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**A Recent History of Interest Rates;
Fixed and Variable Rate
Options for Dealing with a Shifting Yield Curve**

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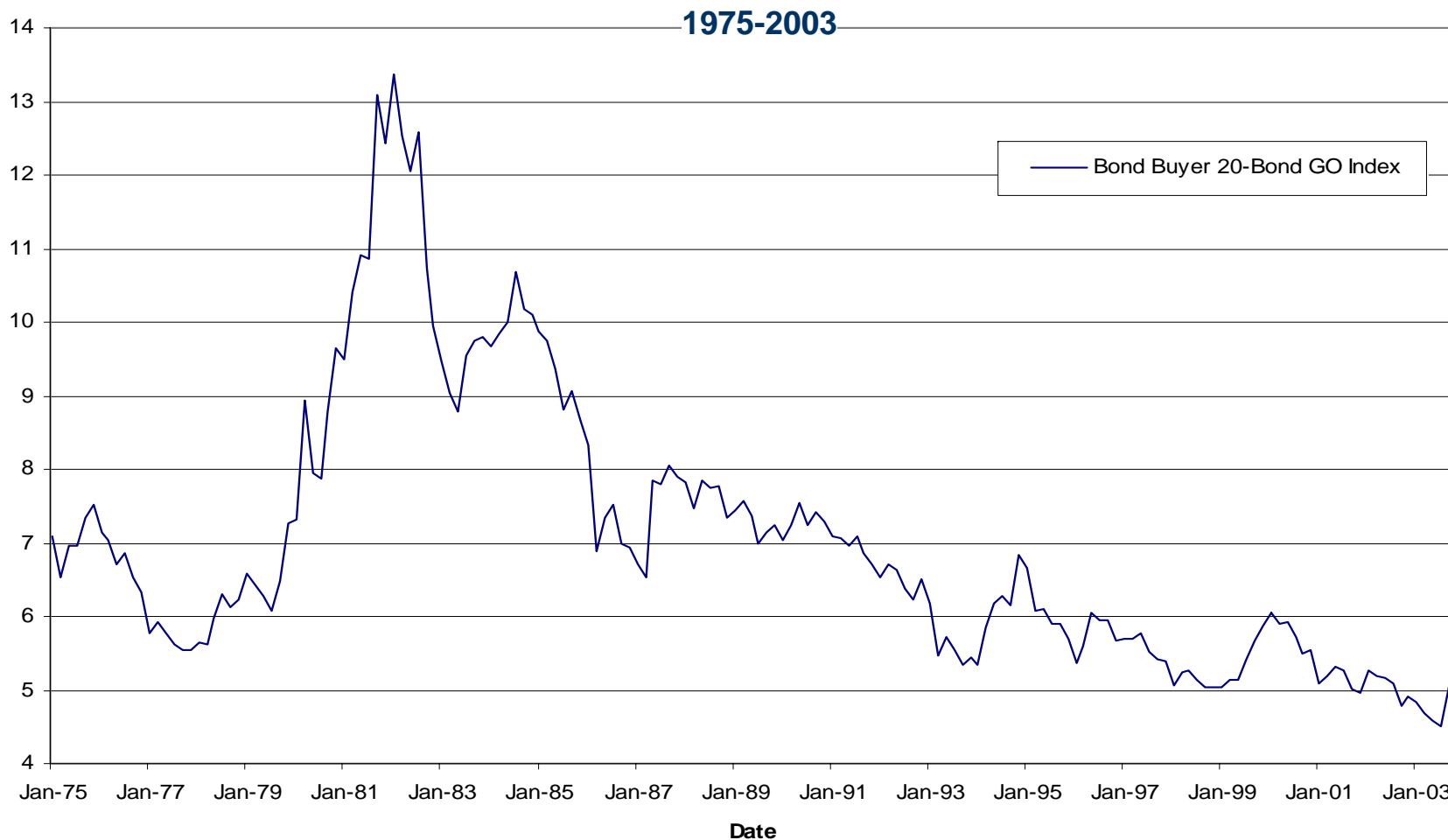
RECENT INTEREST RATE DEVELOPMENTS

Long-Term Interest Rate Trends

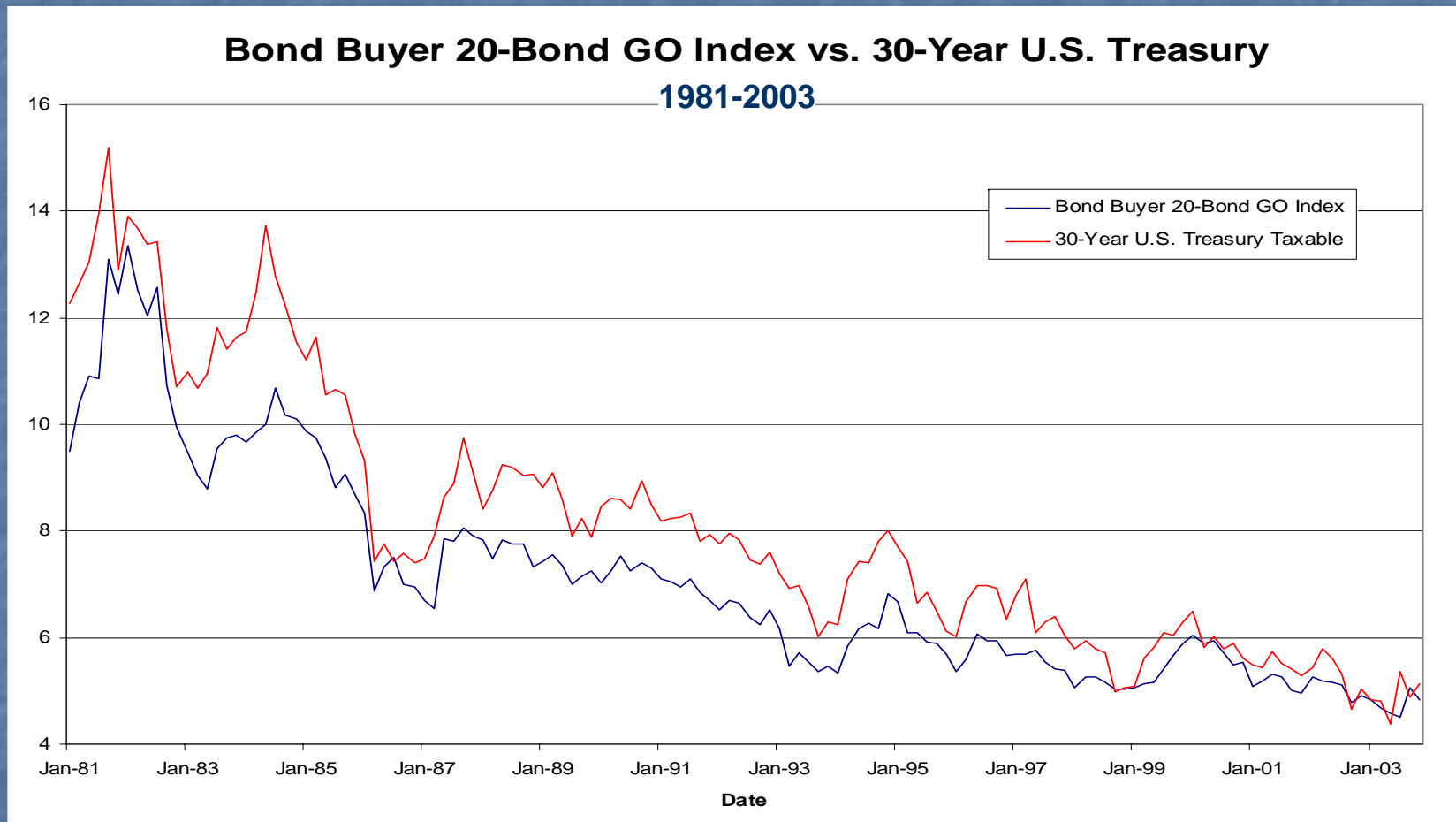
- We are at what could be the bottom of a 22-year downward cycle on tax exempt and taxable interest rates.
- Bottom may have been mid-June 2003, when 10-year Treasury yields hit a 47-year low of 3.16% versus 4.40% as of March 4.

LONG-TERM TAX EXEMPT RATES

Bond Buyer 20-Bond GO Index - 25 years



LONG-TERM TAX EXEMPT RATES



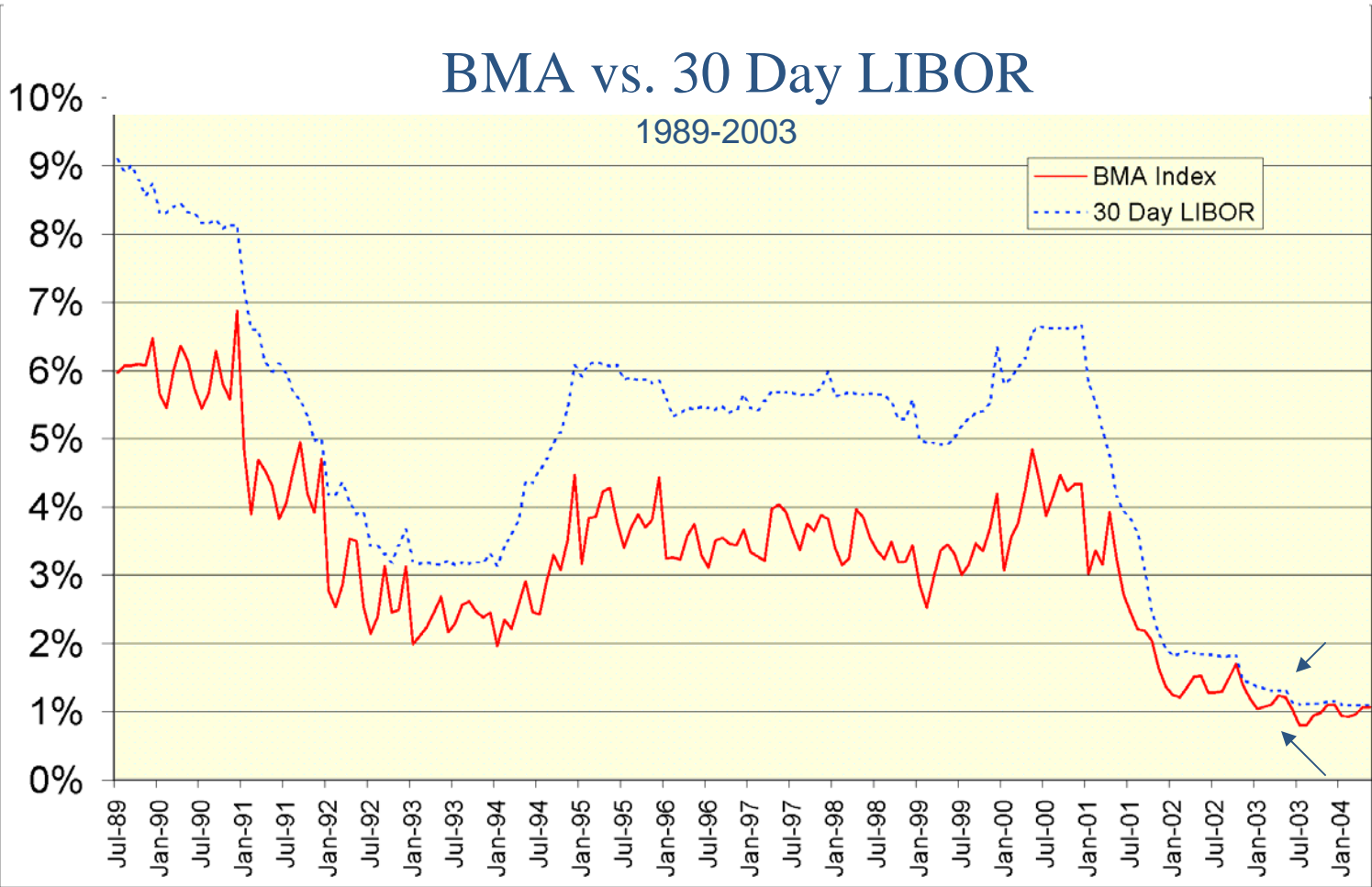
- Note how the **spread between taxables and tax exempts has compressed** over the past several years.
 - Traditionally, long-term tax exempt yields are about 91% of taxables.
 - In June of 2003 and at certain points since, long-term taxable rates have sometimes been as low as or even lower than tax exempts for brief periods.
- In this environment, unless a Borrower is doing a private activity bond deal with tax credits subject to the "50% rule" or a variable rate financing, a financing is likely to go taxable.
- As interest rates go back up, the more traditional wider spread between tax exempt and taxable yields is likely to reemerge.

Short Term Tax Exempt and Taxable Rates

- Short term rates have shown similar trends.
 - General direction of short-term rates has also been downward over past 22 years – past 15 years shown in the following chart.

BMA vs. 30 Day LIBOR

1989-2003



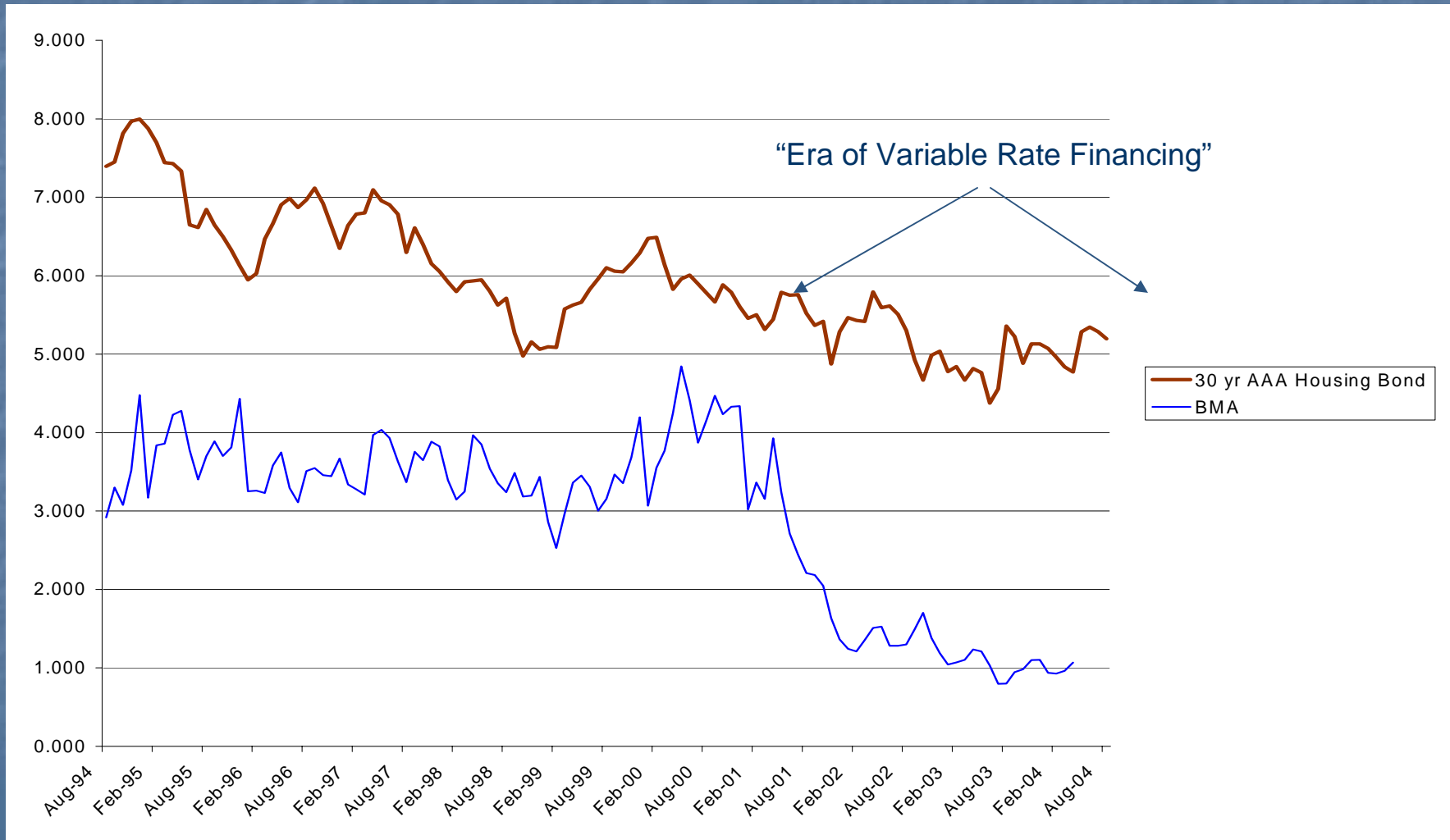
The World for the Past 3 Years

(Fall 2001 through Summer 2004)

- Note **two developments** in short term rates over past 3 years:
 - 1) There has been a **similar compression in taxable versus tax exempt rates** on the short end of the yield curve.
 - Historical: BMA = 67% LIBOR
 - Since 9/11/01: BMA = 80% LIBOR
 - 2) Both **taxable and tax exempt short-term rates have been extremely low since September 11, 2001.**
 - Both have fallen much further than comparable long-term rates, resulting in a **much steeper yield curve** environment.

- **The tax exempt yield curve has been especially steep, with 7-day VRDN's yielding 1.0% over much of the past 3 years versus 5.0-5.50% on long-term AAA-rated housing bonds.**

FIXED vs. FLOATING RATE COMPARISON



Fixed-Rate Bonds – Fannie Mae/Freddie Mac Enhanced

Bond Interest Rate*	5.000%
Plus Fee Stack	
Credit Enhancement	.900%
Liquidity Fee	.000%
Remarketing Agent	.000%
Issuer	.125%
Trustee	.050%
Total Fee Stack	1.075%
Total Mortgage Rate (Underwriting Rate and Actual Borrowing Rate)	6.075%

***30 Year Fixed, AAA, AMT**

Variable-Rate Bonds - Fannie Mae/Freddie Mac Enhanced

	<u>Actual Borrowing Rate</u>	<u>Underwriting Rate</u>
Bond Interest Rate	1.000%	2.500%
Plus Fee Stack		
Credit Enhancement	.900%	.900%
Liquidity Fee*	.150%*	.150%*
Remarketing Agent	.125%	.125%
Issuer	.125%	.125%
Trustee	.050%	.050%
Escrow for Next Cap	.150%	.150%*
Total Fee Stack	1.500%	1.500%
Underwriting Cushion	—	2.000%
Total All-in Current Borrowing Rate	2.500%	6.000%

* 25 Bps for Fannie Mae since early 2004

2001-2004- Variable vs. Fixed Financing Comparison

- **Fixed to variable differential has been 400-450 basis points** over much of past 3 years versus a 300-350 basis point normal slope.
- Extra cash flow to partnership from going variable rate:

Fixed Rate All-in:	6.075%	
Variable Rate All-in:	<u>2.500</u>	
Additional	3.575%	Additional Cash Flow From Variable Rate

- or -

On a project with **\$10.0 Million loan**, this produces an **additional \$350,000 per year of cash flow!**

- Show me a developer who will turn this down!!!

- For most of 2001-2004, fixed rate new construction deals have also incurred major adverse impact from **negative arbitrage** on uninvested bond proceeds during this period.

- Negative arbitrage on fixed rate issues has run about 400 basis points over much of this period.

	<u>30-Yr. Fixed</u>	<u>Var.</u>
Tax Exempt Bond Yield	5.0%	1.0%
Reinvestment Rate on Project Fund GIC	1.0	1.0
	<u>4.0%</u>	<u>0.0%</u>

- Assume even drawdown over 18 months:

$$4.0\% \times 1.5 \text{ (18 mos.)} \times 0.5 \text{ (even draw down)} = \mathbf{3.0\%!}$$

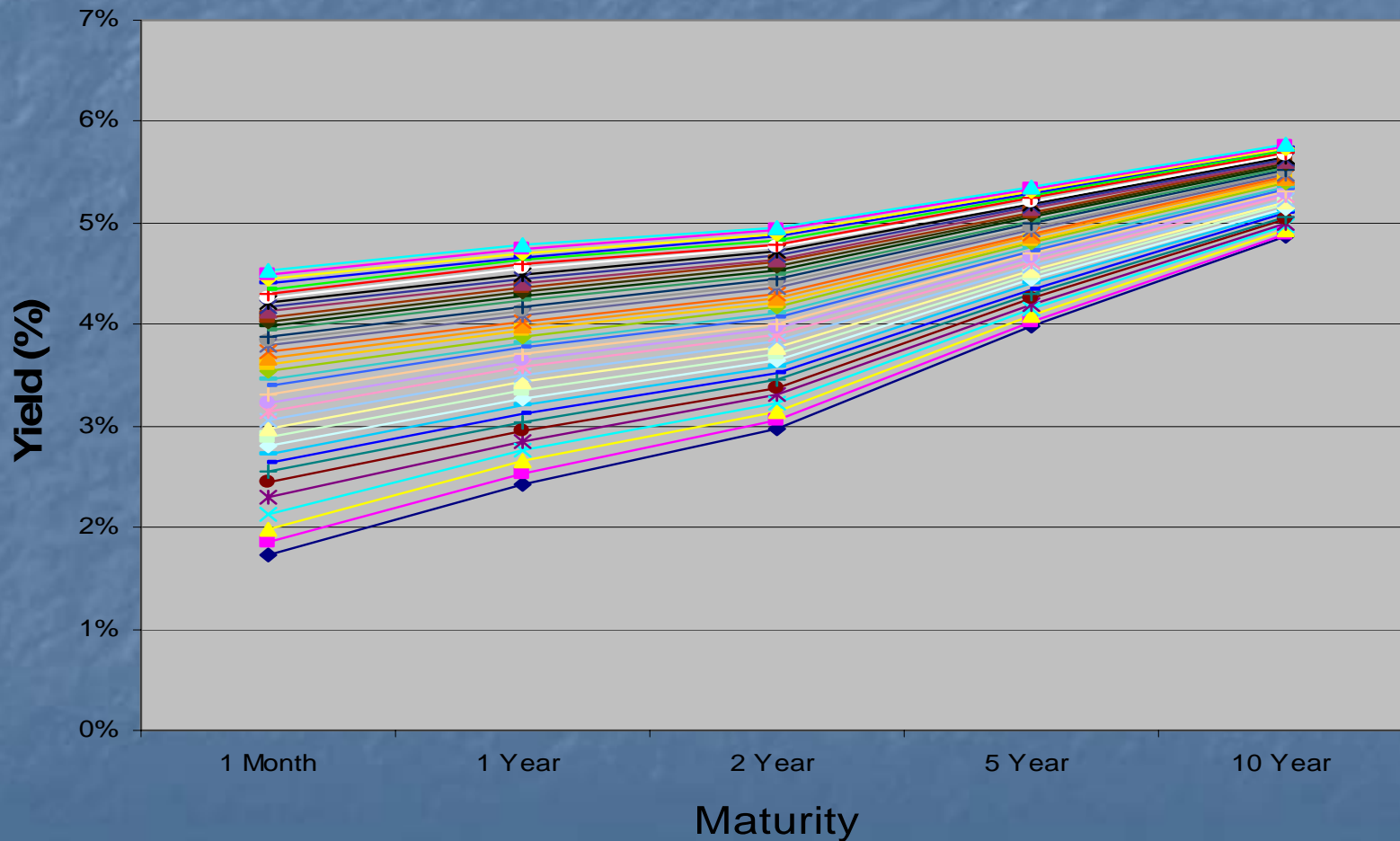
- This is **\$300,000** on a \$10.0 million loan. When added to increased cash flow described above, **variable rate deal might have left borrower with \$1.0 million more cash over 1st 2 years alone!!!**

- Result from **greater cash flow** and **low or no negative arbitrage** has been a **proliferation of variable rate** versus fixed rate tax exempt deals.

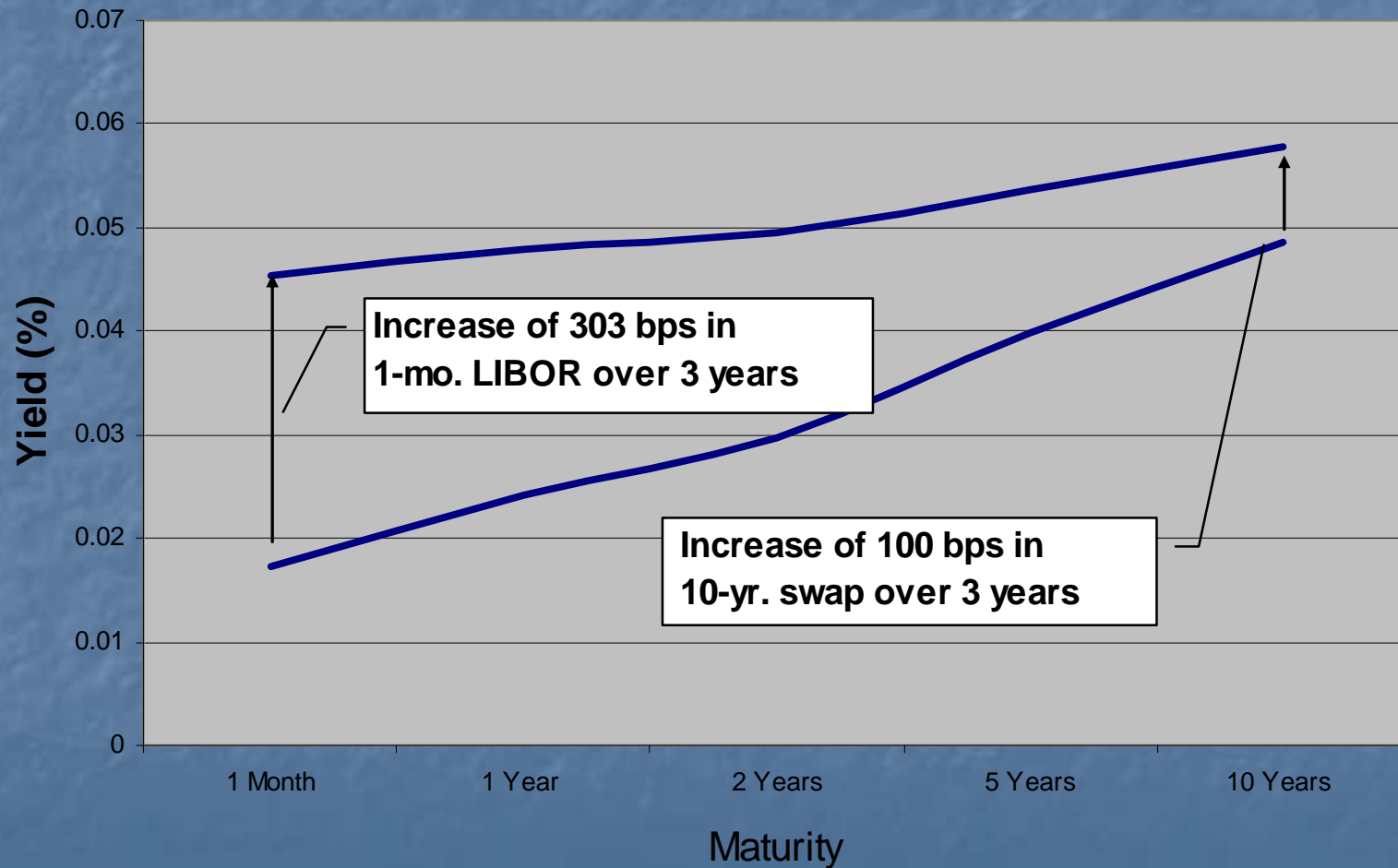
Fall 2004 – Beginning of New Era ?

- Summer of 2004- Fed announced its intention of raising discount rate in measured steps going forward, perhaps 25 Bps per quarter
- Short term rates began to move up in September 2004.
- Following charts show interest rate projections over next 3 years presented by David M. Brickman, Vice President at Freddie Mac of the Multifamily Capital and Portfolio Management division at the Freddie Mac 2004 Multifamily Conference in Washington, D.C. in September 2004.

Forward Yield Curve Projections



Forward Yield Curve Projections

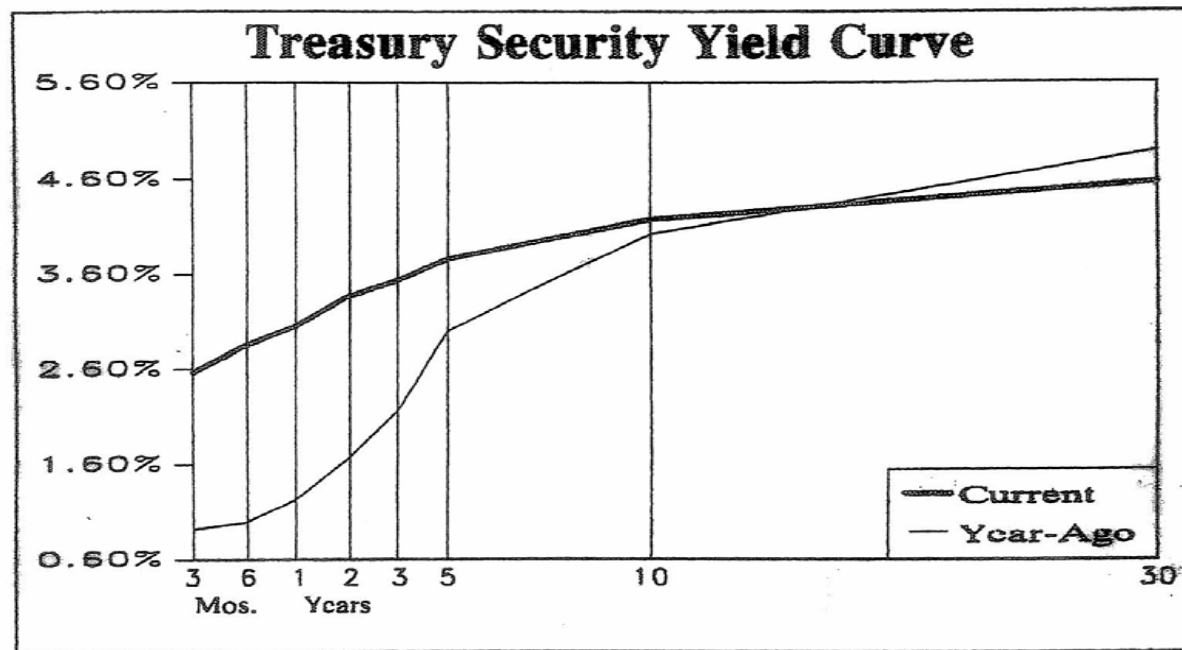


The World Today

(Fall 2004 through present)

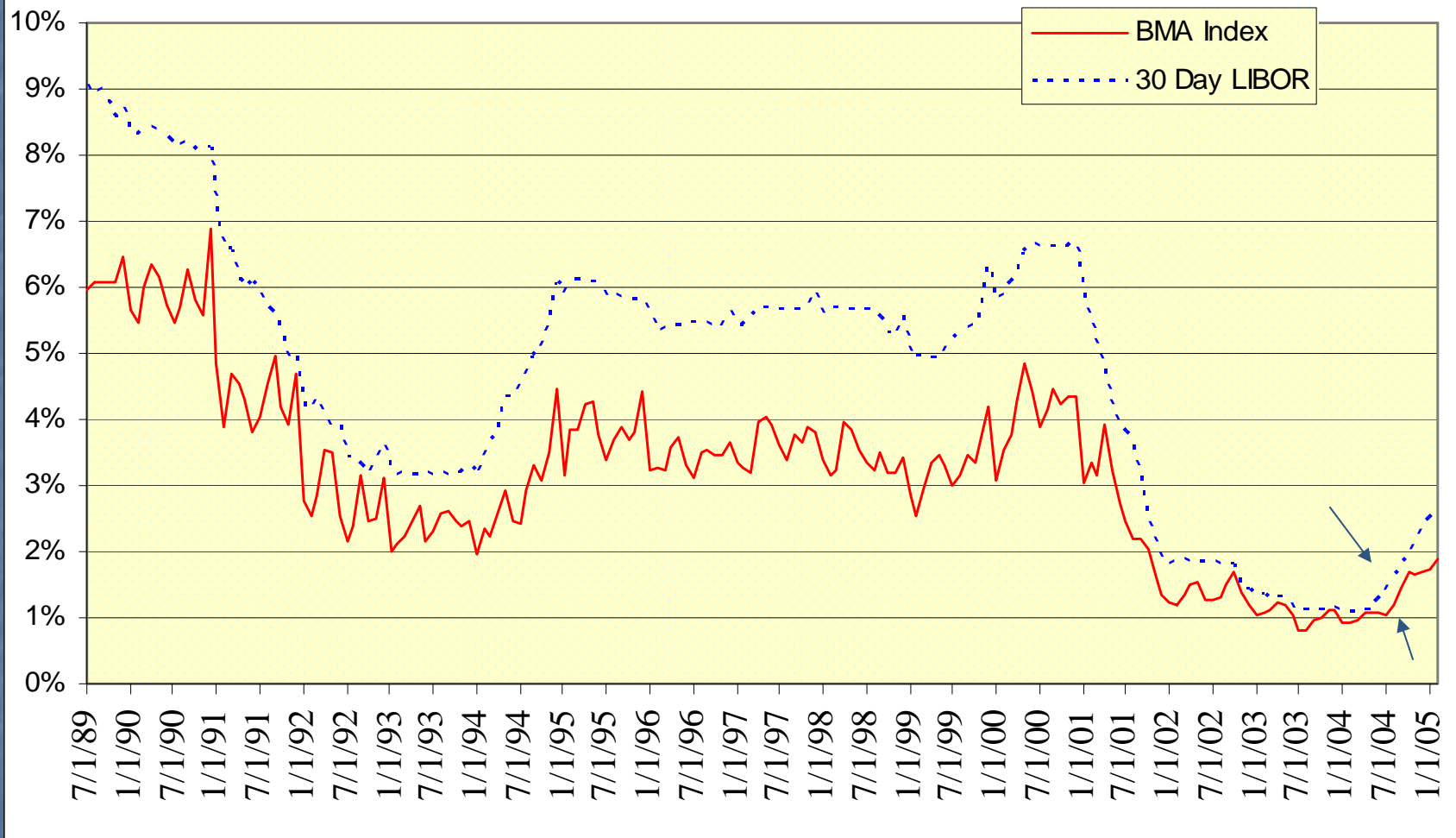
- So, was he right so far?
- Yes, short end of yield curve has been moving up very much as predicted, though long end, at least for the moment, has actually moved **down**.

Basic Treasury Yield Curve is Rotating/ Flattening

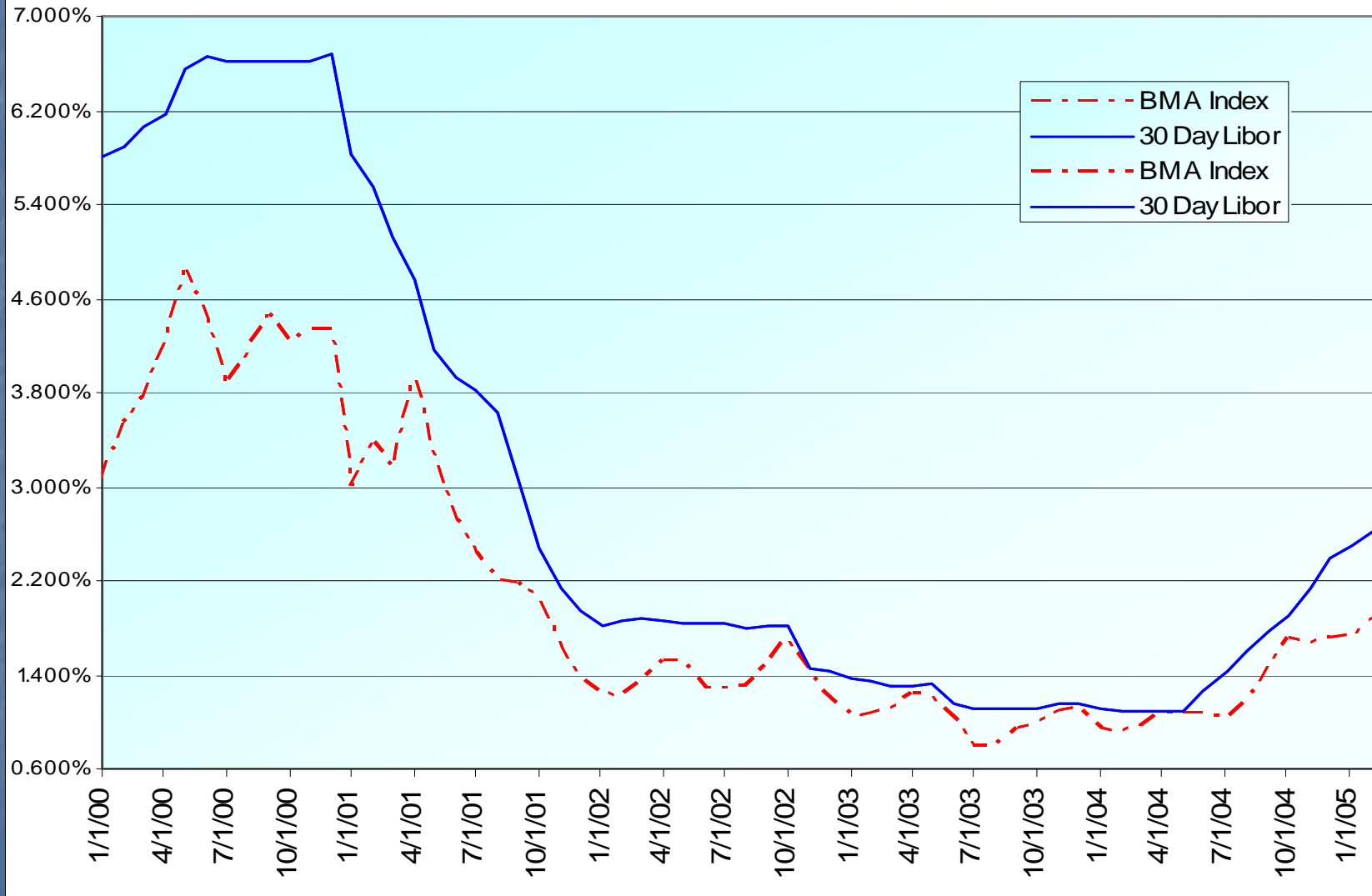


Source: Value Line Investment Survey, February 25, 2005

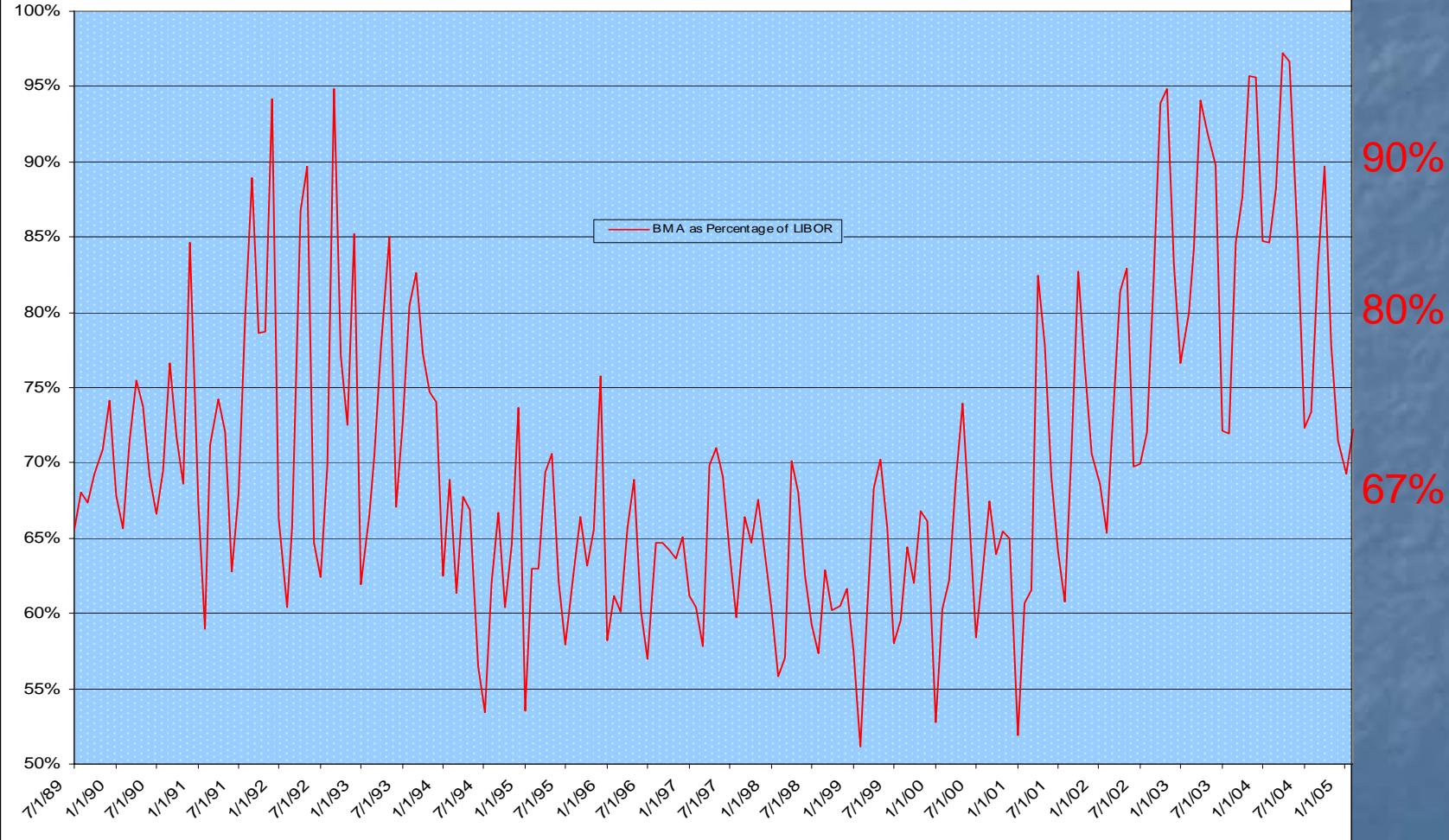
BMA vs. 30 Day LIBOR



BMA Index vs. 30 Day LIBOR 2000-2005

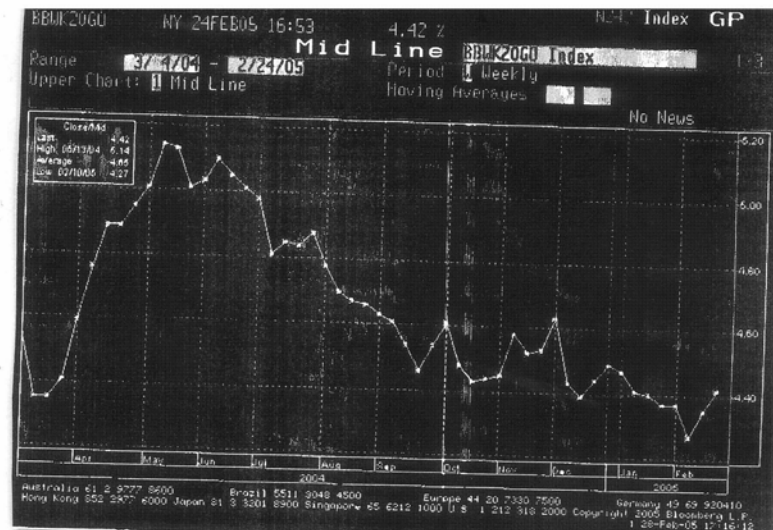


BMA as % of LIBOR



While Short Rates Have Moved Up, Long Rates Have Continued To Move Lower

20 Bond Index: March 2004-February 2005



The World Today – Variable vs. Fixed Financing Comparison

- Tax exempt yield curve is tilting/getting flatter – short end headed up:

	<u>BMA</u>	<u>30-day LIBOR</u>
Summer 2004	1.0%	1.50%
March 4, 2005	1.75%	2.75%

- Variable Rate Deal Today:

Bond Coupon	1.75%
Fee Stack	<u>1.50</u>
	3.25%
Difference vs. Fixed Rate	_____
Fixed Rate	5.75%
Variable	<u>3.25</u>
Extra Cash Flow	2.00% or \$200,000 on \$10.0 Mil. deal versus \$350,000 last Summer.

- **Negative Arbitrage** on Fixed Rate Deal

Bond Coupon	4.75%
GIC Rates	<u>2.75</u>
	2.00%
2.0 x 1.5 x 0.5 = 1.5% vs. 3.0% last Summer, or \$150,000 on \$10.0 Mil deal versus \$300,000 last summer.	

- **Result:** If yield curve continues to flatten, expect to see **trend back toward fixed rate deals**; this is already beginning to occur.
- If Interest rates move higher in general (i.e., yield curves shift up), **expect to see tax exempts more competitive** versus taxables, on both variable rate and fixed rate deals.
- As rates move higher, many borrowers on both new and existing deals may wish to **swap to fixed rate**.

The World Tomorrow?

- BMA averaged 4.12% in year 2000, 3.5% to 4.0% for last half of the 1990's; versus 1.75% today.
- How much higher would BMA have to rise before the fixed rate deal borrower could do today would have been a better choice?
- Assume, as David M. Brickman at Freddie Mac predicted, that short-term rates rise 300 Bps or more over 3 years from summer of 2004, with the Fed Discount Rate rising about 25 Bps/quarter, from the level of 1.0% last summer & current level of 1.75%, to around 4.75% in fall of 2007. This compares to 7.0% in 2000 and 5.0% to 6.0% for late 1990's.

Probable Outcome?

- Assume
$$\begin{array}{r} \text{BMA} = 3.75\% \\ \text{Fee Stack} = 1.70\% \\ \hline 5.45\% \end{array}$$
 (235 Bps higher than today; average for late 90's)
(Assume annual escrow to purchase next cap at 20 Bps/year versus 10 Bps today)

↙ All-in borrowing rate

- Still \$45,000/year extra cash flow in years 4 and thereafter, (after about \$435,000 extra cash flow in earlier years assuming even rise in rates over 3 years) and avoided about 2.0 points (eg. \$200,000) of construction period negative arbitrage.
- Variable rate deal still looks significantly better.

Possible Worst Case? – Return to 2000

- Assume BMA = 4.12% (Average for 2000; 237 Bps higher than today)
 Fee Stack = 1.75% (Assume annual escrow to purchase next cap at 25 Bps/year versus 10 Bps today)

$$\underline{5.87\%}$$

↙ All-in borrowing rate

- About break even with 6.0% fixed rate deal in years 4 and thereafter but variable rate structure still produces about \$350,000 extra cash flow in earlier years, with even rise in rates over 3 years, and variable rate deal avoided about 1.5 points (e.g. \$150,000) of construction period negative arbitrage.

- Have to get to BMA rates of late 1980's, when BMA averaged 4.5 to 5.0%, and stay there or go higher before the 6.0% fixed rate deal doable today would have been a better deal

Will Interest Rates Reach or Exceed Levels of Late 1980's in Next 5-10 Years???

- If I knew, I'd be rich, retired and living about a block from here!!!

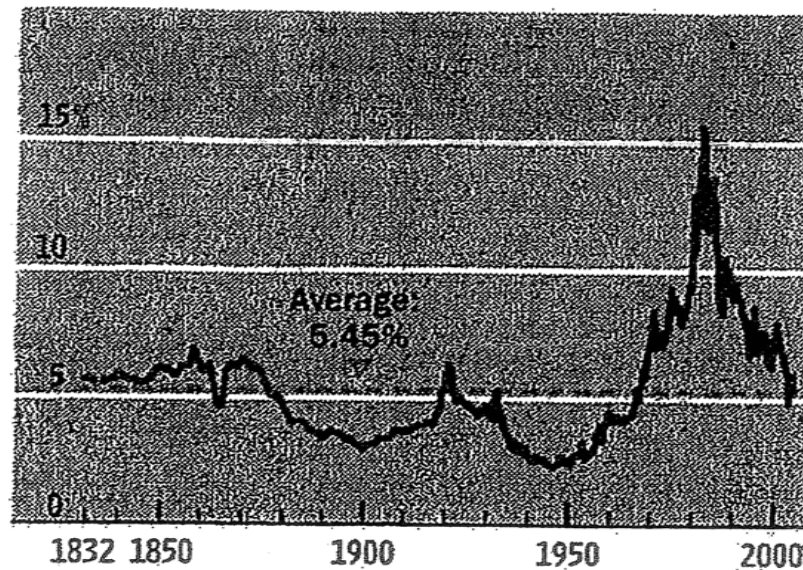
But

- It's fun to speculate!!!

NO: "Low Interest Rates may be the New Norm"

Wall Street Journal, February 7, 2005 p A.2.

Talk about long-term perspective:
how about 175 years!



5.45% Avg.

Source: Bank Credit Analyst

Yes: Steven & Donna Leeb, *The Oil Factor*
&
Kenneth Deffeyes, *Hubbert's Peak*

- We're at critical point where world oil demand will increasing exceed available supply and energy prices will soar (\$10.00/gal gas by 2010).
- Shock to economy will be like oil embargo of 1973-74.
- Rampant inflation of late 1970's will return.
- So will spike in rates resembling 1979-1982 (return to chart).

But: Value Line, Roger Lowenstein & others disagree.

- Take your pick
- Choose your Financing Mode
- Have a nice day here in South Beach and pretend you guessed right!