

September 2009  
OeNB – East Jour Fixe, Credit Derivatives

## Risks, Rewards and Responsibilities

“It is better to know some of the questions than all of the answers.” James Thurber

Richard Metcalfe  
Global Head of Policy  
ISDA

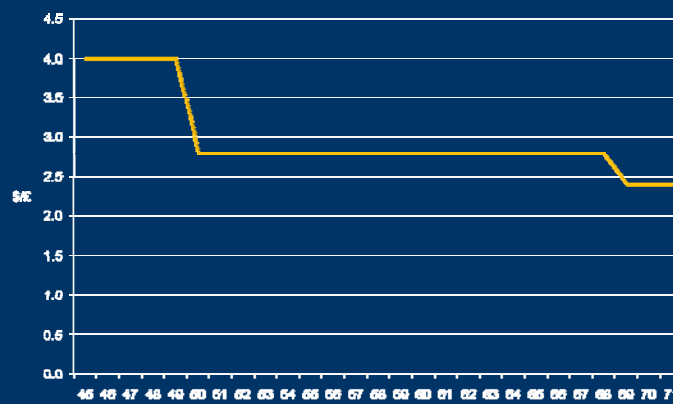
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## The golden age

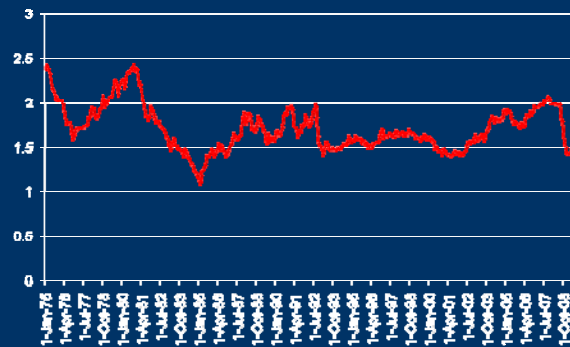
Sterling-dollar exchange rate  
(year end): 1945-71



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## The arrival of volatility

Sterling-dollar exchange rate:  
1975-2008

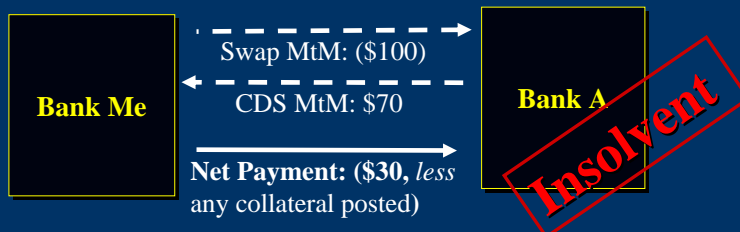


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## Derivatives exposures

- Value of a derivative is its mark-to-market (MtM / replacement) value
  - = *change* in price of *hypothetical* underlying position (eg, from 100 to 101)
- Positive MtM cannot be enforced in isolation
  - on A's bankruptcy, I can only claim what she owes me *less* what I owe her on other derivatives in mutual portfolio – close-out netting

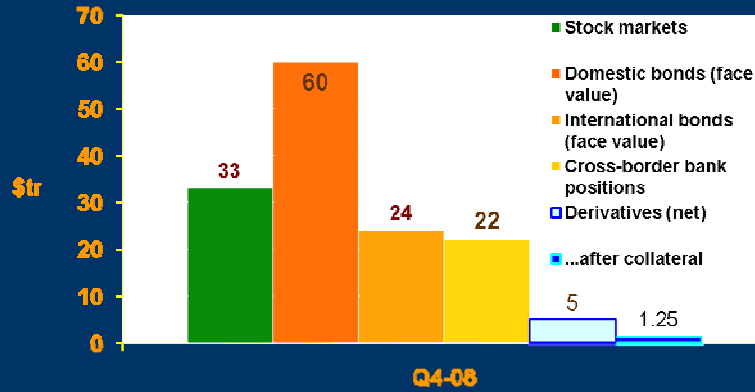


- Netting reduces gross counterparty exposures by 85%, to \$5 trillion
  - Collateral posted against net exposures
  - Capital requirements \*[apply]\* to unsecured exposure

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## Real trillion-dollar markets

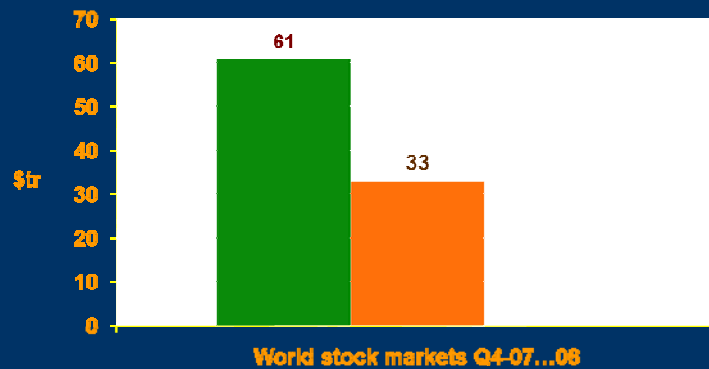


Sources: BIS, WFE, ISDA

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## Real trillion-dollar losses



- In 2008, CDS *increased* in value by 180%, to \$5tr
- What about CDS settlement flows, on default of reference entities....?

Source: World Federation of Exchanges

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## The 'Gross' error

Net risk transfer in CDS			\$\$mm
source: DTCC - 20th Jan 2009	Gross notional	Net notional	Net/Gross
Single-names (aggregate)	14,490,189	1,441,214	9.9%
Turkey	167,366	4,970	3.0%
Indices (aggregate)	14,796,602	1,229,884	8.3%
CDX	1,555,275	77,026	5.0%
iTraxx	1,037,230	39,546	3.8%

- NB: ISDA 'Auctions' now support net cash settlement
- Press speculated wildly about amounts to settle upon Lehman bankruptcy (\$5bn vs '\$400bn', or gross notional of \$70bn)
  - Net exposure; LGD

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## Real losses II: debt securities

Losses on securities, as of October 2008...

UK (£ bn)	
prime RMBS	17
other RMBS	8
CMBS	4
IG Corp	87
Hi-yield	7
<b>sum</b>	<b>123</b>

US (\$ bn)	
Residential ABS	310
Res-ABS CDOs	277
CMBS	97
CLO	46
IG Corp	600
Hi-yield	247
<b>sum</b>	<b>1577</b>

euro (bn)	
RMBS	39
CMBS	4
CLOs	23
IG Corp	643
Hi yield	76
<b>sum</b>	<b>785</b>

...\$2.5 trillion

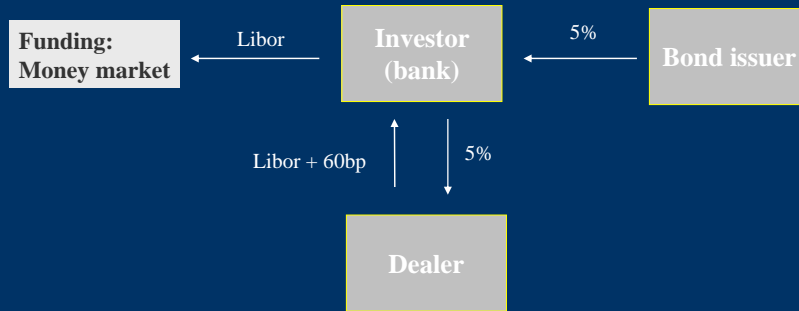
Source Bank of England Quarterly, October 2008

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## The first credit derivative....

Asset swap – a spread product

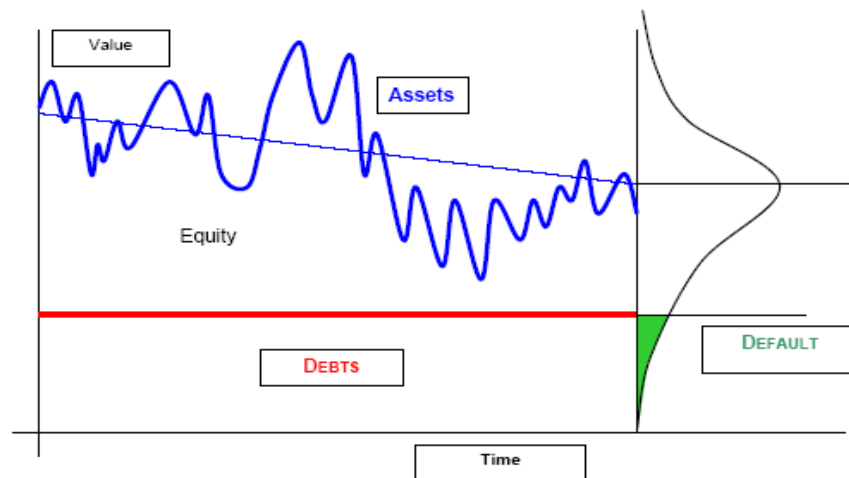


Swap rate = 4.4%

'Asset swap spread' = 0.60%

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## The (Robert) Merton model



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## Net sales: AIG's 'hidden' role

Year	Total	Insurance sector	AIG	Insurance ex-AIG	AIG / total (%)	AIG / insurance
	\$bn					
2004	556	319	<b>268</b>	51	48	84
2005	645	383	<b>368</b>	15	57	96
2006	750	395	<b>384</b>	11	51	97

“...the dominant footprint of AIG Financial Products.”

- \$268 / 319bn net insurance-sector protection – **84%**.
- Source: public report, Fitch Ratings, November 2005

94% of AIGFP's \$30bn MtM losses came from 19% of portfolio – CDS on multi-sector CDOs

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## Real losses III? – AIG-FP

Super-senior CDS Portfolio (September 2008 – \$m)

Asset Class	Net Notional	Fair Value Loss
<b>Regulatory Capital:</b>		
Corporate loans	131,789	
Prime residential mortgages	116,558	
Other	1,600	397
<i>sub-total</i>	249,947	397
<b>Arbitrage:</b>		
<u>Multi-sector CDOs</u>	71,644	<b>30,207</b>
Corporate debt/CLOs	50,678	1,534
Mezzanine tranches	5,013	153
<b>Total</b>	<b>377,282</b>	<b>32,291</b>

Flashback to May 2002:

“insurers turn down a lot of names in portfolio deals (20-40 out of 100)”.

FSA Report *Cross-sector risk transfers*

- Source: Bank of America/Merrill Lynch research, quoting AIG
- *nota bene*: AIG financial statements assume 100% probability of default

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## **Risks, Rewards and Responsibilities**

**“It is the duty of the court to formulate the questions correctly.”**  
Anton Chekhov, letter to Aleksei Suvorin, October 1888

**Richard Metcalfe**  
*Global Head of Policy*  
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