The Credit Crunch: Implication for the fixed income asset classes and for financial markets

Mauro Ratto, CIO Europe and Asia
Garret Walsh, Head of Credit Research Europe

November 2007

PIONEER
Investments®

Agenda

Credit Turmoil – disaster or opportunity for the asset manager?

Revisiting the credit instruments and structures

Impact on the real economy

Impact on the asset manager

Case studies on credit opportunities

Conclusions

Structured Credit and the Market Turmoil

- The structured credit market will never be the same
- Liquidity in this space dried up during the credit market turmoil and exposed the liquidity risks of these products
- Indeed, liquidity conditions remain challenging
- The initial trigger for the turmoil was US subprime lending, exacerbated by investor's lacking visibility on where the risks lay
- While we expect the structured credit business model is still valid, the investor base is likely to be more aware and structured products need to evolve and learn from their recent challenges
- Questions are also being raised about institutional arrangements surrounding rating agencies, lending practices and banking regulation

Looking Ahead

We expect investor appetite for credit to re-appear

- Fundamental credit quality in investment grade is still strong
- Defaults rates are low and expected to stay relatively contained
- The rating arbitrage opportunity has improved as spreads are now wider
- Concerns over rating agency methodologies apply more to CDOs of ABS and cash CDOs
- Synthetic CDOs and other structured products will operate more and more within widely accepted standards, therefore liquidity is bound to improve

Agenda

Credit Turmoil – disaster or opportunity for the asset manager?

Revisiting the credit instruments and structures

Impact on the real economy

Impact on the asset manager

Case studies on credit opportunities

Conclusions

How to Deal with Spread Risk?

The Past

- In the past the following equation was common view:

Credit Risk = Corporate Bond investing

Corporate Bonds -> being exposed to **Spread Risk**

- Almost the only way to gather higher yields compared to “risk free assets” for being exposed to default and related spread risk was investing in physical securities from the corporate bond area

How to Deal with Spread Risk?

The Present

- New participants entered credit markets: commercial banks, investment bank, Insurance companies, pensions schemes
- Best risk management practices and favorable regulatory environments have encouraged both the development and demand for new credit instruments

Banks	Asset Managers
BASEL I + II	UCITS III

Derivatives especially Swaps have evolved into a prominent and liquid instrument in credit markets:

TRS | iTRAXX | Str Credit | CLN

CDS | CDX | Synt CDO

A brief recap

Are Credit Derivatives and Structured Credit the same?

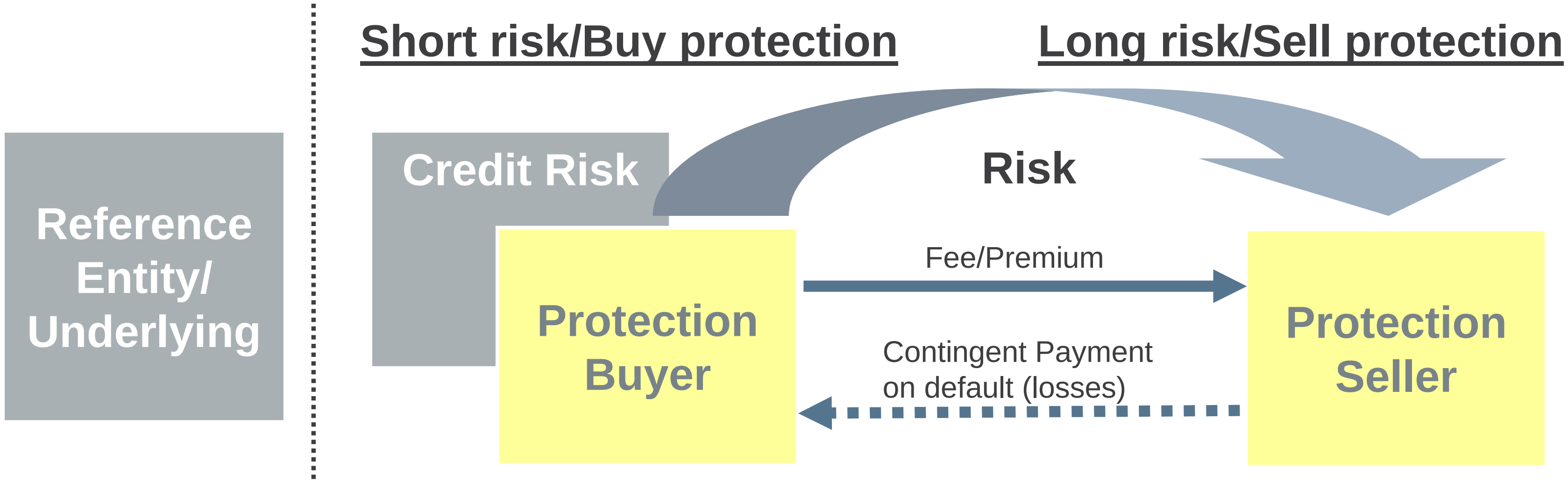
- A **single name Credit Default Swap** (CDS) is a credit derivative but not a structured credit product
- Structured credit typically refers to **tranched credit products**
- A **cash CDO** is a structured credit product but not a credit derivative
- **Single-tranche credit derivatives, index tranches** fall within the definition of both structured credit and credit derivatives

PIONEER Investments®

A Brief Recap

1. The Single Name Credit Default Swap (CDS)

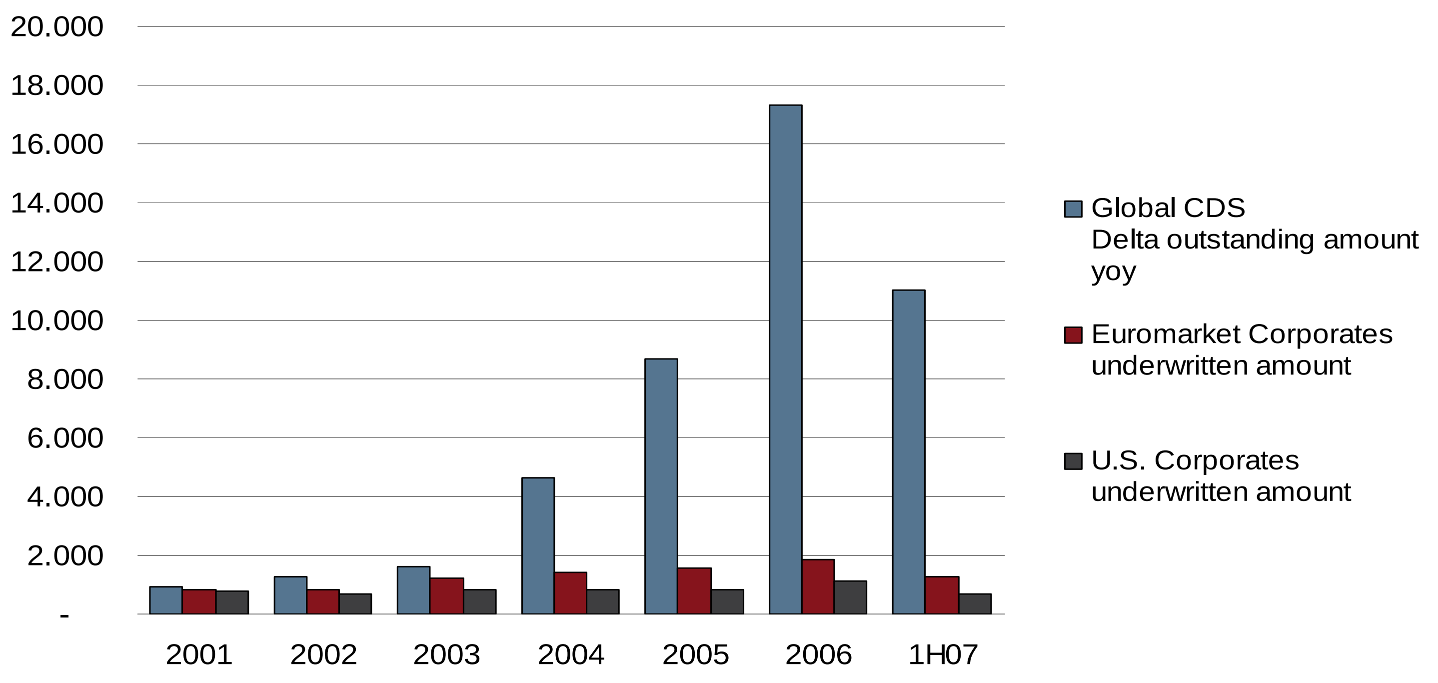
- A credit default swap is similar to a credit insurance contract whereby the protection buyer transfers the risk that the reference entity will default
- In return for the protection, the buyer pays a protection fee to the seller, paid quarterly in arrears
- If a credit event occurs, the trade terminates and the protection seller buys deliverable obligation at par



Global CDS Volume

1. The Single Name Credit Default Swap (CDS)

- **Credit Default Swaps** is one of the fastest growing asset class
- Dominating issuance of physical corporates by far



Source: ISDA, Bloomberg, November 2007

A brief recap

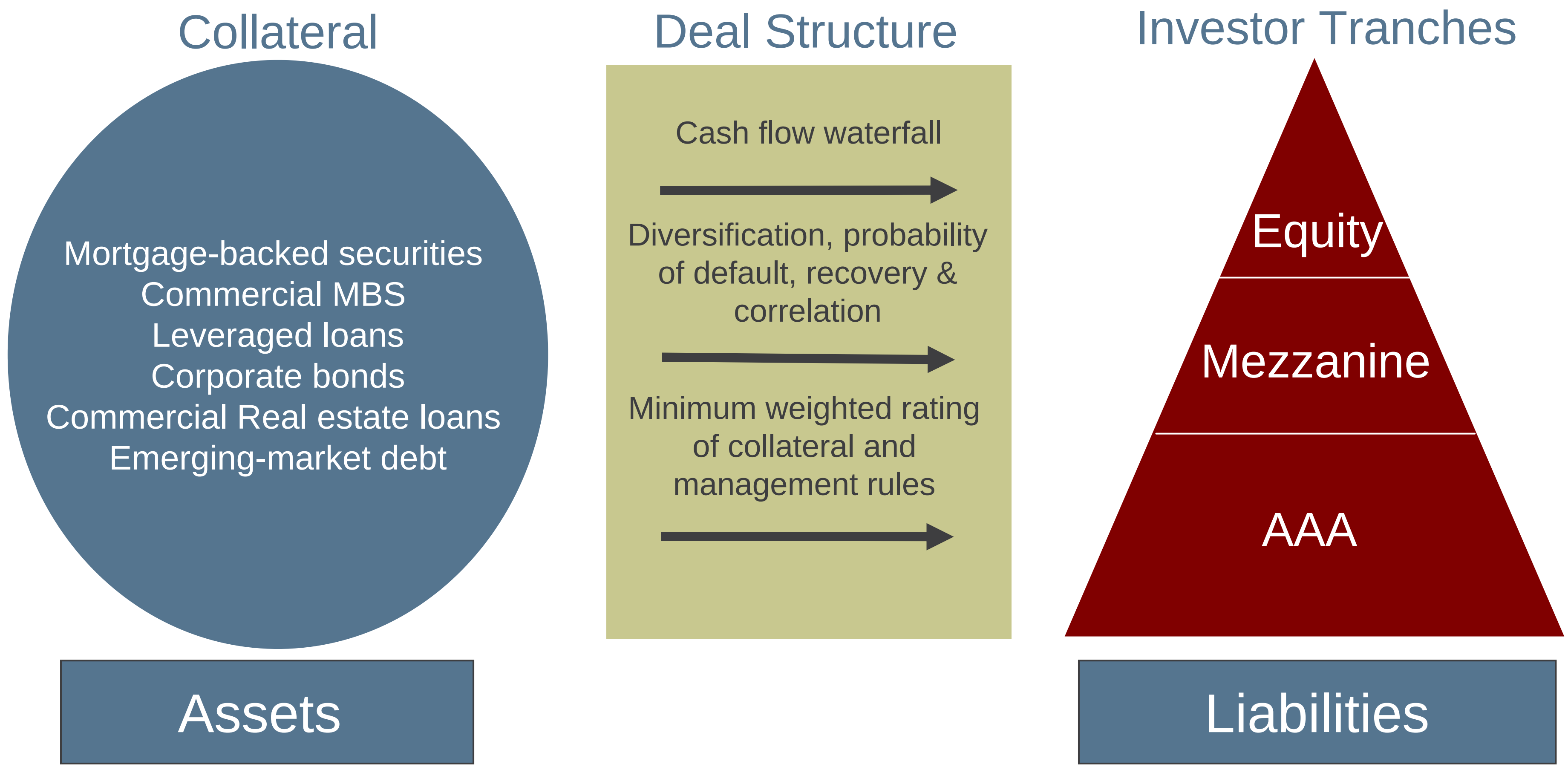
2. What is a CDO?

A Collateralized Debt Obligation

- It is a type of asset backed security and **structured credit product**
- It allows exposure to the **credit risk** of a portfolio of fixed income securities (**collateral**)
- It **redistributes credit risk** of the portfolio
- To the CDO investor, credit risk is divided across different **tranches**:
  - Senior tranches (rated AAA)
  - Mezzanine tranches (AA to BB)
  - Equity tranches (unrated)

  ↓
  - additional risk
  - increasing coupon
- It offers **leveraged exposure** to an underlying asset class

CDO - Collateralized Debt Obligation



Agenda

Credit Turmoil – disaster or opportunity for the asset manager?

Revisiting the credit instruments and structures

Impact on the real economy

Impact on the asset manager

Case studies on credit opportunities

Conclusions

The Influence of Credit Risk on Financial Markets and the Real Economy

- Credit derivatives and structured credit products have facilitated the transfer of credit risks i.e. better management of capital by reducing the concentration of risks. This helps to improve financial stability
- Market liquidity improved on the primary market. However the most recent experience is telling us that liquidity is still an issue on secondary markets
- Improve the transparency with regard to broad credit conditions
- Influence the dynamic of credit cycles (demand/supply conditions, higher transparency about credit market conditions can exacerbate or soften market trends)
- Product development is driven more and more by investors' demand, reflecting a general preference for portfolio diversification and yield enhancement
- The development of structured credit markets determined changes in the flow of credit from banks to borrowers (M3/M0, liquidity multiplier), ultimately influencing monetary policies

Agenda

Credit Turmoil – disaster or opportunity for the asset manager?

Revisiting the credit instruments and structures

Impact on the real economy

Impact on the asset manager

Case studies on credit opportunities

Conclusions

The Implication of Credit Markets Developments for the Asset Manager

- Improved portfolios’ liquidity
- Completion of the fixed income tool box
- Grant access to the entire Capital structure
- Arbitrage opportunities between different asset classes and between different parts of the same capital structure

Agenda

Credit Turmoil – disaster or opportunity for the asset manager?

Revisiting the credit instruments and structures

Impact on the real economy

Impact on the asset manager

Case studies on credit opportunities

Conclusions

Capital Structure Arbitrage

Case Study 1

- CDOs and CDS growth have created the liquidity needed for hedge funds to exploit and eventually eliminate credit misspricings
- Asset Managers need to rely on strong proprietary research capabilities and investment skills to spot the residual credit arbitrage opportunities
- Capital structure arbitrage involves taking long and short positions in the different instruments of a company's capital structure
- Recent market conditions in the High Yield space (record low Investment Grade spreads , record applications for leverage loans ahead of LBOs deal) are determining an evident opportunity

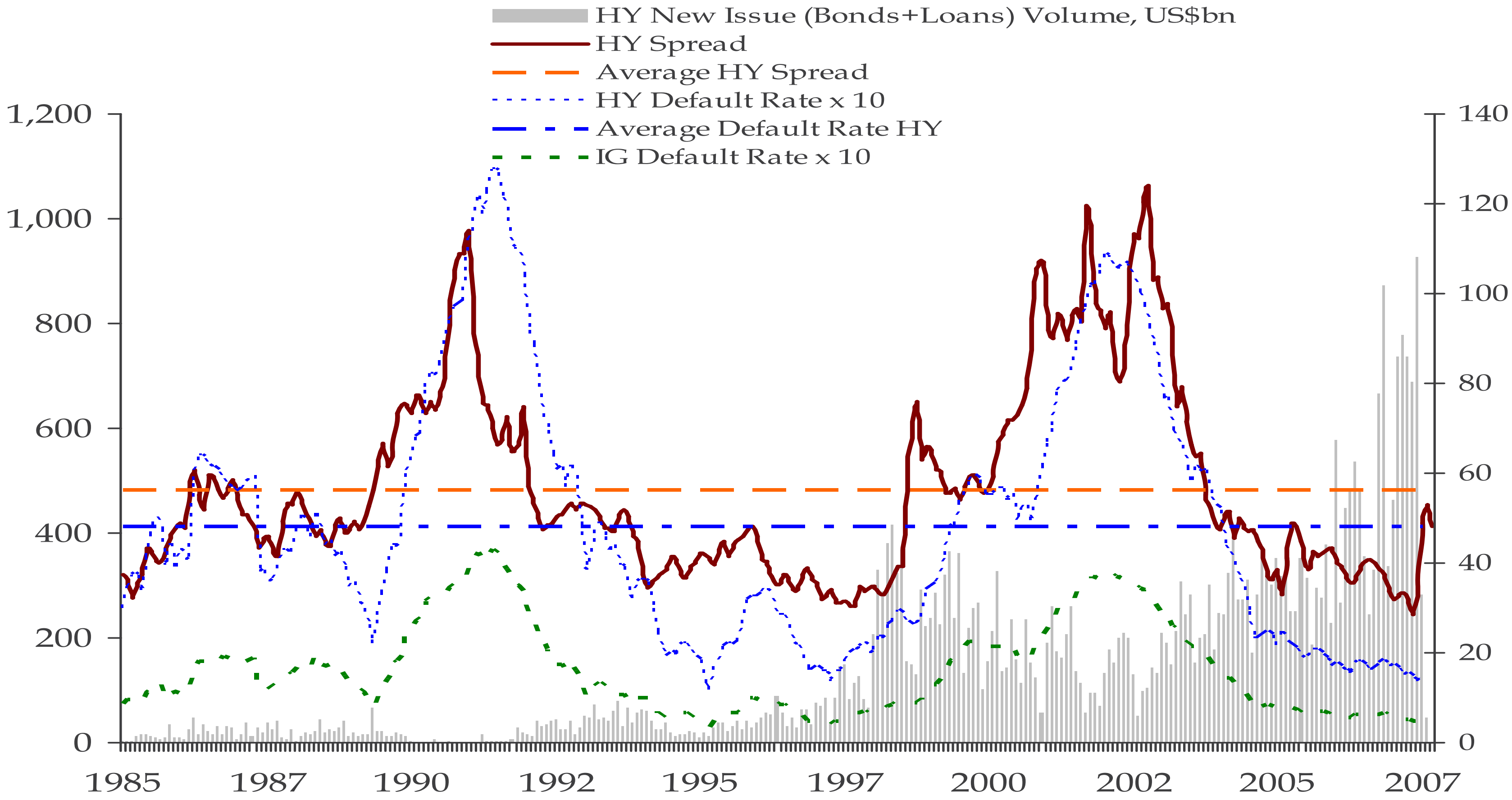
High Yield Near all Time Lows in Spreads and Default Rates

- **Default Rates expected to rise**
  - **Moody's Global default rate forecast increases to 3.5% for September 2008 (1)**
  - **Defaults tend to spike sharply post credit cycle**
  - **Default spikes typically trail peaks of HY issuance by 12-24 months**

- **High Yield/ Leverage Loan issuance near all time highs**
  - **Leverage loans have risen from $248 billion to $495 billion in past 18 months**
  - **Past 3 years have produced record year-on-year issuance**

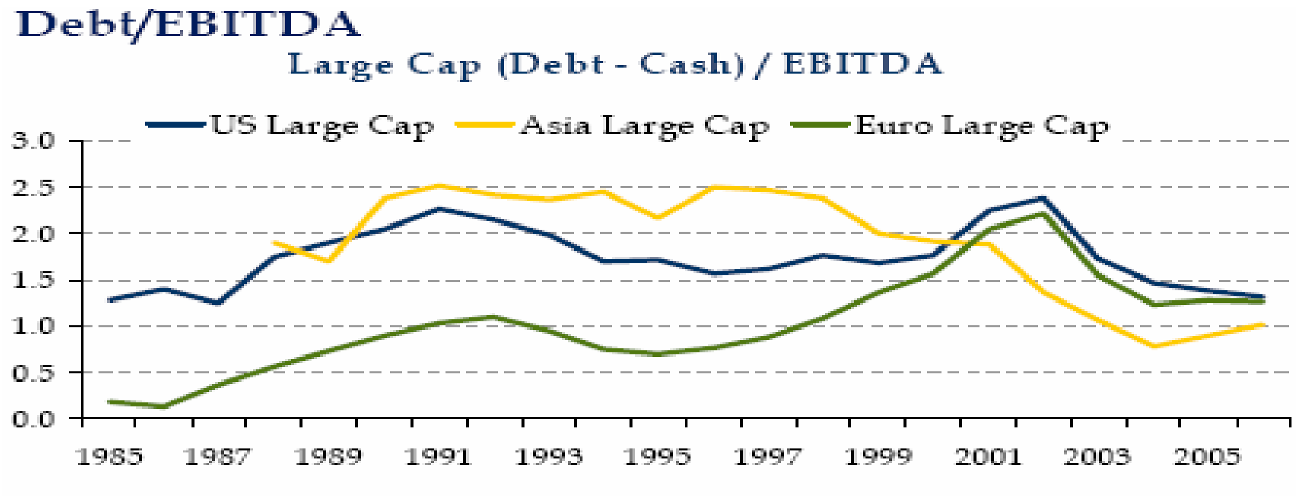
- **Underwriting standards have declined significantly**
  - **"Covenant Lite" leverage loans have increased from $10 to $85 billion outstanding since July '06**
  - **Debt/EBITDA multiples have widened 30% since year end 2005**
  - **Equity Capitalization of LBOs has declined, to an average, below 20% for the first time since 1998**

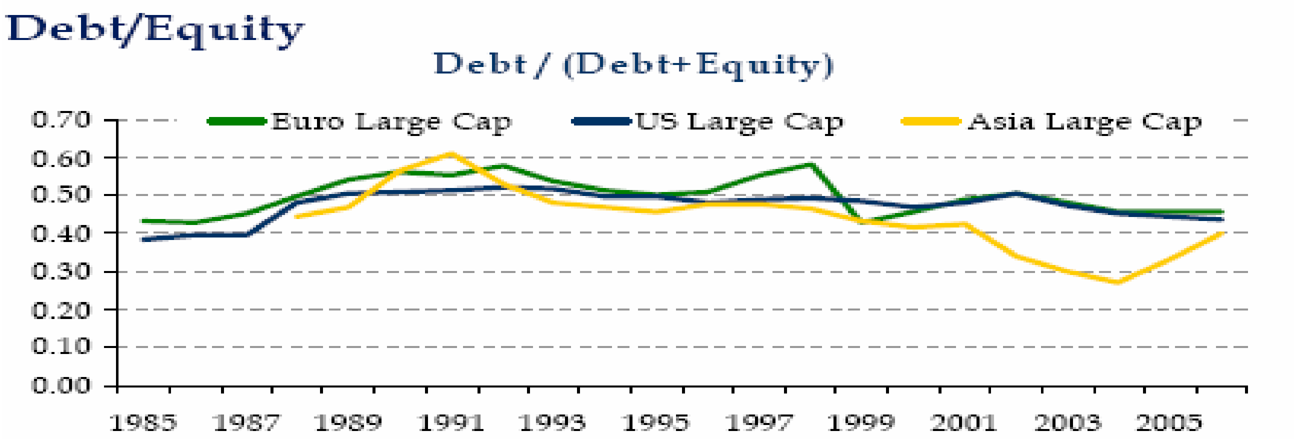
Moody's Global Default Rate Expected to Increase to 4.1% in 2008



PIONEER Investments®

Large Cap Balance Sheets are Still Healthy

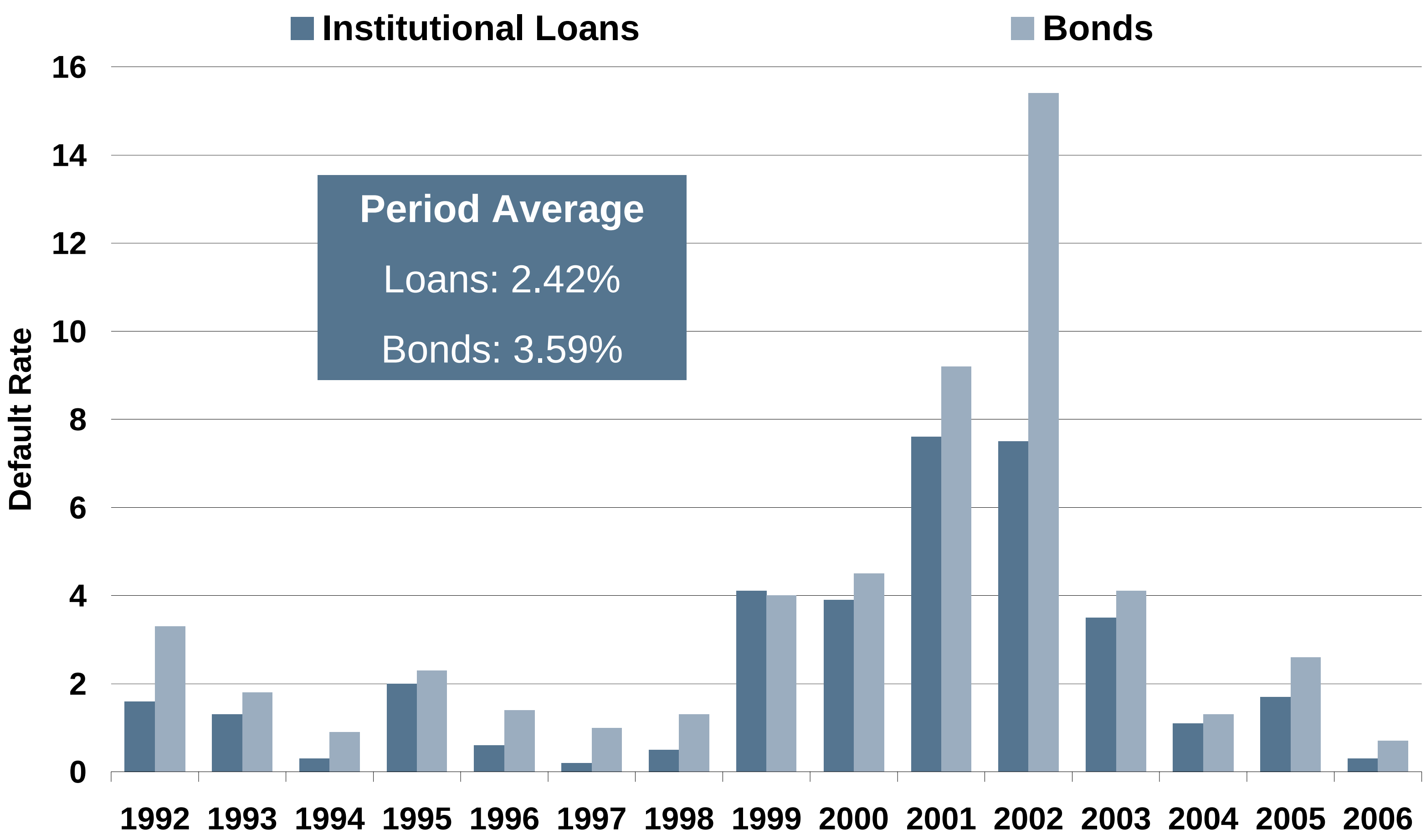




PIONEER Investments®

Default Rates

Leveraged Loans versus High Yield Bonds



Source: Credit Suisse (2007). Defaulted loans defined as missed coupon, filed chapter 11, distressed exchange, or cross-defaults.

Case Study 1

Conclusion

Buy Secured Leveraged Loans
Sell High Yield Bonds
In a long only strategy replace High Yield Bonds with Loans (by buying TRS total return swap)

Arbitrage Opportunities Between Different Asset Classes

Case Study 2

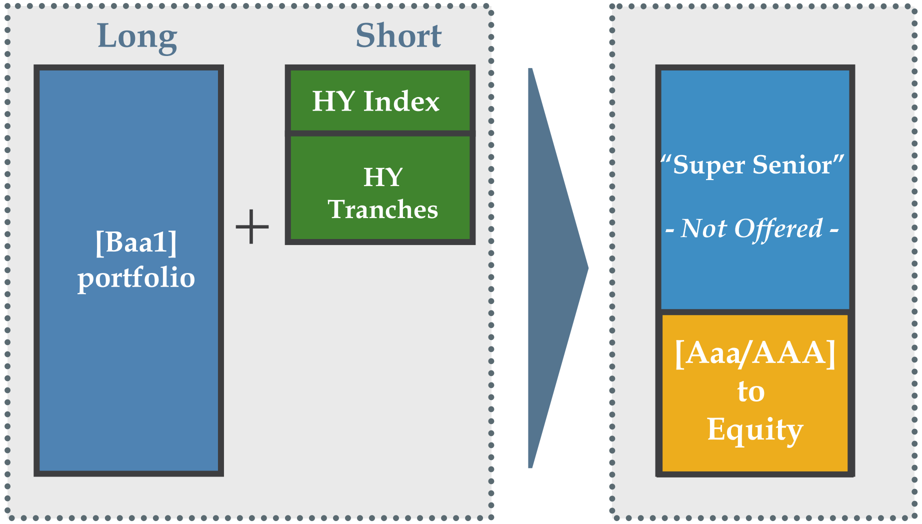
- Market Conditions: extremely tight spreads in High Yield space define the opportunity to arbitrage High Yield spreads with Investment grade spreads
- Implied default rates, spreads and implied recovery rates define the opportunity
- Leverage on the CDO technology to benefit from big price discrepancies between the Investment grade and high Yield

Conclusion:

Long Investment Grade Bonds Short High Yield

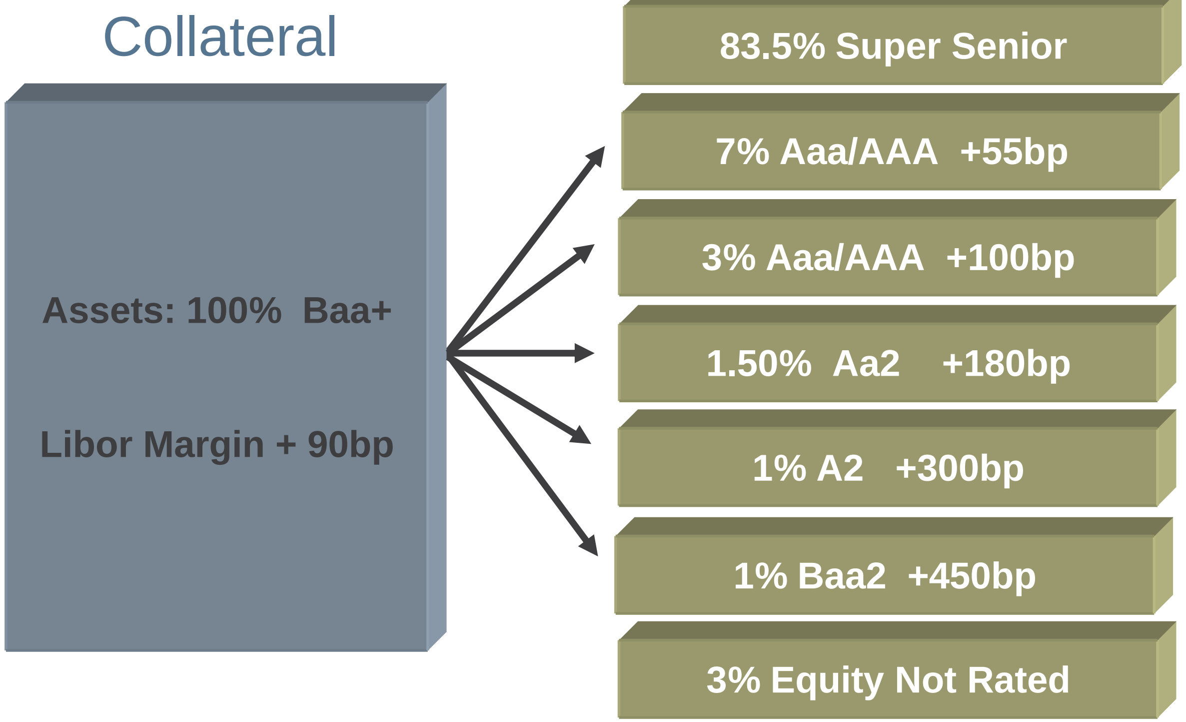
Using the CDO Technology to Exploit Price Dislocations

- The structure is designed to benefit both from an increase in spread differentials and in the implied default ratio



- Long Short Managed CDO, Baa - Initial short Portfolio B2 (-13%)

Long Short Managed CDO

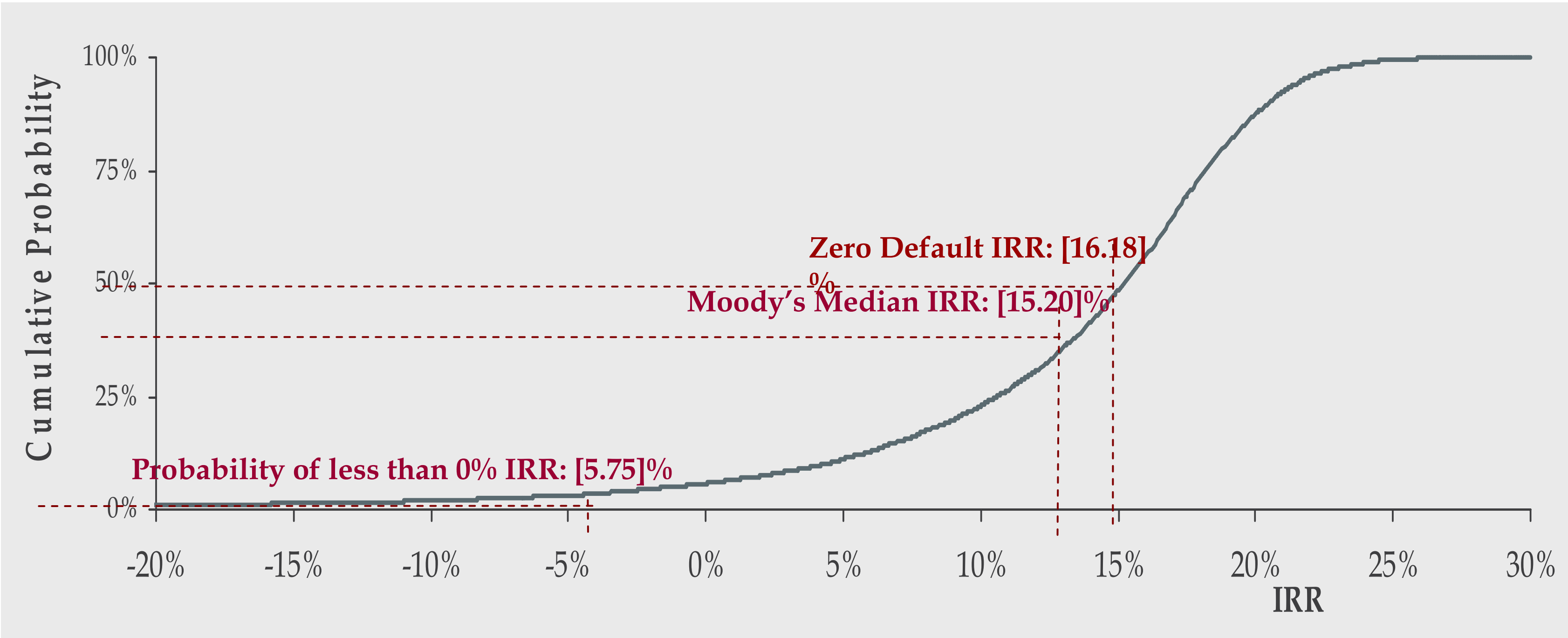


The rating on some of the CDO tranche securities will be higher than the average rating of the collateral, thereby allowing a smaller spread to be paid

…the surplus is captured in the equity tranche spreads

Long Short Managed CDO

Equity Note IRR Simulation - Base Case Assuming [94]bps Indicative Long Portfolio



Long-Short: Zero Default IRR: [16.18]%, Median IRR: [15.20]%;
Unique consequence of the Short Portfolio allows for a relatively high Moody's expected IRR

Long Short Managed CDO - Opportunity

- The calibrated short High Yield portfolio is reducing /offsetting price volatility
- Markets conditions make the structure possible, while minimising the negative carry of the short portfolio
- This very conservative structure benefits from spread widening and higher default rates, i.e. outperform in the worst case scenario
- Visibility on underlying assets : corporate Bonds
- High returns in a risk controlled environment
- Transparent pricing

Agenda

Credit Turmoil – disaster or opportunity for the asset manager?

Revisiting the credit instruments and structures

Impact on the real economy

Impact on the asset manager

Case studies on credit opportunities

Conclusions

Conclusions

- Credit conditions are healthy but liquidity has been a serious issue
- Market practice changes are essential to remove the dependence for liquidity on the state of the balance sheets of the investment banks – towards a regulated common market place
- Credit derivatives improve market stability and grant access to the entire capital structure
- Opportunities lie in the mis-valuation of High Yield versus investment grade and in High Yield versus secured loans
- Regulation changes, credit derivative instrument evolution, structure design and collateral management offer significant opportunities for the asset manager