the preceding group.

### **MIG 3/VMIG 3**

This designation denotes acceptable credit quality. Liquidity and cash-flow protection may be narrow, and market access for refinancing is likely to be less well-established.

### **SG**

This designation denotes speculative-grade credit quality. Debt instruments in this category may lack sufficient margins of protection.

## **C. Other Published Ratings**

### **Prospective Ratings**

As a service to the market and typically at the request of an issuer, Moody's will assign a prospective rating when it is highly likely that the rating will become final after all documents are received, or an obligation is issued into the market. A prospective rating is denoted by placing a (P) in front of the rating.

### **Underlying Ratings**

An underlying rating is Moody's published assessment of a particular debt issue's credit quality absent credit enhancement. Moody's will assign and publicly release an underlying rating requested by an issuer for debt that is entirely credit enhanced. The rating scale is identical to the one used for Moody's traditional bond ratings.

# MOODY'S ISSUER RATINGS

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## Issuer Rating Symbols

Moody's rating symbols for Issuer Ratings are identical to those used to show the credit quality of bonds. These rating gradations provide creditors with a system to measure an entity's ability to meet its senior financial obligations.

### Aaa

Issuers rated Aaa offer exceptional financial security. While the creditworthiness of these entities is likely to change, such changes as can be visualized are most unlikely to impair their fundamentally strong position.

### Aa

Issuers rated Aa offer excellent financial security. Together with the Aaa group, they constitute what are generally known as high-grade entities. They are rated lower than Aaa-rated entities because long-term risks appear somewhat larger.

### A

Issuers rated A offer good financial security. However, elements may be present which suggest a susceptibility to impairment sometime in the future.

### Baa

Issuers rated Baa offer adequate financial security. However, certain protective elements may be lacking or may be unreliable over any great period of time.

### Ba

Issuers rated Ba offer questionable financial security. Often the ability of these entities to meet obligations may be moderate and not well-safeguarded in the future.

### B

Issuers rated B offer poor financial security. Assurance of payment of obligations over any long period of time is small.

### Caa

Issuers rated Caa offer very poor financial security. They may be in default on their obligations or there may be present elements of danger with respect to punctual payment of obligations.

### Ca

Issuers rated Ca offer extremely poor financial security. Such entities are often in default on their obligations or have other marked shortcomings.

### C

Issuers rated C are the lowest-rated class of entity, are usually in default on their obligations, and potential recovery values are low.

**Note:** Moody's applies numerical modifiers 1, 2, and 3 in each generic rating category from Aa to Caa. The modifier 1 indicates that the issuer is in the higher end of its letter rating category; the modifier 2 indicates a mid-range ranking; the modifier 3 indicates that the issuer is in the lower end of the letter ranking category.

# **TDHCA Credit Rating Matters (Standard & Poor's) Issuer Credit Rating (General Obligation Rating)**

Standard & Poor's will give a general description of the rating process and rating levels assigned. Standard & Poor's will also explain the benefits of an Issuer Credit Rating (ICR). Their presentation will cover the various areas of analysis involved in such a general obligation rating, which include the issuer's management, financial position and asset quality, debt levels and legislative mandate.