

# Global Financial Crisis and its impacts to Thailand – Banker's View

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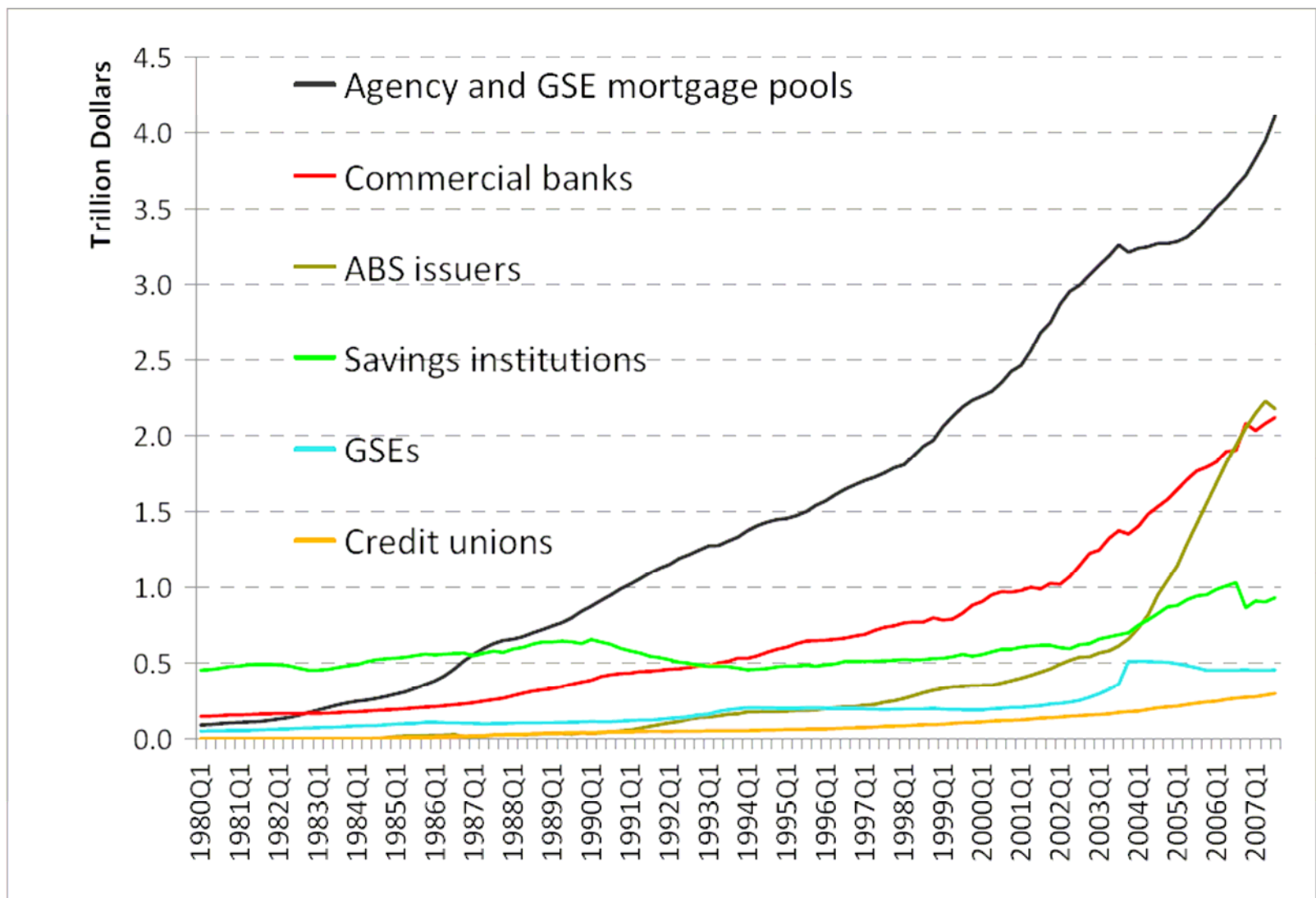
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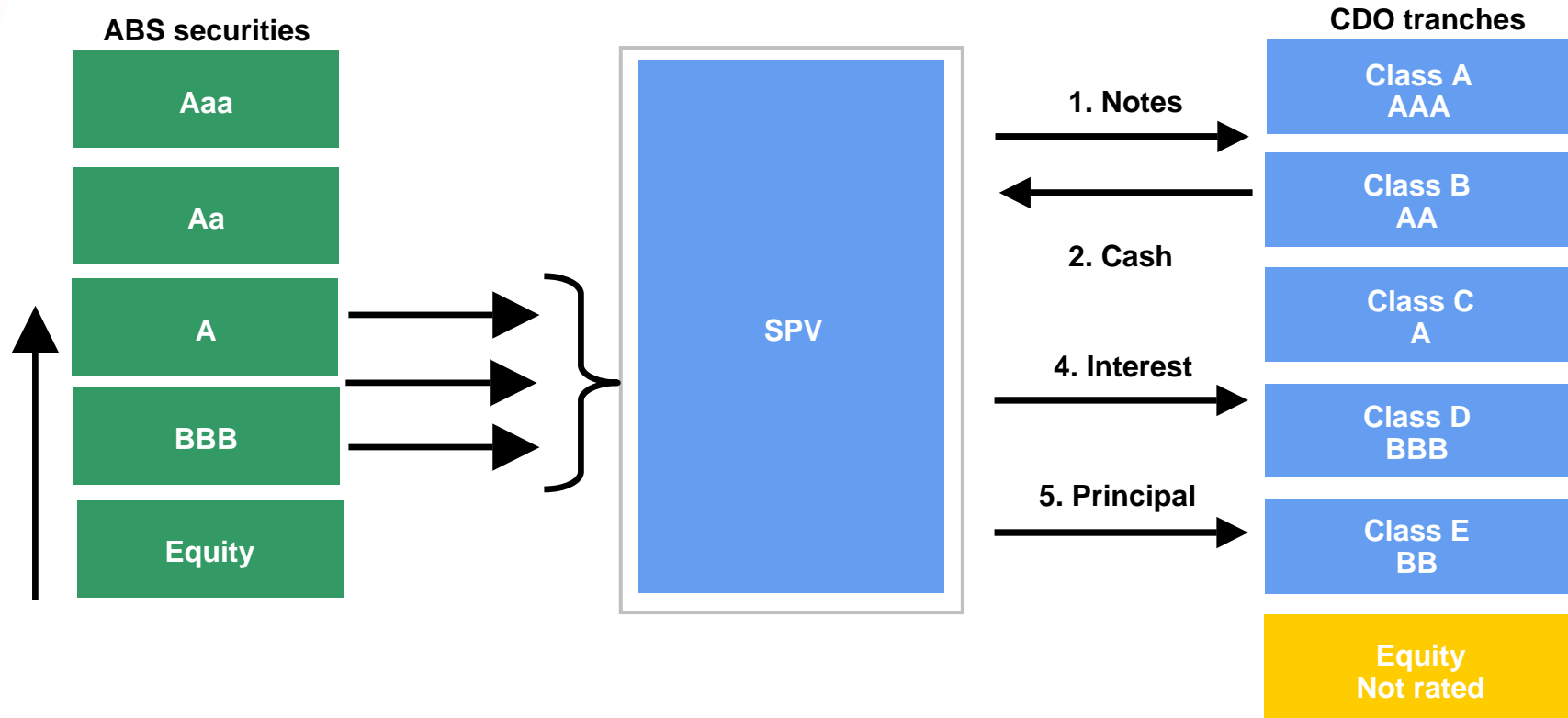
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# Fig. 1 – US Home Mortgage Holding



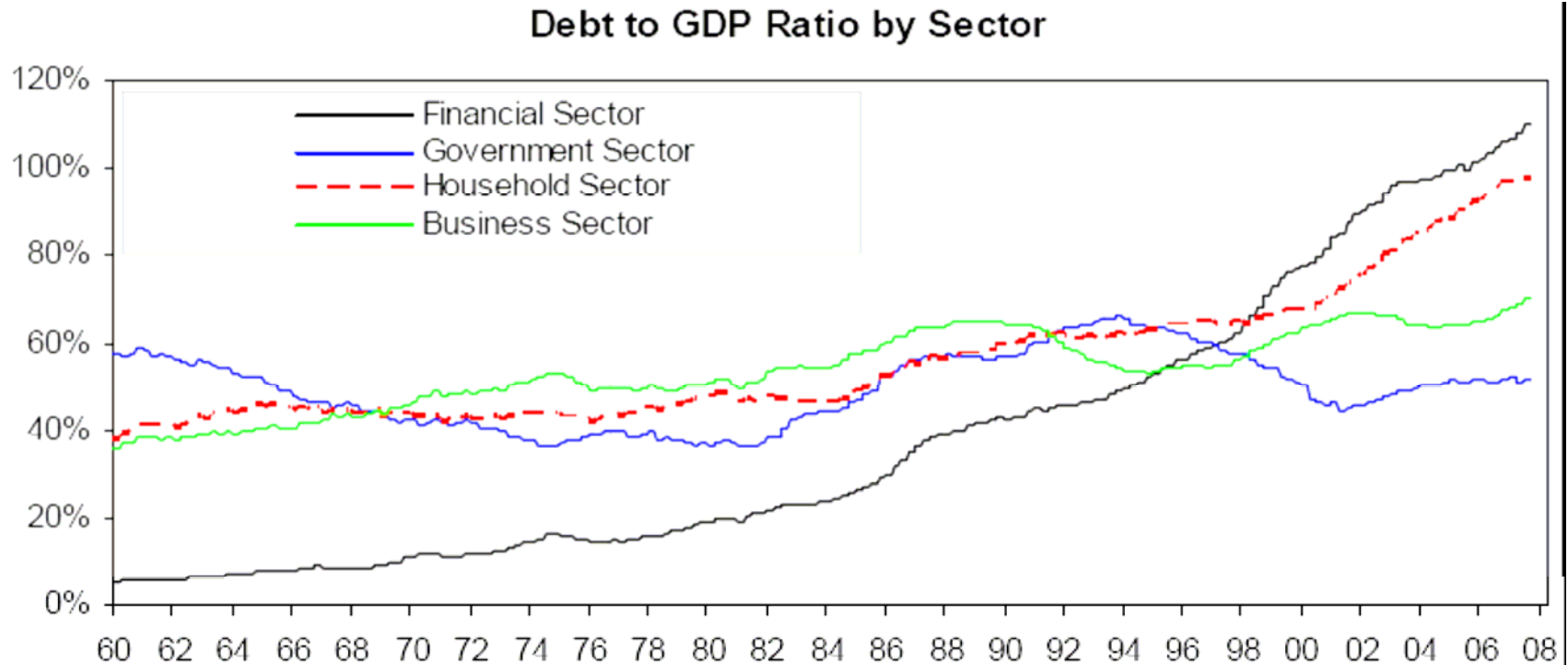
## US Home Mortgage Holdings

# Figure 2: ABS CDO creates a structure on top of structure



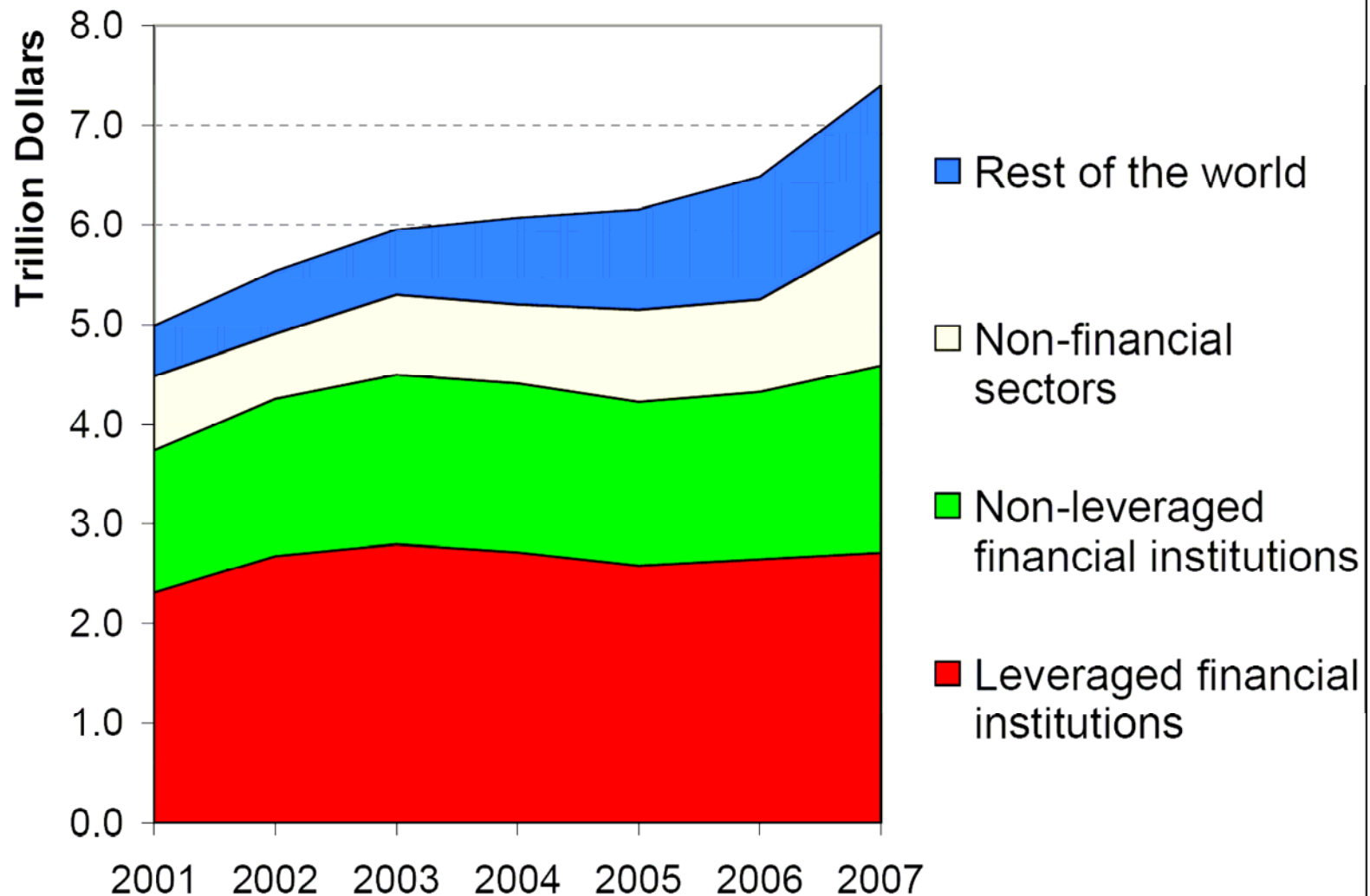
ABS = Asset Back Securities, CDO = Collateralized Debt Obligation; SPV = Special Purposed Vehicle

# Fig. 3: US Debt to GDP Ratio by Sector



Source: Bridgewater Feb. 08

# Figure 4: Holding of US Agency and GSE-Backed Securities



Note: GSE = Gov't Sponsor Enterprise ; Source: JPM Aug 08

# Table 1 – US Sub-prime Exposures

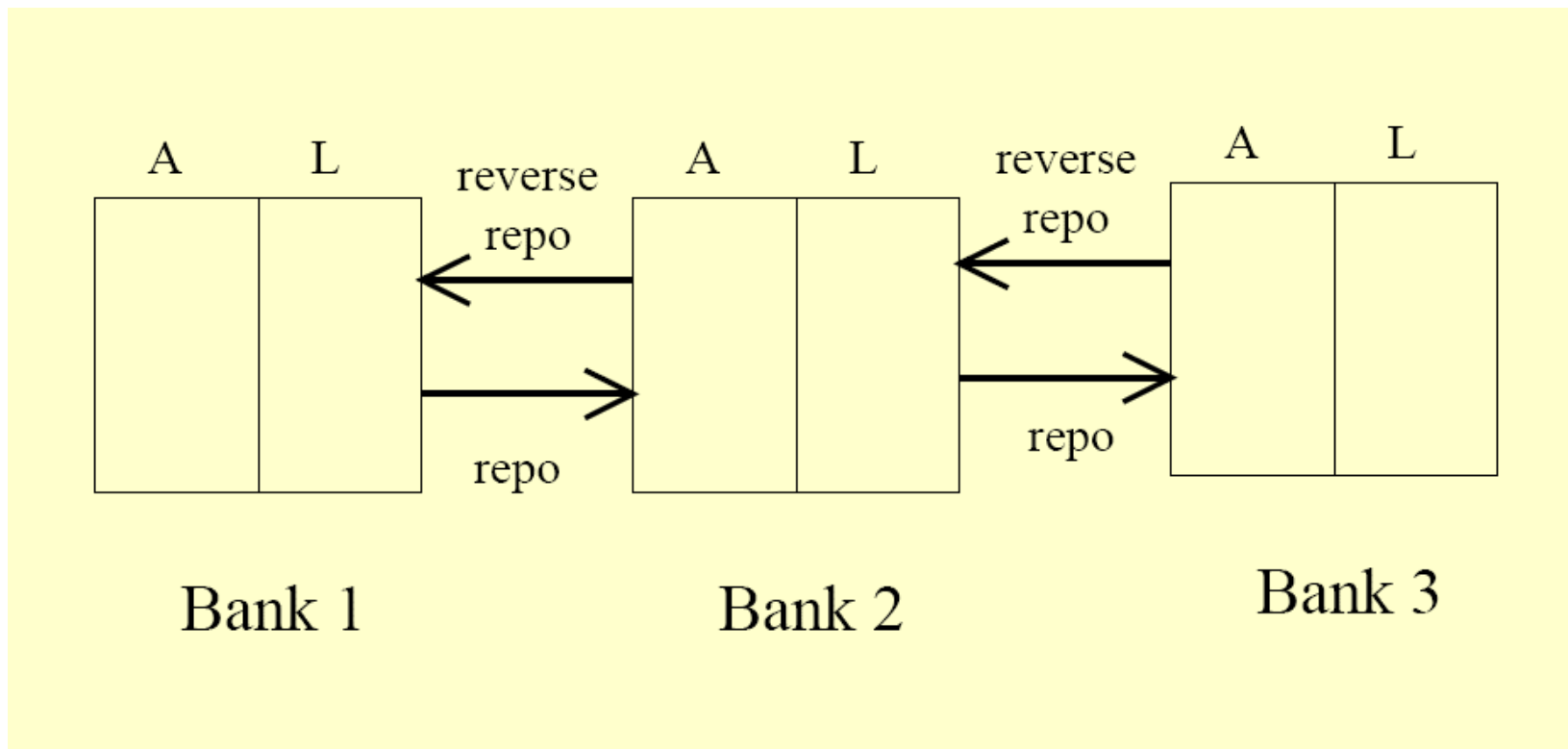


	Total reported subprime exposure (bn USD)	Percent of reported exposure
<b>US Investment Banks</b>	75	5%
<b>US Commercial Banks</b>	250	18%
<b>US GSEs</b>	112	8%
<b>US Hedge Funds</b>	233	17%
<b>Foreign Banks</b>	167	12%
<b>Foreign Hedge Funds</b>	58	4%
<b>Insurance Companies</b>	319	23%
<b>Finance Companies</b>	95	7%
<b>Mutual and Pension</b>	57	4%
<b>US Leveraged Sector</b>	671	49%
<b>Other</b>	697	51%
<b>Total</b>	<b>1,368</b>	<b>100%</b>

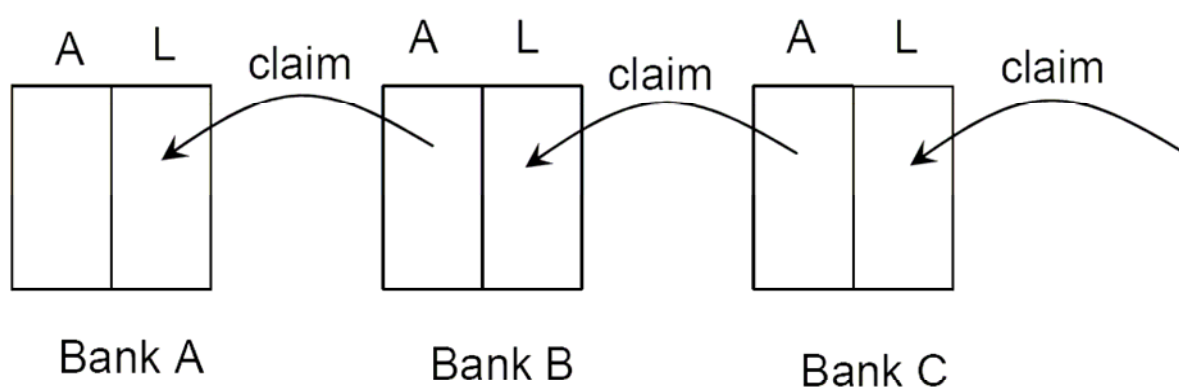
Note: The total for U.S. commercial banks includes \$95 billion of mortgage exposures by Household Finance, the U.S. subprime subsidiary of HSBC. Moreover, the calculation assumes that US hedge funds account for fourfifths of all hedge fund exposures to subprime mortgages.

Source: Goldman Sachs. (Aug 08)

# Figure 5a – Interlocked Balance Sheet of Banks



# Figure 5b - Domino Hypothesis



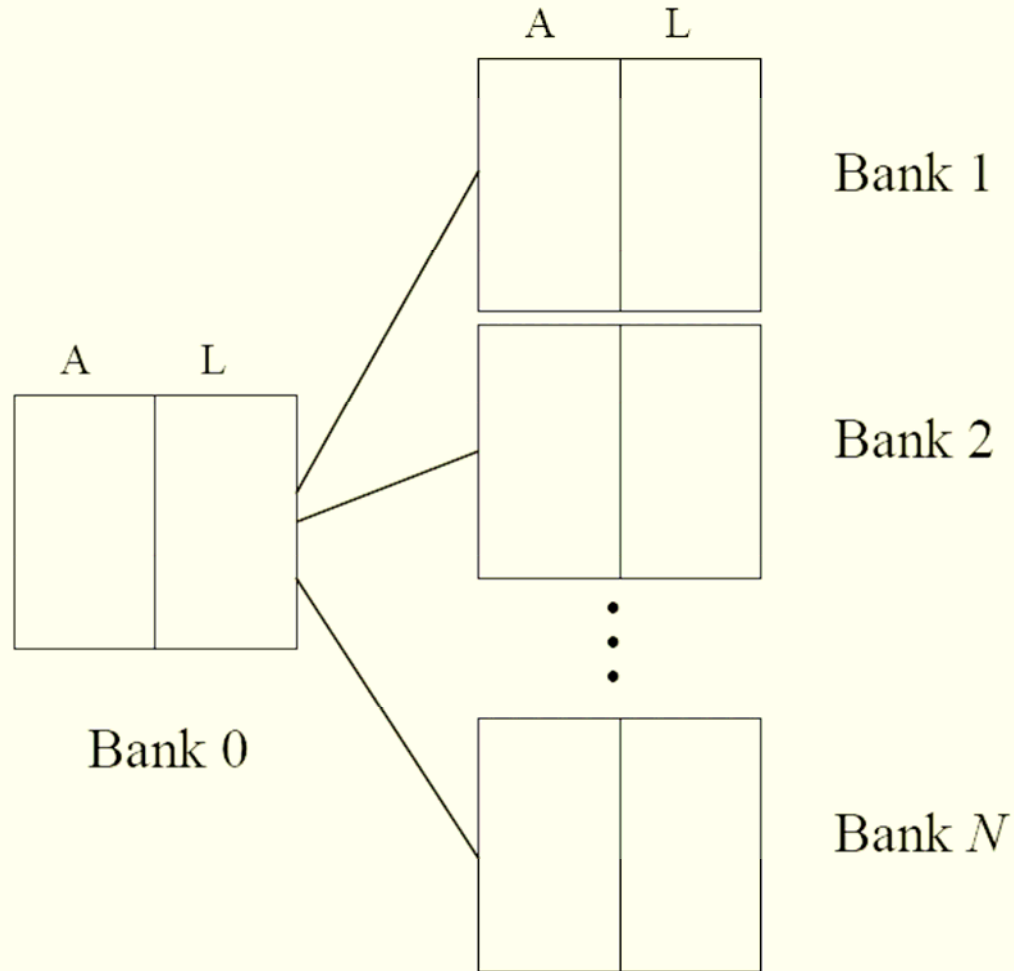
- Channel of financial contagion is chain of defaults.
  - Passive players, who stand by while others fail
  - No role for prices
  - Only implausibly large shocks generate any contagion in simulations

In 2007/8 crisis, direction of contagion has been reversed.

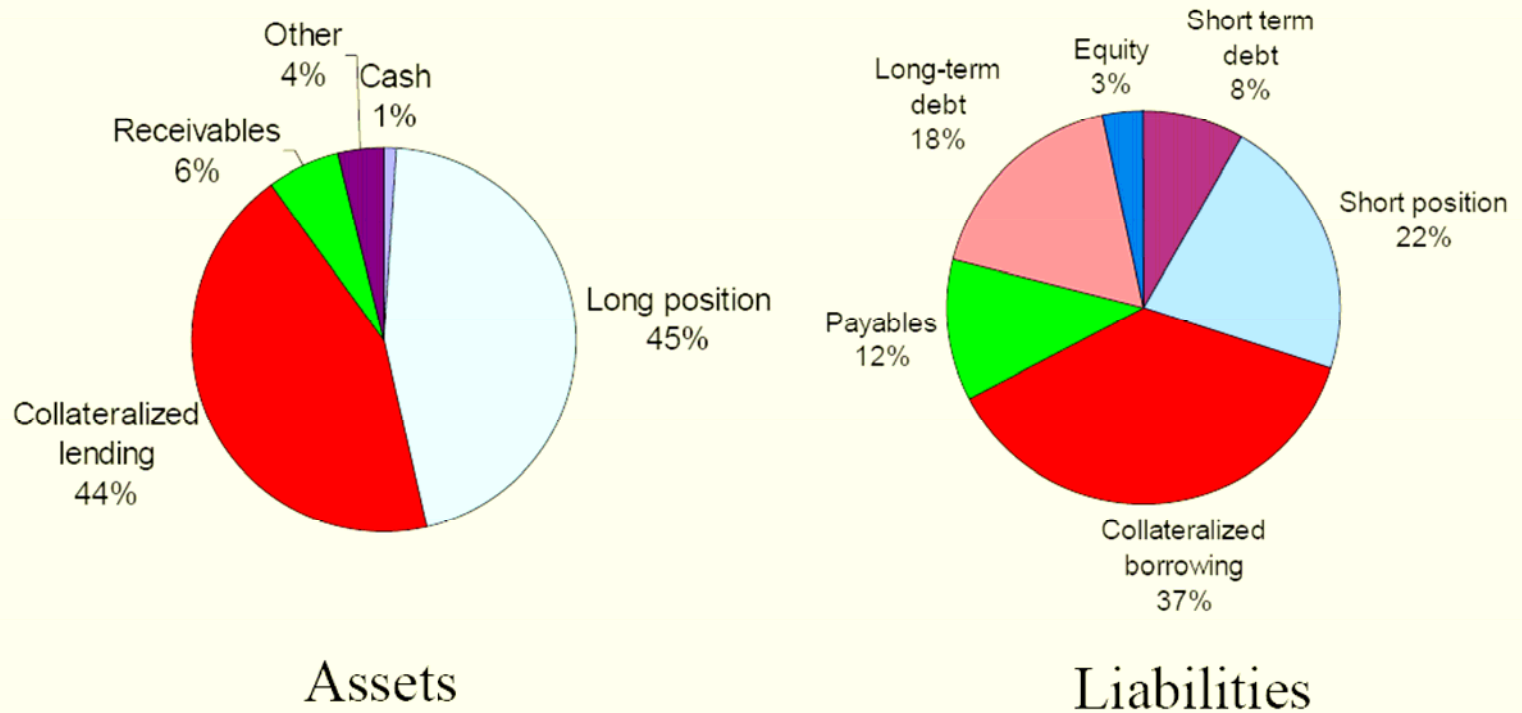
Bear Stearns and Northern Rock crises were **runs** on the liabilities side.

Source: Morris & Shin (2008)

# Figure 5c: 1 to N Wholesale Bank Creditors Run on Bank 0

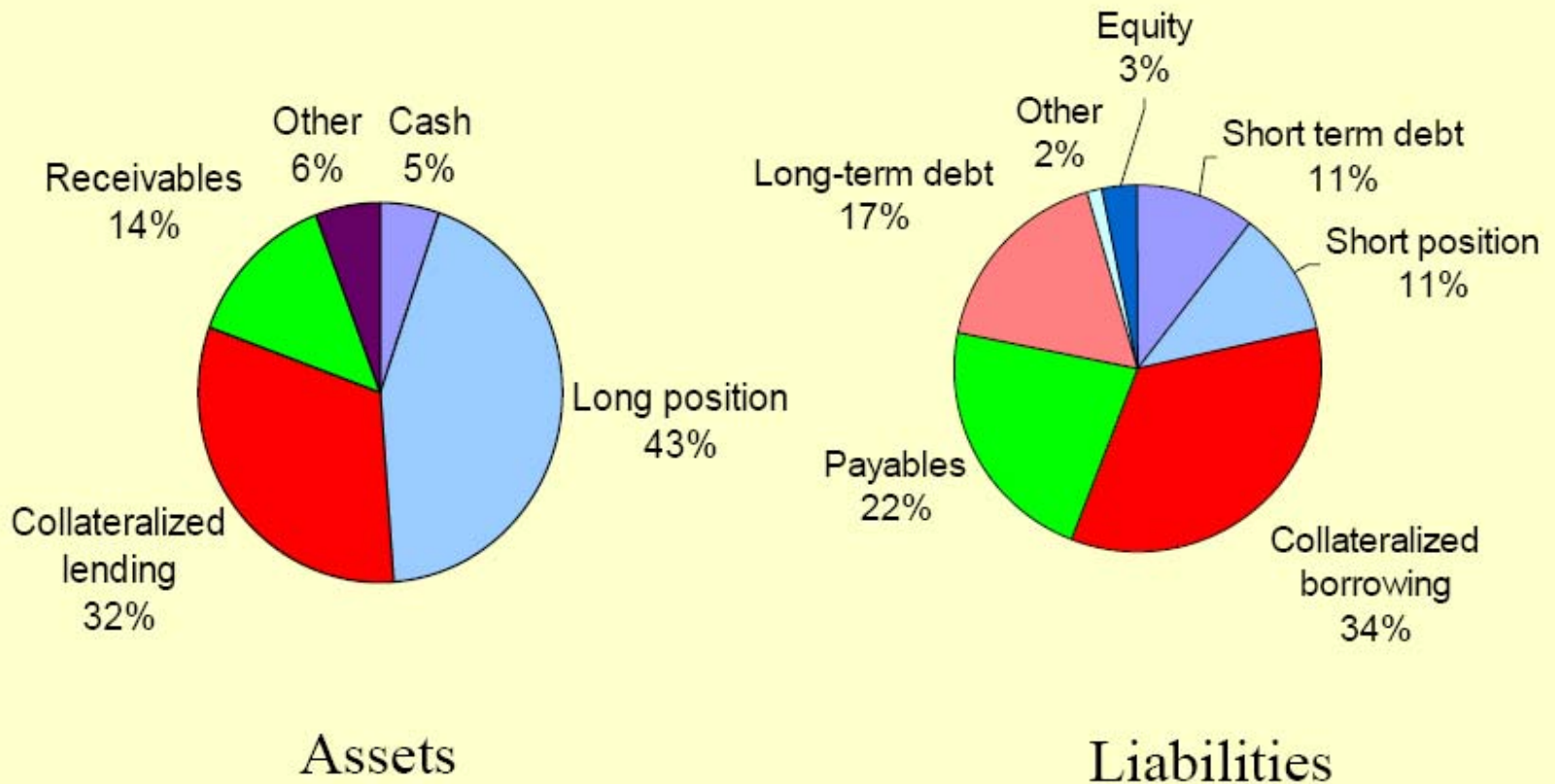


# Fig. 6: Lehman Balance Sheet (2007)



Total Asset was about USD 700 billions

# Fig 7: Bear Stearns Balance Sheet (07)



Total Assets size was about USD 395 Billions

Source: Morris and Shin (2008)

# Fig. 8: Fed's liquidity initiatives during the episode of Bear Stearns Debacle

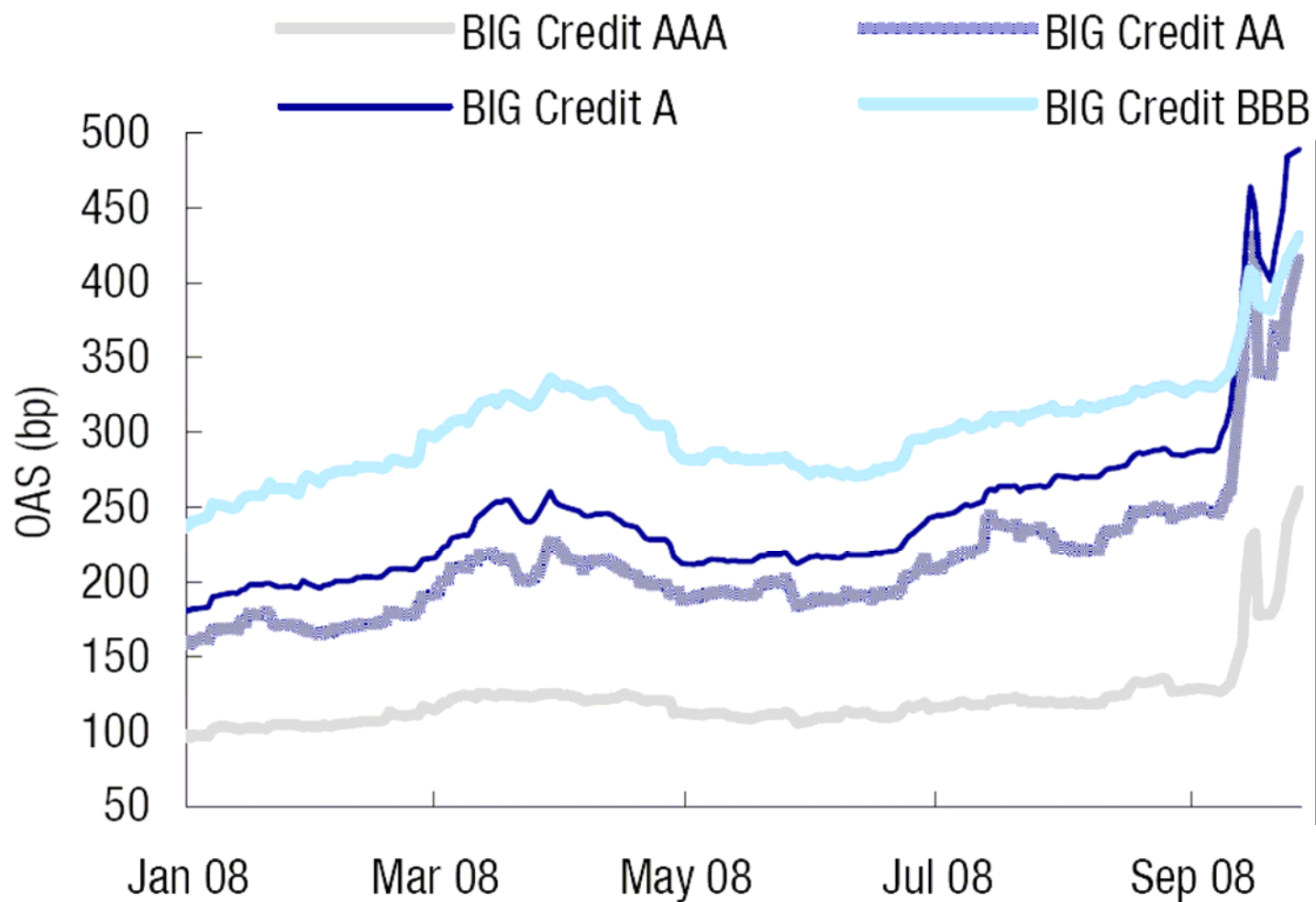


	Size	Term	Collateral	Participants
<b>Term Repos</b>	\$100 bln	28 day repos	Treasuries, Agency debt or Agency MBS	primary dealers
<b>TAF</b>	\$100 bln	28 days, committed to roll them for at least 6 months	broad range of collateral	all depository institutions
<b>TSLF</b>	\$200 bln	up to 28 days	swaps Treasuries for agency debt, agency MBS or AAA-rated private label MBS	primary dealers
<b>Swap Lines</b>	\$36 bln	through September 30	n/a	ECB (\$30 bln) and SNB (\$6 bln)
<b>Primary Dealer Lending</b>	??	at least 6 months	Broad range of investment grade debt securities	primary dealers

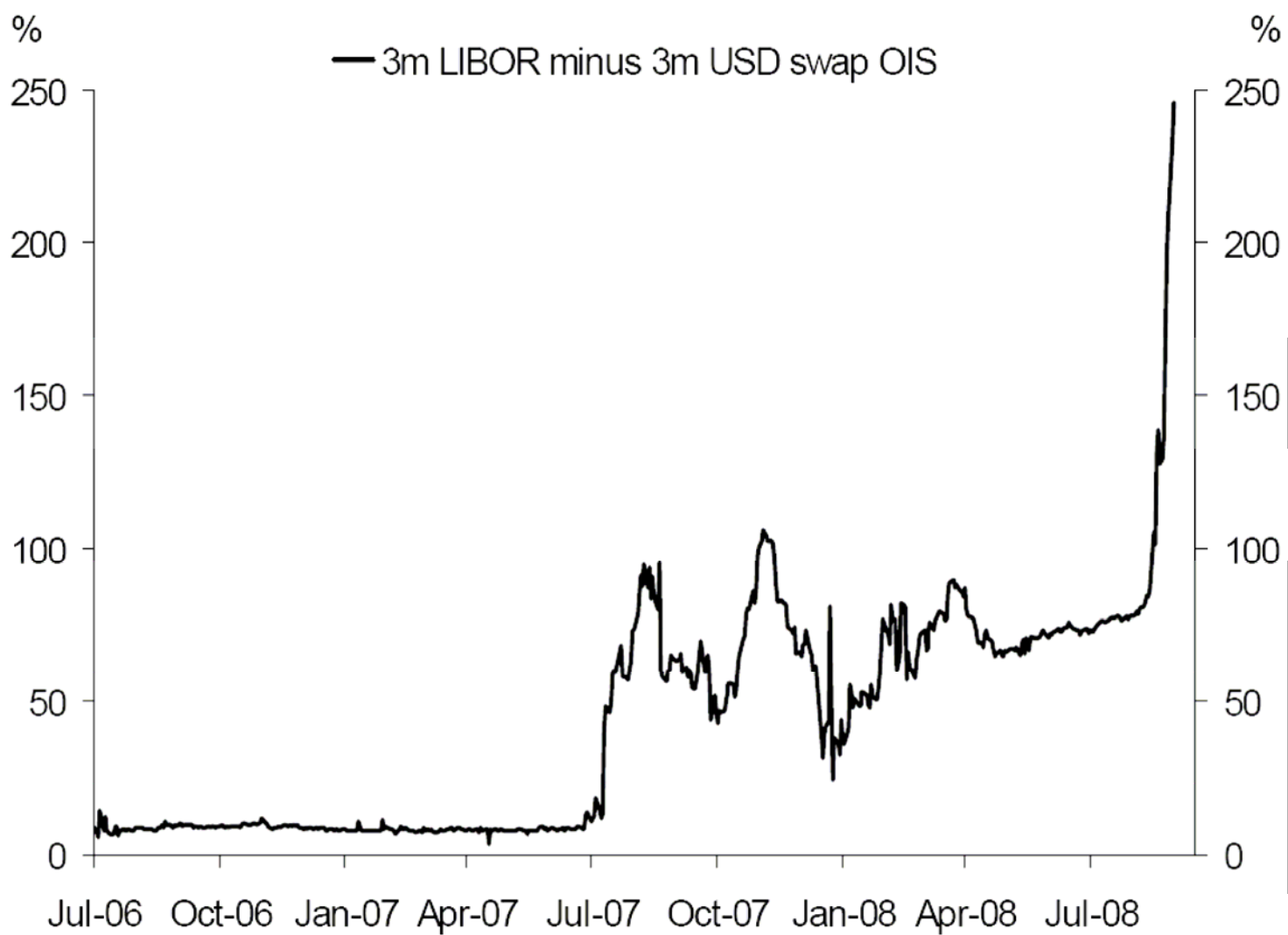
Source Bloomberg (Mar 30, 08)

Note: TAF = Term Auction Facility, TSLF = Term Securities Lending Facility, Repo = Repurchase market

# Figure 9a. Citi BIG Credit Spreads By Ratings, Jan 08–Sep 08



# Fig. 9b - Stress in the money markets is at extreme readings

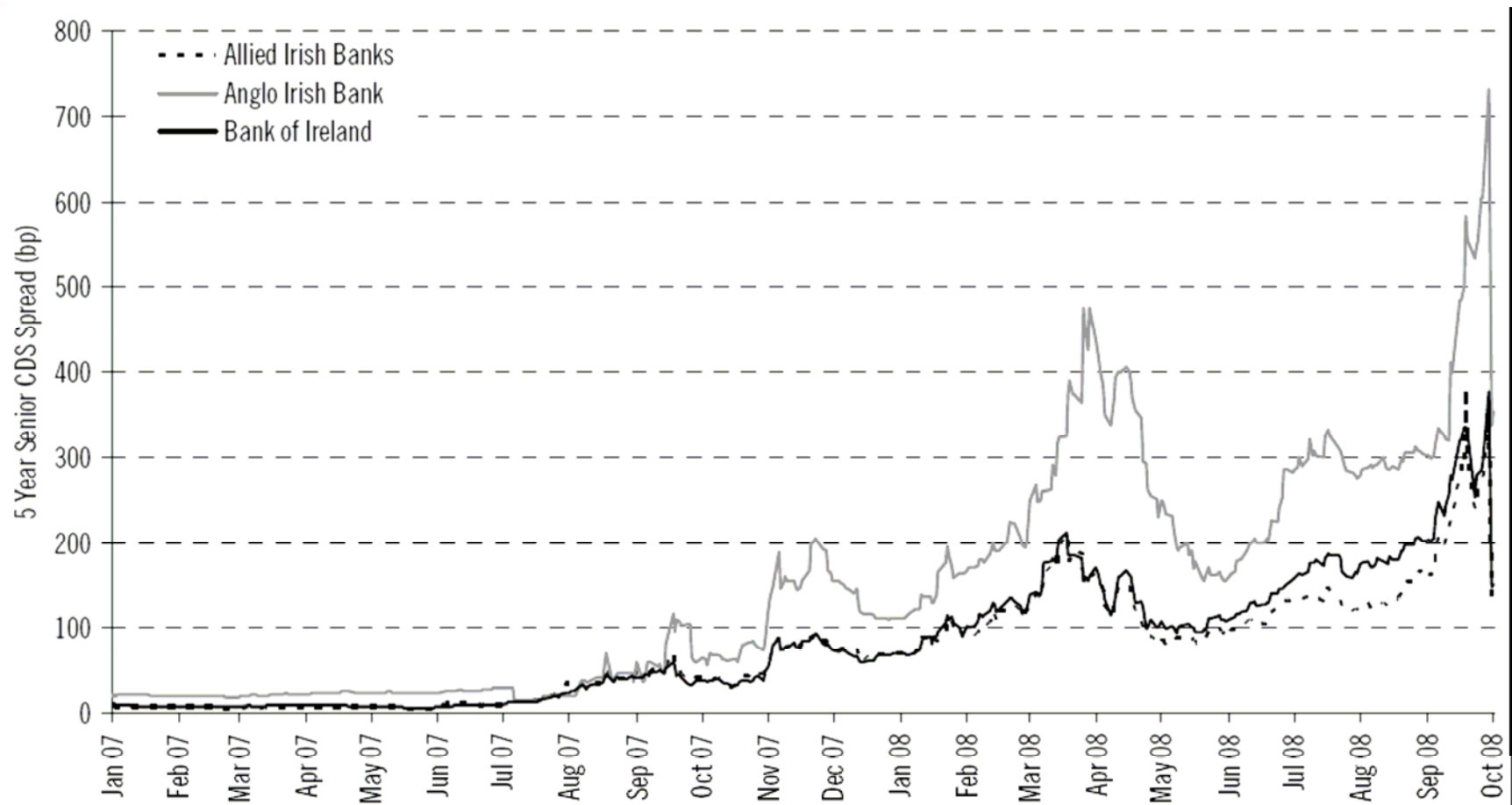


# Figure 9c Citi US Rate Liquidity Index and Components, Jan 97–Sep 08

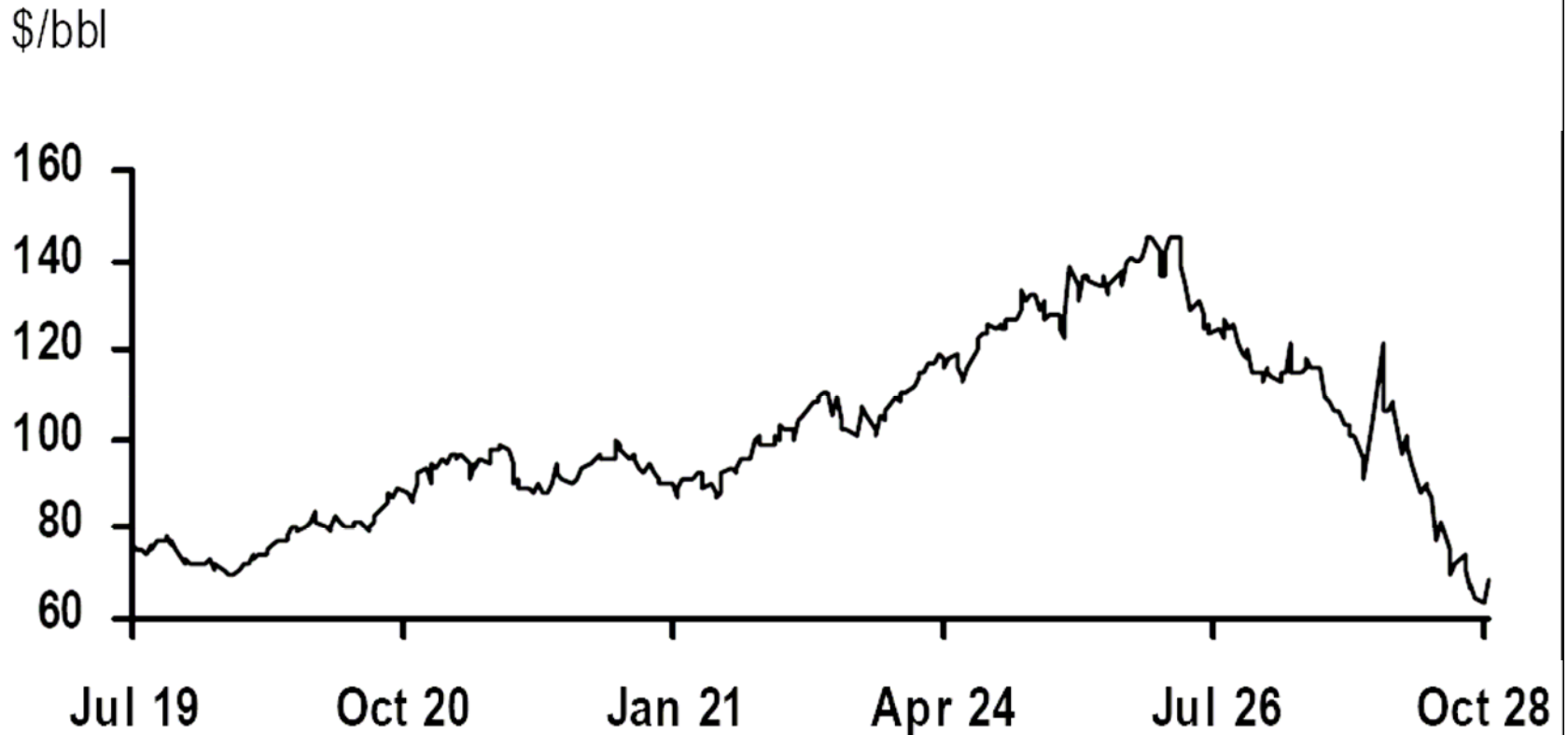


Source: Citi, Sept 30, 08.

# Figure 10 - Irish Banks 5 Year Senior CDS Spread 2007-2008



# Figure 11a : WTI oil prices



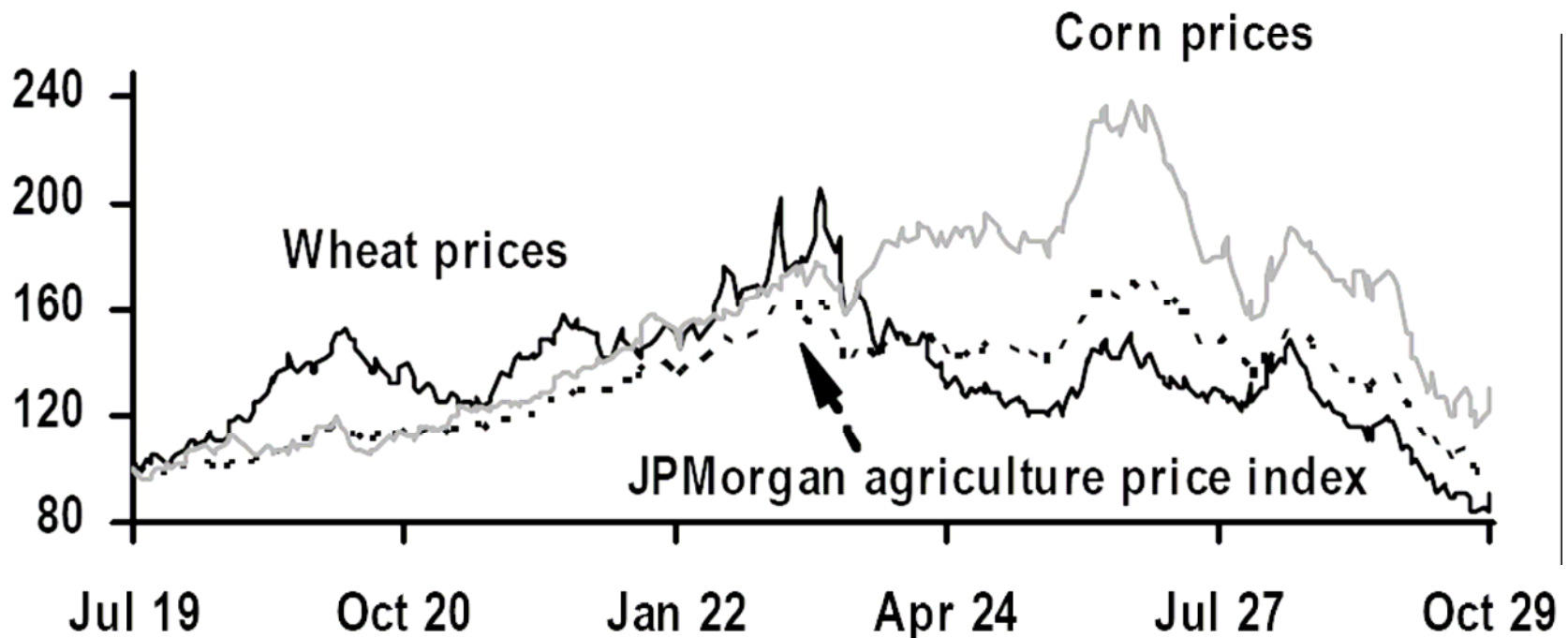
Source: JP Morgan (Oct 08)

# Figure 11b : Commodity prices

## Agriculture prices



Jul 19, 2007 = 100



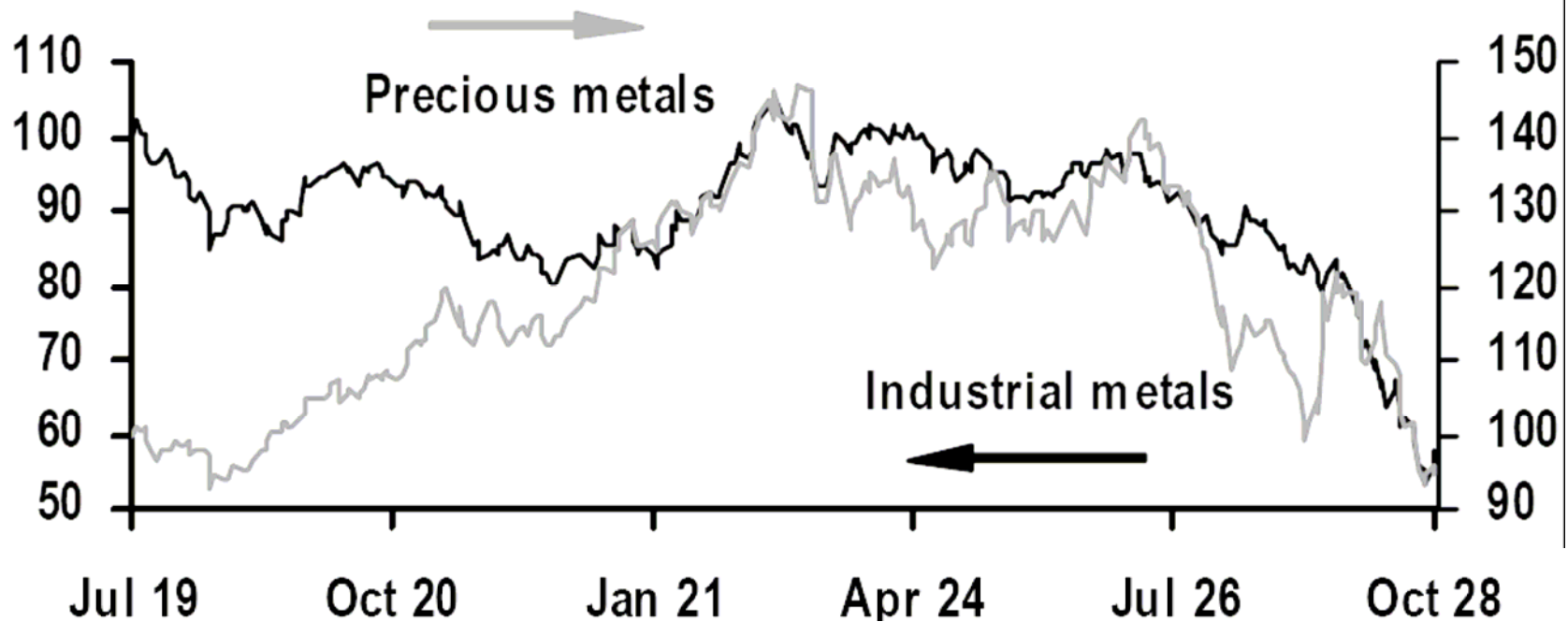
Source: JP Morgan (Oct 08)

# Figure 11c: Commodity prices

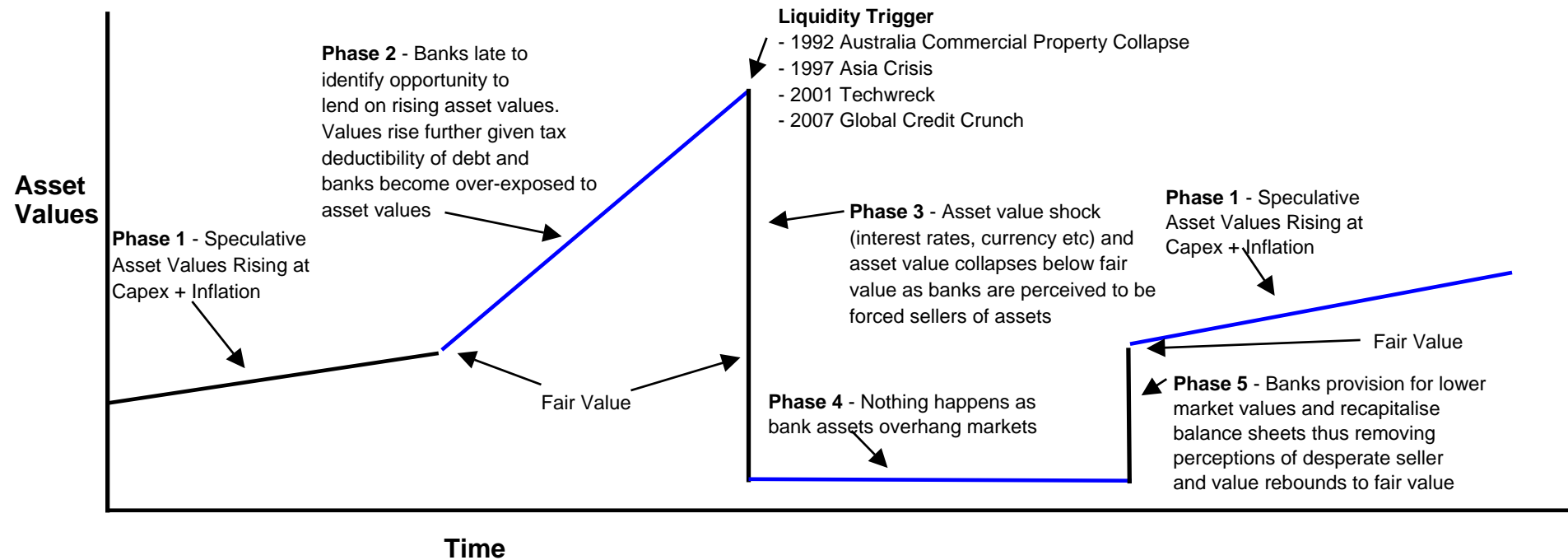
## JPMorgan metals price indexes



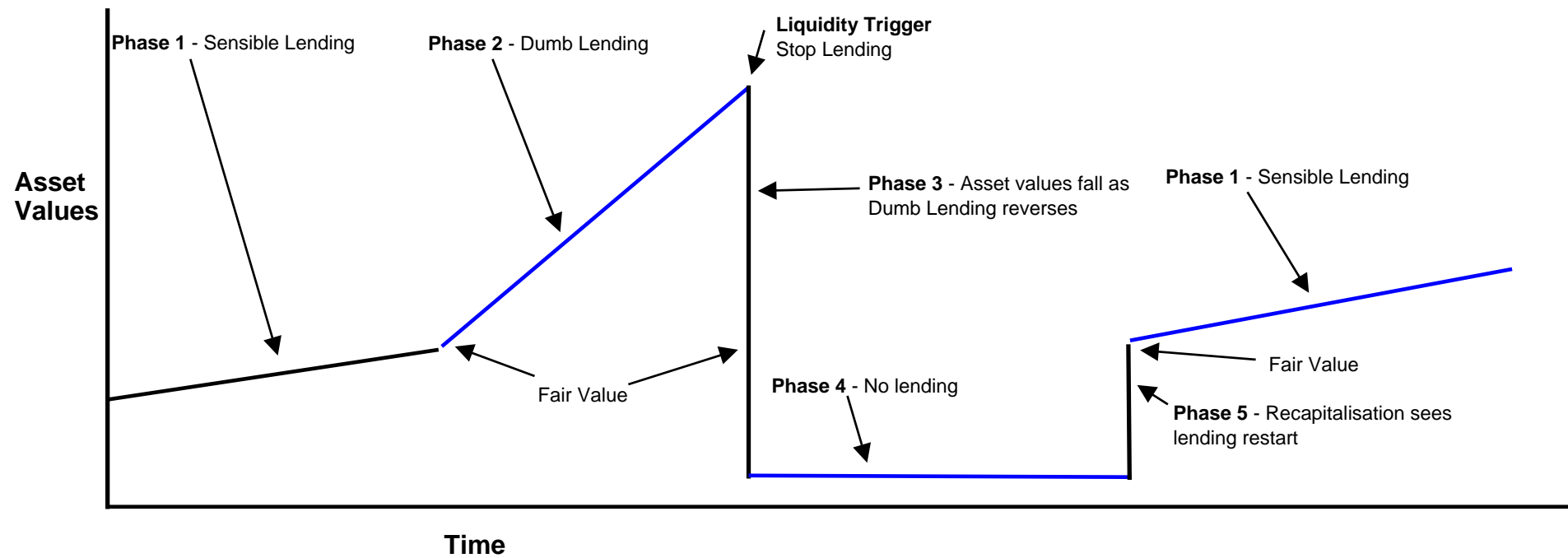
Jul 19, 2007 = 100



# Figure 12 a: The Asset Value Cycle



# Figure 12b: Simplified Asset Value Cycle



# Table 2: Global Writedowns vs. Capital Injections: Where Do We Stand?



<b>Company</b>	<b>Writedowns</b> (Billions of dollars)	<b>Company</b>	<b>Capital Infusion</b> (Billions of dollars)
Citigroup	\$61.0	Citigroup	\$71.0
Wachovia	\$52.7	Wachovia	\$52.7
Merrill Lynch	\$52.2	Merrill Lynch	\$52.2
Washington Mutual	\$45.6	UBS	\$44.2
UBS	\$44.2	Bank of America	\$30.7
HSBC	\$27.4	RBS	\$22.1
Bank of America	\$27.4	Fortis	\$21.9
JPMorgan Chase	\$18.8	JPMorgan Chase	\$19.7
Morgan Stanley	\$15.7	Barclays	\$17.3
IKB Deutsche	\$14.0	Morgan Stanley	\$14.6
Lehman Brothers	\$13.8	Lehman Brothers	\$13.9
RBS	\$13.5	Washington Mutual	\$12.1
Credit Suisse	\$10.1	IKB Deutsche	\$11.5
Wells Fargo	\$10.0	Wachovia	\$11.0
Deutsche Bank	\$9.8	Goldman Sachs	\$10.6
<b>Overall Total</b>	<b>\$592.1</b>	<b>Overall Total</b>	<b>\$442.3</b>

Source: Bloomberg, page WDCI<GO>

Note: Announced writedowns and recapitalizations are as of October 8. Overall totals include institutions that are not listed separately

# Table 3: Breakdowns of US loans and securitised assets



US\$ bn	Unsecuritised US loans
Subprime	300
Alt-A	600
Prime	3,800
Commercial Real Estate	2,400
Consumer Loans	1,400
Corporate Loans	3,700
Leveraged Loans	170
<b>Total Loans</b>	<b>12,370</b>
	US securitised assets
ABS	1,100
ABS CDOs	400
Prime MBS	3,800
CMBS	940
Consumer ABS	650
High-Grade Corporate Debt	3,000
High-Yield Corporate Debt	600
CLOs	350
<b>Total Securities</b>	<b>10,840</b>
<b>Total Loans &amp; Securities</b>	<b>23,210</b>

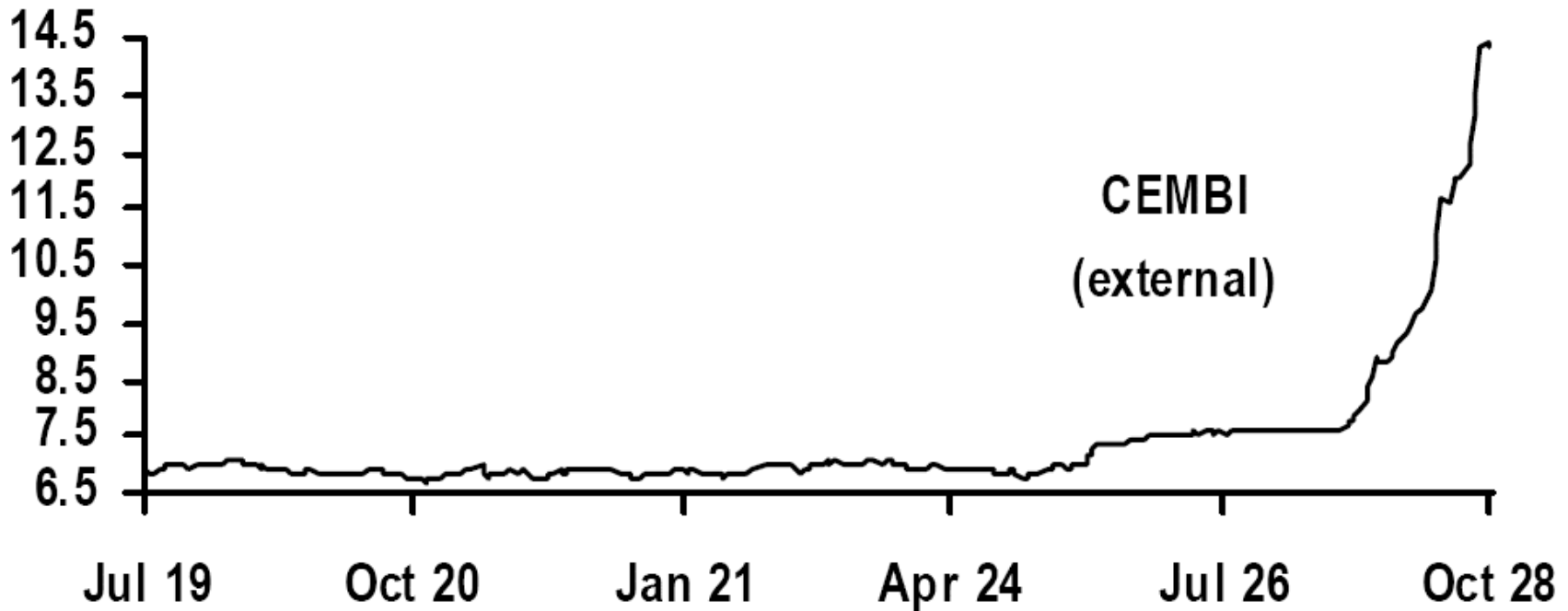
Source: IMF – *Global Financial Stability Report*, 8 April 2008

# Fig. 13a: Emerging market borrowing rates



## EM corporate bond yield

% p.a.

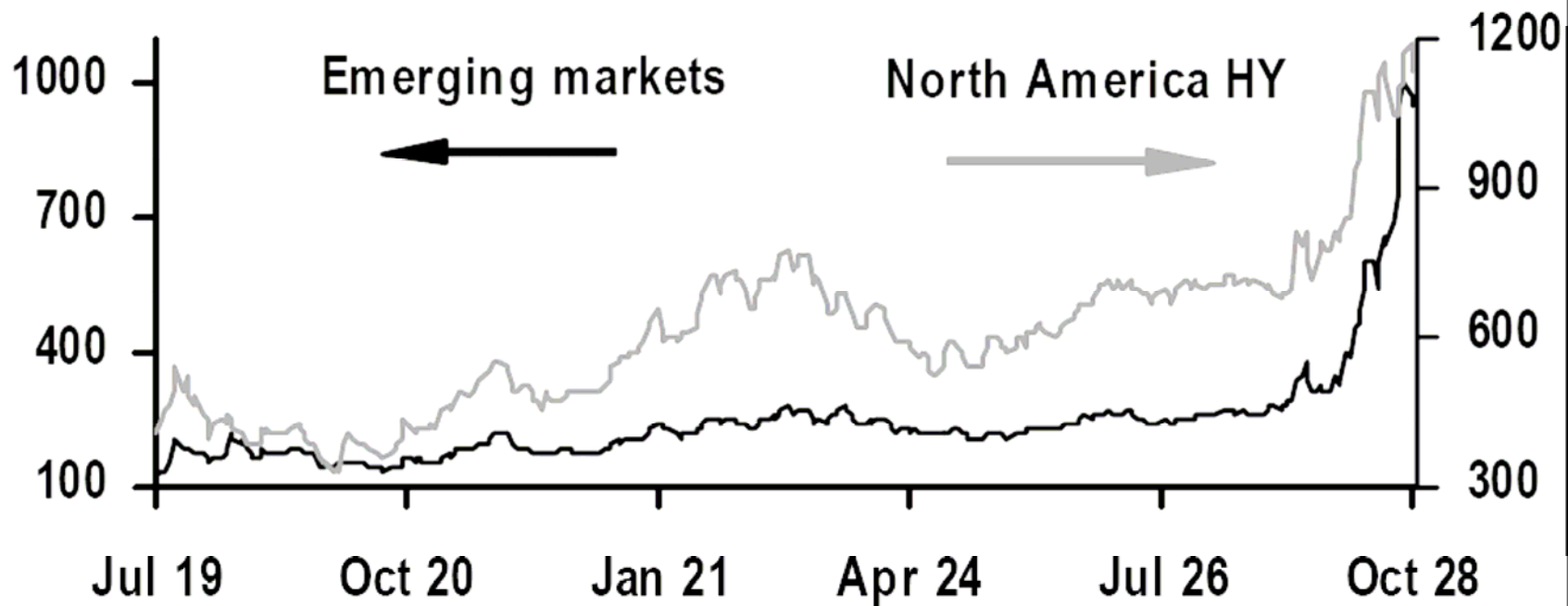


# Fig. 13 b: Credit default swaps



## Credit default swaps, high yield and emerging markets

Bps, spread; 5yr on-the-run



# Fig. 14: Asian official foreign exchange reserves



US\$ billion, eop

	2007	2008f	2009f	Jun 08	Oct 08 <sup>1</sup>	Change <sup>2</sup>
Total	2,979	3,408	3,662	3,352	3,277	-74.6
China	1530	2066	2296	1809	1906	96.8
Hong Kong	152.7	153.0	163.7	157.6	154.9	-2.7
India	299.6	274.5	279.0	302.1	244.0	-58.0
Indonesia	53.6	46.1	41.1	59.5	50.6	-8.9
Korea	264.0	176.0	166.0	258.1	212.3	-45.8
Malaysia	90.4	94.4	106.4	125.8	100.2	-25.6
Pakistan	14.0	4.5	1.5	11.3	8.3	-3.0
Philippines	30.2	33.2	32.0	36.7	35.7	-1.0
Singapore	164.9	156.7	162.2	176.7	162.2	-14.5
Taiwan	270.3	279.5	286.5	291.4	278.2	-13.2
Thailand	85.3	99.8	101.8	103.0	103.2	0.2
Vietnam <sup>3</sup>	23.6	24.0	25.5	20.9	22.0	1.1

1. September data for China, Pakistan, and Vietnam

2. Percentage point change from June to October

3. Estimate

# END

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# Reference - for further reading



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