



Presentation to

**Fourth Annual Investment Management
Conference, by Consultiva Internacional, Inc.
Using Swaps to Manage Assets**

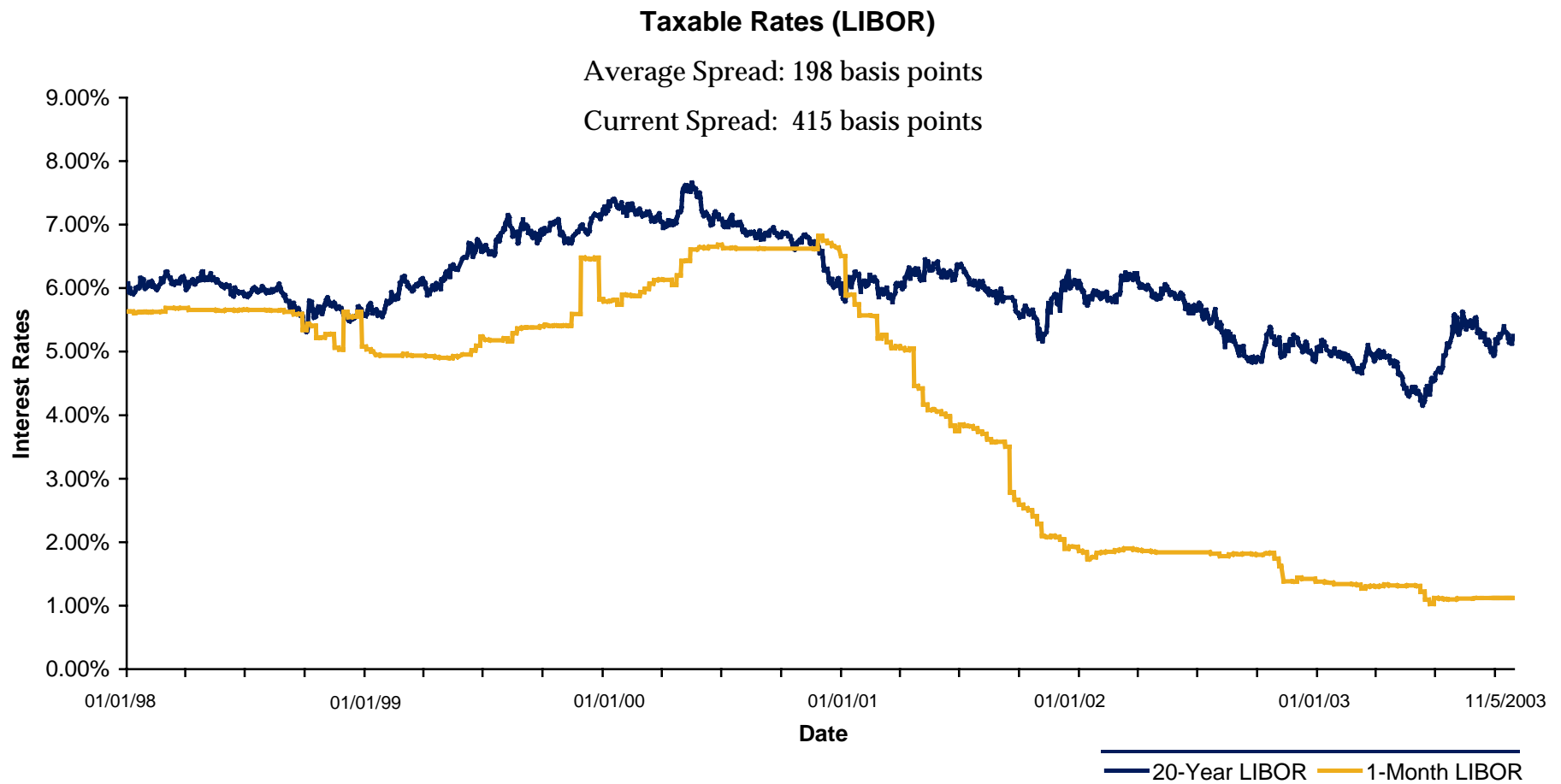
November 7, 2003



Global Markets & Investment Banking Group

Rates are low, spreads are high

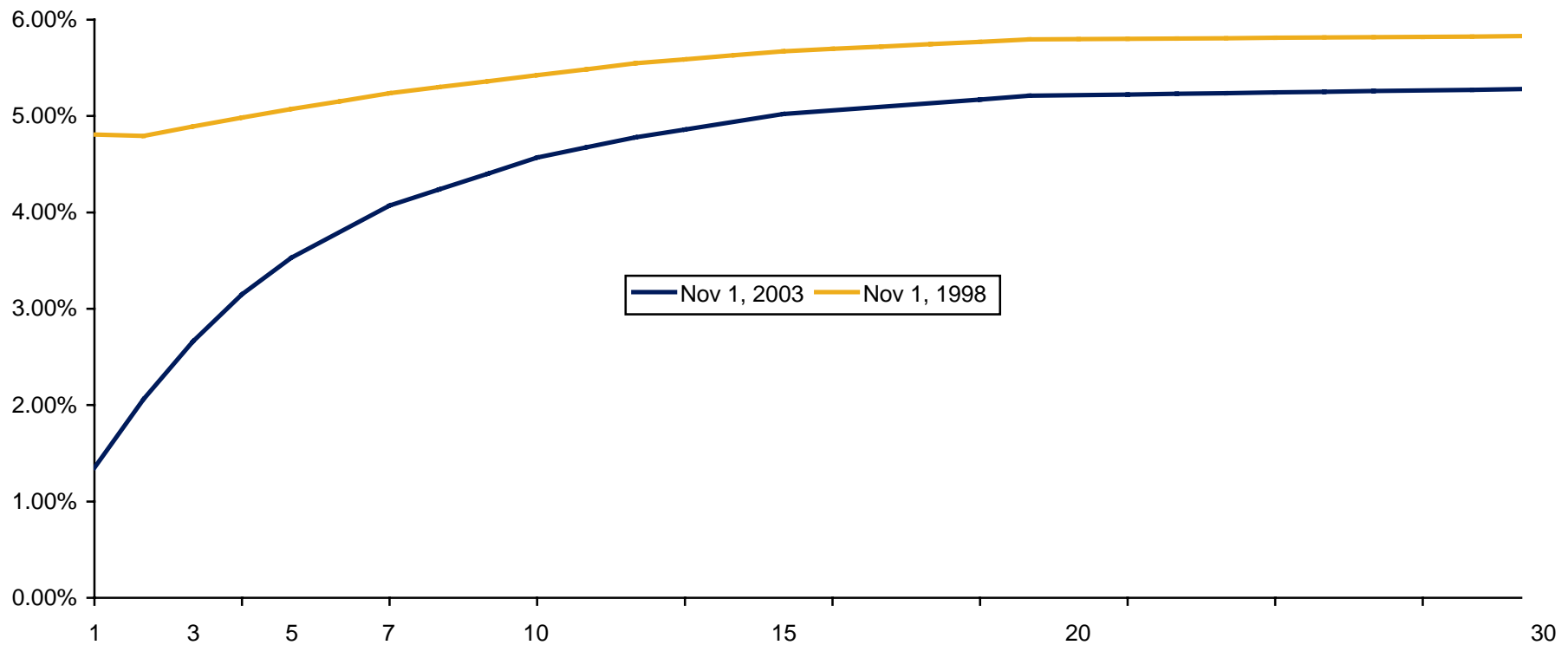
Spreads between short-term and long-term rates are very wide



Today's Steep Yield Curve

Short-term rates have declined further than long-term rates

LIBOR Yield Curves: 1998 vs 2003



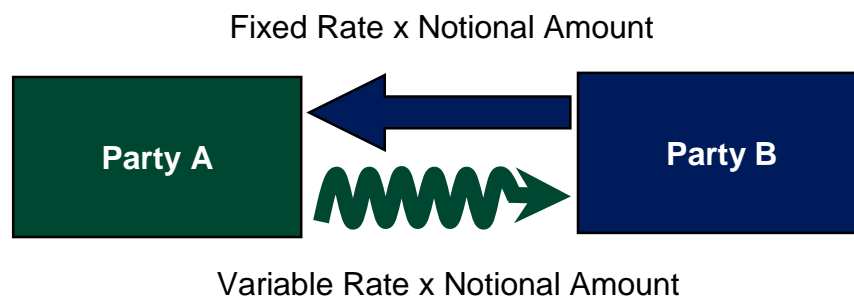
Using Swaps to Manage Assets

What Are They?

An interest rate swap is a *contract* between two organizations (counterparties) to exchange cash flows over time. Typically, one cash flow is calculated using a *fixed* interest rate, while the other is calculated using a *variable* interest rate.

Notional amount: The size of the interest rate swap and the dollar amount used to calculate interest payments. There is no obligation to pay principal.

- **Variable interest rate:** A benchmark variable rate bond index like LIBOR (the London Interbank Offered Rate) for corporate issuers or the BMA (Bond Market Association) Index for tax-exempt issuers.
- **Fixed payer swap:** The issuer (client) *pays* a fixed rate cash flow and receives a variable rate cash flow.
- **Fixed receiver swap:** The issuer (client) *receives* a fixed rate cash flow and pays a variable rate cash flow.
- **Counterparty:** Either party participating in an interest rate swap



Interest rate swaps were created in the late 1970s. The tax-exempt swap market began with a Merrill Lynch transaction in 1986.



Using Swaps to Manage Assets

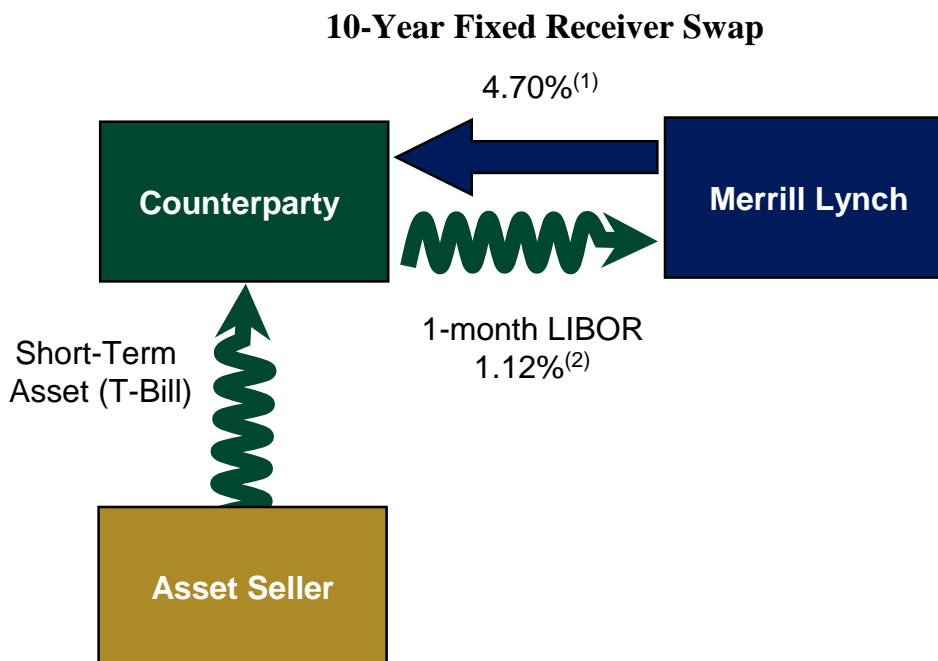
A fixed receiver swap can increase asset returns in a steep yield curve environment.

The Fixed Receiver Swap:

- Exchange interest payments -- Receive fixed rate and pay LIBOR
- No principal is required
- Flexible and highly liquid
- Spread risk between 1-month LIBOR and fixed rate and short-term asset
- Exposure to Swap Provider's credit

Management Strategies:

- Long-term rates are low -- Consider Short-term swap or intermediate swaps
- Waiting for rates to rise forgoes current carry
- Preserve capacity to extend swaps in the future if interest rates rise significantly



(1) LIBOR fixed receiver swap rate assumes a 10-year average life based on rates as of 11/5/2003.
 (2) Rate as of 11/6/2003

Using Swaps to Manage Assets

Annual Cash Flow Performance (\$100 million Swap)

1-Month LIBOR	3-Year 2.75%	5-year 3.60%	10-Year 4.70%
0.50%	\$2,250,000	\$3,100,000	\$4,200,000
1.00%	1,750,000	2,600,000	3,700,000
1.50%	1,250,000	2,100,000	3,200,000
2.00%	750,000	1,600,000	2,700,000
2.50%	250,000	1,100,000	2,200,000
3.00%	-250,000	600,000	1,700,000
3.50%	-750,000	100,000	1,200,000
4.00%	-1,250,000	-400,000	700,000
4.50%	-1,750,000	-900,000	200,000
5.00%	-2,250,000	-1,400,000	-300,000

- Longer swaps have greater cash flow potential but more market value risk
 - Fixed Receiver Swap value declines as interest rates rise:

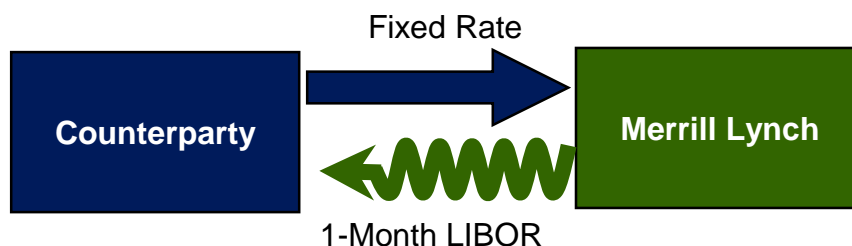
	<u>Market Value Comparison</u>		
	<u>3-year</u>	<u>5-year</u>	<u>10-year</u>
Basis Point Values:	\$28,000	\$44,000	\$77,000



Using Swaps to Manage Assets

Fixed Payor Swaps

If a Counterparty expects long-term rates to rise, it can use a Fixed Payor Swap to hedge against market value changes of fixed income investments



10-Year, \$100 million LIBOR Swap

Change in Long-term Rates by 2005	Change in Swap Value
+300	\$20,368,345.03
+200	\$13,578,896.69
+100	\$6,789,448.34
-100	(\$6,789,448.34)

Rising swap value could offset fixed income losses



Other Tools to Manage Assets

A variety of financial tools can generate income

- **Sell LIBOR Floors** - sell the “upside” of low rates
- **Sell LIBOR Caps** - sell out-of-the-money caps with strikes of 8%, 9% or 10% for 3, 5 or 7 years
- **Basis Swaps** - (Taxable vs Tax-Exempt) - Capitalize on the inefficiency in today’s tax-exempt market

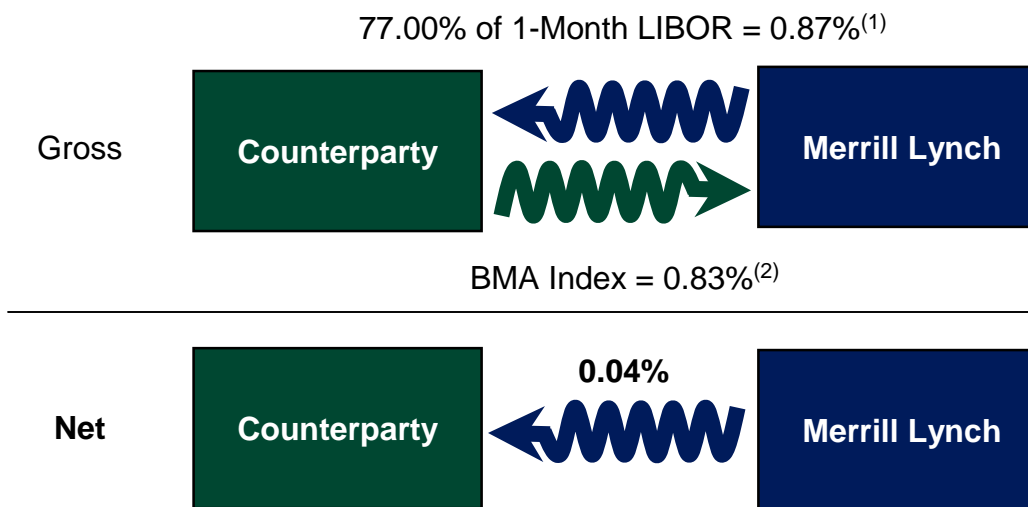


Traditional Basis Swaps

Historically, a 15-year basis swap would result in approximately 40 basis points of positive carry.

Today, a traditional basis swap results in only 4 basis points of carry due to a low interest rate environment.

Basis swaps can provide income



(1) Assumes an approximate 1-month LIBOR of 1.12%.

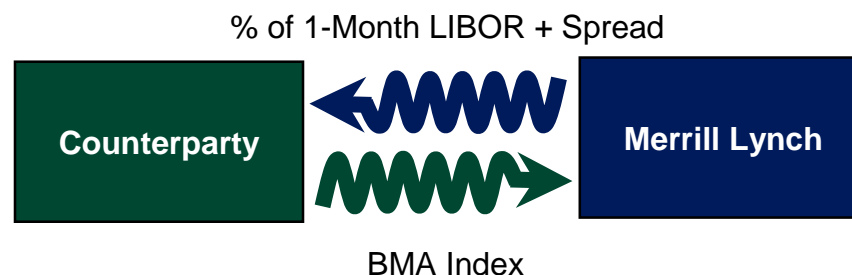
(2) Approximate BMA Index.

(3) Figure assumes a BMA Index/1-month LIBOR ratio of 64.50%, and is adjusted to an Act/Act day count.



Fixed Basis Swaps

The Counterparty can structure a fixed basis swap to improve performance



- The Counterparty can elect to receive:
 - 77.00% 1-month LIBOR + 0.00% vs. BMA Index
 - 72.00% 1-month LIBOR + 0.26% vs. BMA Index
 - 68.00% 1-month LIBOR + 0.48% vs. BMA Index
 - 65.00% 1-month LIBOR + 0.63% vs. BMA Index
- (Currently, every ratio translates approximately to a 5.31 basis point add-on)
- Each combination performs differently under various short-term rate and ratio environments



Basis Swaps

Structure Comparison

Projected Cash Flows on \$100 Million Notional Amount

- The Fixed Basis Swap will outperform a traditional basis swap when rates are low and ratios are high

1-month LIBOR	Fixed Basis Swap (68% of LIBOR + 0.48%)				Traditional Basis Swap (77.00%)				Benefit/(Cost) of Fixed vs. Traditional			
	60.00%	70.00%	80.00%	90.00%	Short-Term BMA/LIBOR Ratios				60.00%	70.00%	80.00%	90.00%
	60.00%	70.00%	80.00%	90.00%	60.00%	70.00%	80.00%	90.00%	60.00%	70.00%	80.00%	90.00%
1.00%	576	476	376	276	181	81	(19)	(119)	395	395	395	395
2.00%	666	466	266	66	361	161	(39)	(239)	304	304	304	304
3.00%	755	455	155	(145)	542	242	(58)	(358)	213	213	213	213
4.00%	844	444	44	(356)	723	323	(77)	(477)	122	122	122	122
5.00%	934	434	(66)	(566)	903	403	(97)	(597)	30	30	30	30
6.00%	1,023	423	(177)	(777)	1,084	484	(116)	(716)	(61)	(61)	(61)	(61)
7.00%	1,113	413	(287)	(987)	1,265	565	(135)	(835)	(152)	(152)	(152)	(152)
8.00%	1,202	402	(398)	(1,198)	1,446	646	(154)	(954)	(243)	(243)	(243)	(243)
Implied Tax Rate	40.0%	30.0%	20.0%	10.0%	40.0%	30.0%	20.0%	10.0%	40.0%	30.0%	20.0%	10.0%

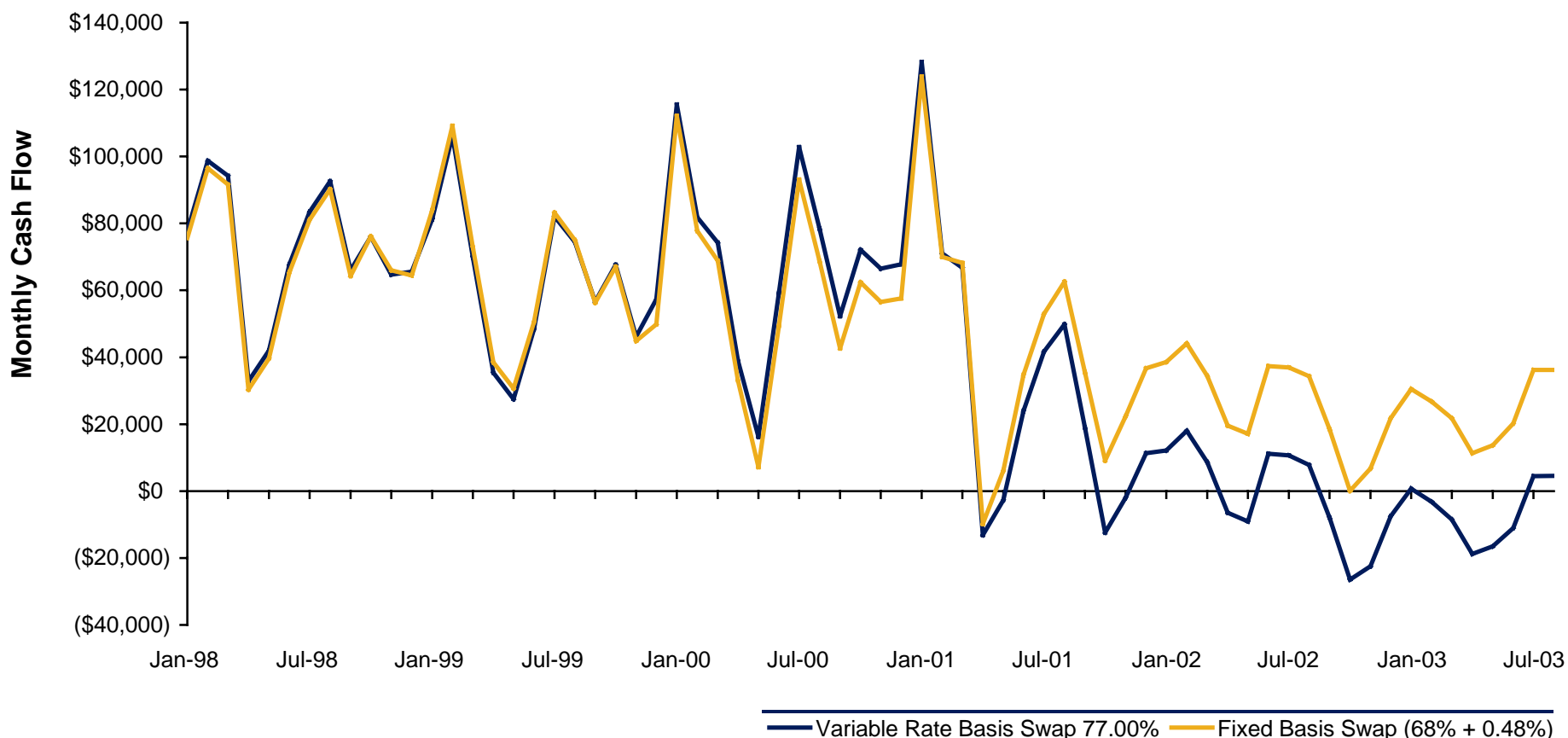


Basis Swaps

Historical Comparison of Structures

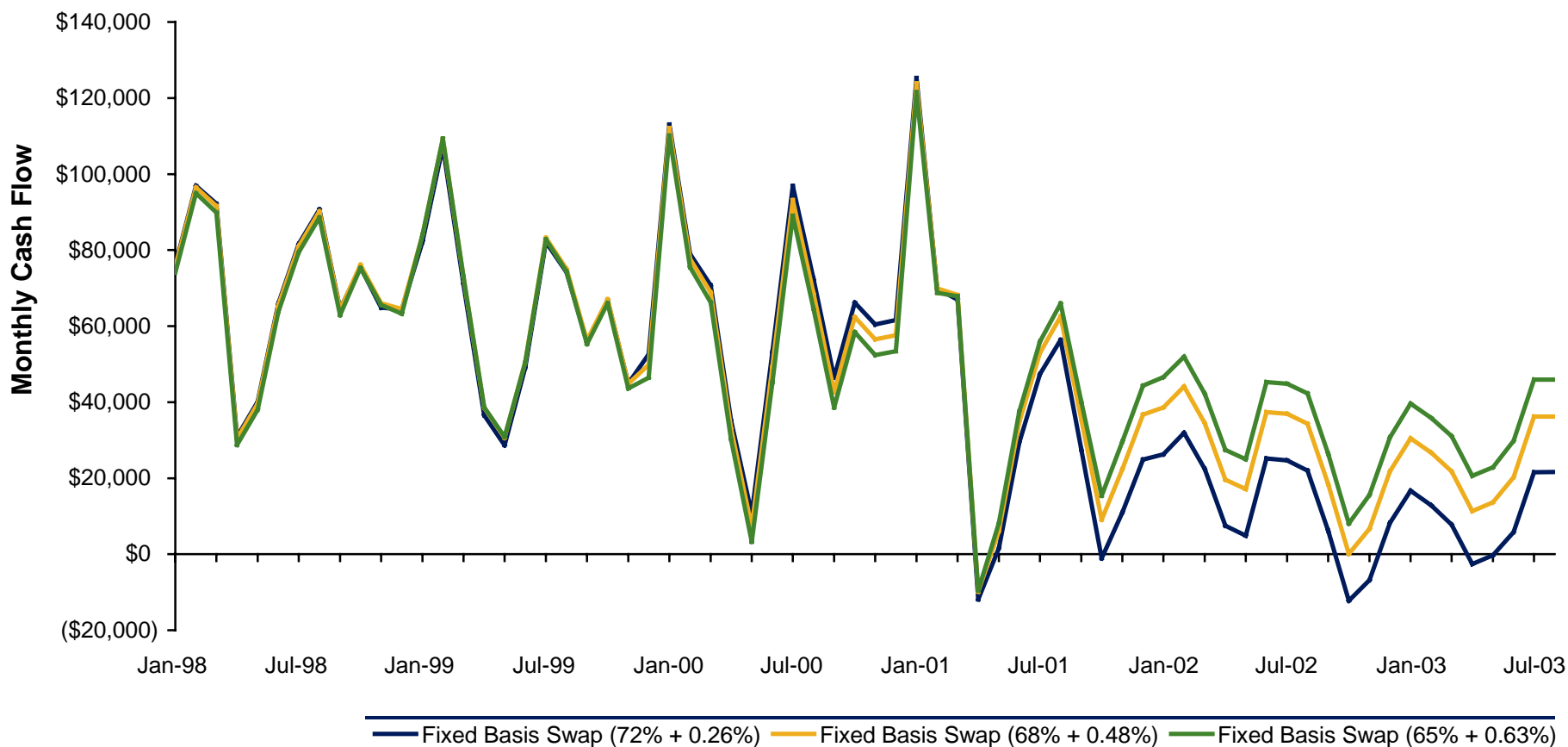
Monthly Cash Flows Based on \$100 Million Notional Amount

- Recently, the Fixed Basis Swap has outperformed a traditional Variable Rate Basis Swap



Fixed Basis Swaps Historical Performance

Historical Monthly Cash Flow Comparison of Various \$100 Million Fixed Basis Swaps

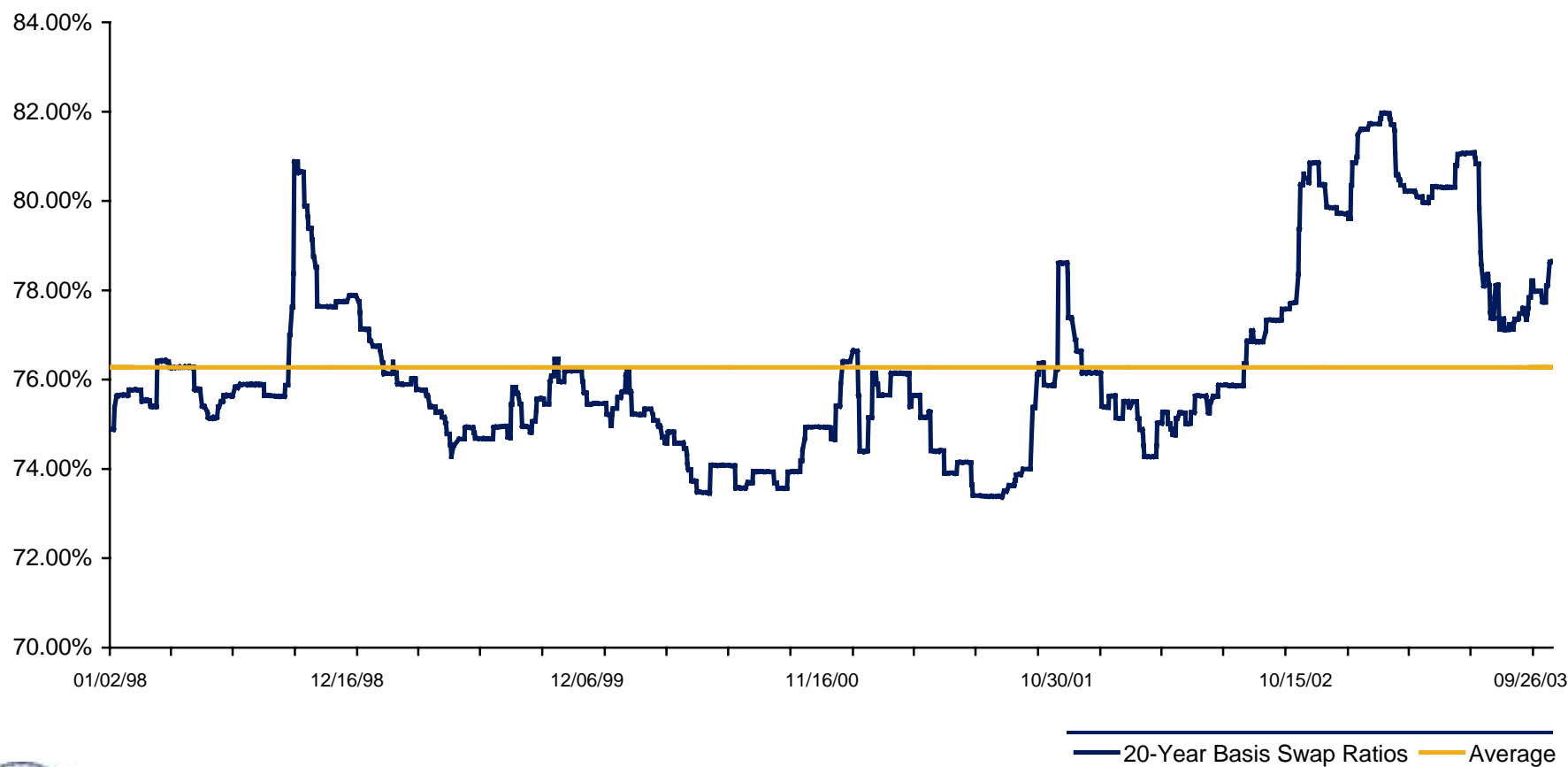


Basis Swaps

Is it a good time to lock-in long-term ratios?

High long-term ratios are compelling

- Basis Swap ratios are well above their average since 1997.



Basis Swaps

Cash flow is determined by short-term tax-exempt and taxable rates

Key Drivers of short-term BMA/LIBOR Ratio:

> Top Marginal Tax Rate

- 38.6% implies 61.4% ratio
- 35.0% implies 65.0% ratio

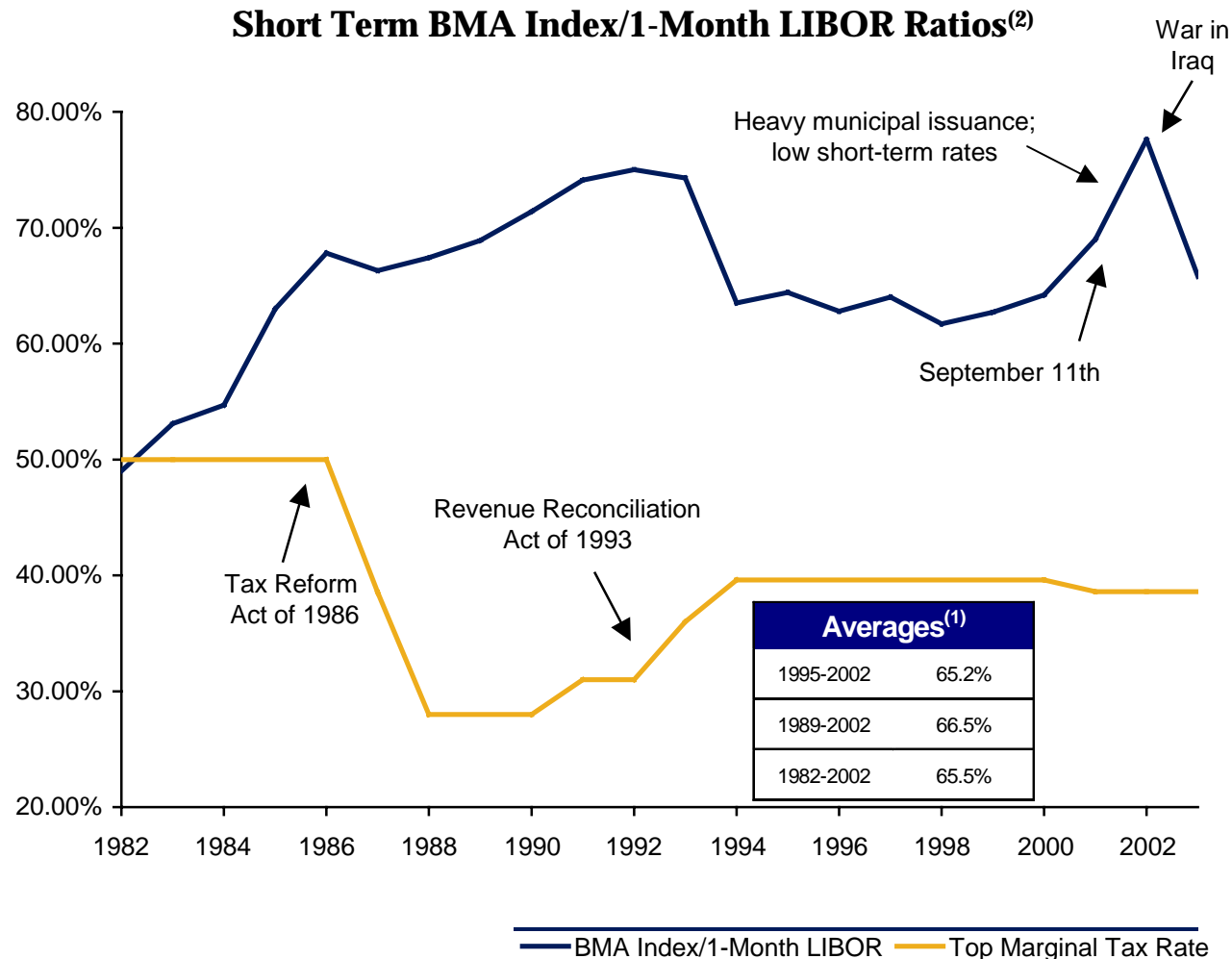
> Level of Interest Rates

- Low rates imply high ratio
- High rates imply low ratio

> Supply and Demand

- Large Muni *supply* implies higher ratio
- Large Taxable *demand* implies higher ratio

Short Term BMA Index/1-Month LIBOR Ratios⁽²⁾



NOTE: The data points represent annualized averages.

(1) JJK HG Index is used instead of BMA Index before inception of BMA in July 1989.

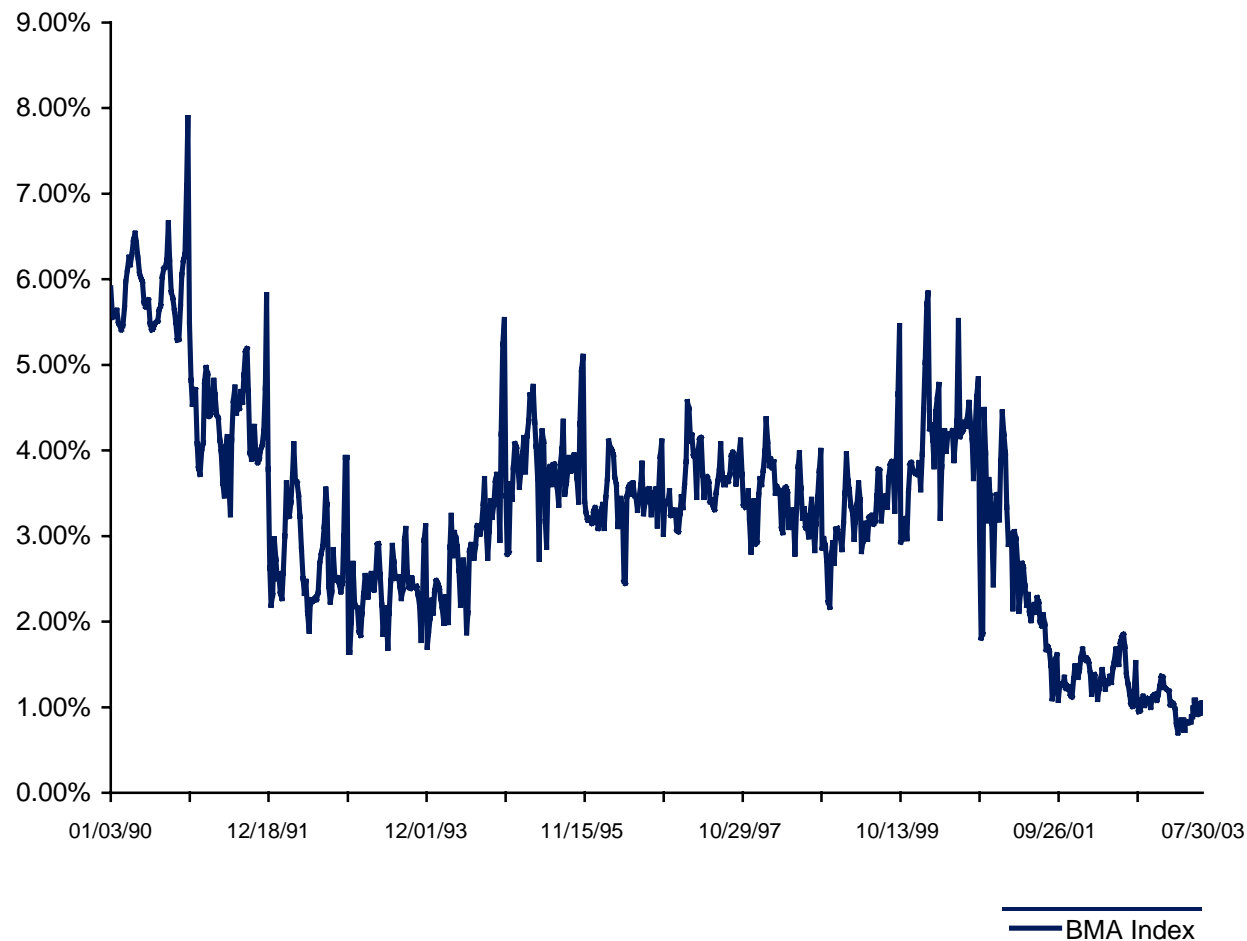
(2) Latest date point reflects current BMA Index/1-month LIBOR ratio of 65.5%.



Historical BMA Index

BMA Index

Year	BMA Index
1990	5.91%
1991	4.36%
1992	2.79%
1993	2.37%
1994	2.84%
1995	3.85%
1996	3.43%
1997	3.67%
1998	3.43%
1999	3.29%
2000	4.12%
2001	2.61%
2002	1.37%
2003	1.02%
1993-Date	2.76%
High	5.84%
Low	0.70%
Current	1.05%



The BMA Index is the industry standard for tax-exempt variable rates. It is calculated weekly using non-AMT, high-grade, variable rate notes from all states.

