

# ***Market Update*** ***Interest Rate Derivatives***

**October 2008**

**Rick Redmond**  
**Executive Managing Director**  
**Derivative Products Group**



# Table of Contents

- 1. Derivative Products Group**
- 2. State of the Interest Rate Derivative Market**
- 3. Counterparty Credit Risk**
- 4. Pending Accounting Changes**

# End-to-End Support Capabilities

***The Derivative Products Group brings a wealth of derivatives experience to your institution.***

---

## **Pre-trade Support**

- Board/Management/Lender/ALCO/Accounting training

## **Pre-trade Structuring**

- Structuring derivative to precisely match exposure (Macro or Micro)
  - Payment frequency
  - Amortization
  - Maturity
  - Day count
  - Payment style
- Documentation
  - ISDA
  - Prepayment/Cross-default language

## **Trade Executed with strong counterparty**

## **Post-trade Support**

- Trade confirmations / payment & reset notices
- FAS 133/138 best practices support
  - Documentation
  - Valuations – Hedge and Hedged Exposure
  - Effectiveness testing

# Primary Product Offerings

***Interest Rate Derivatives provide a capital and liquidity efficient means of protecting financial assets and liabilities***

---

## **Interest rate swaps**

- **Spot Start**
- **Forward Start**
- **Cancelable**
- **Callable**
  
- **Interest rate Options**
  
- **Payer and Receiver Swaptions**
  
- **Active Indices**
  - **LIBOR**
  - **Prime**
  - **SIFMA**
  - **Treasury**

# Primary Uses

*Use These Products/Strategies to Protect Against Rising Rates*

---

- **Pay Fixed Swap**
  - Swap floating rate debt to fixed
  - Swap fixed rate assets to floating
- **Purchase Cap**
  - Hedge floating rate debt
  - Hedge fixed rate assets
- **Purchase Payer Swaption**
  - Purchase the options to enter pay fixed interest rate swap at predetermined rate and term

# Primary Uses

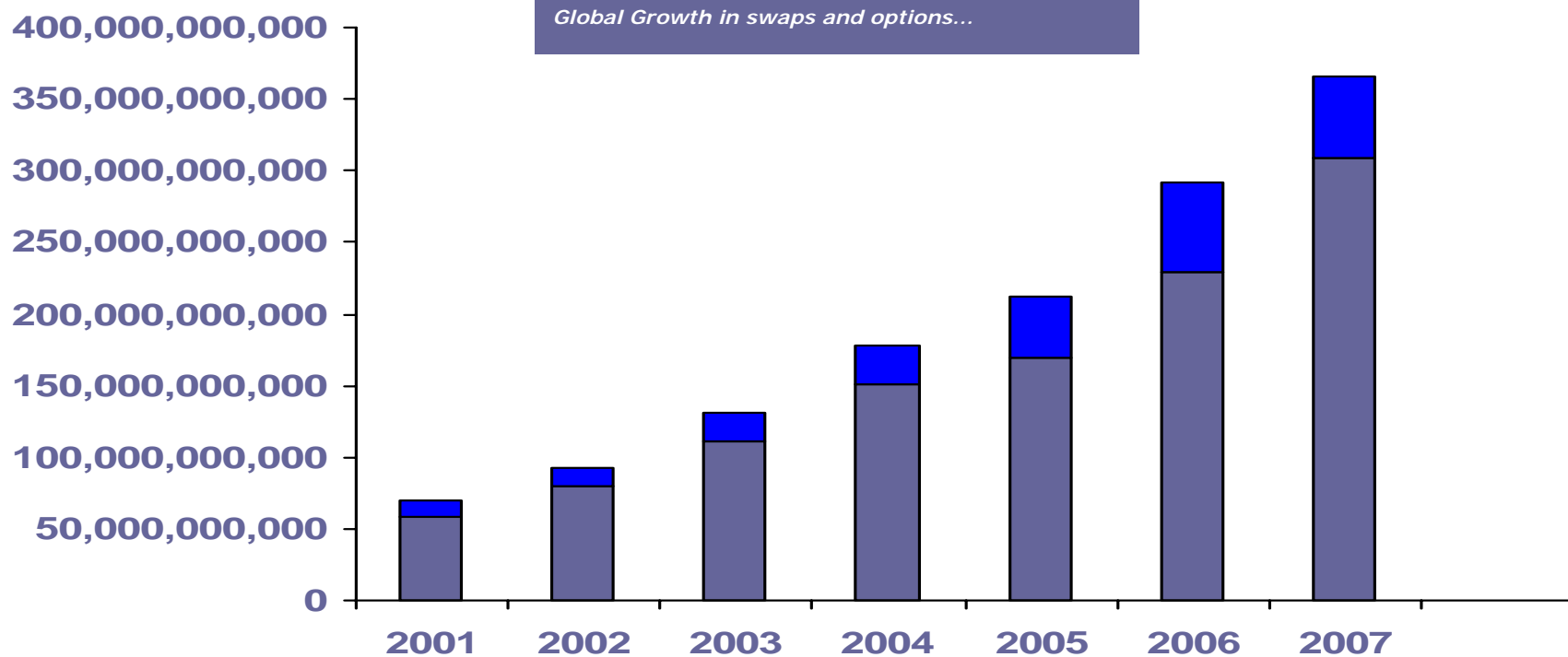
***Use These Products/Strategies to Protect Against Falling Rates***

---

- **Receive Fixed Swap**
  - Swap fixed rate debt to floating
  - Swap floating rate assets to fixed
- **Purchase Floor**
  - Hedge floating rate assets
  - Hedge fixed rate debt
- **Purchase Receiver Swaption**
  - Purchase the option to enter receive fixed interest rate swap at predetermined rate and term

# Derivative Market Overview

***At nearly \$370 Trillion, Derivatives Represent One of the World's Largest Financial Markets***



source: BIS. Total Derivative Market

# Derivative Market Overview

***Derivatives are traded Over the Counter (OTC) in privately negotiated transactions***

---

**The International Swap and Derivatives Association (ISDA) maintains an orderly and efficient OTC derivatives market by promoting the development and maintenance of derivative documentation, as well as the development of sound risk management practices. Market oversight is conducted by various government and self-regulatory bodies.**

# Derivative Market Overview

## *Credit Market Problems Spill Over to the Derivative Market*

---

### **Credit concerns – collapse of major counterparties**

**Bear Stearns – Public Broker/Dealer Fed assisted acquisition by JPMorgan Chase**

**Lehman Brother – Public Broker/Dealer bankruptcy absorbed in part by Barclays**

**Wachovia – Public Commercial Bank Fed assisted acquisition by Wells (was Citi)**

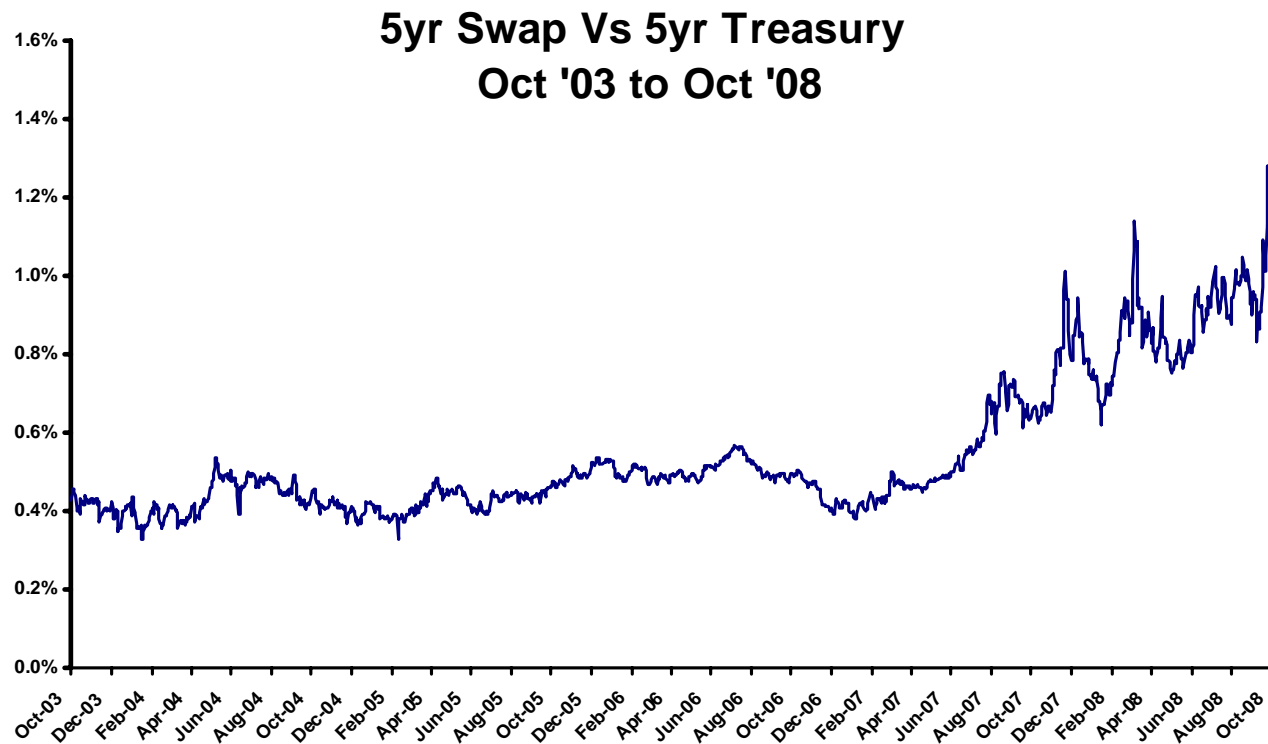
**Merrill Lynch – Public Broker/Dealer acquired by Bank of America**

**Morgan-Stanley – Public Broker/Dealer struggling**

# Derivative Market Overview

## *Credit Market Problems Spill Over to the Derivative Market*

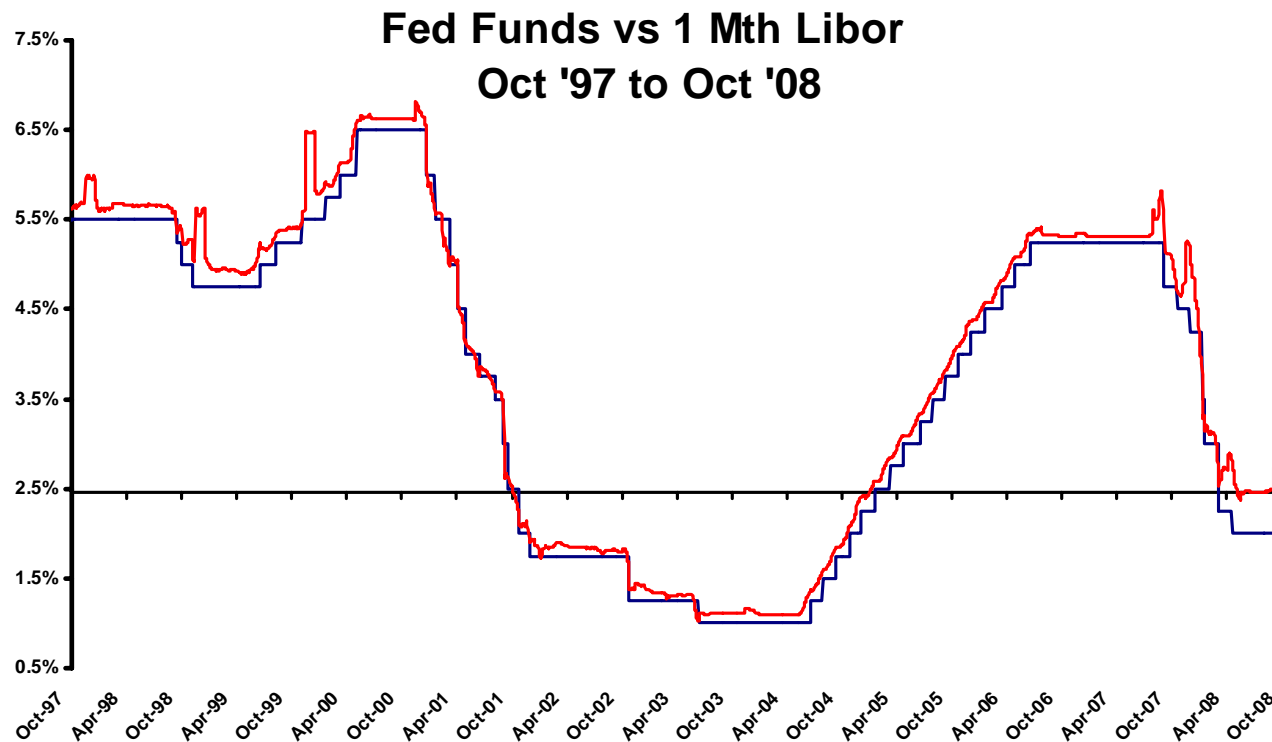
### Credit concerns – manifest in credit spreads



# Derivative Market Overview

## *Credit Market Problems Spill Over to the Derivative Market*

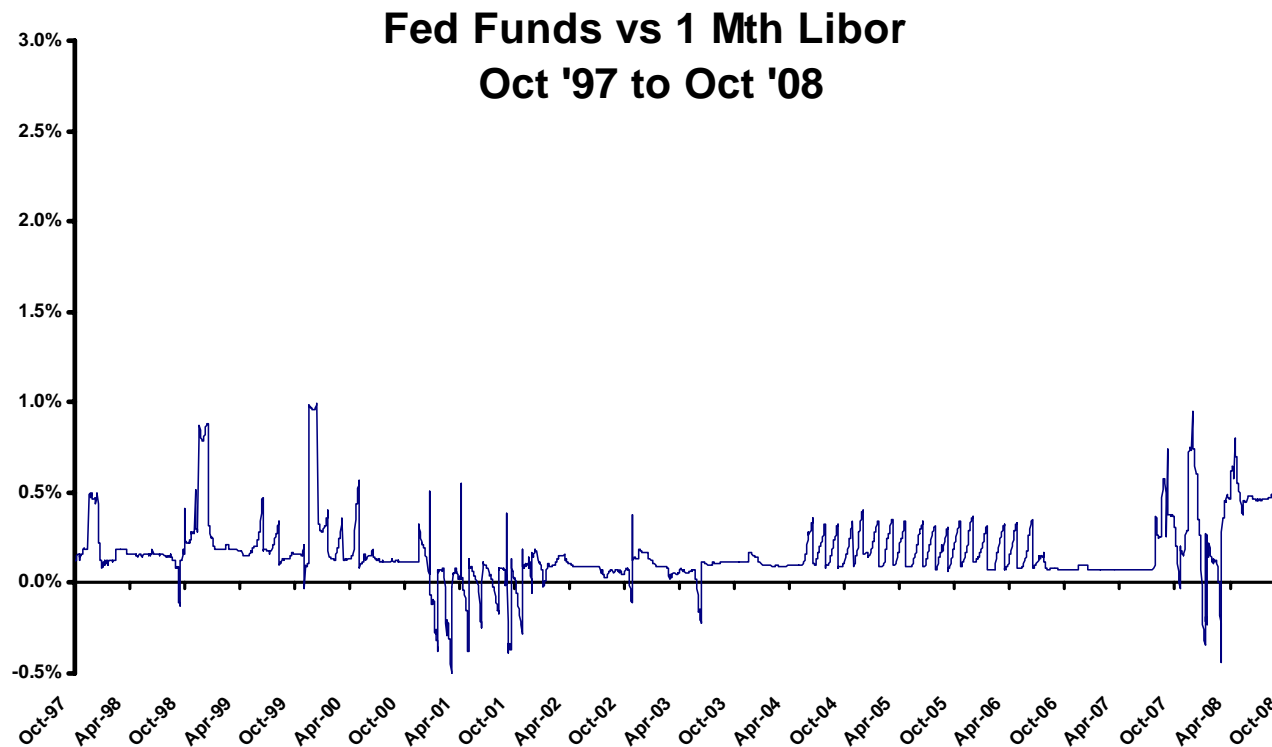
### **LIBOR Dislocation – reflects lack of confidence**



# Derivative Market Overview

## *Credit Market Problems Spill Over to the Derivative Market*

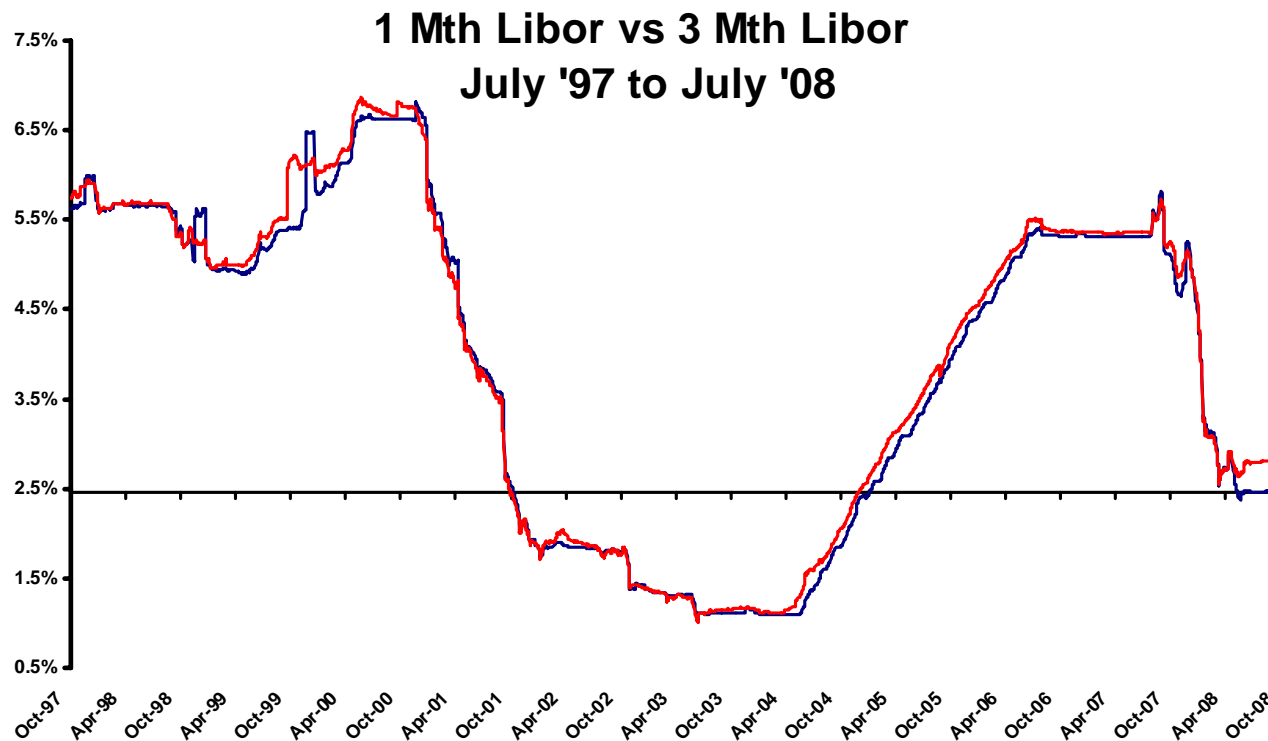
### **LIBOR Dislocation – market vs. managed rate**



# Derivative Market Overview

## *Credit Market Problems Spill Over to the Derivative Market*

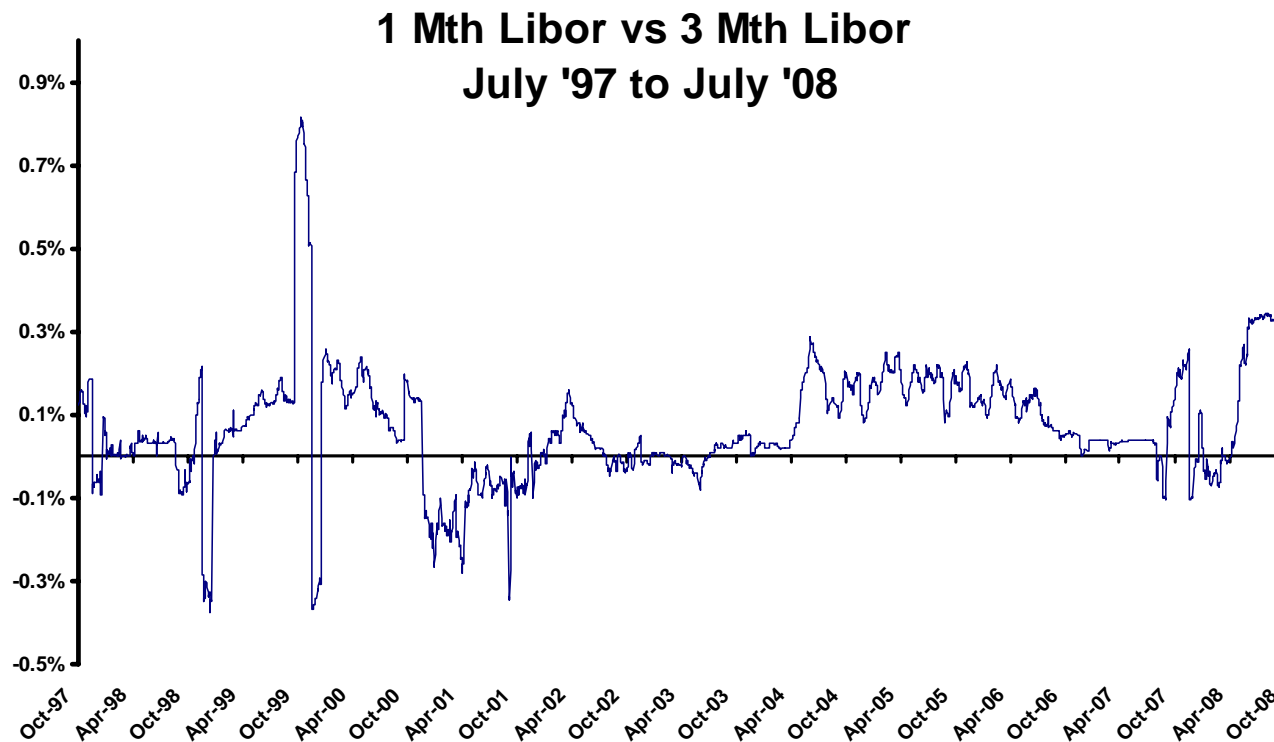
### **Basis Swaps – disconnect in normal spread relationships**



# Derivative Market Overview

## *Credit Market Problems Spill Over to the Derivative Market*

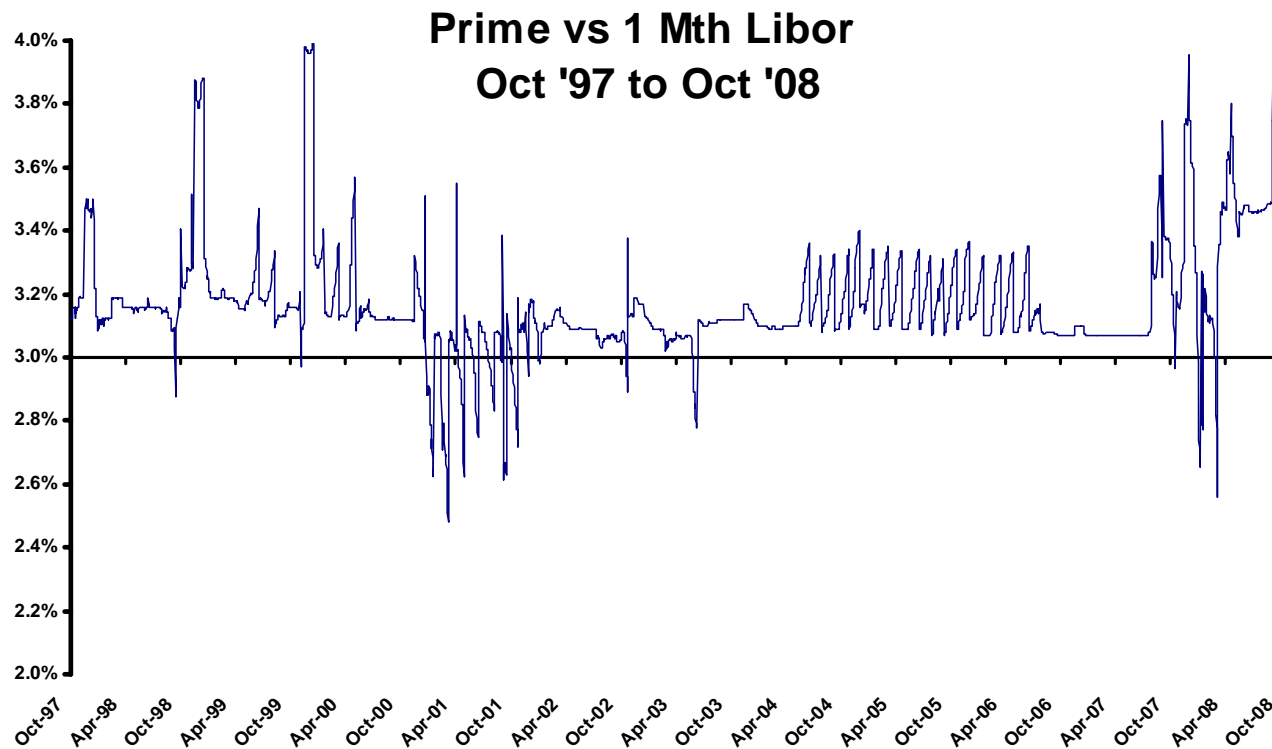
### Basis Swaps – volatility in 1s/3s



# Derivative Market Overview

## *Credit Market Problems Spill Over to the Derivative Market*

### Basis Swaps – volatility in Prime/LIBOR



# Counterparty Credit Risk

*Management of counterparty credit risk comes to prominence*

---

## Credit risk considerations

- **ISDA Master Agreement**
  - **Credit Support Annex (CSA)**
  
- **Counterparty considerations (probability of default)**
  - **Credit underwriting**
  - **Business Complexity/Focus**
  - **Risk Taking Activities**
  
- **Collateral Considerations (loss given default)**
  - **Thresholds**
  - **Call Frequency**
  - **Eligible types**

# Select Strong Counterparties

## *Counterparties of the future*

---

### **Recommended counterparty types**

- **Highly Rated Commercial Banks**
  - **Government support**
  - **Strong Capital and Liquidity**
  
- **Broker/Dealer with Partnership Structure**
  - **Playing with their own money**
  - **Focused Business activities**
  - **Limited risk taking activities**
  - **Internal ownership of capital**
  - **Collateral Posting**
  - **Credit support from strong third party**

# Potential Changes to FAS 133/138

## **Exposure Draft**

### **Proposed Changes to Financial Accounting Standards**

#### **Accounting for Hedging Activities an amendment to FAS 133**

**No. 1590-100 June 6, 2008**

#### **Proposed Changes:**

- **Change in standard of effectiveness from “Highly effective” to “Reasonably effective”**
- **Elimination of effectiveness testing except in cases where circumstances suggest the hedging relationship may no longer be effective**
- **Elimination of the ability to bifurcate risks**
- **Effective date of Standard: Financial Statements issued for fiscal years beginning after June 15, 2009.**
- **Early adoption would not be permitted**

# Best Practices

- 1. Hedge Accounting Documentation**
- 2. Hedge valuation**
- 3. Hedged exposure valuation**
- 4. Prospective effectiveness testing**
- 5. Retrospective effectiveness testing**

*The accounting treatment for changes in the FV of a derivative depends on the intended use of the derivative and the resulting hedge relationship.*

# Wrap Up

- 1. Derivatives are the largest financial market in the world**
- 2. Credit and liquidity issues are spilling over to the derivative market**
- 3. Basis risk is putting pressure on non-plain vanilla swaps**
- 4. Liquidity in off-market swaps is tight**
- 5. Beware of counterparty credit risk!**
- 6. Look for favorable changes to FAS 133/138**



# Accounting Supplement

# Accounting for Derivatives

## **FAS 133 & 138**

- Establishes common framework for derivatives accounting
- Requires that derivatives be recorded at fair value (FV)
- Requires that FV changes be recorded in current earnings
- Defines derivative instruments
- Establishes reporting standards
- Creates notion of *hedge accounting*

## **Hedge Accounting**

- Used when a derivative is used to hedge a non-derivative financial instrument
- Defines hedge relationships (hedge vs. hedged exposure)
- Defines hedge accounting methods (Fair Value and Cash Flow)
- Allows hedged exposure to be recorded at FV (Fair Value Hedge)
- Allows hedged FV to be deferred in OCI (Cash Flow Hedge)
- Allows bifurcation of FV
- Requires effectiveness testing
- Reduces earnings volatility

# Hedge Relationships

## **Fair Value Hedge**

- Hedges exposure to changes in FV of a recognized asset or liability, or unrecognized firm commitment
- Used to hedge fixed rate assets or liabilities

## **Cash Flow Hedge**

- Hedges variability in cash flow of a recognized asset or liability, or forecasted transactions
- Used to hedge floating rate assets or liabilities, or forecasted transaction

*The accounting treatment for changes in the FV of a derivative depends on the intended use of the derivative and the resulting hedge relationship.*

# Hedge Relationships

## Fair Value Hedge

### Accounting

- Derivatives are marked to market and changes in FV flow through earnings
- Hedged exposures are marked to market and changes in FV flow through earnings
- Any difference between the derivative FV and the hedged exposure FV flows through earnings as ineffectiveness
- **Shortcut method not recommended**

### Examples

- Swapping fixed rate debt to floating rate
- Swapping fixed rate loans to floating rate

## Cash Flow Hedge

### Accounting

- Derivatives are marked to market and changes in FV flow through Other Comprehensive Income (OCI)
- OCI is reclassified into earnings when hedged exposure affects earnings
- Any ineffectiveness reported in earnings immediately
- **Short cut method not recommended**

### Examples

- Swapping floating rate loans to fixed rate
- Swapping floating rate debt to fixed rate
- Hedging floating rate debt with a Cap
- Hedging floating rate loans with a Floor

# Documentation

## **Contemporaneous Hedge Accounting Documentation**

- Description of the hedged exposure (i.e., floating rate loan, fixed rate debt, etc.)
- Designation of the type of hedge accounting to be followed (Fair Value or Cash Flow)
- Description of the hedging derivative (i.e., swap, cap, floor, etc.)
- Description of the nature of risk being hedged and the hedging objective
- Designation of an effectiveness testing methodology

## **Documentation During Hedge Life**

- Effectiveness testing
- Financial reporting and disclosures

# Hedge Effectiveness

## **To qualify for hedge accounting, a hedge must be deemed “highly effective”**

- Highly effective means there is a reasonable expectation that changes in FV of the hedge will substantially offset changes in FV of the hedged exposure
- Highly effective is guided by the 80% to 125% Rule
  - Changes in the FV of the hedge must offset 80% to 125% of the changes in the FV of the hedged exposure
  - 80% to 125% is not a hard and fast rule, but generally accepted in practice
- Burden of proof is on the entity to prove effectiveness

# Hedge Effectiveness

## Testing

- **At hedge inception** an entity must establish the method used for assessing hedge effectiveness and the measurement approach for determining any ineffectiveness
- **Prospective Testing**
  - Qualitative testing – allowed when key terms match
  - Quantitative testing – required when key terms don't match
- **Retrospective Testing**
  - A hedge must be tested for effectiveness on a retrospective basis
  - Testing is required at each reporting date
  - Most institutions test for effectiveness at least monthly

## Methods

### **Dollar Offset Method**

- Quantitative method that compares the change in value of the hedged exposure to the change in value of the hedging derivative
- Intuitive
- Subject to the law of small numbers

### **Regression Method**

- Statistical method that compares the strength of the statistical relationship between the hedged exposure and the hedging derivative
- Slope of line must be negative:  
 $-.80 < b < -1.25$
- $R^2 > .96$
- Regression must be statistically significant (T & F tests)
- Not intuitive
- Less risk of failing test due to law of small numbers

# Derivative Products Group Contacts

**Direct**  
**901.435.8131**

**Rick Redmond**  
**Executive Managing Director**  
**rick.redmond@ftnfinancial.com**  
**901.435.8151**

**Katharine Bray**  
**Managing Director**  
**katharine.bray@ftnfinancial.com**  
**901.435.8746**

**Chris Goodson**  
**Managing Director**  
**chris.goodson@ftnfinancial.com**  
**901.435.7958**

**Toll Free**  
**866.632.3594**

**Chris Fienup**  
**Trading**  
**chirs.fienup@ftnfinancial.com**  
**901.435.8134**

**Brian Matochik**  
**Associate**  
**brian.matochik@ftnfinancial.com**  
**901.435.4304**

**Randi Bernsen**  
**Associate**  
**randi.bernsen@ftnfinancial.com**  
**901.435.4777**

# Disclaimer

Accounting for interest rate and currency derivatives is complex and requires specialized accounting knowledge. While FTN Financial Capital Markets strives to provide relevant accounting information, responsibility for appropriate accounting treatment and presentation of financial information rests with management. Therefore, we highly recommend that you consult with your accounting advisor for guidance as to the appropriate accounting treatment of derivative financial instruments.

FTN Financial Capital Markets has not and will not provide advice as to the appropriate accounting treatment for interest rate or currency derivative transactions provided for in the ISDA Master Agreement.

Although this information has been obtained from sources, which we believe to be reliable, we do not guarantee its accuracy, and it may be incomplete or condensed. This is for informational purposes only and is not intended as an offer or solicitation with respect to the purchase or sale of any security. All herein listed securities are subject to availability and change in price. Past performance is not indicative of future results while changes in any assumptions may have a material effect on projected results.

FTN Financial Group and FTN Financial Capital Markets are divisions of First Tennessee Bank National Association (FTB). FTN Financial Securities Corp (FFSC), FTN Financial Capital Assets Corporation, and FTN Midwest Securities Corp (MWRE) are wholly owned subsidiaries of FTB. FFSC and MWRE are members of the FINRA and SIPC—<http://www.sipc.org/>. Equity research is provided by MWRE. FTN Financial Group, through First Tennessee Bank or its affiliates, offers investment products and services.

This communication is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this communication is not the intended recipient, employee or agent responsible to deliver it to the intended recipient, you are hereby notified that reading, disseminating, distributing or copying this communication is strictly prohibited.