

S E C O N D A R Y . 0 8



Understanding the Future of Structured Finance

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AIG United Guaranty

FTN FINANCIAL
CAPITAL ASSETS CORPORATION
A Subsidiary of First Tennessee Bank National Association

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MARKETS
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A logo icon for Capital Markets Cooperative, featuring a stylized wave or 'M' shape with a blue and white color scheme.

Griff Straw, CMB

Securitization: The transformation of a pool of illiquid assets into marketable securities

Three elements in any securitization transaction

- » **A pool of collateral, e.g., residential mortgages**
- » **A vehicle to house the pool, a “conduit”**
- » **Securities sold to investors to finance the purchase of collateral from the originator**

Typically under securitization a single investment grade security, called a pass-through, is sold to investors

Structured finance involves securitization in which a family of securities is created and sold to investors

Securities may vary in a number of ways

- » **Final maturity**
- » **Credit quality**
- » **Coupon rates**

The family of structured finance products includes

- » **Mortgage backed securities**
- » **Asset-backed securities**
- » **Asset-backed commercial paper**
- » **Collateralized debt obligations**

Pass-through

- » One class of securities
- » Investors receive all payments except for servicing and other fees

Pay-through: Several tranches with same credit priority

Sequential pay tranches

- » Principal (scheduled and prepayments) directed to one tranche
- » Only interest paid on longer-maturity tranches
- » After first tranche is retired principal directed to next tranche, etc.

Accrual bonds

- » At least one tranche doesn't receive interest at beginning
- » Accrued interest is added to the principal

Removing Assets from the Balance Sheet

Securitization means that the collateral is removed from the seller's balance sheet

The seller seeks to create securities with a rating higher than it currently has

Investors and ratings agencies must be assured that cash flows are legally isolated from claims of the seller and seller's creditors

The SPV

- » Collateral is transferred to a “special purpose vehicle” or SPV
- » Often the seller maintains a minority stake in the collateral
- » The SPV may be a wholly-owned subsidiary of the seller

To assure that neither the collateral nor the collateral cash flows revert to the seller in case of bankruptcy

- » A “true sale” opinion is required stating that the seller has no claim on the transferred collateral
- » The SPV must be “bankruptcy remote” from the seller

Major players

- » **Originator or structuring principal**
- » **Investors**
- » **Rating agencies**
- » **Legal professionals – the “true sale” statement**
- » **Servicing agents**

Transformation steps by underwriting principal

- » **Portfolio stratification**
- » **Servicing**
- » **Market segmentation**
- » **Underwriting**

While traditional debt instruments address the needs of the borrowers, structured finance products address the needs of the investors

Risk shifting

- » **Duration preferences**
- » **Credit quality – yield spread preferences**

Types of structured finance structures

- » Mortgage-backed bonds, since 1970s
- » Asset-backed bonds, since mid-1980s
- » Asset-backed commercial paper, since early 1990s
- » Collateralized debt obligations, since early 1990s

Mortgage-backed products were created first and many later structures were patterned after the mortgage structures

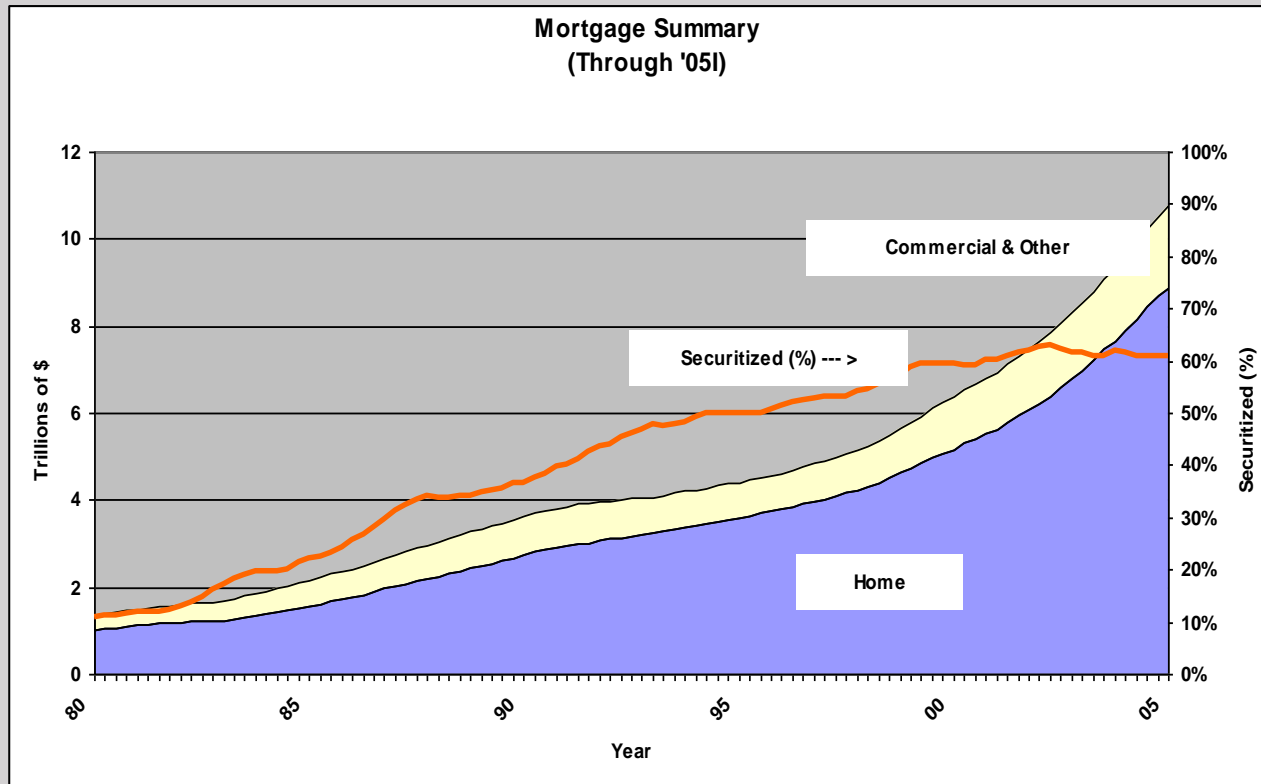
“Off beat” collateral

- » Asset-backed bonds from David Bowie’s publishing royalties
- » Securitization of municipal parking ticket receivables
- » Securitization of mutual fund 12b-1 fees

Securitization of pools of first-lien mortgages

- » Residential mortgage-backed securities (RMBS)
- » Commercial mortgage-backed securities (CMBS)

Today more than half of all mortgages are securitized



Mortgage Product Examples

Mortgage-backed products can be created from the simple pass-through cash flows

- » **Stripped products create two separate securities from a pass-through**
 - **Interest-only strip (IO)**
 - **Principal-only strip (PO)**

- » **Collateralized mortgage obligations (CMOs) create various investment classes or “tranches”**

Risk transfer

- » **It's impossible to reduce the total risk of the portfolio itself**
- » **The risk to investors in a certain class of securities can be reduced**
- » **Thus another class will have higher risk than the portfolio**

Pete Taglia, CMB

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THE PAST - What happened and why?

THE PRESENT - Market Observations

THE FUTURE - Possible Solutions

... Battle of the Bulge ... you are in it!

The Perfect Storm

- » Underwriting relaxed / risk layering
- » Product expansion / especially non-prime
- » Long period of low interest rates
- » Home Values exploded to upside
- » Financial Engineering / CDO / CLO / SIV
- » Regulators / Rating Agencies “miss the mark”

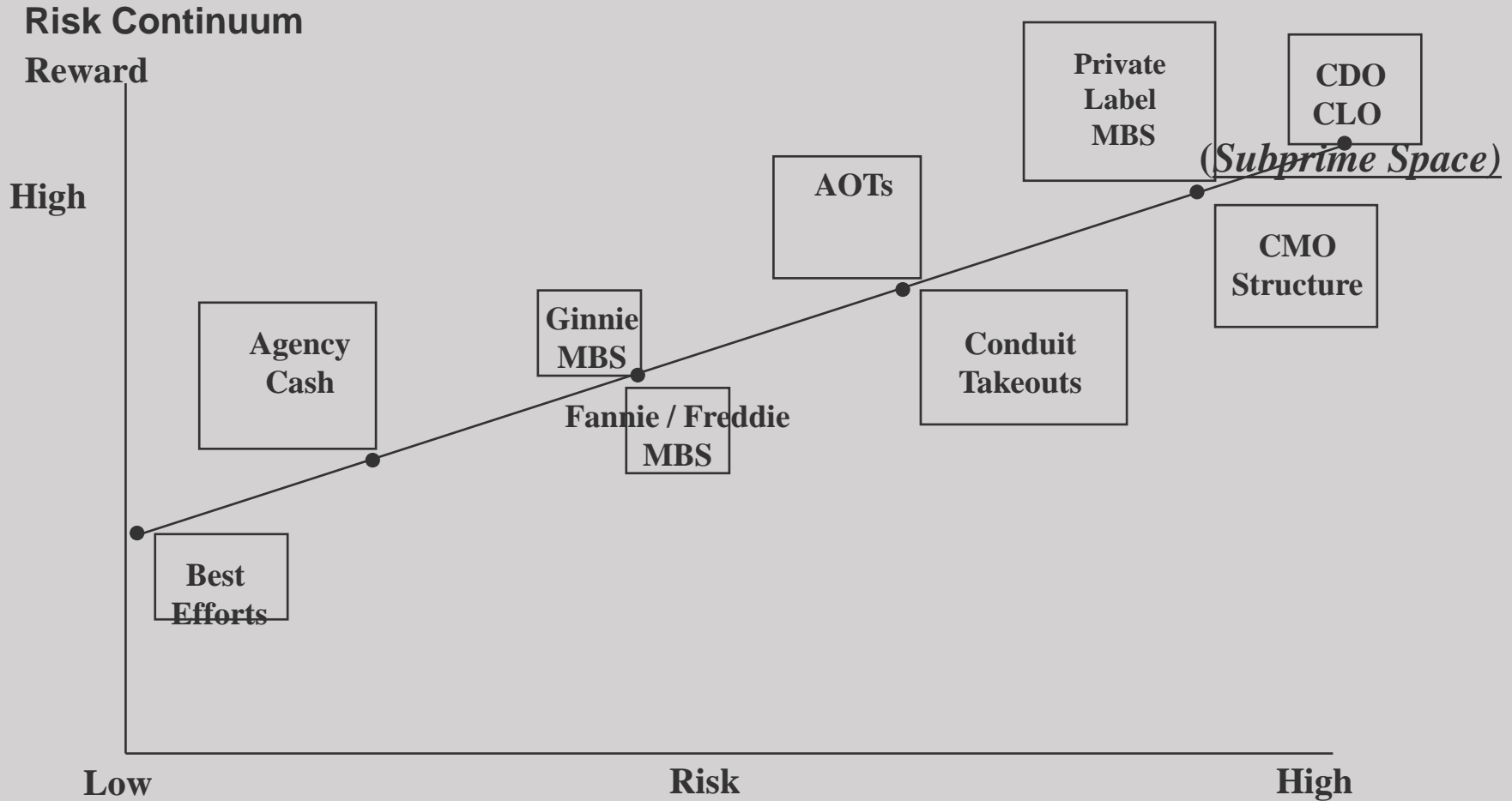
Liquidity disappeared

Credit Markets tightened

Home Values collapsed

Valuations – Mark to Model vs Mark to Market

“DUH” factor



Best Efforts is least risky / least profitable. Agency / Conduit sales offer greater returns. CDOs / CLOs have highest returns but have greatest risk profile

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A CDO is a security backed by a diversified pool of debt obligations

Collateral may include

- » **Domestic investment-grade and speculative corporate bonds**
- » **Domestic commercial bank loans**
- » **Emerging market bonds**
- » **Foreign bank loans**
- » **Asset-backed securities**
- » **Residential and commercial mortgage-backed securities**

Collateralized loan obligations (CLOs) are created when banks remove loans from their balance sheet and create one or more classes of investment-grade securities

Collateralized bond obligations (CBOs)

Structured CDOs with collateral primarily consisting of ABS, RMBS and CMBS securities

Collateral manager

Rated debt obligations

- » **Senior tranche**
 - **Class A**
 - **Rated by one or more rating agencies**
- » **Mezzanine or intermediate tranches**
 - **Class B, Class C, etc.**
 - **Rated by one or more rating agencies**
- » **Usually at least one floating-rate tranche**

Subordinated or equity tranche

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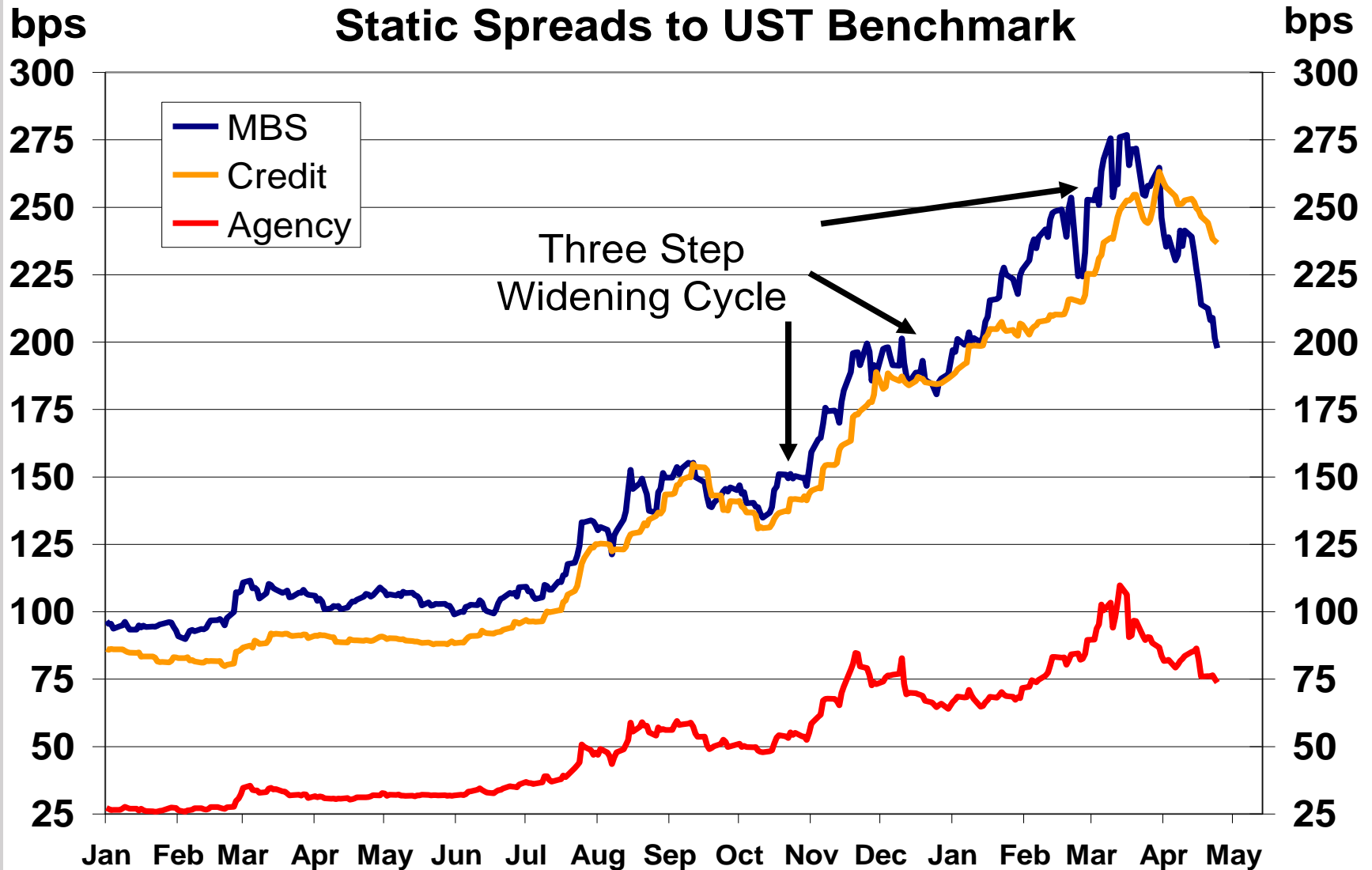
MBS spreads have increased (wider)

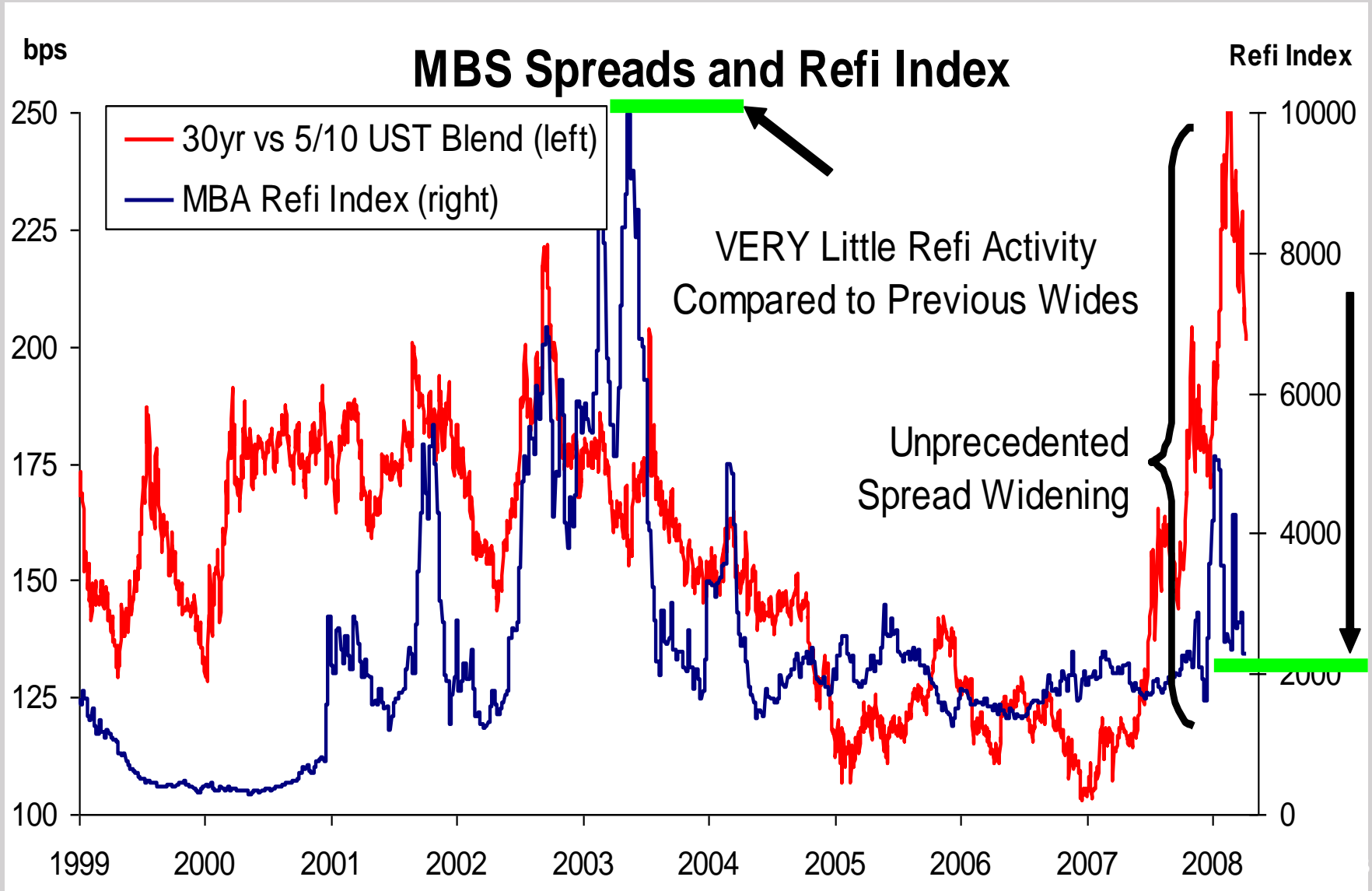
Risky tranche of ABX (07-1 BBB-) killed (*Proxy for Subprime Space*)

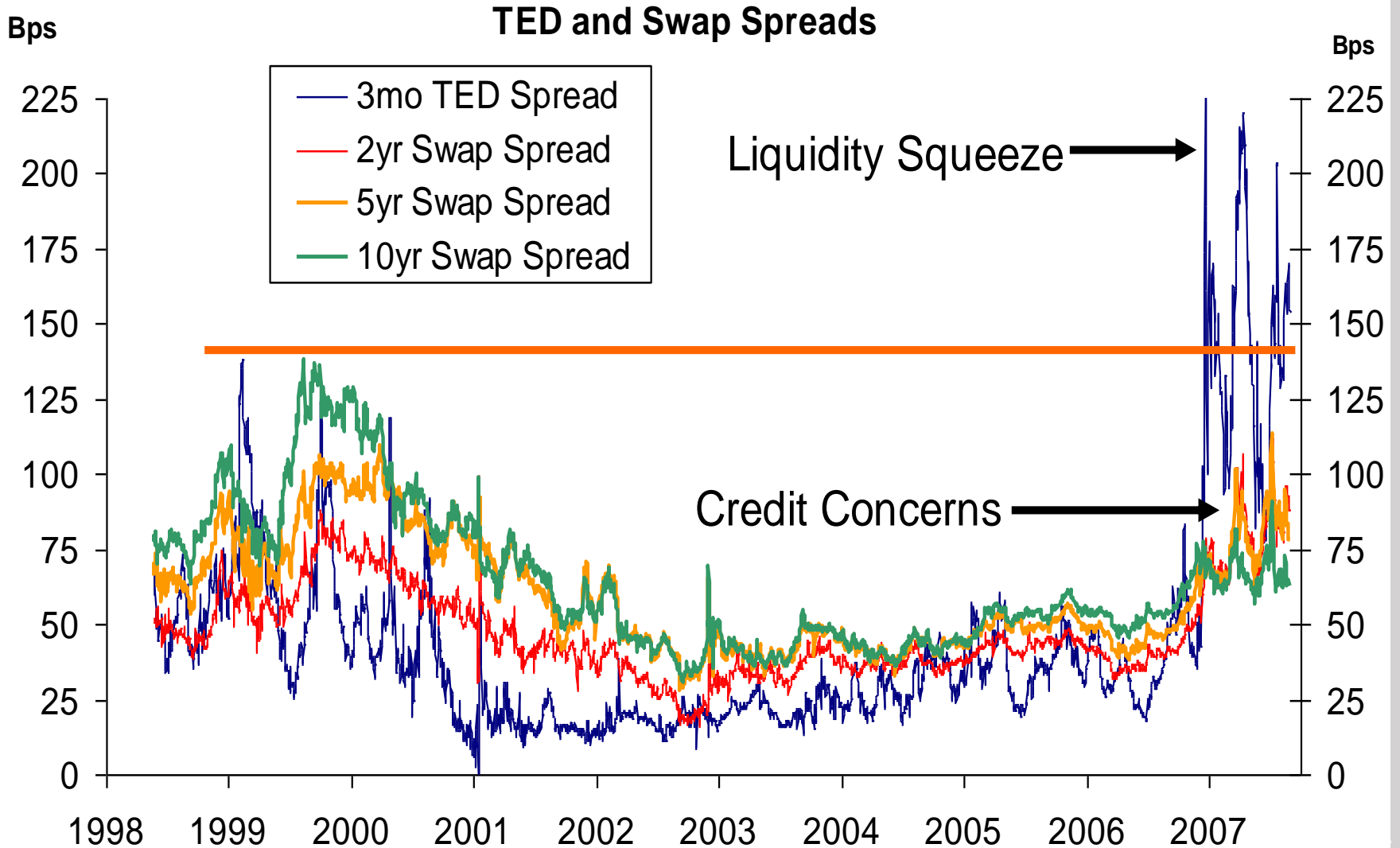
254 lenders “implode” / majority of top 20 non-conforming producers gone (5/01/08)

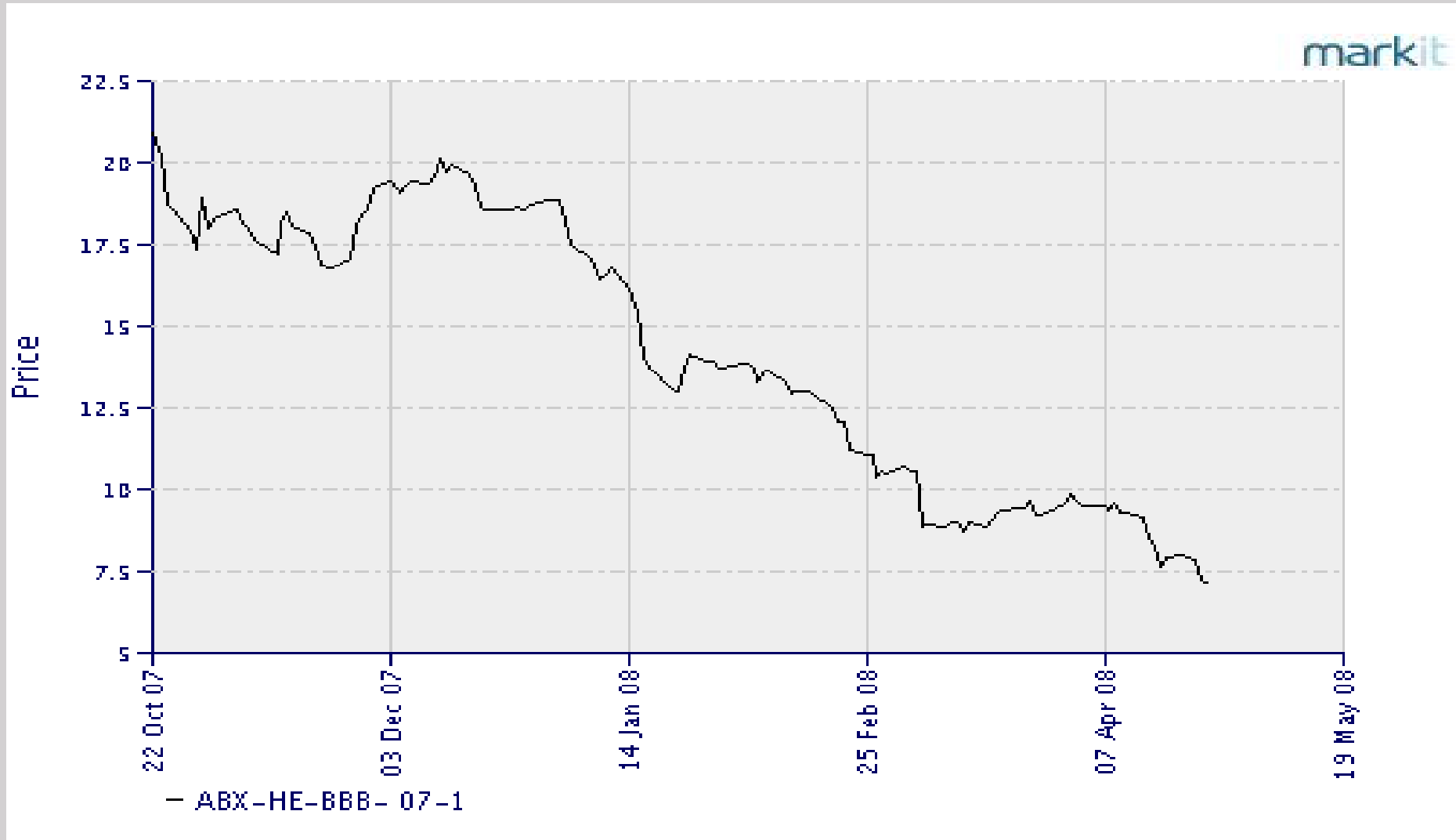
Liquidity is tight / volatility is high

Disconnect between short term market value and long term intrinsic value?









**Conforming Rates are range bound ... and not *that* bad!
(see graph following)**

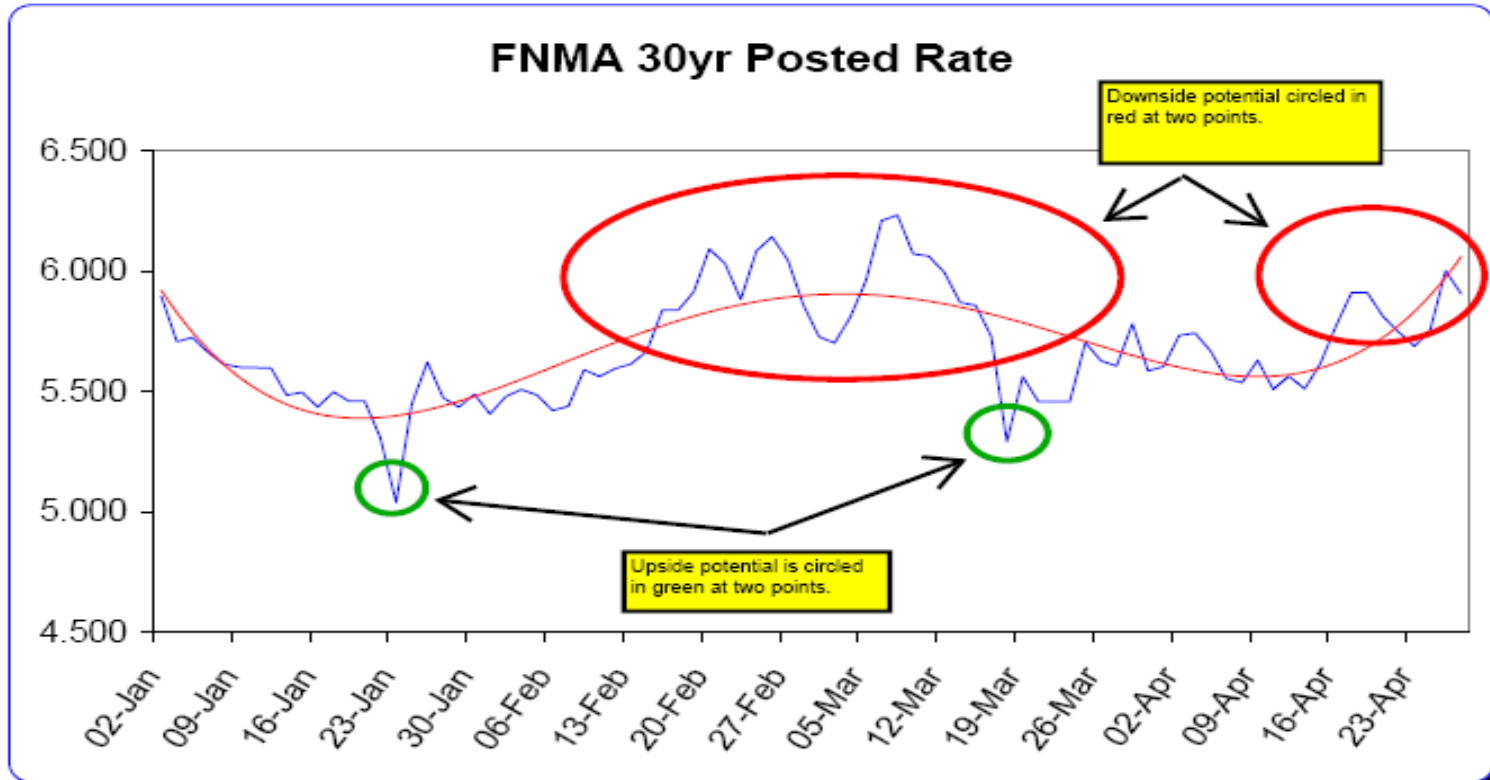
Demographics good thru 2050 (*MBA/Duncan*)

Portfolio lenders are at top of food chain

Congress wants to help (this is not a joke)

93% of Mortgages are current

“A good credit risk will always have access to funds at the best rates in the market” WSJ



Note: This graph illustrates the differences between upside potential in green and downside potential in red since the beginning of the year.

Fannie & Freddie have capital concerns (may change!)

HELOC Space is in trouble

Facing *HUGE* ARM resets

Congress wants to help (this *is* a joke)

Guess – 40% of Subprime Debt defaults

7% of Mortgages are delinquent now

10% (and growing) of Owners are underwater

Housing Bubble Part 2 / Generational Bubble

End of day ... guess is \$400B + in losses

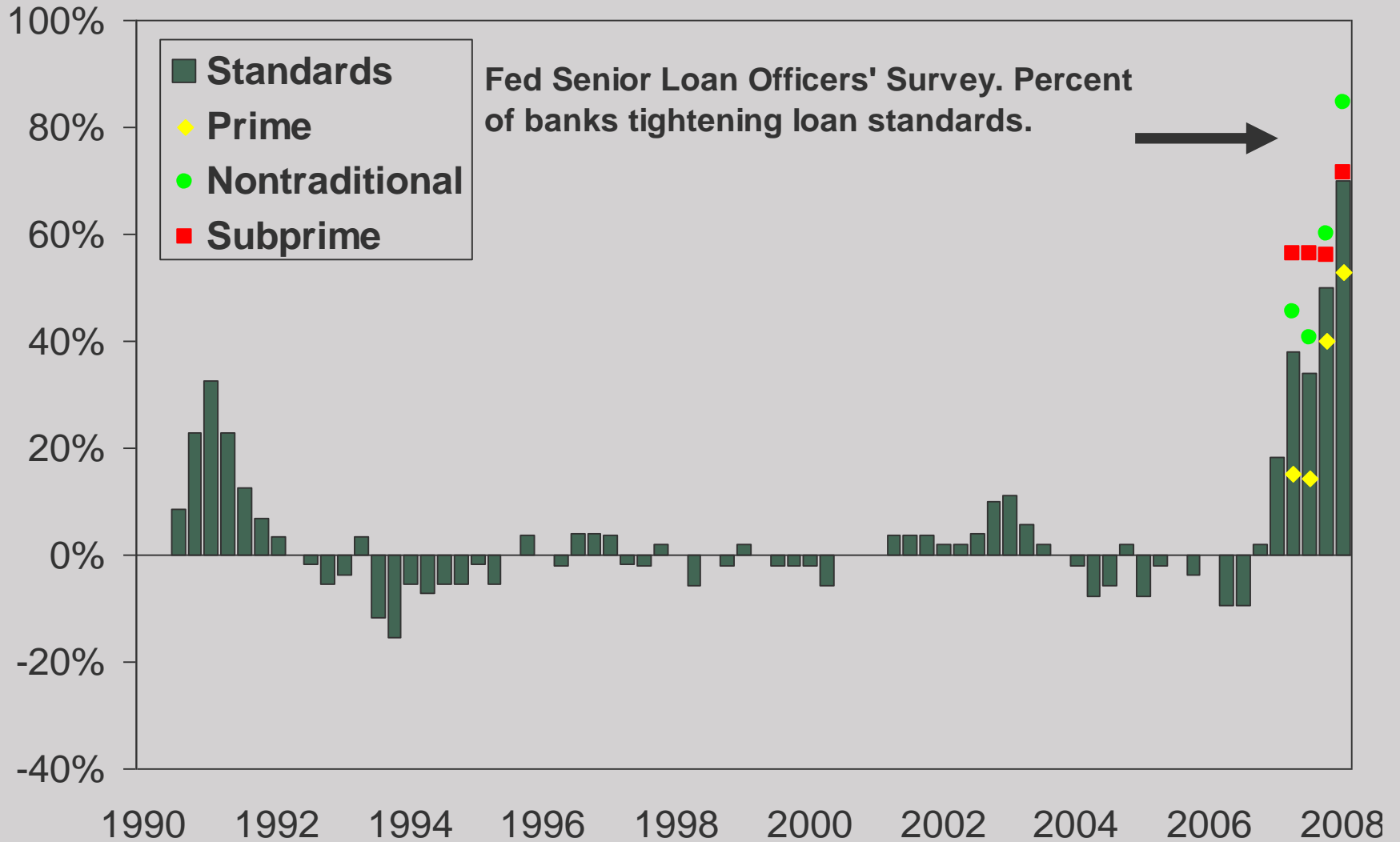
U/W Challenge

- **Reps and Warrants / Buybacks**
- **Agency Changes**

Counterparty

Rating Agency (S&P, Moody, Fitch)

Risk Sharing / Captive Reinsurance



THE PAST - What happened and why?

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3. Possible Solutions

Washington (*All Three Branches!*)

Wall Street

Federal Reserve

- » Rate Relief
- » Pawn Shop

Adam Smith – market forces take over

Tom Millon, CMB, CFA

President & CEO

Capital Markets Cooperative



BASIC CONCEPT of SUBORDINATION

Frequency times Severity =~

Expected Loss =~

Subordination Percentage

90/10 basic example

Composition of 10% subordination

Price versus yield

Real world levels:

» 100/0 agency MBS

» 96/4 jumbo core

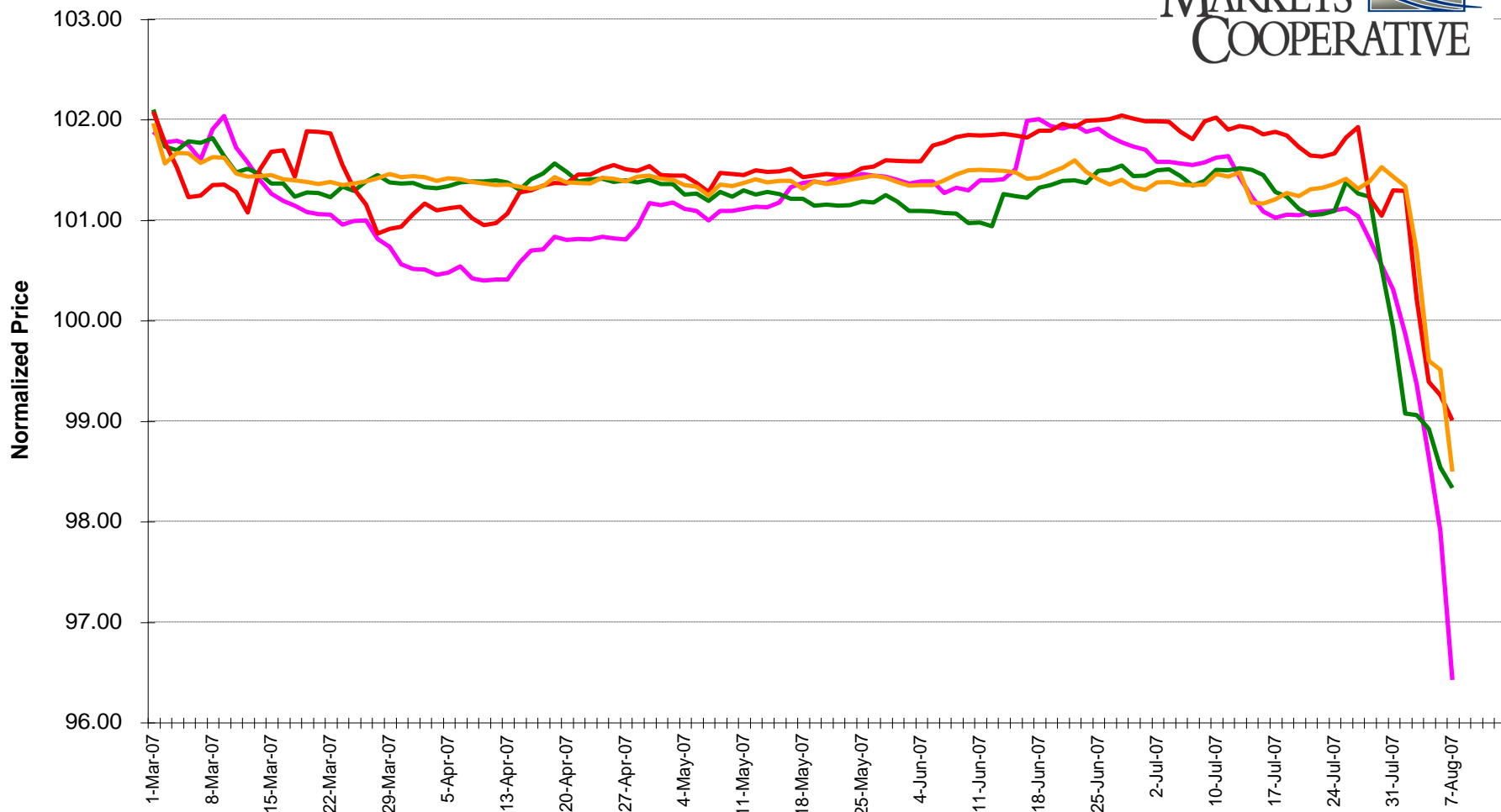
» 94/6 Alt-A

» 88/12 sub-prime

Multiplier effect: 80/20 + yield spread gap

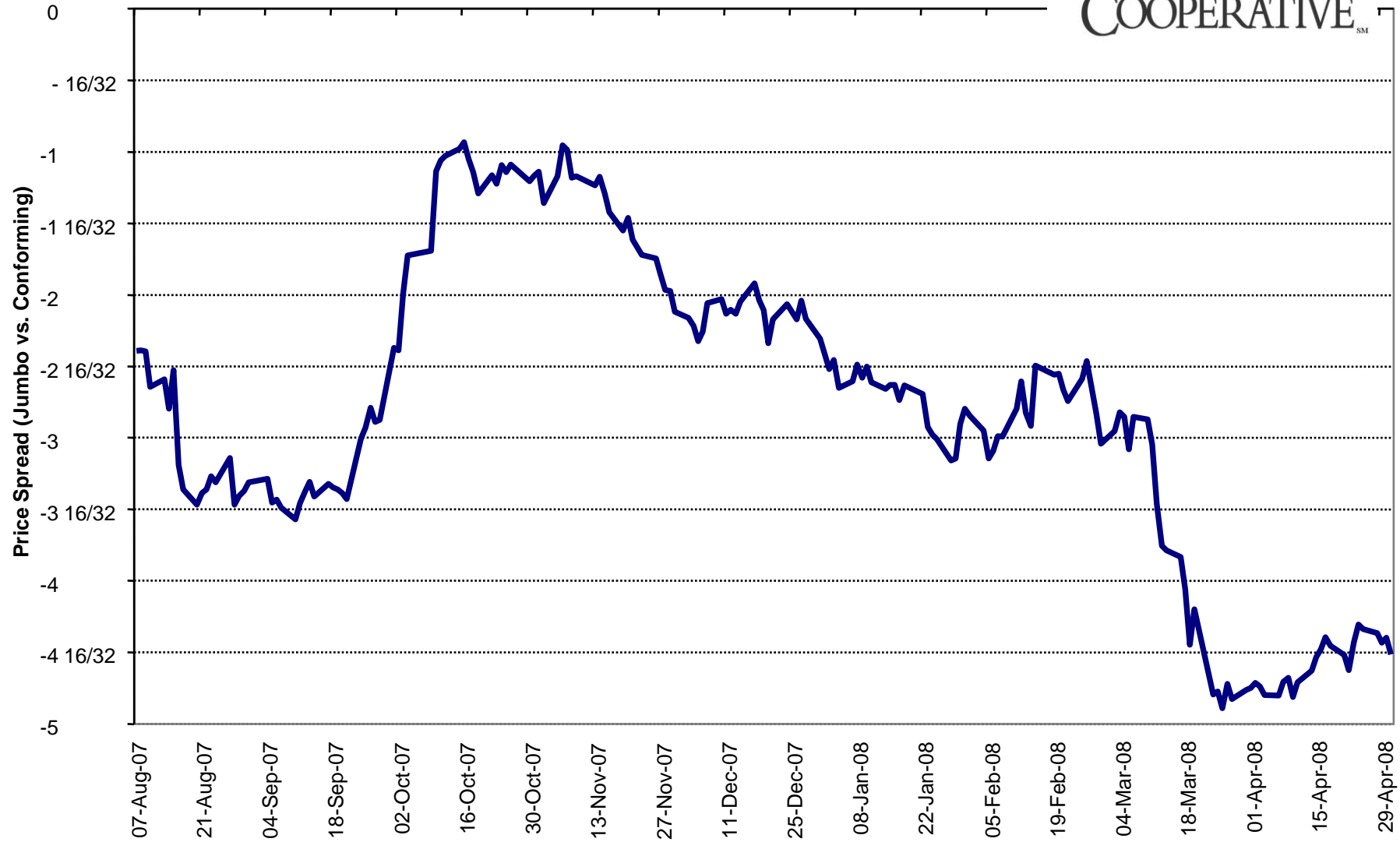
5/6 Alt-A ARM Pricing Relative to 15yr Securities

DB Morgan EMC ALS





30yr Core Jumbo Price Spread History



Mortgage Industry 2006-2007

1/21/2008



Loan Sources

Bank-Owned Retail and Wholesale

Independent Mortgage Bankers

Sub-prime Originators

Originators Sell Loans

Traditional Conduits
(Wells, Citi, Countrywide, Chase, GMAC...)

Wall Street Conduits

Conduits Issue MBS/PC

Private Label Securities, CDOs, CMBS

Whole Loans to Portfolios

Largest and Retained Originators Sell Agency-Direct

Small Amount of Portfolio-Direct

Agency Securities and Servicing Buyers

Hedge Funds, Speculative Banks, ROR Funds

Portfolio Balance Sheet Investors

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Mortgage Industry 2008

1/21/2008



Loan Sources

Bank-Owned
Retail and
Wholesale

Independent
Mortgage
Bankers

~~Sub-prime
Originators~~

Originators Sell Loans

Largest and Retained Originators Sell Agency-Direct

Traditional Conduits

(Wells, Citi, Countrywide,
Chase, GMAC...)

~~Wall Street Conduits~~

Conduits Issue MBS/PC

~~Private Label Securities,
CDOs, CMBS~~

Whole Loans to Portfolios

Agency Securities
and Servicing
Buyers

~~Hedge Funds,
Speculative Banks,
ROR Funds~~

Portfolio Balance
Sheet Investors

Small Amount of Portfolio-Direct

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- Three Ways to Sell Agency Loans:
 1. Bulk Mandatory
 2. AOT (Assignment of Trade)
 3. Direct to agency sales
- How and when you sell depends on relative execution

- Buyer Motivations:
 - › Asset/Liability Management
 - Net Interest Margin vs. Secondary Markets
 - Credit risk, duration
 - › Regulatory requirements
 - CRA, goal-rich loans
- Key ingredients:
 - › Volume, market coverage
 - › Risk management, aggregation
 - › Whole loan contracts and trading expertise

Build an execution strategy to include a range of outlets (conduits, portfolios, bulk mandatory, etc.)

Position yourself for twists and turns in the yield curve and the credit curve.

Reduce the spread between your borrowers and the capital markets (before your competitors do).



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