

Using Credit Derivatives

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Credit derivatives product

- A class of financial instruments, the value of which is derived from an underlying market value driven by the credit risk of private or government entities other than the counterparties to the credit derivative transaction itself (Das, 2004)

Credit derivatives

- Principal feature of these instruments is the separation and isolation of credit risk, facilitating the trading of credit risk with the purpose of:
 - Replicating credit risk
 - Transferring credit risk
 - Hedging credit risk
- Acknowledged Basel II
- Traded on the OTC market

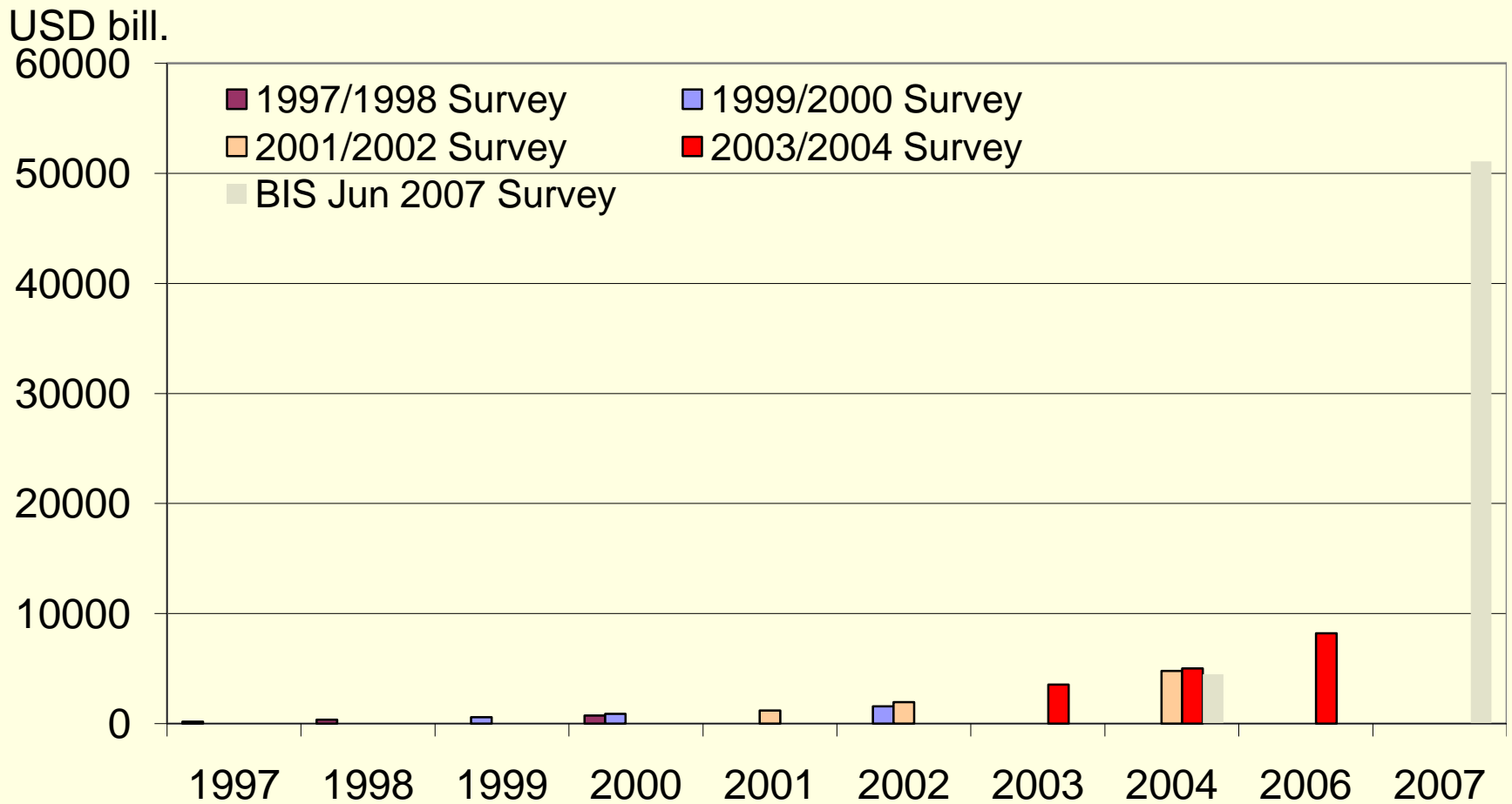
Credit risk events

- International Swaps and Derivatives Association (1999):
 - Bankruptcy
 - Rating downgrade
 - Merger/acquisition
 - Debt restructuring
 - Debt acceleration
 - Bankruptcy of a business partner
 - Default of the coupon/interest
 - Debt repudiation

Users

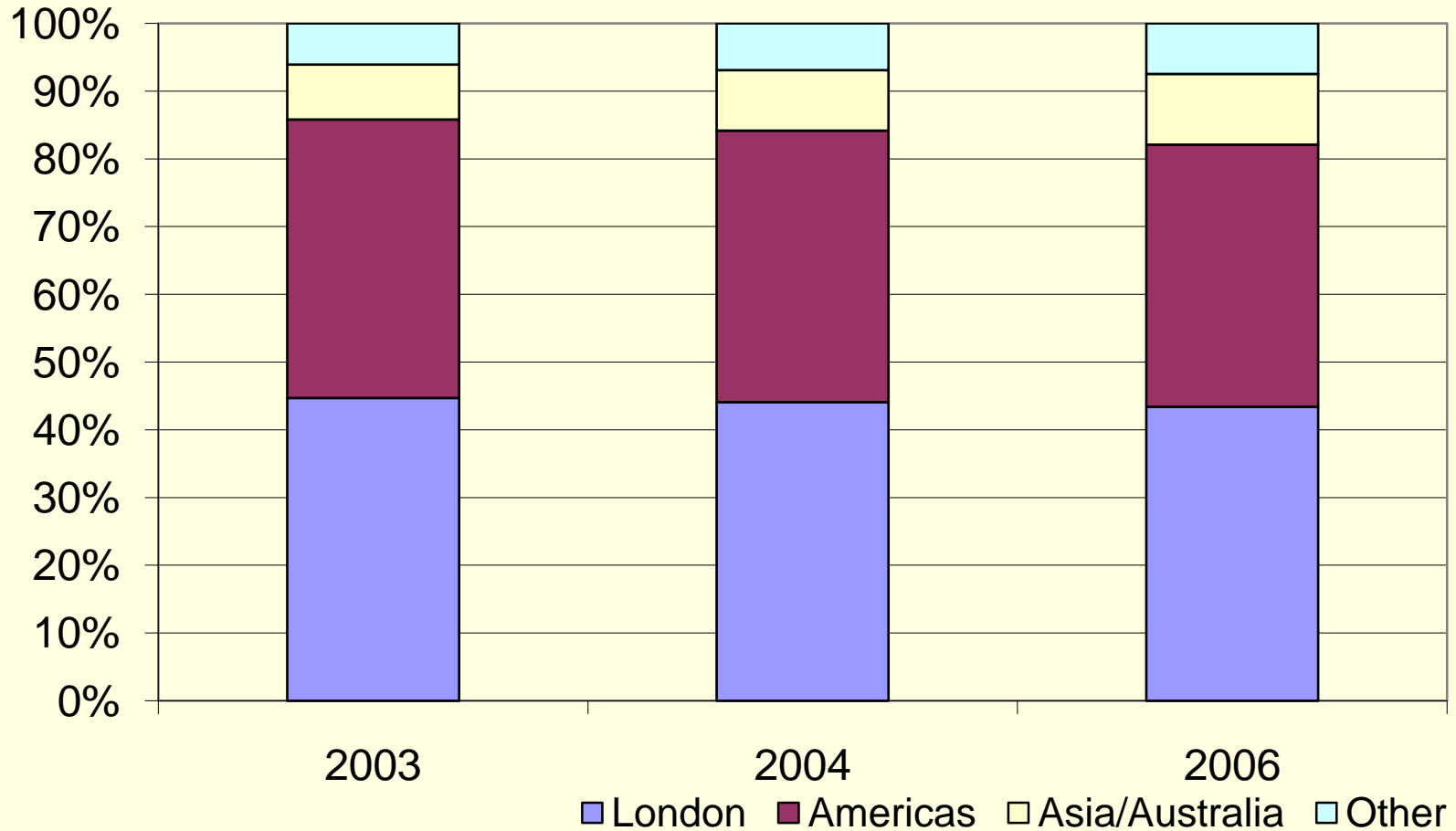
- Banks/financial institutions for:
 - Hedging,
 - Taking credit risk,
 - Synthetic diversification of the portfolio,
 - Credit portfolio management.
- Institutional investors for:
 - Adding value to portfolio without trading the underlying asset,
 - Credit risk management,
 - Lack of access to credit market,
 - Arbitrage opportunities.

Market turnover



Source: British Bankers' Association, Bank of International Settlements

Localization



Source, British Bankers' Association, Credit Derivatives Reports



Classification

- Underlying asset (loan) – single entity, multiple entities
- Exercise – a single credit event (default of the debtor) or a increase in the credit spread
- *Payoff* - fixed or variable (liniar or nonliniar)

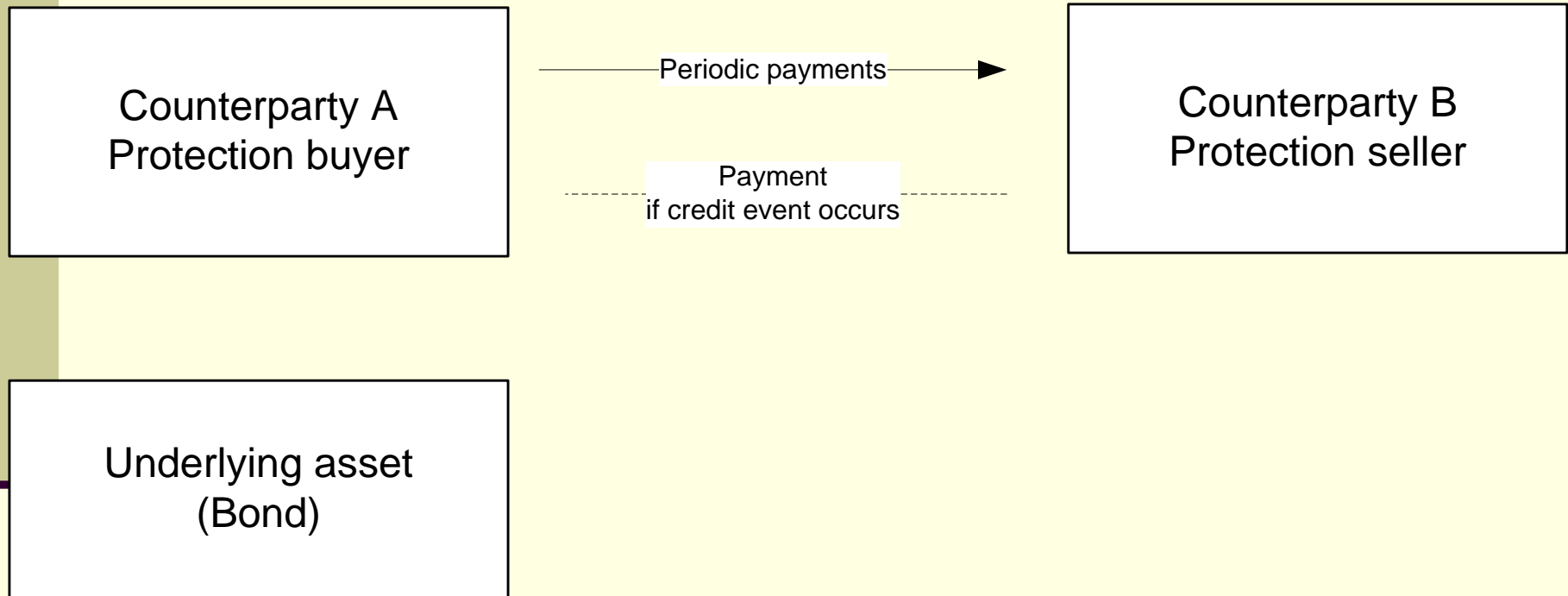
Credit derivatives

- Credit default swap (CDS) – close to 90% of the total transactions
- Credit default options
- Basket default swap
- Total return swap (TRS)
- Credit spread options
- Credit spread forwards

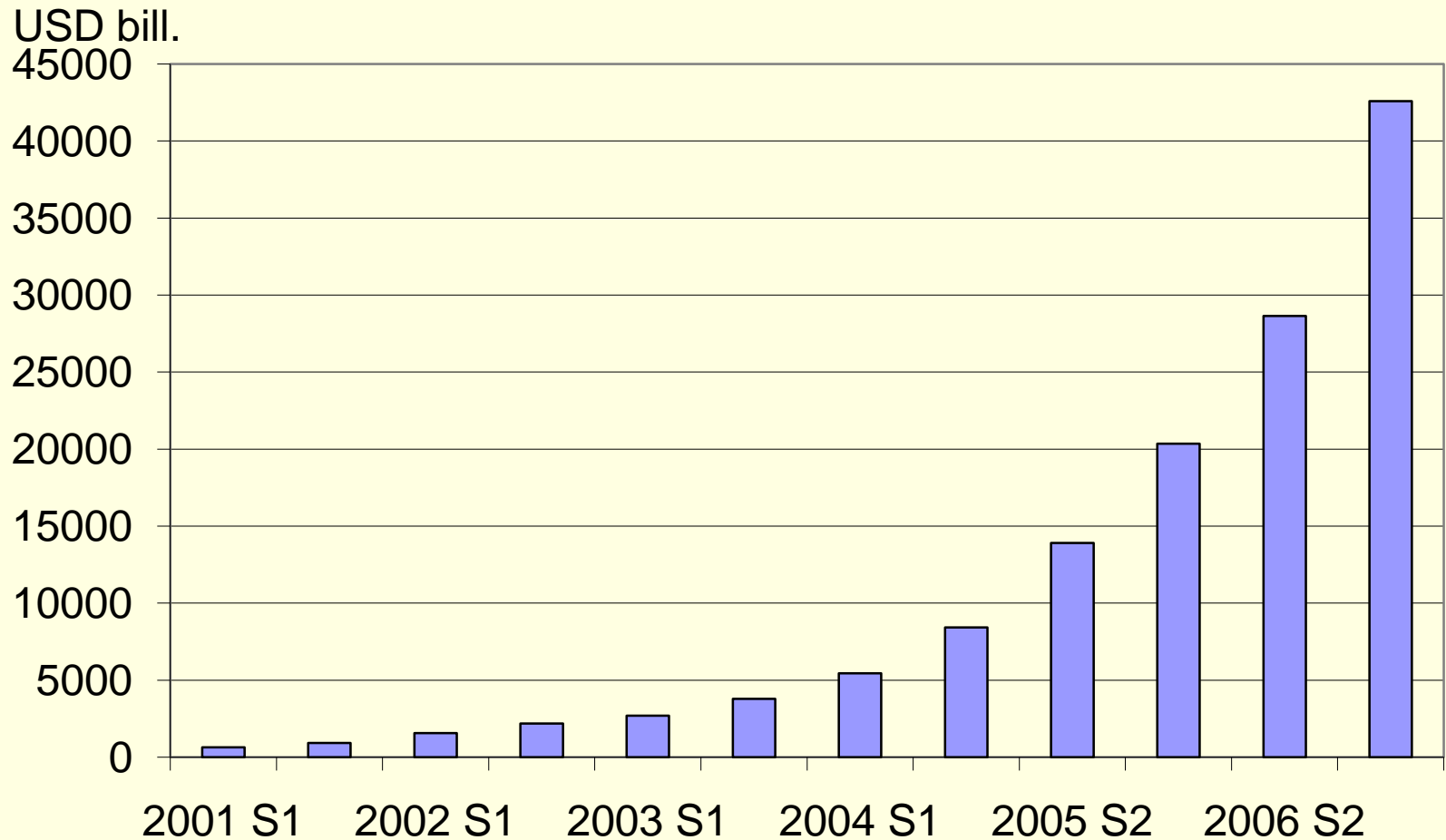
Credit default swap

- Contract to commits two counterparties to exchange a periodic fee in exchange for a payment contingent on a default event or any other agreed change in the credit quality of a reference asset for an agreed period of time
- Cash flows - payoff:
 - Premium leg: periodic payments as basis points applied to the face value of the bond
 - Protection leg: payment in case the credit event occurs as face value of the bond \times [100 – bond price after credit event]

CDS- structure



CDS - Market turnover



Source: International Swaps and Derivatives Association, Bank of International Settlements

CDS - uses

- Hedging credit risk (transferring the credit risk)
- Taking credit exposure
- Products structuring (credit linked note)
- Informational content

CDS - Valuation

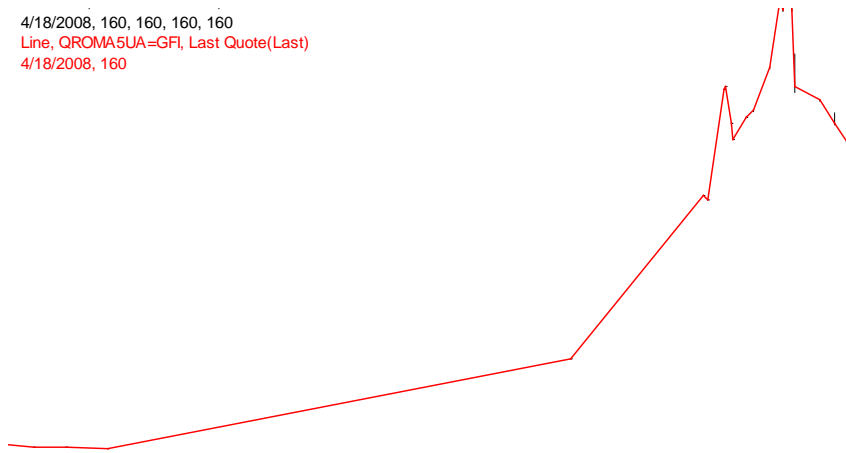
- Market value – determined by the supply and demand of this instrument. May not be available due to lack of liquidity for some debtors.
- Theoretical value – based on:
 - Probability of default of the debtor (implied by the credit rating of the debtor)
 - Recovery rate given the default of the debtor
 - Debt coupon/interest rate
 - Debt maturity
 - Market interest rates

CDS – Market Prices, Romania

Daily QROMA5UA=GFI

12/19/2006 - 4/23/2008 (LON)

4/18/2008, 160, 160, 160, 160
Line, QROMA5UA=GFI, Last Quote(Last)
4/18/2008, 160



Daily QROMA10UA=GFI

11/24/2006 - 2/12/2008 (LON)

2/7/2008, 0, 0, 0, 220
Line, QROMA10UA=GFI, Last Quote(Last)
2/7/2008, 220



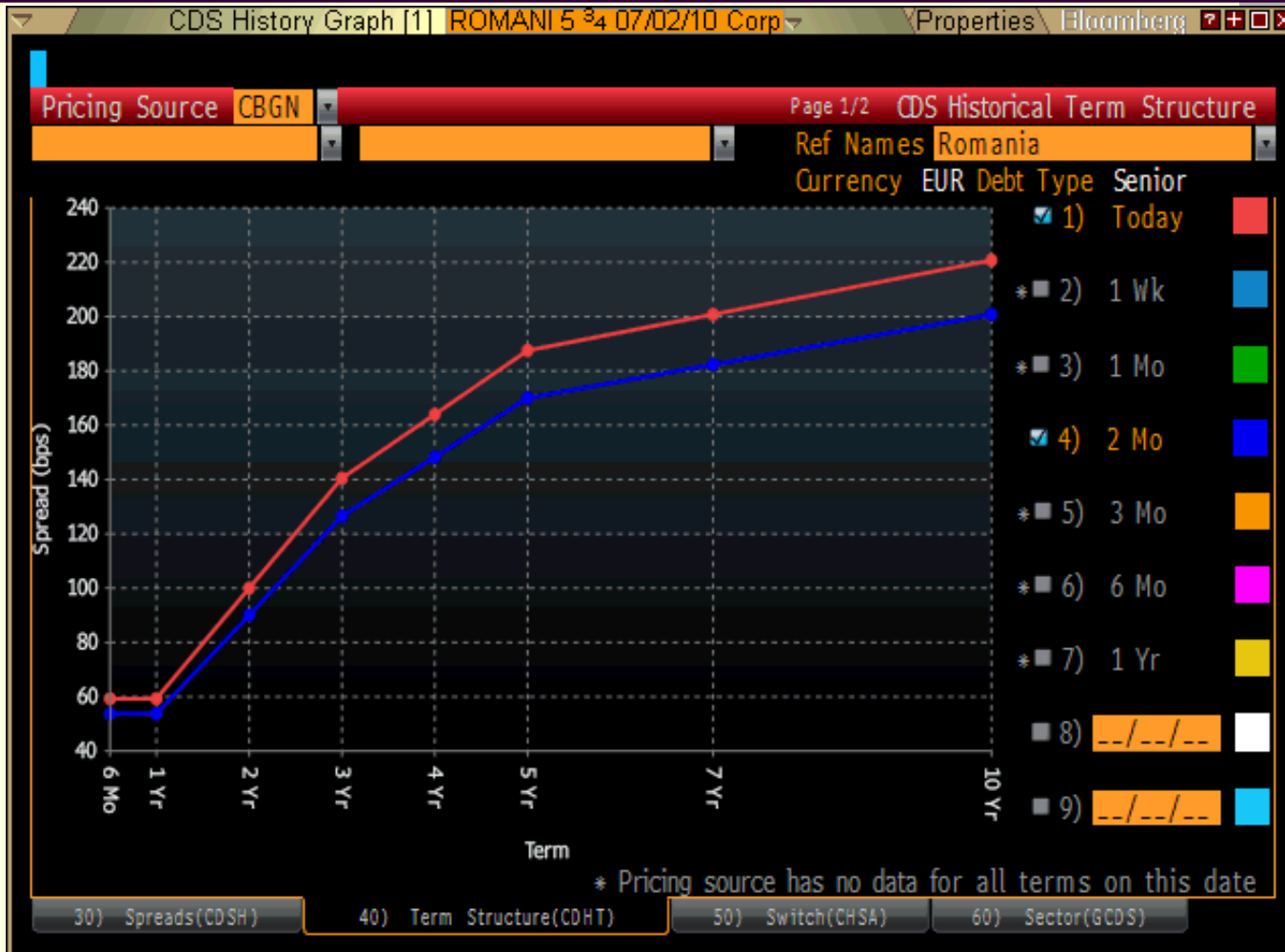
Source: Reuters

CDS – Theoretical prices, Romania



Source: Bloomberg

CDS curve, Romania



Source: Bloomberg



CDS informational content



Source: Bloomberg

Basket Default Swap

- 3 – 5 reference entities
- Maximum payment that from the protection seller (if credit events occur) is implicit or explicit specified in the contract
- Types:
 - Senior basket default swap
 - Subordinate basket default swap
 - N-to-default swap

Senior Basket Default Swap

- In the contract, a maximum amount is specified for each reference entity and the protection seller starts the payments after a certain default threshold is reached
- The maximum amount that can be paid by the protection seller is the sum of the maximum payments for each entity less the threshold amount

Subordinate Basket Default Swap

- The contract specifies a maximum amount for each reference entity and a maximum global amount that can be paid by the protection seller
- There is no threshold and the payments from the protection seller start with the first credit event

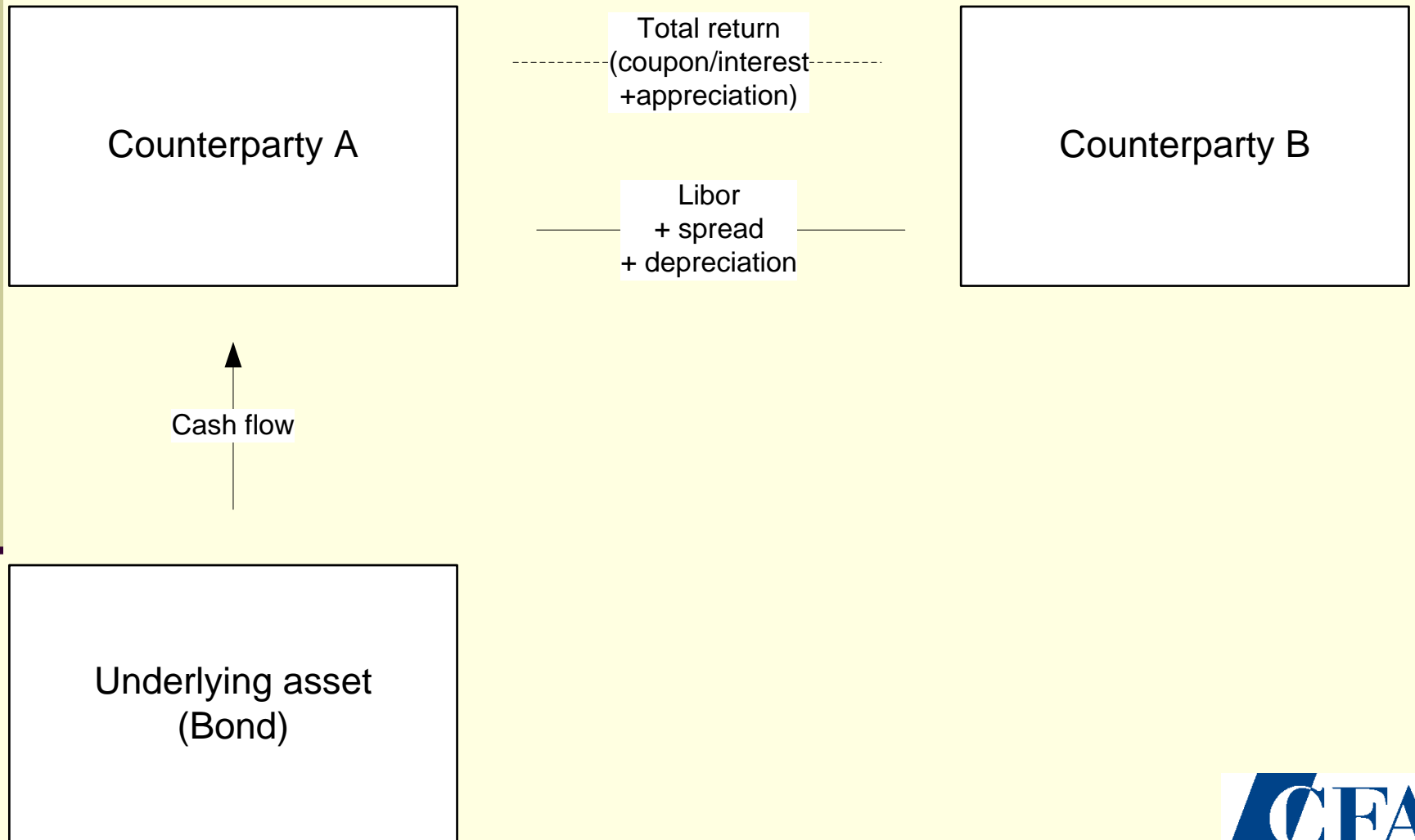
N-to-Default Swap

- Payments from the protection seller starts with the Nth credit event
- For the N - 1 credit events there is no protection
- After the payment for the Nth credit event, the CDS contract is terminated
- Usually, the contract also specifies the maximum payment that can be received by the protection buyer

Total return swap

- Contract which commits two counterparties to exchange the total economic performance of a financial asset (defined to include all interest payments and fees plus any capital appreciation or depreciation) in exchange for a floating rate payout based on a reference index (usually Libor plus a spread reflecting the creditworthiness of the counterparty as well as the credit rating and liquidity of the underlying asset)

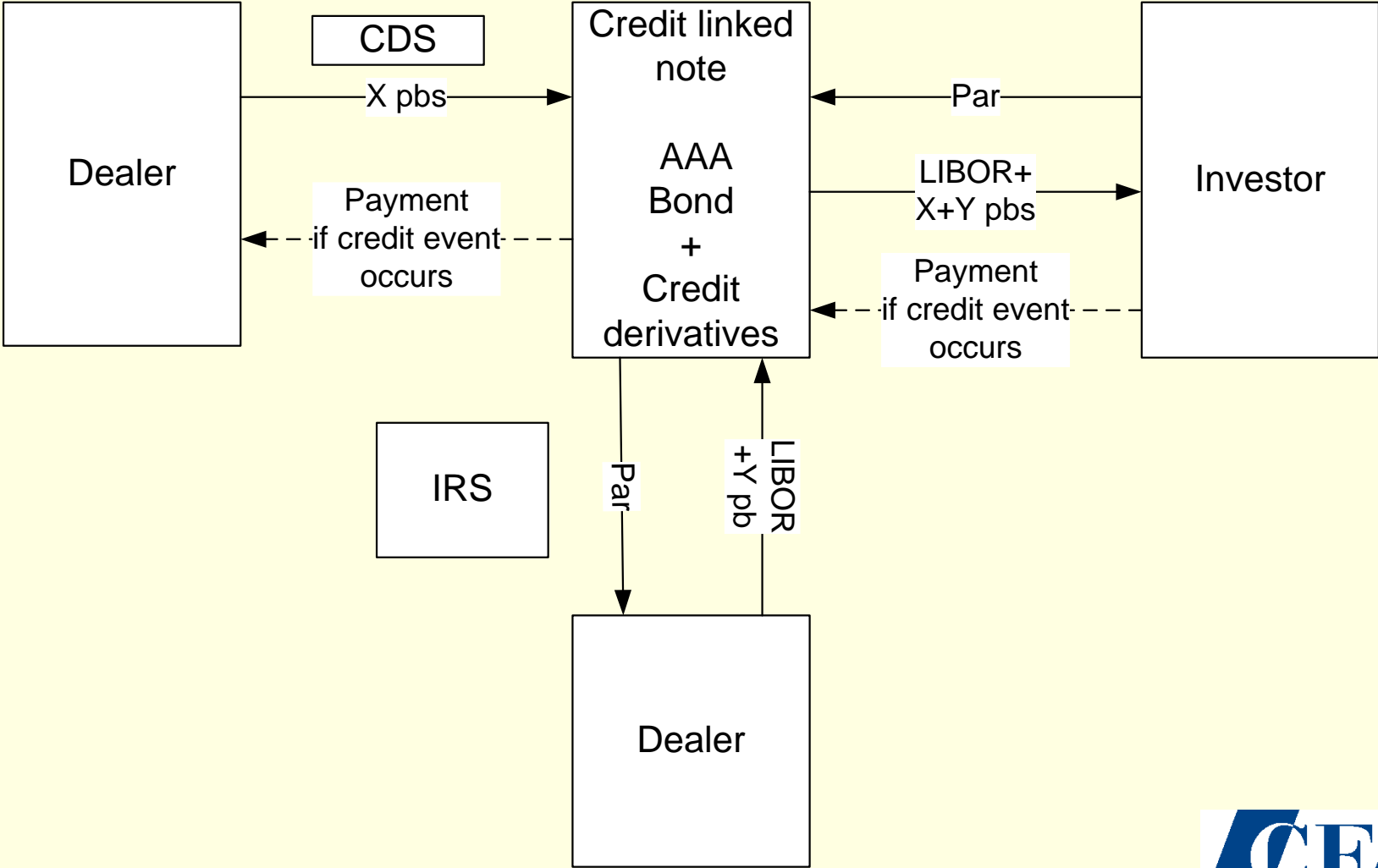
Total return swap - structuring



Credit linked note

- Structured based on fixed income instruments and credit derivatives
- Allows the replication of exposure on certain fixed income instrument without effectively investing in that instrument
- Allows investors to add value to the portfolio from the developments in the bond price, credit spread or default risk

Credit linked note



Q&A