

PERFORMANCE



IT'S WHY WE GET CHERISH

Collateral Analysis & The Credit Crisis

Joseph Garzone

Assistant Vice President - Finance
The PMA Insurance Group

Central PA I-Day
April 9, 2009



Duplication, reproduction and/or dissemination of this material, either in whole or part, without the express written consent of The PMA Insurance Group is strictly prohibited. By acceptance of these materials, the recipient acknowledges its consent to the foregoing.

©2005 by The PMA Insurance Group

Collateral Analysis & The Credit Crisis



- Purpose of Collateral
- Calculate Financial Exposure
 - Stacking Principle
- Financial Statement Analysis
 - Assign Rating
- Determine Collateral Amount
 - Surcharge/Discount/Etc.

Purpose of Collateral



- Statutory Requirements/Benefits
- Rating Agency Considerations
- Mandate to Pay Claims
- Standard vs. Deductible Premium



Duplication, reproduction and/or dissemination of this material, either in whole or part, without the express written consent of The PMA Insurance Group is strictly prohibited. By acceptance of these materials, the recipient acknowledges its consent to the foregoing.

©2005 by The PMA Insurance Group

Collateral Analysis & The Credit Crisis

Collateral Determination



- Financial Exposure Analysis
- Financial Statement Analysis
- Combining the Two



Duplication, reproduction and/or dissemination of this material, either in whole or part, without the express written consent of The PMA Insurance Group is strictly prohibited. By acceptance of these materials, the recipient acknowledges its consent to the foregoing.

©2005 by The PMA Insurance Group

Collateral Analysis & The Credit Crisis



Product Type Exposure Distinctions

- What is Being Secured?
- What is the Financial Exposure?
- What is the “Loan”?



Duplication, reproduction and/or dissemination of this material, either in whole or part, without the express written consent of The PMA Insurance Group is strictly prohibited. By acceptance of these materials, the recipient acknowledges its consent to the foregoing.

©2005 by The PMA Insurance Group

Collateral Analysis & The Credit Crisis



Product Type Exposure Distinctions

- **Loss-Based Exposures**
 - Deductible
 - Paid Loss Retro
 - Captive/Rent-a-Captive
 - Important Concepts
 - Paid Losses
 - Loss Pick
 - Loss Limit
 - Aggregate



Duplication, reproduction and/or dissemination of this material, either in whole or part, without the express written consent of The PMA Insurance Group is strictly prohibited. By acceptance of these materials, the recipient acknowledges its consent to the foregoing.

©2005 by The PMA Insurance Group

Collateral Analysis & The Credit Crisis



Product Type Exposure Distinctions

- **Premium-Based Exposures**
 - Incurred Loss Retro
 - Important Concepts
 - Incurred Losses
 - Loss Limit
 - Premium Maximum

PERFORMANCE



IT'S WHY WE GET CHERISH

Payout Pattern

EACH YEAR	<u>YR 1</u>	<u>YR 2</u>	<u>YR 3</u>	<u>YR 4</u>	<u>YR 5</u>	<u>YR 6</u>	<u>YR 7</u>	<u>YR 8</u>
	28%	34%	14%	7%	6%	5%	4%	2%
CUMULATIVE	28%	62%	76%	83%	89%	94%	98%	100%

	<u>ESTIMATED EXPOSURE</u>	-	<u>PAID LOSSES</u>	=	<u>REMAINING EXPOSURE</u>
INCEPTION	\$ 1,000,000	-	\$ -	=	\$ 1,000,000
12 MONTHS	\$ 1,000,000	-	\$ 280,000	=	\$ 720,000
24 MONTHS	\$ 1,000,000	-	\$ 620,000	=	\$ 380,000
36 MONTHS	\$ 1,000,000	-	\$ 760,000	=	\$ 240,000
48 MONTHS	\$ 1,000,000	-	\$ 830,000	=	\$ 170,000
60 MONTHS	\$ 1,000,000	-	\$ 890,000	=	\$ 110,000
72 MONTHS	\$ 1,000,000	-	\$ 940,000	=	\$ 60,000
84 MONTHS	\$ 1,000,000	-	\$ 980,000	=	\$ 20,000
96 MONTHS	\$ 1,000,000	-	\$ 1,000,000	=	\$ -



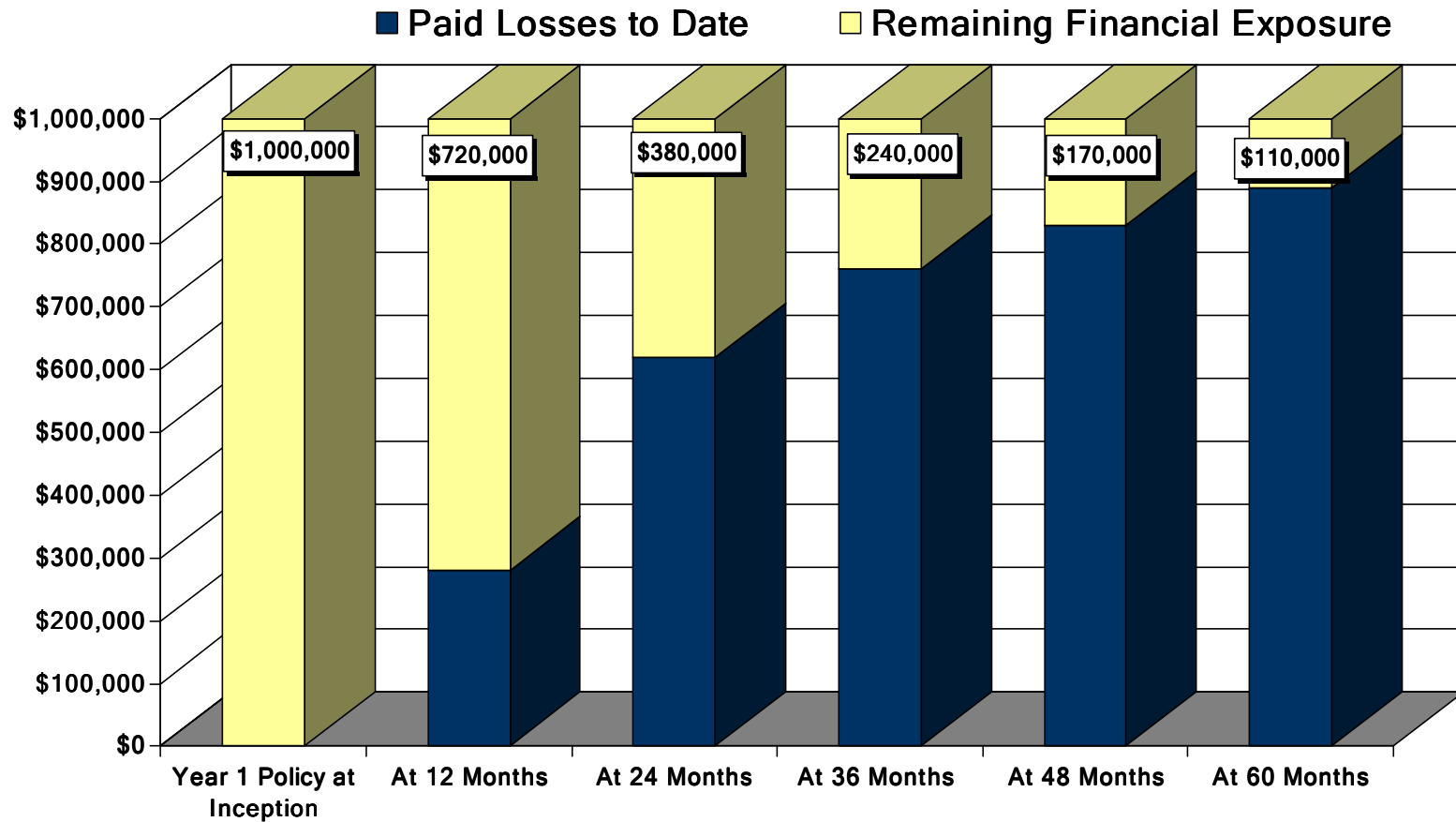
Duplication, reproduction and/or dissemination of this material, either in whole or part, without the express written consent of The PMA Insurance Group is strictly prohibited. By acceptance of these materials, the recipient acknowledges its consent to the foregoing.

©2005 by The PMA Insurance Group

Collateral Analysis & The Credit Crisis



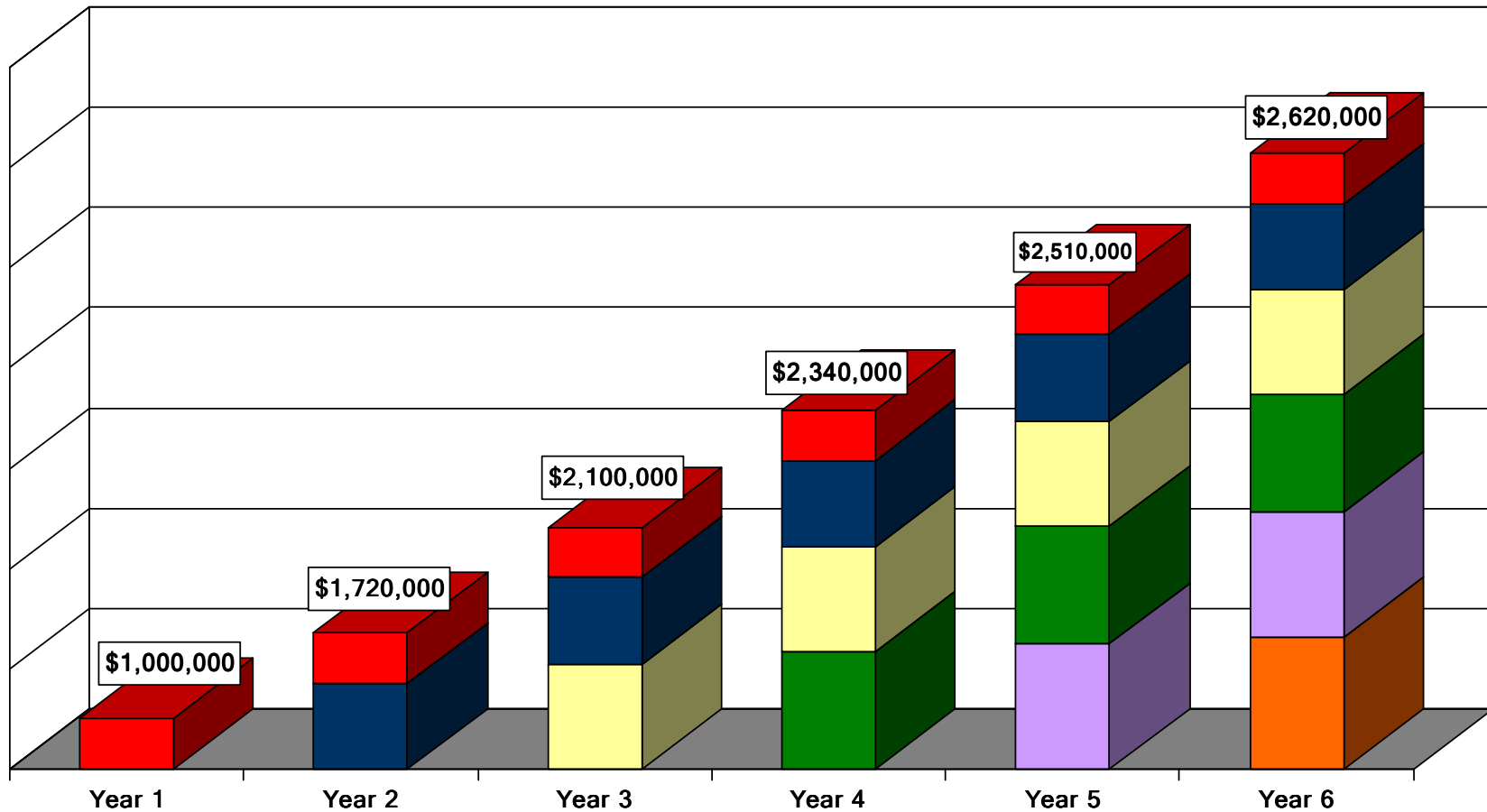
One Policy Year's Collateral Requirement





Cumulative Collateral Requirement - No Growth

Collateral Stacking



Duplication, reproduction and/or dissemination of this material, either in whole or part, without the express written consent of The PMA Insurance Group is strictly prohibited. By acceptance of these materials, the recipient acknowledges its consent to the foregoing.

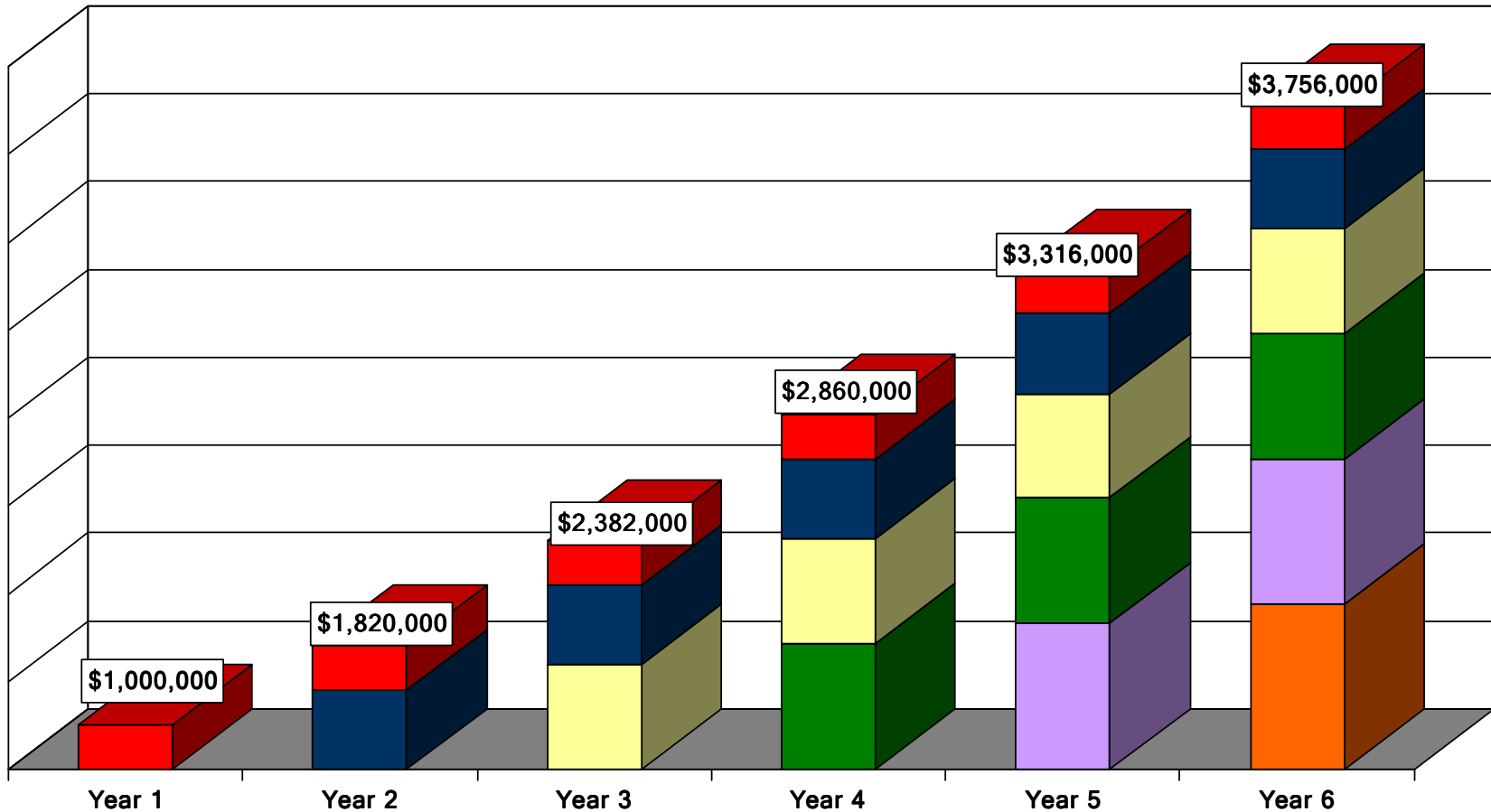
©2005 by The PMA Insurance Group

Collateral Analysis & The Credit Crisis



Cumulative Collateral Requirement - 10% Growth

Collateral Stacking



Duplication, reproduction and/or dissemination of this material, either in whole or part, without the express written consent of The PMA Insurance Group is strictly prohibited. By acceptance of these materials, the recipient acknowledges its consent to the foregoing.

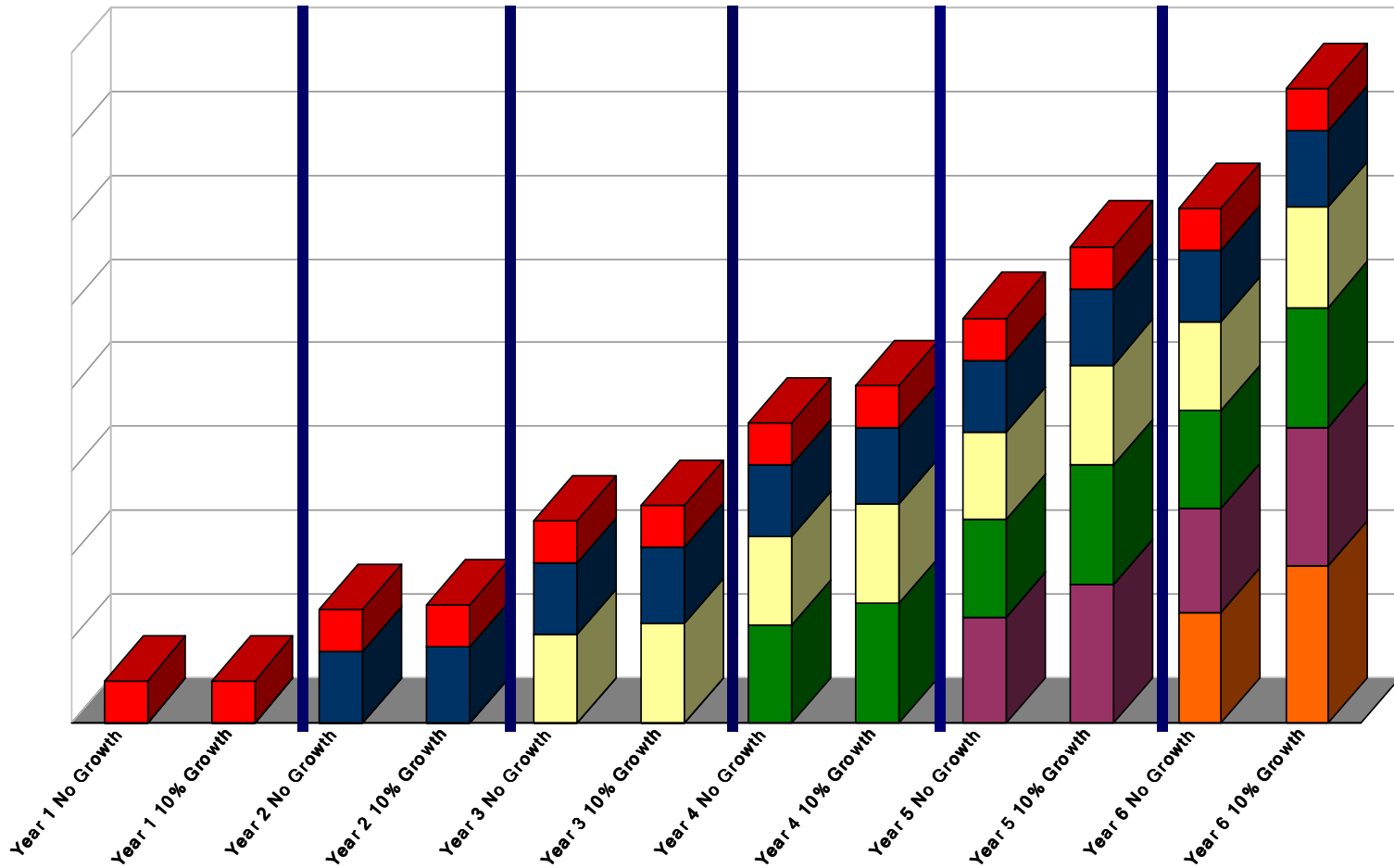
©2005 by The PMA Insurance Group

Collateral Analysis & The Credit Crisis



Cumulative Collateral Requirement

No Growth vs. 10% Growth



Duplication, reproduction and/or dissemination of this material, either in whole or part, without the express written consent of The PMA Insurance Group is strictly prohibited. By acceptance of these materials, the recipient acknowledges its consent to the foregoing.

©2005 by The PMA Insurance Group

Collateral Analysis & The Credit Crisis

PERFORMANCE



IT'S WHY WE GET CHEER!

CREDIT CRISIS



Duplication, reproduction and/or dissemination of this material, either in whole or part, without the express written consent of The PMA Insurance Group is strictly prohibited. By acceptance of these materials, the recipient acknowledges its consent to the foregoing.

©2005 by The PMA Insurance Group

Collateral Analysis & The Credit Crisis

CREDIT CRISIS



- How we got here
- Where we are now
- What now
- Asset impairment
- Collateral Impact



Duplication, reproduction and/or dissemination of this material, either in whole or part, without the express written consent of The PMA Insurance Group is strictly prohibited. By acceptance of these materials, the recipient acknowledges its consent to the foregoing.

©2005 by The PMA Insurance Group

Collateral Analysis & The Credit Crisis



HOW WE GOT HERE

(Vanguard - 2/09)

2000 - Tech Bubble Bursts

2001 - Terrorist Attacks

Fed Drops Interest Rates to 1% - Lowest in 50 Years

Cheap Financing Spurs Housing Boom

- Those who could finally afford homes
- Those who couldn't - but received mortgages anyway
- Speculators "Flipping" Properties



Duplication, reproduction and/or dissemination of this material, either in whole or part, without the express written consent of The PMA Insurance Group is strictly prohibited. By acceptance of these materials, the recipient acknowledges its consent to the foregoing.

©2005 by The PMA Insurance Group

Collateral Analysis & The Credit Crisis



HOW WE GOT HERE

(Vanguard - 2/09)

Who Financed These Deals?

- Investors
- Complex Instruments
 - CMO's /CDO's
 - Held small pieces of hundreds of mortgages
 - Varied quality
 - Highest risk = Highest reward



Duplication, reproduction and/or dissemination of this material, either in whole or part, without the express written consent of The PMA Insurance Group is strictly prohibited. By acceptance of these materials, the recipient acknowledges its consent to the foregoing.

©2005 by The PMA Insurance Group

Collateral Analysis & The Credit Crisis



HOW WE GOT HERE

(Vanguard - 2/09)

Problems

- Home price ceilings
- Overextended home equity borrowing
- Reset adjustable rates
- Interest only mortgages
- Loans to those who couldn't afford repayment



Duplication, reproduction and/or dissemination of this material, either in whole or part, without the express written consent of The PMA Insurance Group is strictly prohibited. By acceptance of these materials, the recipient acknowledges its consent to the foregoing.

©2005 by The PMA Insurance Group

Collateral Analysis & The Credit Crisis



HOW WE GOT HERE

(Vanguard - 2/09)

Summer of 2007

- Market for the riskiest mortgage investments collapsed
- Banks afraid to lend to other banks & borrowers



Duplication, reproduction and/or dissemination of this material, either in whole or part, without the express written consent of The PMA Insurance Group is strictly prohibited. By acceptance of these materials, the recipient acknowledges its consent to the foregoing.

©2005 by The PMA Insurance Group

Collateral Analysis & The Credit Crisis



HOW WE GOT HERE

(Vanguard - 2/09)

March 2008

- Bear Stearns stock drops from \$63 to \$30
 - A major underwriter of subprime securities
 - Trouble raising money
- Fed facilitates fire sale to JP Morgan Chase
- Mortgage securities can no longer find buyers
- Debt turned “toxic”



Duplication, reproduction and/or dissemination of this material, either in whole or part, without the express written consent of The PMA Insurance Group is strictly prohibited. By acceptance of these materials, the recipient acknowledges its consent to the foregoing.

©2005 by The PMA Insurance Group

Collateral Analysis & The Credit Crisis

PERFORMANCE



IT'S WHY WE GET CHERCH

HOW WE GOT HERE

(Vanguard - 2/09)

July 2008

- Fed props up Fannie Mae/Freddie Mac
 - Own or guarantee half of US Mortgages
- Stocks in bear market territory



Duplication, reproduction and/or dissemination of this material, either in whole or part, without the express written consent of The PMA Insurance Group is strictly prohibited. By acceptance of these materials, the recipient acknowledges its consent to the foregoing.

©2005 by The PMA Insurance Group

Collateral Analysis & The Credit Crisis



HOW WE GOT HERE

(Vanguard - 2/09)

September 2008

- Lehman Brothers Collapse
- Merrill Lynch sold to Bank of America
- AIG bailout

November 2008

- S&P 500 down 52% from 10/07 high



Duplication, reproduction and/or dissemination of this material, either in whole or part, without the express written consent of The PMA Insurance Group is strictly prohibited. By acceptance of these materials, the recipient acknowledges its consent to the foregoing.

©2005 by The PMA Insurance Group

Collateral Analysis & The Credit Crisis



HOW WE GOT HERE

(Vanguard - 2/09)

December 2008

- Lending dries up
 - Even good borrowers shut out
 - Day to day financing in jeopardy
 - Disappearance of easy credit on which our financial system depends
 - Taking otherwise viable businesses with it



Duplication, reproduction and/or dissemination of this material, either in whole or part, without the express written consent of The PMA Insurance Group is strictly prohibited. By acceptance of these materials, the recipient acknowledges its consent to the foregoing.

©2005 by The PMA Insurance Group

Collateral Analysis & The Credit Crisis



Where We Are Now

(Wave of bad debt swamps companies - WSJ 2/13/09)

This year, at 2/6/09, 21 US Companies have defaulted on \$43.1 billion of high yield debt

Recent Chapter 11 Filings

Muzak Holdings LLC Corporation	Nortel Networks	Pliant
Midway Games, Inc.	Lyondellbassell Industries	Circuit City
Aleris International	Spectrum Brands (Rayovac)	Saab



Where We Are Now

(Wave of bad debt swamps companies - WSJ 2/13/09)

Will File By April 1

Charter Communications

Will File If Large Debt Settlement Negotiations Are Unsuccessful

Sirius-XM Radio

General Growth Properties Inc.



Duplication, reproduction and/or dissemination of this material, either in whole or part, without the express written consent of The PMA Insurance Group is strictly prohibited. By acceptance of these materials, the recipient acknowledges its consent to the foregoing.

©2005 by The PMA Insurance Group

Collateral Analysis & The Credit Crisis



Where We Are Now

(Wave of bad debt swamps companies - WSJ 2/13/09)

US Companies are poised to default on \$450 to \$500 billion over next two years

Moody's: Expects default rates of 14% on non-investment grade bonds

- Default rate was 4.5% in 2008

S&P: Estimates high yield default rate anywhere from 14% to 18%

In 2008, high yield defaults topped \$66 billion

- \$9 billion for 2006 & 2007 combined



Duplication, reproduction and/or dissemination of this material, either in whole or part, without the express written consent of The PMA Insurance Group is strictly prohibited. By acceptance of these materials, the recipient acknowledges its consent to the foregoing.

©2005 by The PMA Insurance Group

Collateral Analysis & The Credit Crisis



Where We Are Now

(Wave of bad debt swamps companies - WSJ 2/13/09)

Most Distressed Sectors

Media

Casino

Auto Makers

Entertainment

Hotel Companies

Retailers

- Two of every three non-financial companies have below investment grade ratings
- 1.77 million jobs lost in past three months



Duplication, reproduction and/or dissemination of this material, either in whole or part, without the express written consent of The PMA Insurance Group is strictly prohibited. By acceptance of these materials, the recipient acknowledges its consent to the foregoing.

©2005 by The PMA Insurance Group

Collateral Analysis & The Credit Crisis



Where We Are Now

(Wave of bad debt swamps companies - WSJ 2/13/09)

Collateralized Debt Obligations (CDO)

AAA
AA
A
Z

AAA
AA
A
Z

AAA
AA
A
Z

AAA
AA
A
Z

Z
Z
Z
Z

AAA
AA
A
Z



CREDIT CRISIS

<u>BALANCE SHEET</u>	<u>9/30/2008</u>	<u>EXAMPLE OF 30% IMPAIRMENT</u>
INVESTMENTS	\$790M	\$553M
TOTAL ASSETS	<u>\$2,537M</u>	<u>\$2,300M</u>
LIABILITIES	\$2,156M	\$2,156M
EQUITY	<u>\$381M</u>	<u>\$144M</u>
LIABILITIES & EQUITY	<u>\$2,537M</u>	<u>\$2,300M</u>
LIABILITIES/EQUITY RATIO	<u>5.7</u>	<u>15.0</u>



LETTERS OF CREDIT

- Most preferred vehicle
- Contract between insurer and the bank
- Clean
- Irrevocable
- Evergreen
- Financial institution rating
- May be more restricted than ever
- May be more costly than ever



CUSTODIAL FUNDS

- Three party arrangement
- Funds held by custodian
- Exclusive access to insurer only
- Investment income to client
- Formal bank statements
- Leaves credit line intact
- No LOC fees



CASH FUNDS

- Funds held by insurer
- Commingled with insurer's funds
- Investment income to client
- Leaves credit line intact
- No LOC fees



- Time to be prudent
- Requirements were relaxed in recent years
- Business plan considerations
 - Planned growth in Loss Sensitive products
 - Planned growth in Rate Sensitive products



- Keep eyes wide open
- Even 3rd quarter statements are outdated
- Look for signs of distress
 - Risk Control
 - Premium Audit
 - Payment Patterns