

## *Mortgage credit risk transfer and financial stability*



Presentation for the  
European Mortgage Federation / European Network of Housing Research  
Joint Seminar on European Mortgage Markets, Brussels, Belgium  
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Presenter: Prof. Stefan Kofner, MCIH



## *Nationalisation of enterprises continues*



Taking a chair from the other table is out of question, and for a change of the filling side dish an application in writing is needed.

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## Contents

- Lessons from SPM related securitisation
- Instruments for mortgage credit risk transfer
  - Primary mortgage insurance
  - Credit default swaps (CDS)
- Proposals for a sound regulation of the CDS market

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## Introduction

- Mortgage credit risk transfer (MCRT) is at the centre of the crisis, e.g.
  - Monoliners have insured CDO worth \$ 127 Billion (partially covered by subprime mortgages)
  - Large counterparties at the CDS market like Bear Stearns and AIG saved from bankruptcy
  - MCRT as an accelerator for the securitisation of (subprime) mortgage credit
  - Mortgage insurers suffer from contagion risk
- We need sustainable practices of risk transfer

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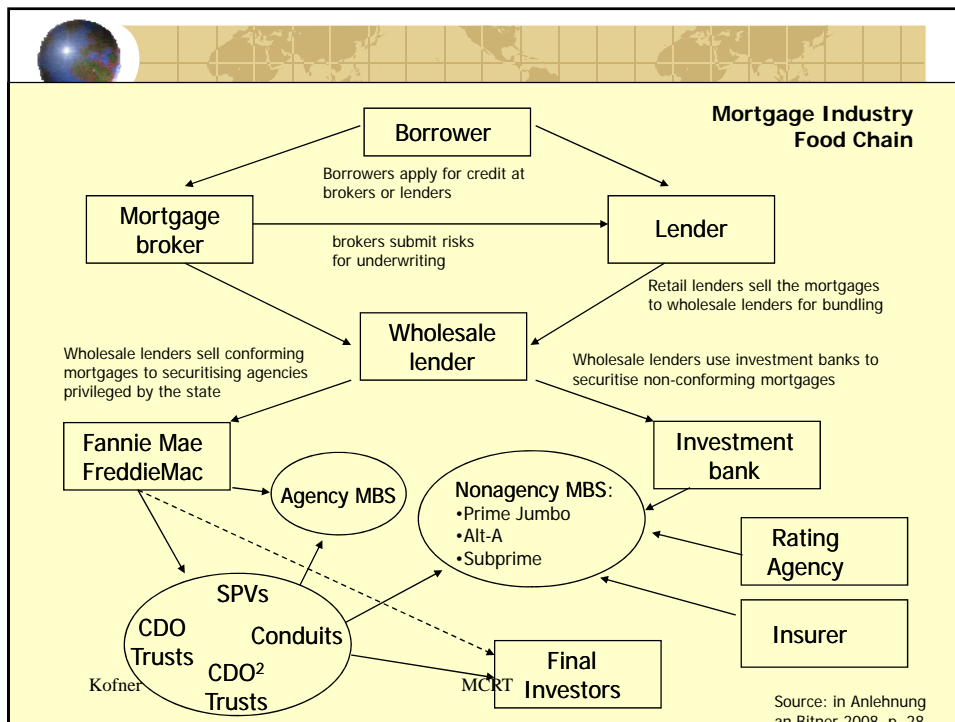
## Lessons from SPM Related Securitisation

- The complexity of some securitisation structures may conceal the real risk of the securities
- Securitisation may be susceptible to principal-agent problem
- Risk dumping is inevitable in an unregulated environment for securitisation (Chairman Volcker in 1987)
- Future of securitisation: How to ensure credit quality?

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## After the states hopefully have withdrawn from private banks

- State guarantees as an interim solution
- States have relieved banks of their risks on a massive scale → crowding out of conventional risk management.
- States need to withdraw as soon as possible. No more Landesbanks. Only then will lenders take responsibility for the risk they commit to by managing it appropriately.
- But only if the regulatory framework limits moral hazard and adverse selection (the “food chain”)

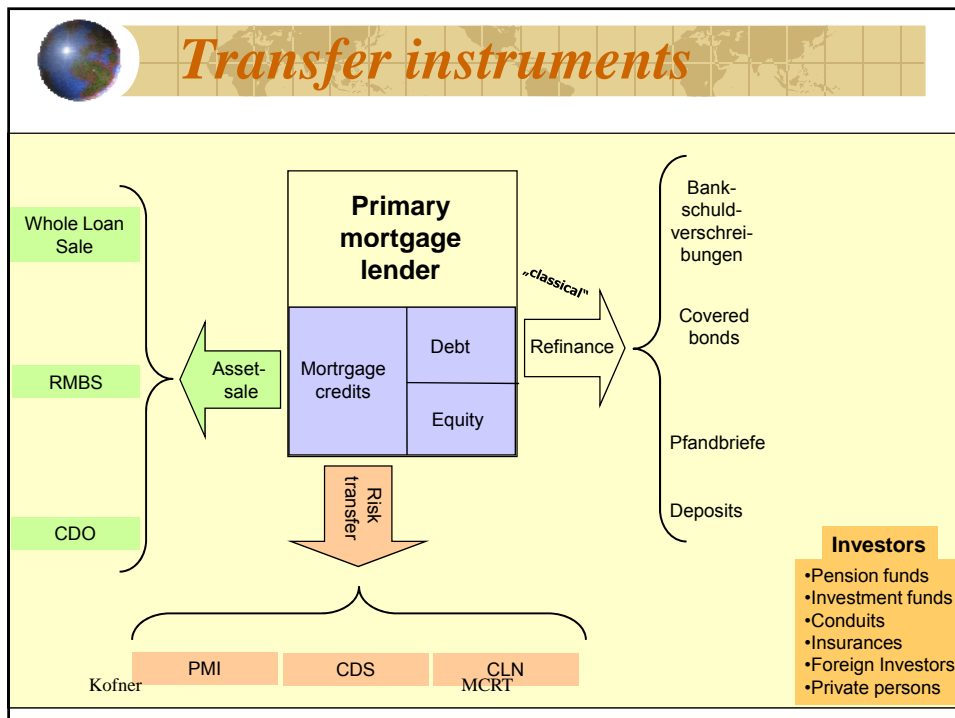
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## Transfer instruments





## *Private Mortgage Insurance PMI*

- 150 years old: Saxon / German invention (by Ernst Engel)
- PMI in favor of the lender: covers (part of) his loss risk in case of default (percentage of claim for loss)
- additional safeguard for high LTV loans
- extremely cyclical business with a considerable catastrophic risk
- no playground for amateurs

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## *The relative stability of U.S. PMI*

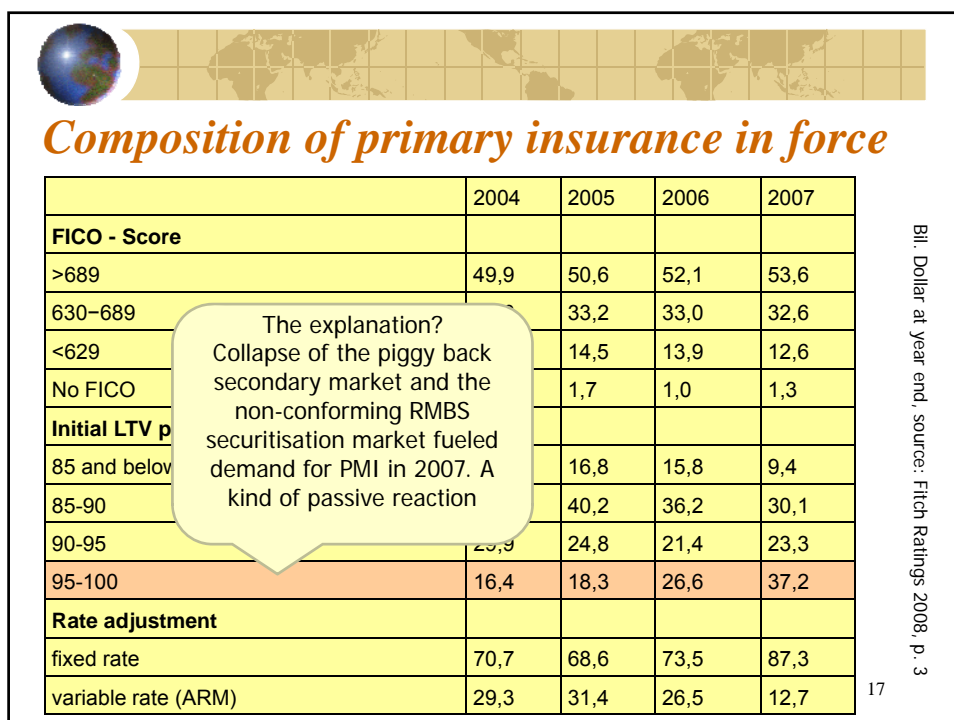
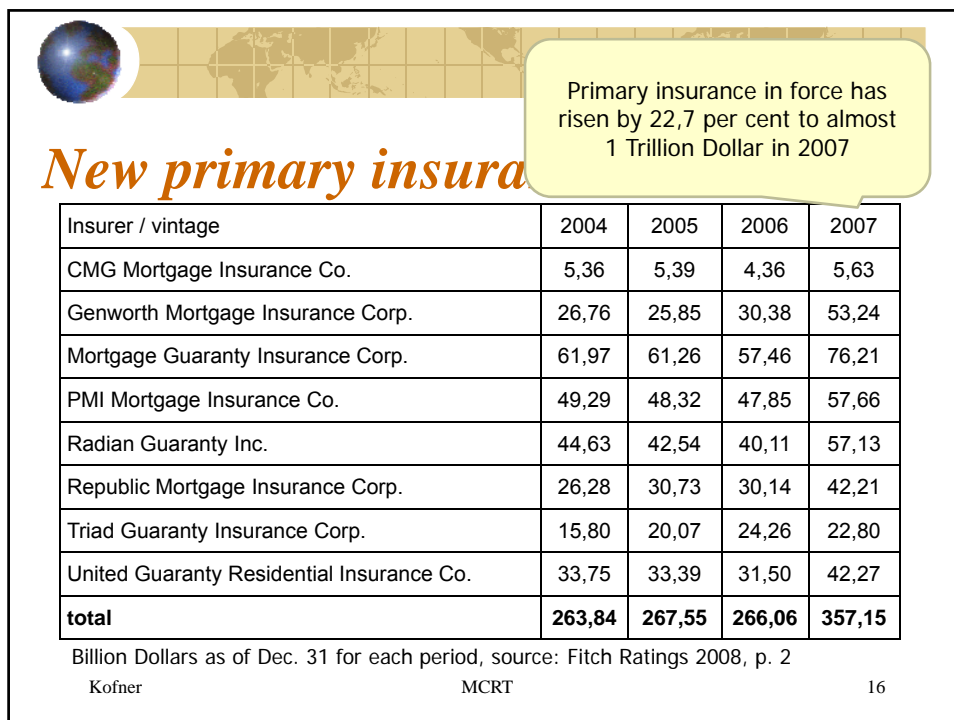
- Intense regulation
  - monoline restriction
  - sensible reserve requirements
  - sensible capital requirements
  - provisions against conflicts of interest in relation to borrowers to assure underwriting independency
- Risk dispersion: geographic, temporal and LTV
- Only AA and AAA ratings (before the crisis)
- Mortgage insurers have not contributed to the exceptional growth of subprime credit

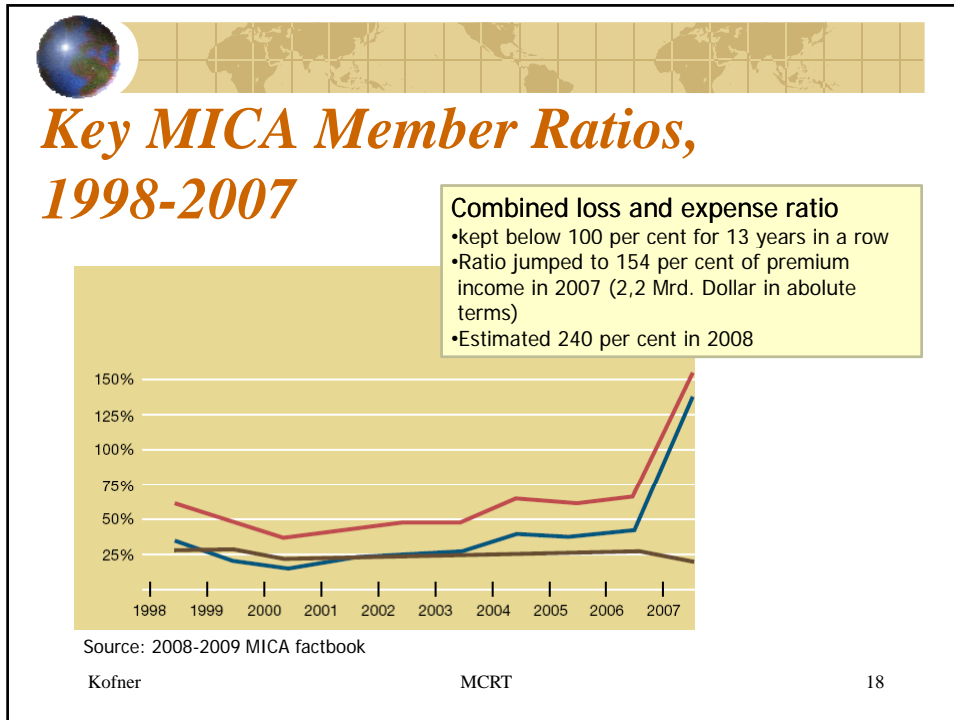


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**MICA member risk / capital**

	2004	2005	2006	2007
Total net Risk in force	\$152,476,600	\$149,992,937	\$158,017,883	\$193,777,146
Loss Reserves	\$2,201,532	\$2,158,579	\$2,336,041	\$5,957,196
Contingency Reserve	\$10,592,735	\$11,197,751	\$14,018,383	\$11,108,950
Total reserves	\$12,794,267	\$13,356,330	\$16,354,424	\$17,066,146
Total Capital	\$16,183,923	\$16,843,509	\$17,488,313	\$14,351,691
<b>Risk-to-Capital Ratio</b>	<b>9.42</b>	<b>8.91</b>	<b>9.04</b>	<b>13.50</b>

Risk-to-Capital Ratio is total net risk in force divided by total capital

Mortgage insurers must operate within a 25-to-1 ratio of risk to capital.

factbook

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## *Defensive measures*

- Defensive measures:
  - recourse to captive reinsurance
  - underwriting standards tightened in 2008
  - denials for early payment defaults
  - rescission of policies
- Exposure depends on reserves, re-insurance volume and past underwriting policy (subprime and catastrophic states)

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## *Future of the PMI industry*

- Losses will continue in 2009
  - vintages insured "at risk" move through their loss development cycles
  - further falling home prices
  - economic recession
- Insurers in need of new equity capital
  - Share prices have fallen to penny stock levels
  - Ratings have been **downgraded** below AA, but no problem for GSEs
  - Constrained capital levels limit the industry's ability to originate new and potentially more profitable business
  - Some insurers might be closed down if equity ratio falls below regulatory requirements ... or the state will bail them out.
- The long-term success of the MI industry depends on
  - success of mortgage market and economic stabilization initiatives
  - future relations to the GSEs

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## Competitive landscape

- no more competition from piggy back loans or non-conforming RMBS
- Triad entered runoff
- FHA has filled the gap created by the industry's tighter underwriting guidelines.
- Mortgage insurers that are able to weather the current market conditions could benefit
- Also opportunity for new market entrants

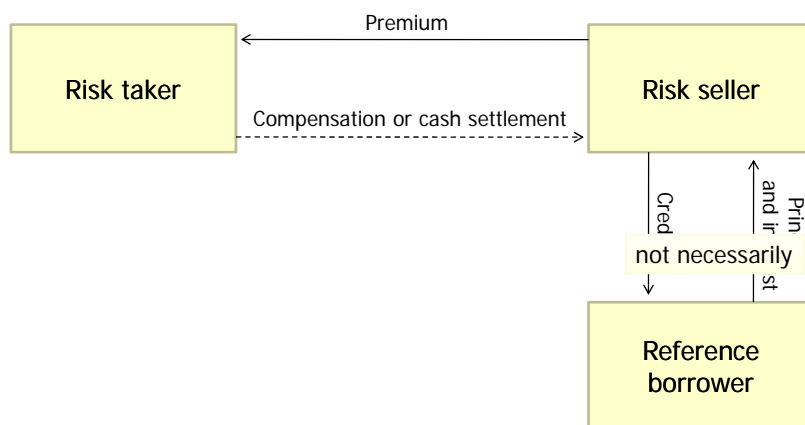
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## Construction of a CDS



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## CDS

- „Credit Default Swaps“ (CDS): temporary transmission of the loss risk of a credit or a security (public or corporate bond, MBS, ABS) to a third party („risk taker“, „insurer“)
- Risk-takers often lack expertise in risk management and reserves / equity, e.g. hedge funds (who use leverage)
- traded „over the counter“ (OTC), standardisation (e.g. definition of credit event) improvable → intransparency of net risk allocation → **shadow insurance market**
- In case of „credit event“ the risk taker has to pay the nominal sum of the credit/ bond insured and the risk seller has to deliver the claim / bond or ...
- ... alternatively **cash settlement** (problem of valuation of the insured asset) → risk seller **does not have to own the claim** → CDS volume can uncouple from claim volume
- **Premium** depends on rating of reference debtor and risk seller, duration of the CDS and the definition of the credit event
- important role of CDS as a „**credit enhancement**“ for MBS- and CDO-emissions (accelerator function)

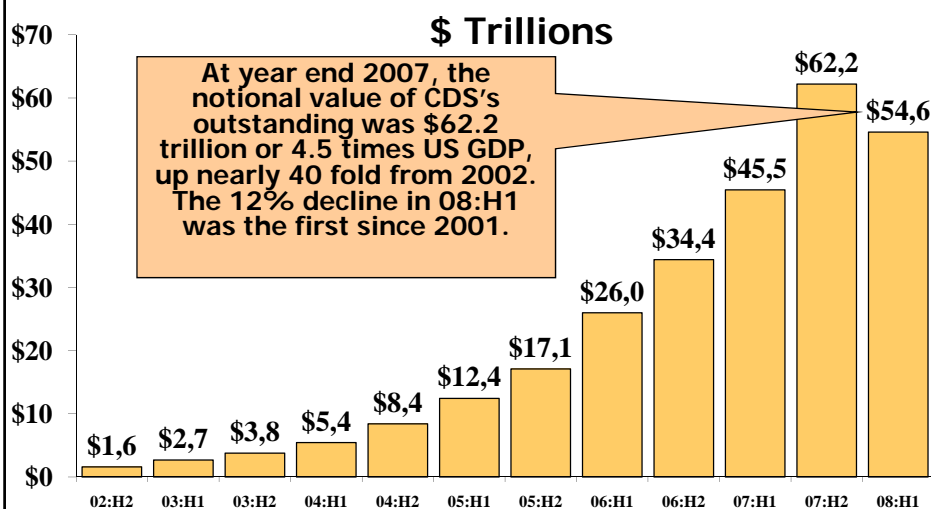
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## Credit Default Swaps: Notional Value Outstanding, 2002:H2 – 2008:H1\*



\*End of calendar half (H1 = June 30, H2 = December 31).

Source: International Swaps and Derivatives Association: <http://www.isda.org/statistics/recent.html>



## How much is at stake?

- net volume of outstanding CDS worldwide *much* lower → broker function of large counterparties
- **AIG**: CDS engagement per end of June 2008 441 Billion Dollars, incl. 57,8 Billion Dollars relating to securities covered by subprime mortgage credit
- Deficits of the CDS market:
  - Counterparty risk
  - Intransparency
  - Exposed to crises of confidence
- Destructive potential of unregulated CDS market: Lehman, AIG

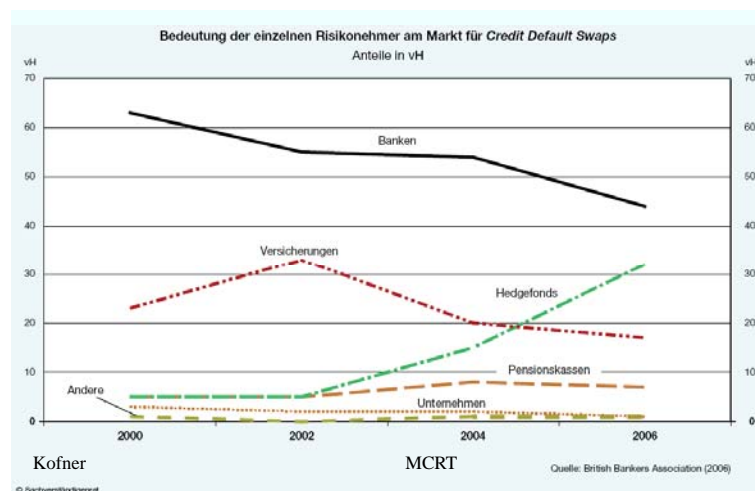
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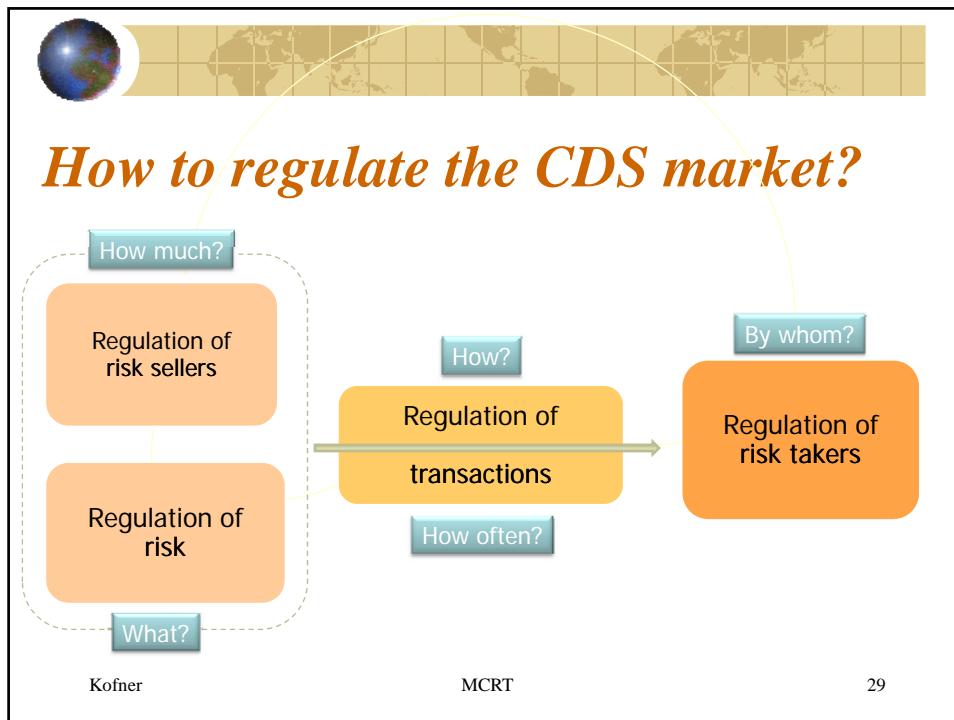
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## Who took the risks?



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**CDS and traditional mortgage insurance compete**

- Securitisation with or without CDS or any other kind of quasi-insurance: substitutive competition with PMI
- PMI and CDS for structured MBS and CDO is basically the same kind of business  
→ regulatory arbitrage → “destructive competition”

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## CDS market regulation

- Regulation in line with basic principles of a market economy ("Ordnungspolitik") → limit negative effects on competition and innovation
- ⊕ There are trade-offs: e.g. deregulate risk takers and you will need more regulation in the other fields or regulate risk sellers (Basel II) ...
- Requirements:
  - steadiness of mortgage credit provision
  - limitation of contagion risk
  - solvency and credibility of risk takers
  - responsibility and accountability: outside check

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## CDS market regulation

- Risk: criteria for securitisation of credit → indirect interference in product definition
- Risk sellers: restrictive regulation of credit originators counterproductive → arbitrage; possible exception: retention (Selbstbehalt) to limit adverse selection of credit risk (> 20 per cent)
- Transactions: interference in market organisation:
  - stock exchange more market-conform than central clearinghouse
  - limit repackaging, e.g. CDO based on CDS or CDS based on CDO?
  - limit reselling of CDS?
- Risk takers: limit market access to establish level playground (e.g. against PMI) → leverage, reserves, expertise, monoline restrictions against contagion risks) → solvency and credibility of all market participants

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## *The clearinghouse cure*

- Fed and ECB demand central counterparty clearing for the CDS market
- Central clearing house would be business partner for both contract parties
- Presumed advantages:
  - limitation of counterparty risk: presumed solvency of central party, margin calls if necessary
  - lower information and monitoring costs
  - complete overview over all positions of all market participants → allows for netting of positions

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## *The clearinghouse cure: critical perspective*

- valuation of insurance risks by their very nature difficult: volume of margin payments; might work with CDS index contracts however
- will enforce standardised underwriting criteria and statistical coverage
- How about cumulative risk? Margin calls are not enough. Limit market access!
- Risk has to be pooled *and* "managed": geographic, temporal (i.e. reserve policy) and LTV risk dispersion
- Private clearinghouses not supervised and regulated?
- destructive competition between clearinghouses possible
- New systemic risks created? Fallacious security? First Clearinghouse bailout in 2009?

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**"It no longer works to assert that all innovations, by definition, are good for markets or markets wouldn't invent them."**

**Source: Testimony of Robert Kuttner Before the Committee on Financial Services U.S. House of Representatives October 2, 2007**

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