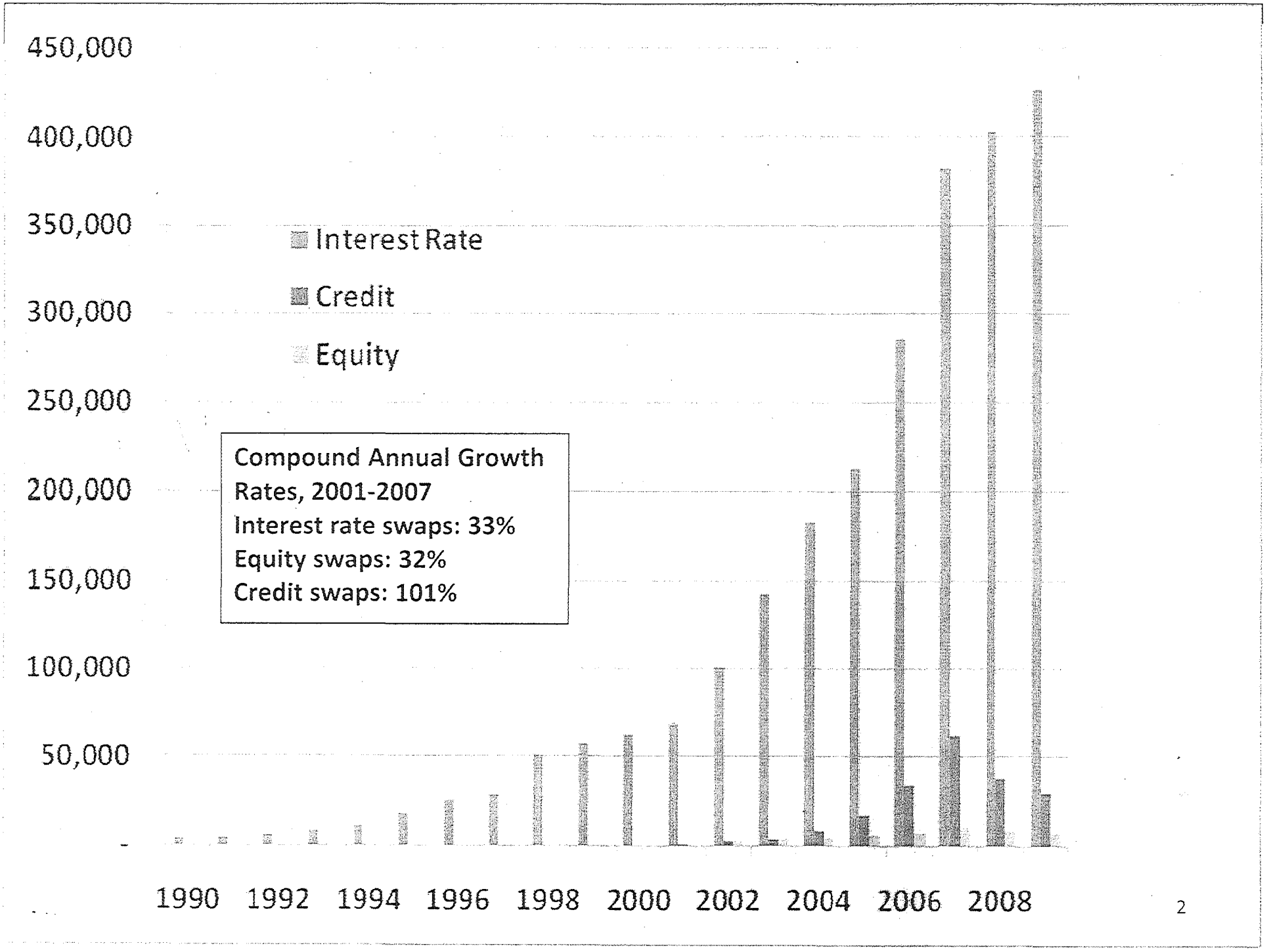
Dodd-Frank Title VII:
Business Conduct and Special Entities

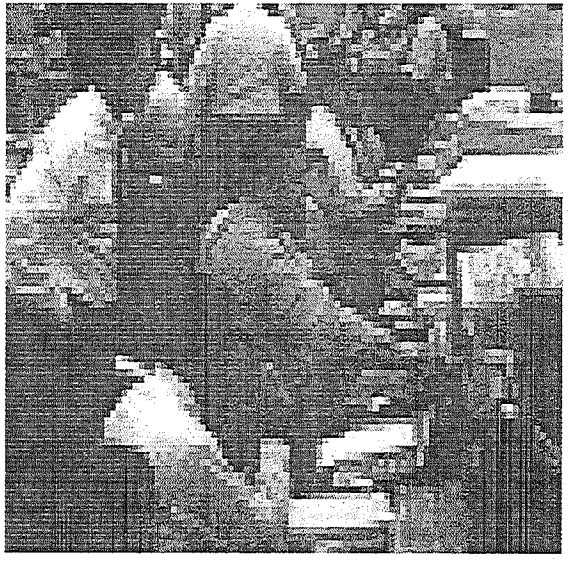
Briefing for SEC/CFTC Joint Working Group
August 9, 2010

Swap Financial Group
Peter Shapiro
76 South Orange Avenue, Suite 6
South Orange, New Jersey 07079
973-378-5500


450,000
400,000
350,000
300,000
250,000
200,000
150,000
100,000
50,000
-
Interest Rate
Credit
Equity
Compound Annual Growth Rates, 2001-2007
Interest rate swaps: 33%
Equity swaps: 32%
Credit swaps: 101%
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008

Swap market participants

Role of the dealer



- Unable to perfectly match client trades
- Must be "market maker"
- Credit intermediation – one end-user is not exposed to another's credit
- Processing, bookkeeping, payment calculation

How swap dealers make money

- No "bets" – I win, you lose – except prop desks
- Mark-up or "spread" between price charged to the client and cost of dealer's hedge
- Advisor's job determine mark-up by establishing dealer's hedge price
- Establishing hedge prices is easiest in the most liquid markets (LIBOR), but is attainable in the most markets
- Goal: Fair, disclosed profit margin, agreed to by the client, in all negotiated deals

Role of arbitrageur

- Speculation – pure profit
- Biggest risk taker
- Very picky on timing
- Not just hedge funds: Dealer 'prop desks' play dominant role (key issue: two hats)

End-users: 'Special entities'

- Governments: 45 states/state agencies, all major cities, most major counties, many mid-sized cities/counties, some school districts; most big infrastructure agencies (airports, transit, water-sewer authorities); most state housing finance agencies
- Non-profits: Hundreds of hospitals and health care systems; hundreds of higher-ed and private schools; about 100 cultural and research institutions (Council on Foreign Relations, Carnegie Endowment, Museum of Modern Art, Getty Museums, Phillips Collection)
- ERISA plans: Widespread use, often through intermediaries

Are all 501c3's 'special entities'

- Dodd-Frank : "any endowment, including an endowment that is an organization described in section 501(c)(3)"
- Does designation only apply to swaps done by or for the 501c3's "endowment"?
- Example: Harvard Management Co. does swaps for the endowment (to create commodity, currency or equity exposures). Harvard's Office of Treasury Management does swaps to hedge university borrowing costs.
- What about schools and hospitals with no endowment?
- Are there "endowments" that are not in 501c3's?

Why swap?

- Savings: Provide substantially better economic results than those available in the conventional bond market
- Flexibility: Provide a solution to a financial problem which is not available in the conventional market
- Speed: Take advantage of market opportunity swiftly

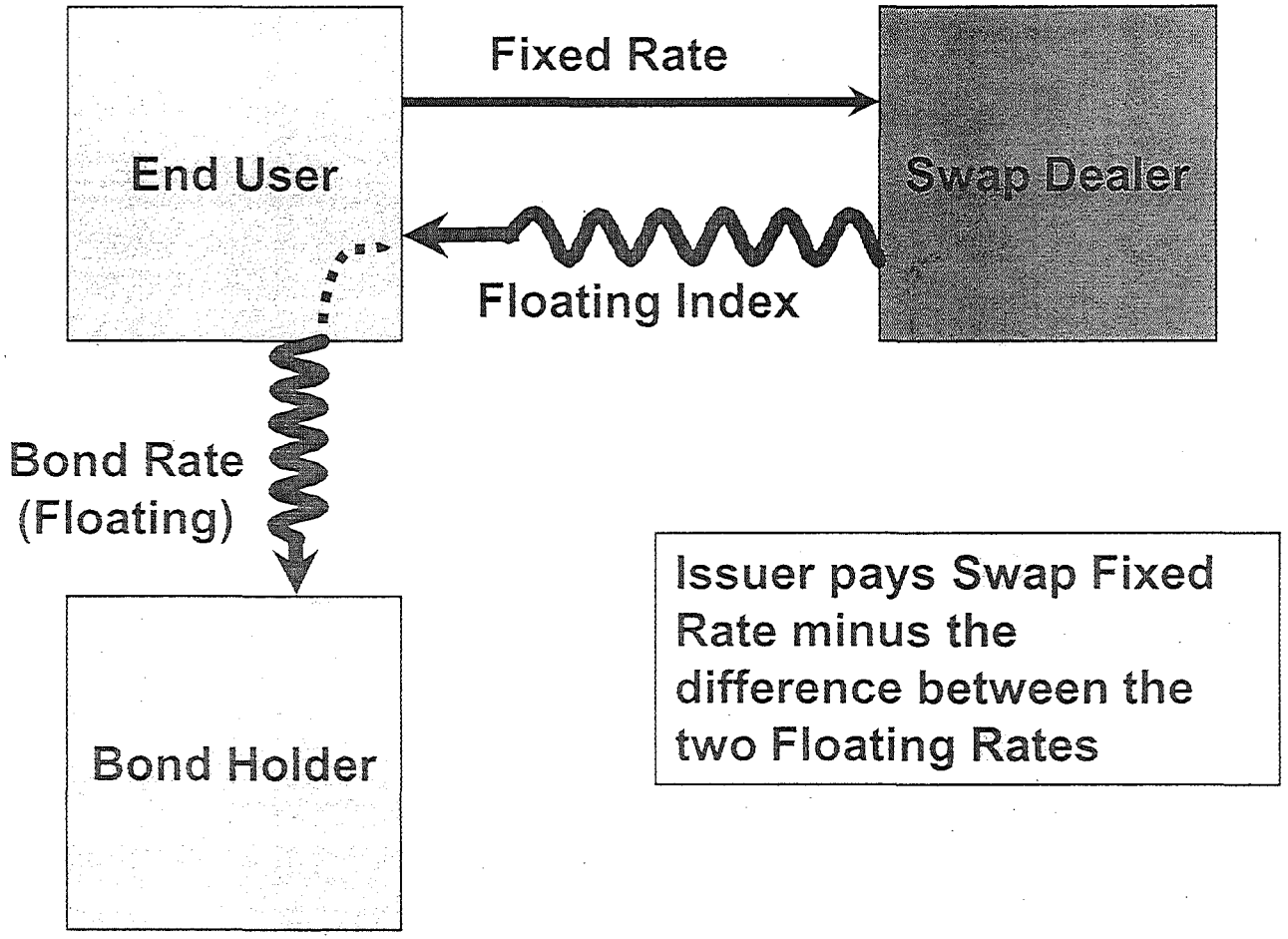
Key swap types

Most governments and non-profits use swaps to hedge debt (not investments)

Key types of swaps (in order of frequency used)

- Synthetic fixed
- Forwards
- Basis swaps
- CMS swaps
- Caps
- Synthetic floating

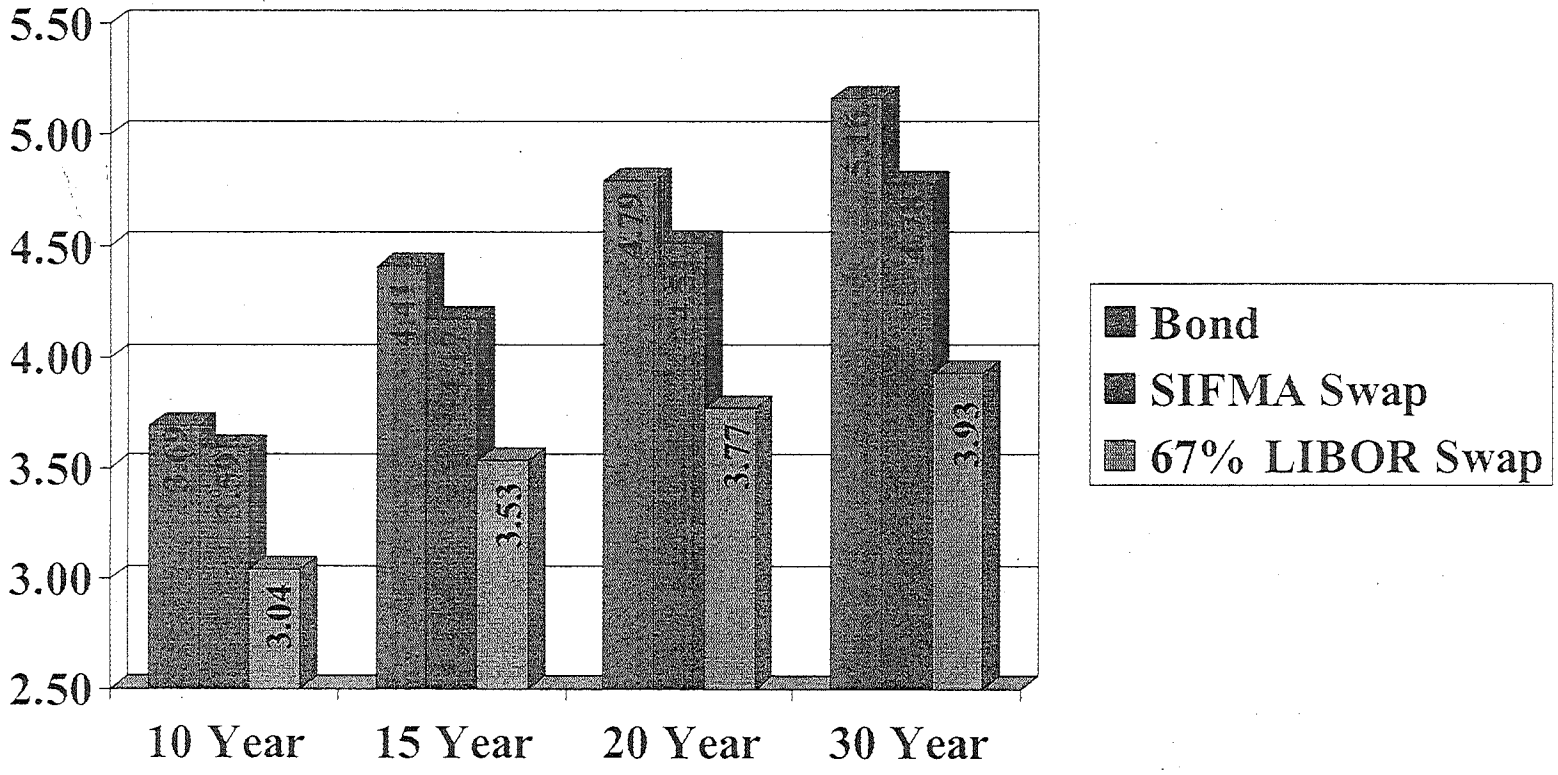
Typical swap – 'synthetic fixed'



Swap indexes

- The floating side of a swap is usually an index
- Two important floating indexes are:
  - LIBOR (London Interbank Offered Rate): Dominant index for taxable floating rates
  - SIFMA (Securities Industry and Financial Markets Association Municipal Swap Index): Dominant index for tax-exempt floating rates
- Many tax-exempt issuers use a percentage of LIBOR (between 64% and 70%) as the floating index, for greater liquidity and savings

Tax-exempt bonds vs. swaps



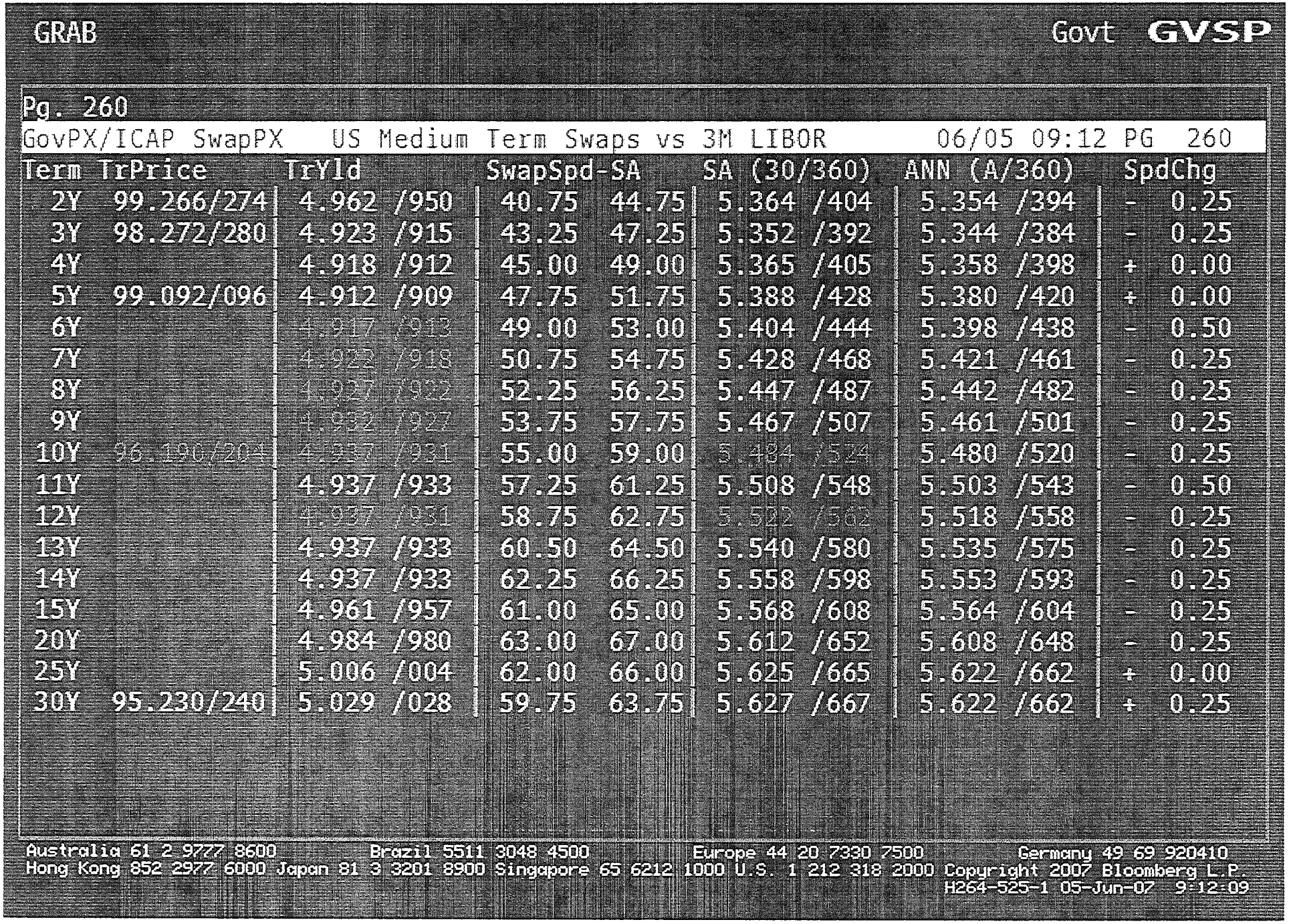
Note: Swap rate includes 100 bps cost for LOC/remarketing. Both swaps and bonds have 10 year calls.

Swap pricing

- Pricing varies from transparent to near-opaque, depending on product
- Starting point is "mid-market"

What is mid-market?

- Markets are quoted as "bid" and "offered"
- Mid-market ("mid") is the hypothetical halfway point between the bid side (end user receives fixed) and the offered side (end user receives floating)
- Mid is the starting point for all pricing discussions


GRAB
Govt GVSP
Pg. 260
GovPX/ICAP SwapPX US Medium Term Swaps vs 3M LIBOR 06/05 09:12 PG 260
Term TrPrice TrYld SwapSpd-SA SA (30/360) ANN (A/360) SpdChg
2Y 99.266/274 4.962 /950 40.75 44.75 5.364 /404 5.354 /394 - 0.25
3Y 98.272/280 4.923 /915 43.25 47.25 5.352 /392 5.344 /384 - 0.25
4Y 4.918 /912 45.00 49.00 5.365 /405 5.358 /398 + 0.00
5Y 99.092/096 4.912 /909 47.75 51.75 5.388 /428 5.380 /420 + 0.00
6Y 4.917 /913 49.00 53.00 5.404 /444 5.398 /438 - 0.50
7Y 4.922 /918 50.75 54.75 5.428 /468 5.421 /461 - 0.25
8Y 4.927 /922 52.25 56.25 5.447 /487 5.442 /482 - 0.25
9Y 4.932 /927 53.75 57.75 5.467 /507 5.461 /501 - 0.25
10Y 96.196/204 4.937 /931 55.00 59.00 5.484 /524 5.480 /520 - 0.25
11Y 4.937 /933 57.25 61.25 5.508 /548 5.503 /543 - 0.50
12Y 4.937 /931 58.75 62.75 5.522 /562 5.518 /558 - 0.25
13Y 4.937 /933 60.50 64.50 5.540 /580 5.535 /575 - 0.25
14Y 4.937 /933 62.25 66.25 5.558 /598 5.553 /593 - 0.25
15Y 4.961 /957 61.00 65.00 5.568 /608 5.564 /604 - 0.25
20Y 4.984 /980 63.00 67.00 5.612 /652 5.608 /648 - 0.25
25Y 5.006 /004 62.00 66.00 5.625 /665 5.622 /662 + 0.00
30Y 95.230/240 5.029 /028 59.75 63.75 5.627 /667 5.622 /662 + 0.25
Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 920410
Hong Kong 852 2977 6000 Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2007 Bloomberg L.P.
H264-525-1 05-Jun-07 9:12:09

Dealer's spread to mid

Three components

1) Hedge cost
2) Credit reserve
3) Dealer profit

Key questions: What's "on market"? What's fair?

What makes hedge cost vary?

- Different products have different hedging costs
- Less liquidity = wide bid-offered spread
- Occasional issue: Time of day

GRAB Govt **PREB**

200<Go> to view in Launchpad

9:12 **Prebon Yamane** PAGE 1 / 1

Term		Bid	Ask	Time		Bid	Ask	Time		Bid	Ask	Time
Percentage of Libor vs BMA Muni Index					Quarterly Bond Rate vs BMA Muni Index				BMA Muni Bond Index Spread vs Libor			
1Y	1)	66.5625	68.5625	7:02	12)	3.609	3.718	7:02	23)	1.70	1.81	7:02
2Y	2)	66.9375	68.9375	7:02	13)	3.580	3.687	7:02	24)	1.66	1.77	7:02
3Y	3)	67.2500	69.2500	7:02	14)	3.589	3.695	7:02	25)	1.64	1.75	7:02
4Y	4)	67.5625	69.5625	7:02	15)	3.610	3.717	7:02	26)	1.63	1.73	7:02
5Y	5)	67.7500	69.7500	7:02	16)	3.634	3.741	7:02	27)	1.62	1.73	7:02
7Y	6)	68.6250	70.6250	7:02	17)	3.710	3.818	7:02	28)	1.59	1.70	7:02
10Y	7)	69.6250	71.6250	7:02	18)	3.804	3.913	7:02	29)	1.55	1.66	7:02
12Y	8)	70.1875	72.1875	7:02	19)	3.862	3.972	7:02	30)	1.53	1.64	7:02
15Y	9)	70.9375	72.9375	7:02	20)	3.935	4.046	7:02	31)	1.50	1.61	7:02
20Y	10)	71.8750	73.8750	7:02	21)	4.015	4.127	7:02	32)	1.46	1.57	7:02
30Y	11)	72.9375	74.9375	7:02	22)	4.083	4.195	7:02	33)	1.40	1.51	7:02

All Rates Quoted vs. the BMA Muni Index (Act/Act)
Libor = 3 Month Libor Act/360

Prices are Indicative only, % are as of 3pm Close

What makes credit reserve vary?

- Ratings
- Type of credit
  - G.O. , water and sewer
  - Transit and toll facilities, state HFA's
  - Public power generators, solid waste
  - Private higher ed, health care
  - Nursing homes, convention centers
- Different dealers – different standards

What makes profit vary?

- Experience in negotiations/competition
- Desirability of client
- Deal size
- Deal difficulty and time

Spread components

	'Fair' range	Observed range
Hedge cost	**0.5 to 3 bps**	**0 to 7 bps**
Credit reserve	**0.5 to 10 bps**	**0 to 40+ bps**
Dealer profit	**0.5 to 9 bps**	**-2 to 50+ bps**

Nuances: When mid is hard to find

- Mid is often not as certain as is represented
- Reasons:
  - Product complexity
  - Model differences
  - Varying skills at hedge execution
  - "Unhedgeable" elements
- Examples to follow

Example 1: Simple LIBOR swap

- Tower 111
  - Manhattan apartment project
  - $100 million, 10-yr amortizing LIBOR swap
  - Strong credit guarantee
- Bids (SFG model mid was 5.591%)
  - PNC: 5.600%
  - Bank of New York: 5.599%
  - Bank of America: 5.597%
  - Wachovia: 5.595%

Example 2: Large BMA swap

- East Bay Municipal Utility District
  - Premier managed water and sewer utility
  - $392 million, 19-yr amortizing BMA swap
- Bids (SFG model mid was 3.393%)
  - Lehman Brothers: 3.454%
  - Bear Stearns: 3.414%
  - Merrill Lynch: 3.412%
  - Citibank: 3.412%
  - Siebert Brandford Shank: 3.4069%

Example 3: Embedded options

- California Housing Finance Agency
  - Nation's leading State HFA, largest swap user
  - $82.5 million taxable, 10-yr LIBOR swap with embedded options
- Bids (SFG mid was 5.62%)
  - Merrill Lynch: 5.683%
  - JPMorgan: 5.670%
  - Citibank: 5.615%
  - Goldman Sachs: 5.604%
  - Bank of America: 5.594%
  - UBS: 5.590%

Example 4: Ultra-long cap

- NewYork-Presbyterian
  - NYC's largest and most prestigious non-profit hospital system
- Board wanted to use an interest rate cap for protection for its floating rate debt
- Bought longest caps in history
  - 30 years (record had been 17, most under 10)
  - Capped BMA at 6%

Bid results: March 2005

Dealer	30-Year BMA Cap
JPMorgan	367 bps
Bear Stearns	380 bps
BNP Paribas	413 bps
Merrill Lynch	446 bps
Bank of America	468 bps
Bank of New York	471 bps
Lehman Brothers	515 bps

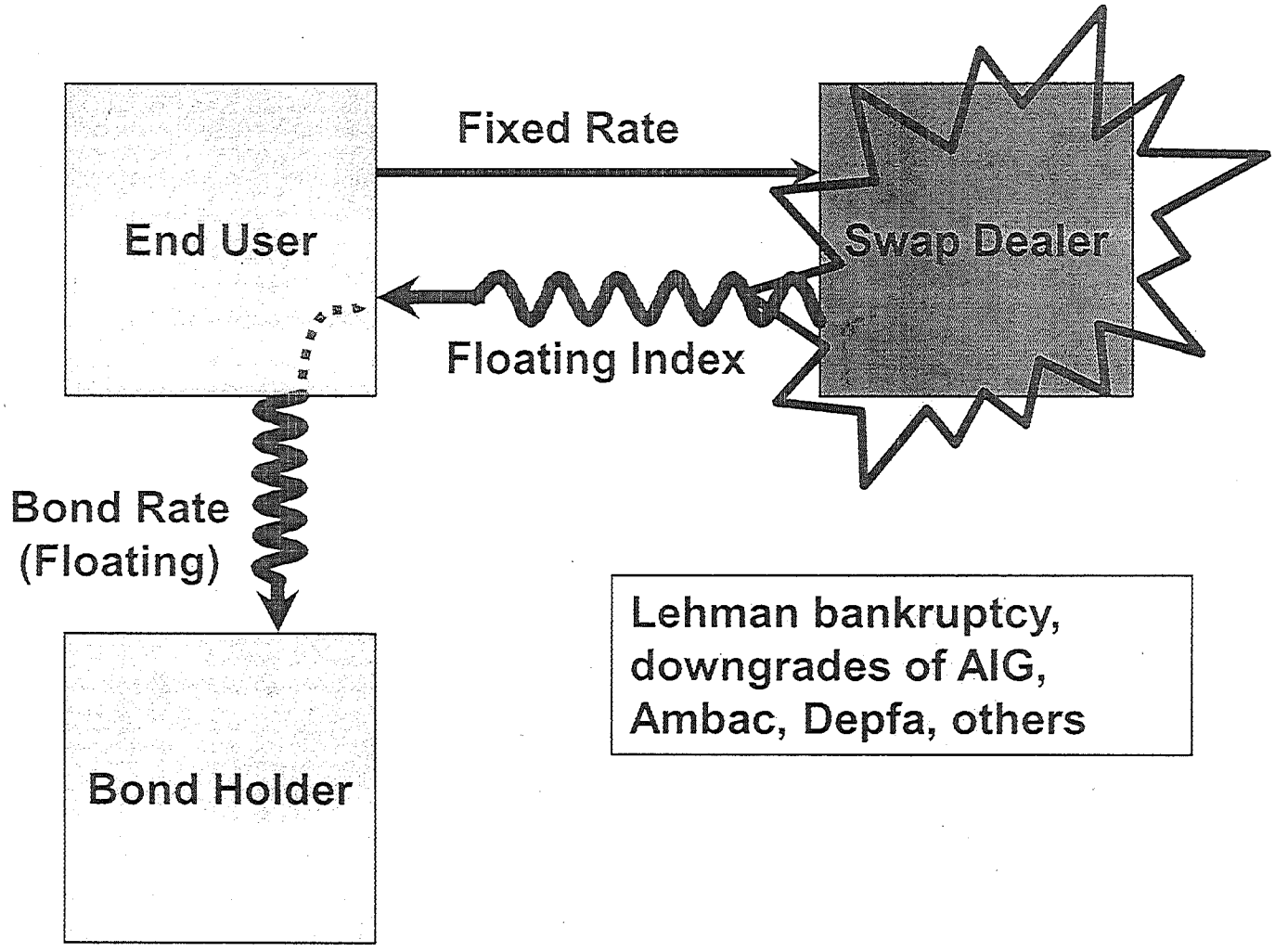
Bid results: November 2006

Dealer	30 Year BMA Cap
Lehman Brothers	241 bps
Royal Bank of Canada	247 bps
BNP Paribas	255 bps
JPMorgan	260 bps
Bear Stearns	274 bps
Bank of New York	291 bps
Merrill Lynch	293 bps
Bank of America	294 bps
Bank of Montreal	329 bps

Take-aways

- Pricing transparency can be obtained for most straightforward swap structures
- For complex structures, swap pricing is more "translucent" than "transparent"
- In negotiation:
  - Importance of leveling playing field with strong, experienced advice
  - Get break-out of spread components, including profit
- In competition:
  - Importance of large enough group, and right competitors

Realized risk #1: Counterparty



Terminating (and valuing) a swap

- Swaps can be terminated at one party's option, or because of a termination event or event of default.
- There is no prepayment penalty for terminating early – instead there is a gain or loss, called a termination payment.
- Media misnomer: "termination fee"
  - Payment direction and size is solely market-based
- The termination payment is based on:
  - Interest rates at time of termination
  - Remaining years to scheduled maturity
  - Notional principal amount

How termination works

- Compare original contract swap rate with current market rate for a swap ending on the same date
- Multiply rate difference times dollar size and years remaining, present valued
- Example: Original rate (5.50%); current rate (4.50%); difference (1.00%) times size ($10 mm = $100,000) times years remaining (10 years = $1 mm), present valued (at 4.50% = $770,000)

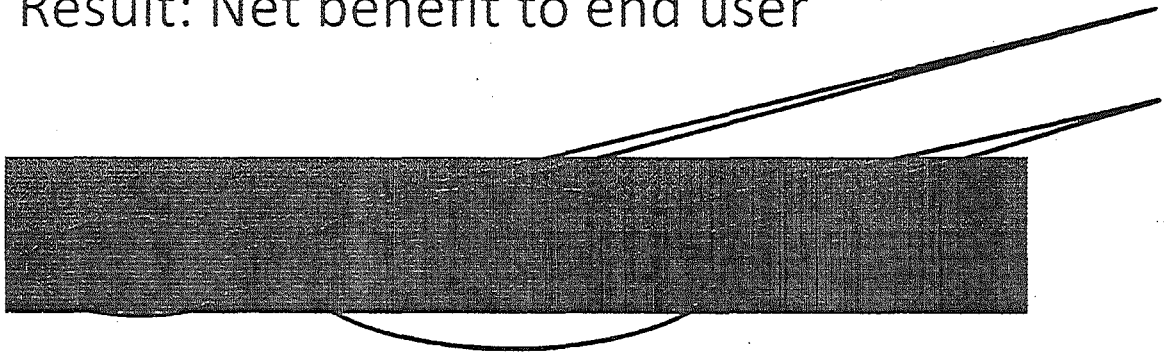
Measuring Termination Exposure

Assume Issuer has entered into a $100 million 30-year swap paying 4.50% and receiving the BMA Municipal Swap Index. The table shows the Replacement Value of the swap at future points in time, assuming 200 and 100 basis point increases in rates, and no principal amortization.

	Remaining Life of Swap		
	10 Years	15 Years	20 Years
200 basis points	$11,975,000	$14,574,000	$16,994,000
100 basis points	$6,344,000	$7,874,000	$9,432,000

Termination by default (Lehman)

- Most swaps were 'synthetic fixed' (end user pays fixed, receives floating)
  - Rates down sharply → Swap value against issuer (Good!)
- Termination value: 'Market Quotation'
  - Four quotes
  - Knock-out high, low; average remainder
- Replacement: Best bid
- Result: Net benefit to end user



Where end users got hurt

Where MTM was positive to issuer

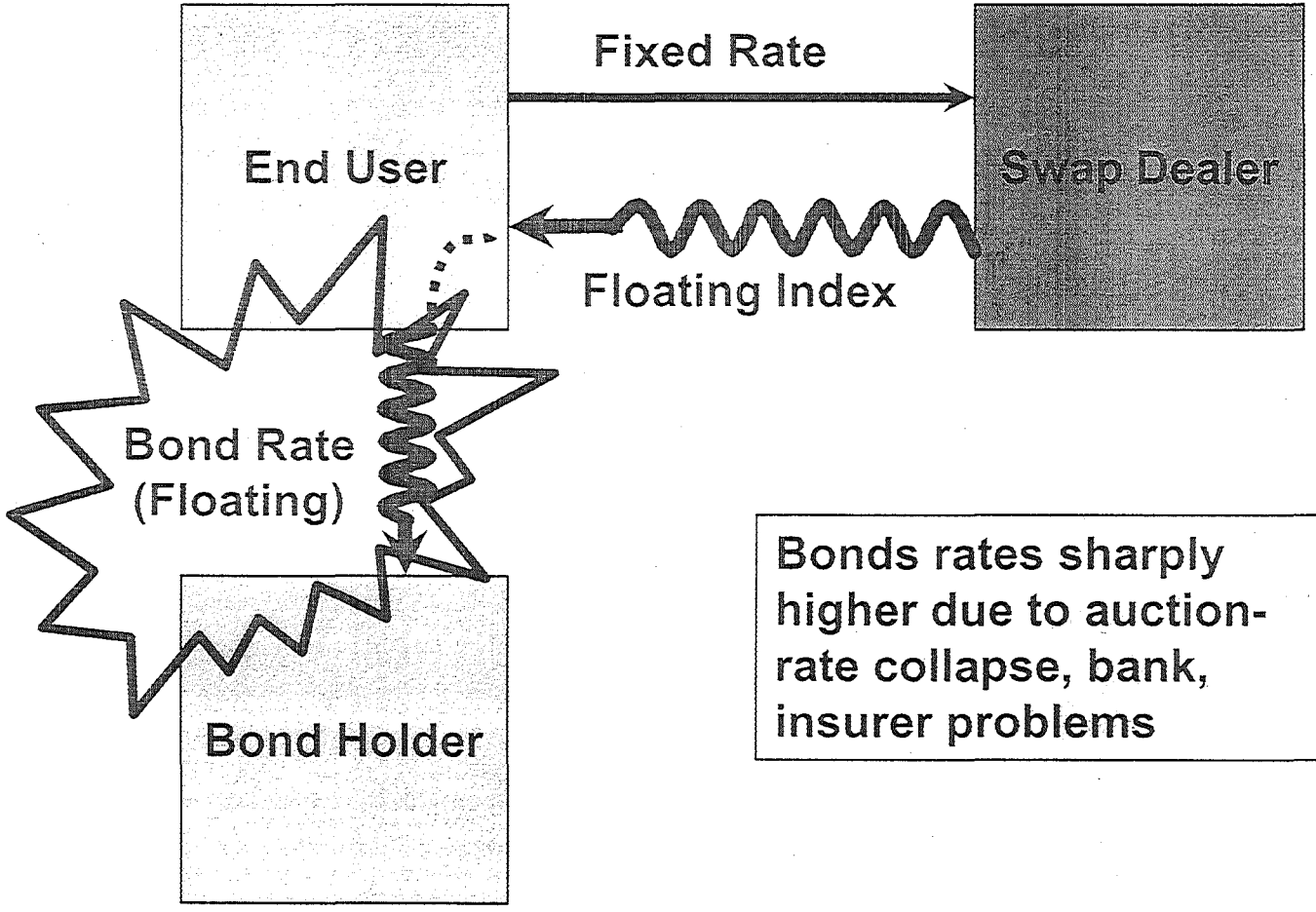
- Synthetic floating (issuer pays floating, receives fixed) – because rates were down
- Caps (issuer paid up front for rate protection)
- Basis swaps (mid-'09 on, not'08 or early '09)
- Likely outcome: LB claimants will get 50-60 cents on dollar; LBDP claimants will get 100
- Active market to sell "crystallized" claims at "double discount"

Swap valuation

Valuation varies slightly based on purpose

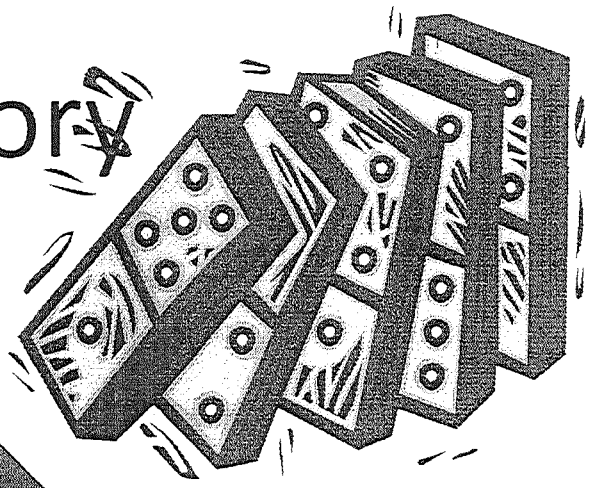
1. Financial reporting purposes ("MTM"), is done at mid-market with no adjustment
   - Not true "liquidation cost" if the end-user were forced to optionally terminate
2. Collateral calculation purposes: Calculating party will generally embed some spread in its favor
3. Termination purposes: True replacement cost, including full execution costs in current market

Realized risk #2: Basis risk



Bonds rates sharply higher due to auction-rate collapse, bank, insurer problems

Domino Theory



Subprime

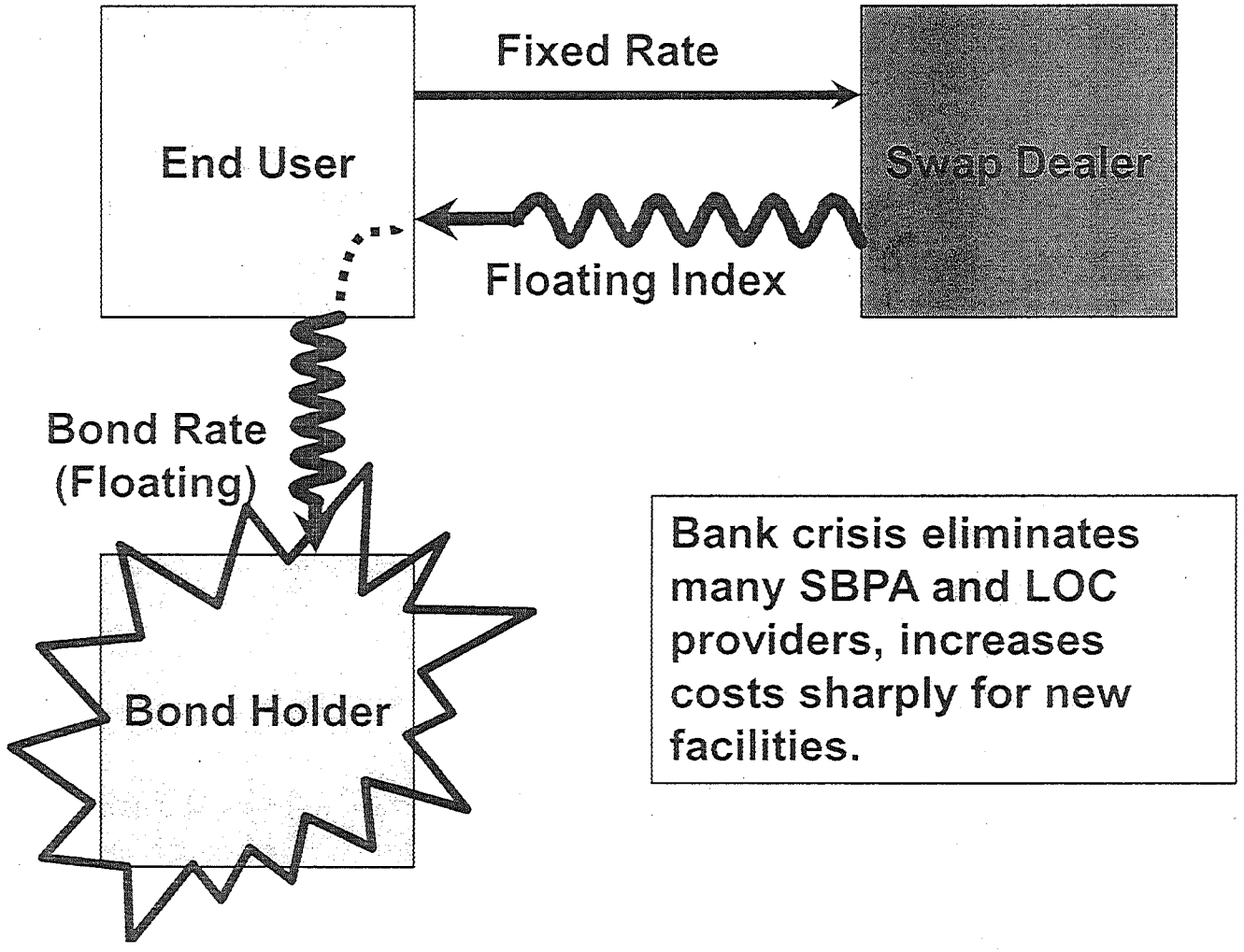
- Bond insurer meltdown
- Auction rates fail
- VRDB conversions eat up bank capacity
- Insured VRDB's trade poorly, hit banks, or are restructured

- Bank balance sheets balloon with toxic assets
- Remarketing desks unable to support VRDB's
- Unheard-of number of bank bonds
- Skyrocketing cost of LOC's, SBPA's

Resolving basis risk

- Refunding Auction Rates to VRDB's
- Refunding insured VRDB's to uninsured or replacing SBPA's with LOC's
- Replacing weak SBPA/LOC banks with stronger ones
- Or, quite commonly, throwing in the towel, and refunding fixed and paying swap termination cost
- Bottom line: Cost to municipal issuers
- Key note: Fed came to rescue of banks, corporate CP market, but gave cold shoulder to muni issuers

Realized risk #3: Rollover risk

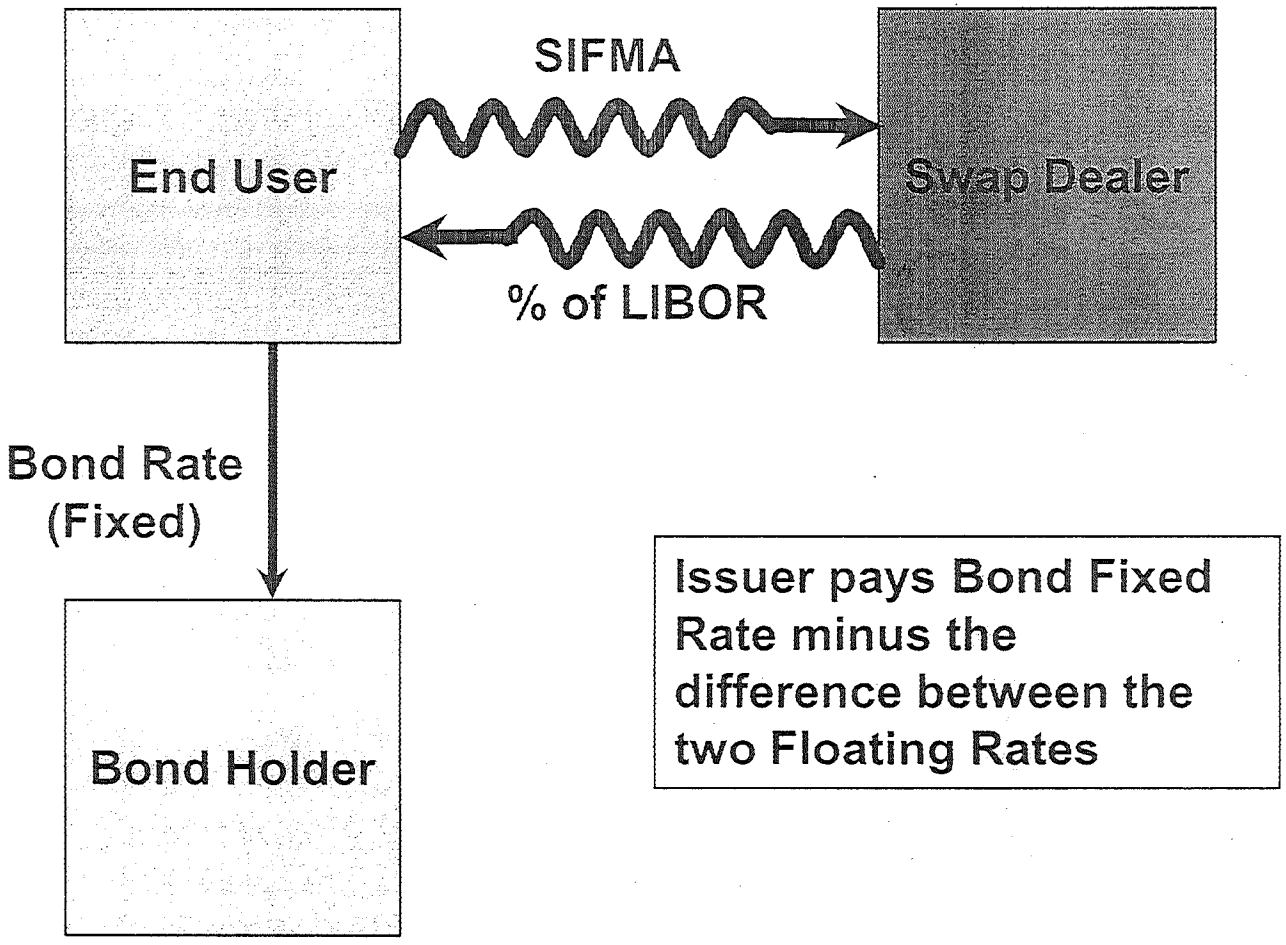


Bank crisis eliminates many SBPA and LOC providers, increases costs sharply for new facilities.

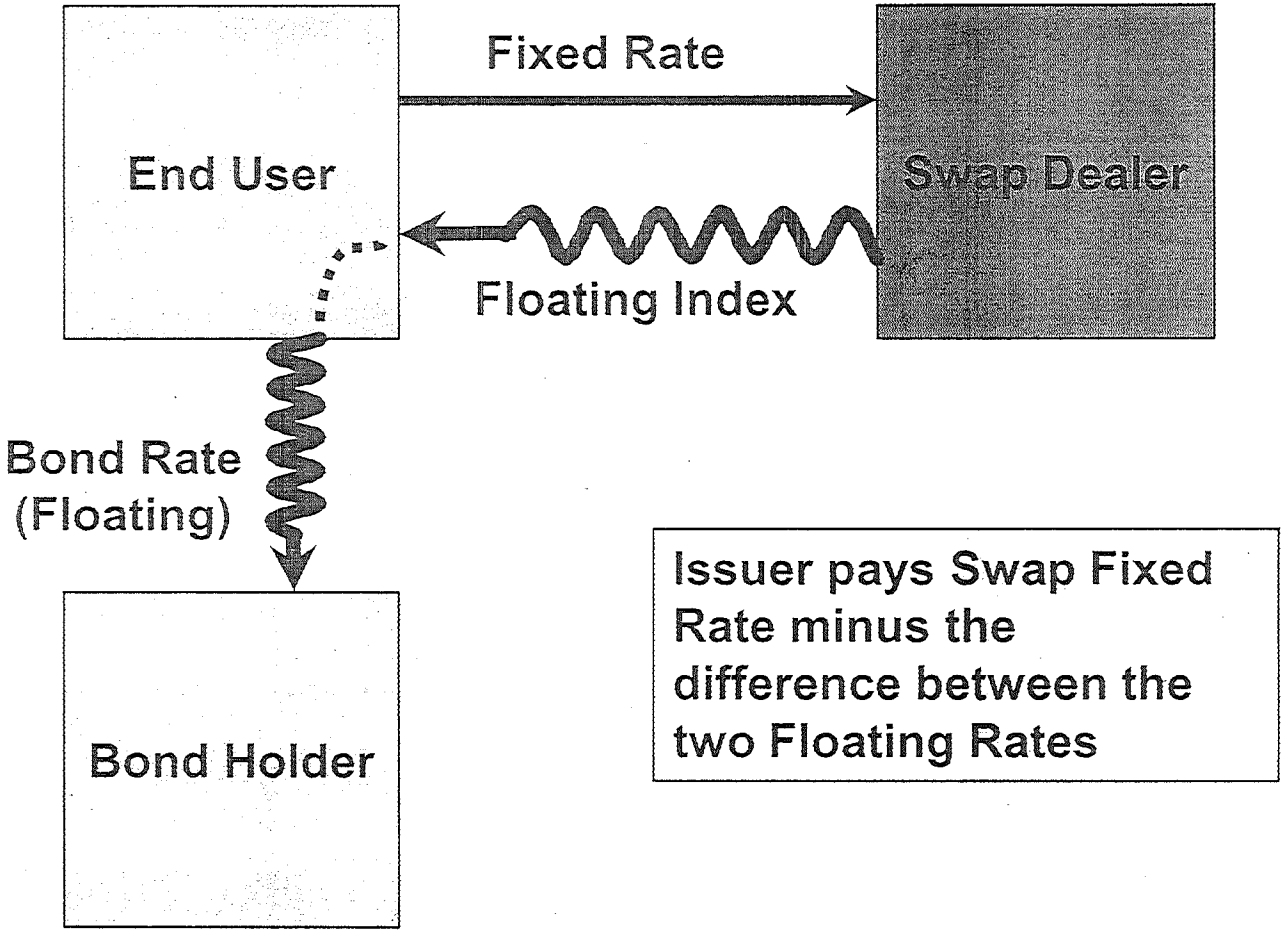
Resolving rollover risk

- Replacement of tainted bank facilities
- Keep new high-cost facilities short, in anticipation of declining future cost (already occurring)
- Replace VRDB's with alternative short-term products
- Bottom line: Unanticipated costs

Fixed rate bonds with basis swap



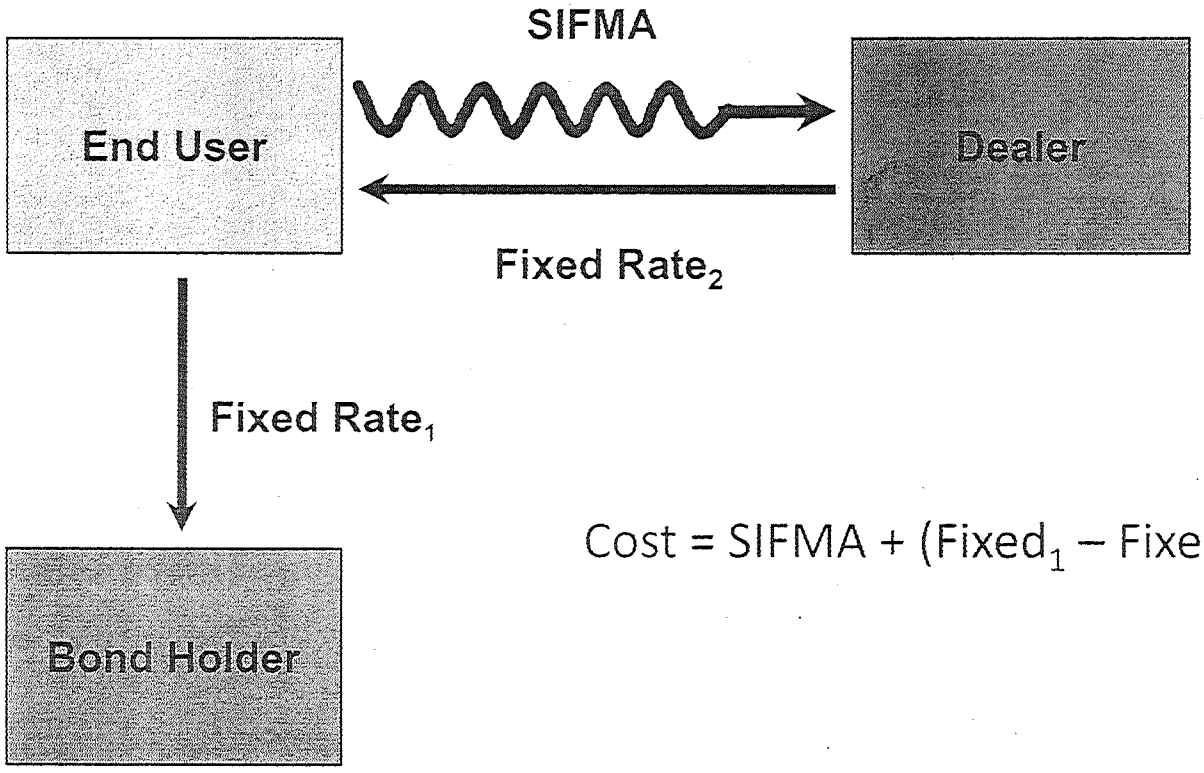
Typical swap – 'synthetic fixed'



Basis swap - motivations

- Same basis risk as % of LIBOR synthetic fixed
- No floating bond costs/risks (bank LOC cost, rollover risk, remarketing cost)
- Lower MTM volatility (less counterparty risk, less collateral posting risk)
- Retains call feature on fixed rate bonds

Synthetic Floating Rate Debt



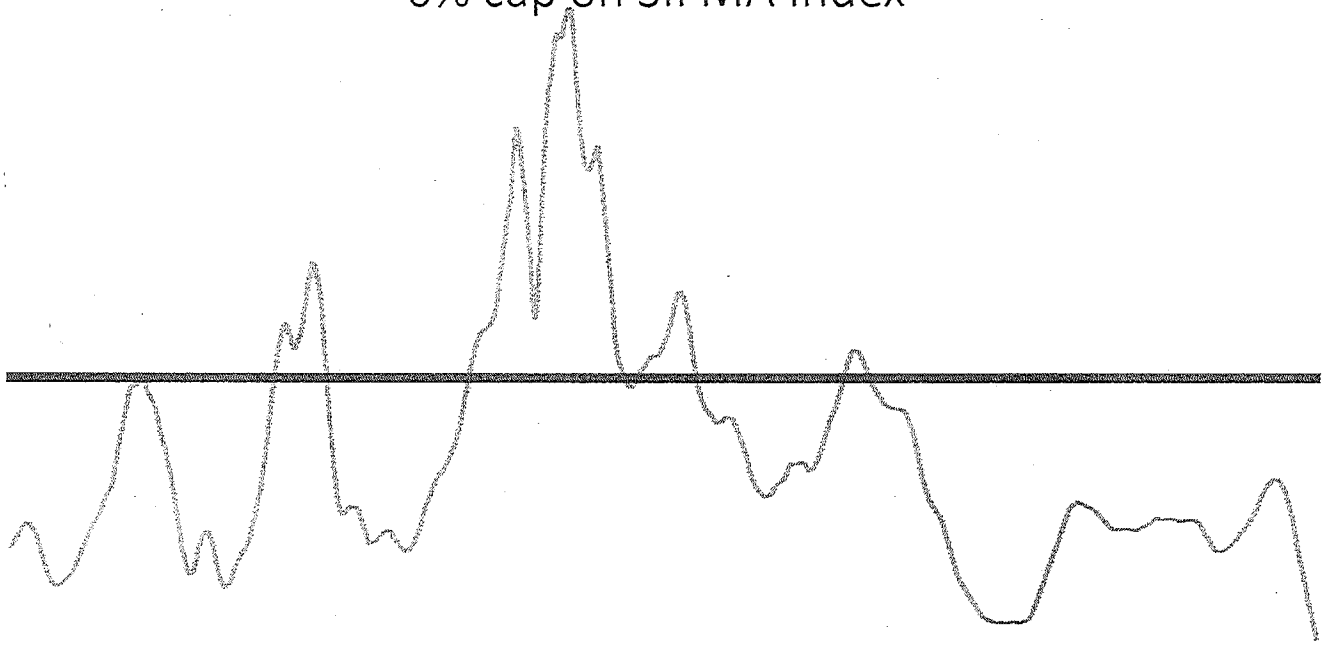
Cost = SIFMA + (Fixed$_1$ – Fixed$_2$)

Synthetic floating - motivations

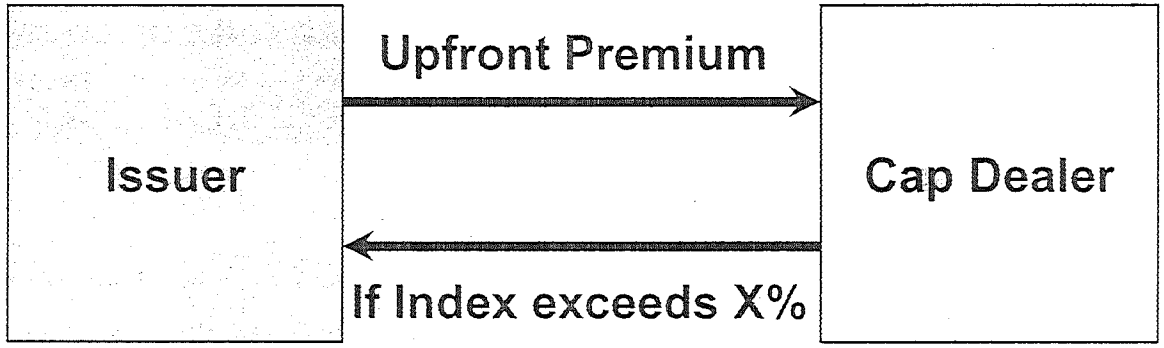
- No LOC cost, rollover risk
- Cash flow is index-based; no remarketing risk
- MTM moves opposite synthetic fixed, so can offset existing synthetic fixed exposure
- All-in cost may be lower than conventional floating

How a cap works

6% cap on SIFMA Index



Interest rate cap



Why Cap?

- Provide protection against rising variable rates
- Meet requirements of credit provider, state law, or indenture
- Allow use of floating rate debt but still be able to satisfy requirements of rating agencies and ability to live within known revenue constraints

Swap scandals

- West Basin Municipal Water District, California – Board members indicted, suit against financial advisor
- Jefferson County, Alabama – "The Banks that Fleeced Alabama"
- Florida panhandle – hidden fees trigger potential taxability
- Philadelphia – City treasurer and lead banker go to jail

Special entity conduct requirements

Dealer must:

- Verify that entity is Eligible Contract Participant
- Disclose:
  - Material risks and characteristics
  - Any material incentives or conflicts of interest
  - "Daily mark of the transaction"
- Communicate in a fair and balanced manner
- Meet other requirements set by the Commission "in the public interest . . ."

If dealer is "advisor"

Dealer must:

- "Act in the best interests" of special entity
- Obtain information to determine that a recommended swap is in the SE's best interest, including financial status, tax status, financial objectives, and other information prescribed by the Commission

Key questions:

1. What does "acting as an advisor" mean?
2. Does acting in the best interest imply a fiduciary duty?
3. What "other information" should Commission prescribe?

If dealer is non-advisor counterparty

Dealer must have reasonable basis to believe that SE has "independent representative" with:

- Sufficient knowledge to evaluate transaction and risks
- Not subject to statutory disqualification
- Independent of dealer
- Duty to act in best interests of SE (or ERISA fiduciary)
- Makes "appropriate disclosures"
- Provides reps re fair pricing and appropriateness

Key questions:

1. Can independent representative be an SE employee?
2. In the absence of a credentialing scheme, how to determine independent rep expertise?

Swap dealer vs. bond underwriter

- Most commonly, SE's do swaps with their key banker who also acts as bond underwriter or lender
- "Two Hat" role leads to confusion
  - Underwriter is intermediary between issuer and investor
  - Swap Dealer is counterparty with conflicting interests
  - Commission should prescribe clear, plain English disclosure of the differing interests and incentives
- Act allows Commission prescribe form of disclosure of "material incentives" of dealer
  - Should Commission require disclosure of spread from mid-market at time of pricing? Profit margin?

End user exemption

- Must not be "financial entity"
  - Avoid capturing Housing Finance Agencies, Clean Water Revolving Funds, state bond banks, etc.
- What is "hedging or mitigating commercial risk"?
  - Simple for synthetic fixed, forwards caps
  - But what about synthetic floating to achieve prudent mix of fixed/floating debt?
  - Basis swaps to take on SIFMA-LIBOR risk for lower cost?
  - Amendment of pre-existing swaps?
- Notify Commission how it "generally meets its financial obligations" on swaps
  - Nature of notice: Standing, one-time, or per transaction?
  - Timing of notice: Pre-trade or contemporaneous?

Future topics

- Real-time price reporting
- Collateral posting issues
- AIG, Berkshire Hathaway – dealers, major swap participants, or end users?