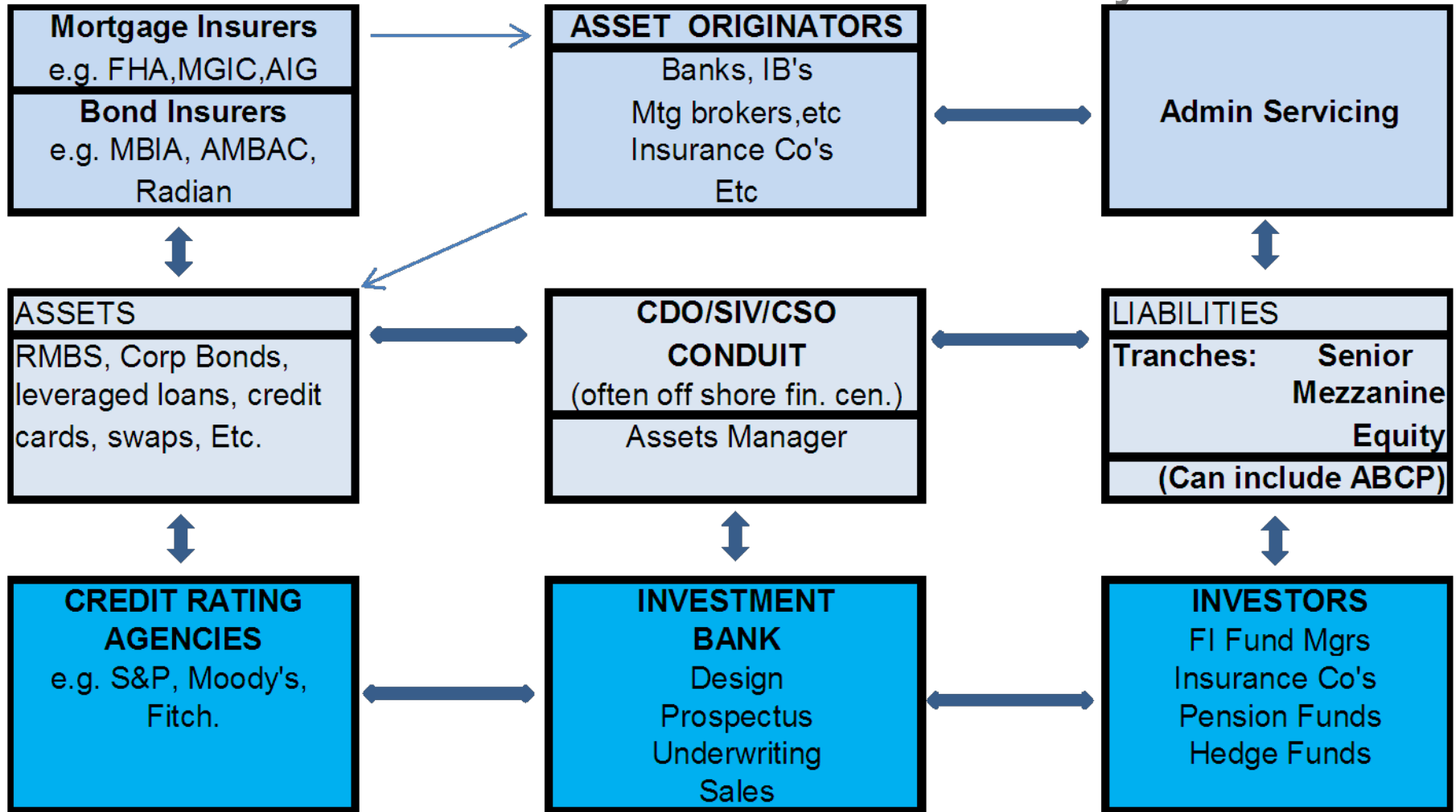


Subprime Crisis: Causes, Losses, Deleveraging & Policy

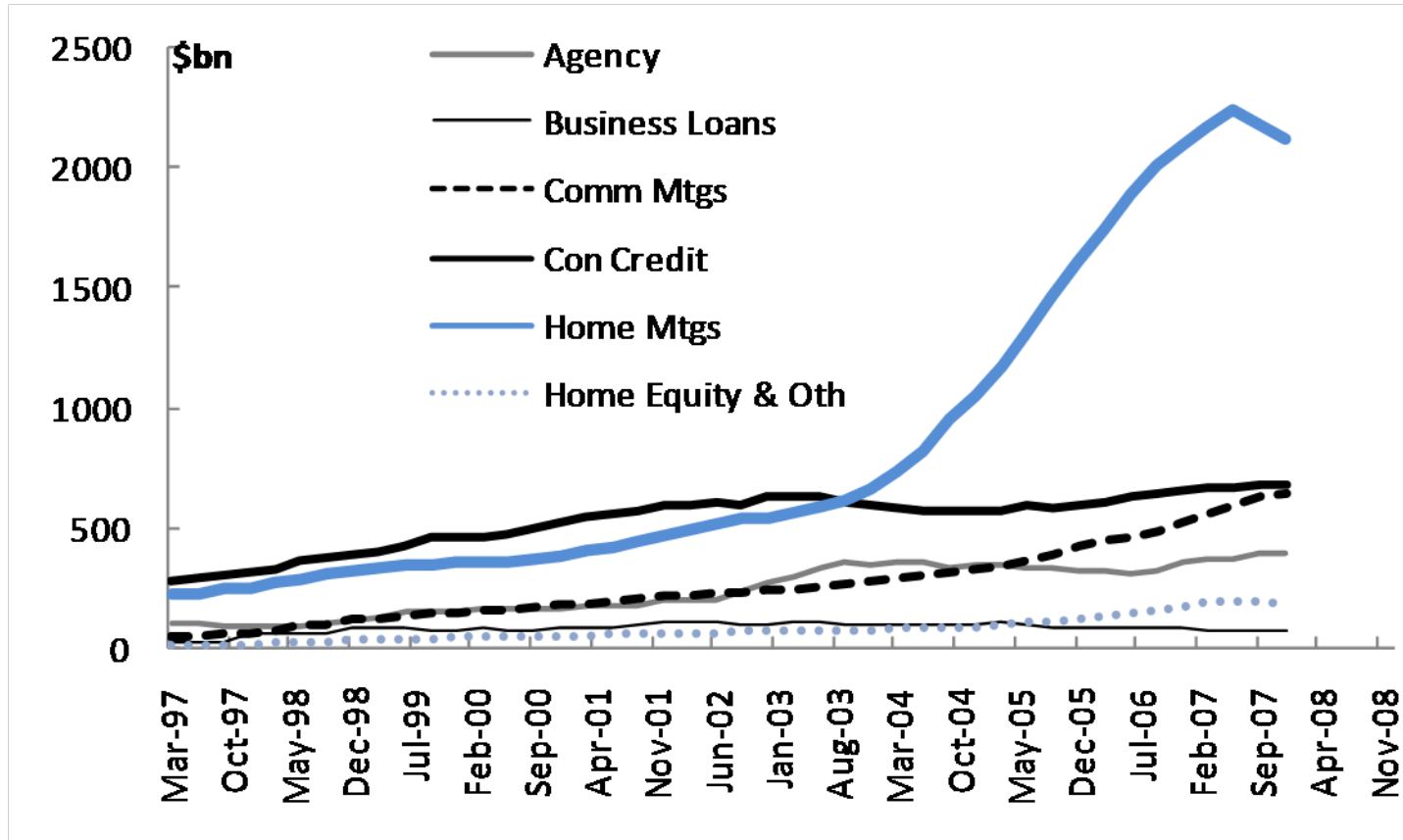
Adrian Blundell-Wignall

Deputy Director, Financial & Enterprise
Affairs

CDO Structure and Main Players

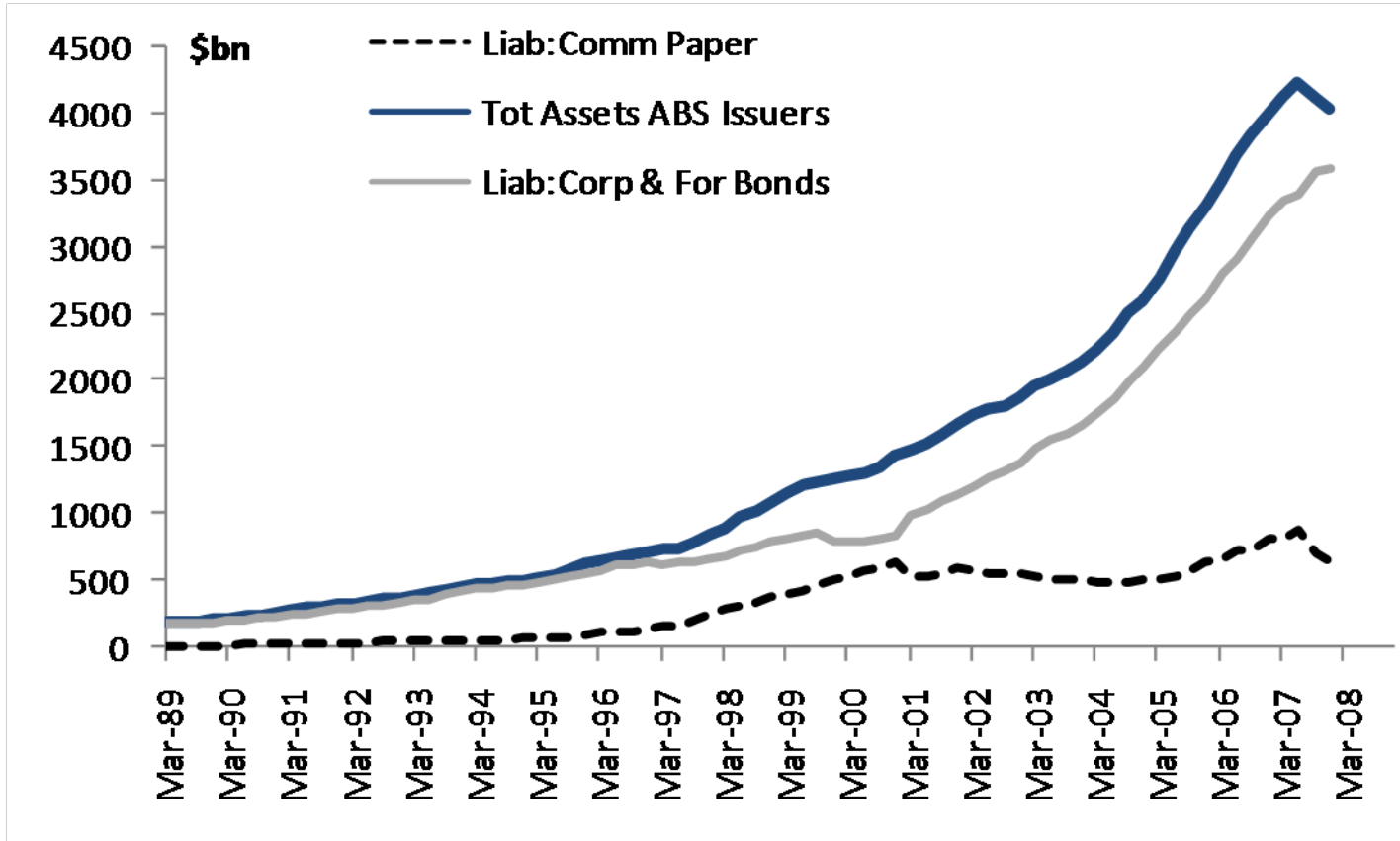


Securitised Assets USA Private Label \$bn



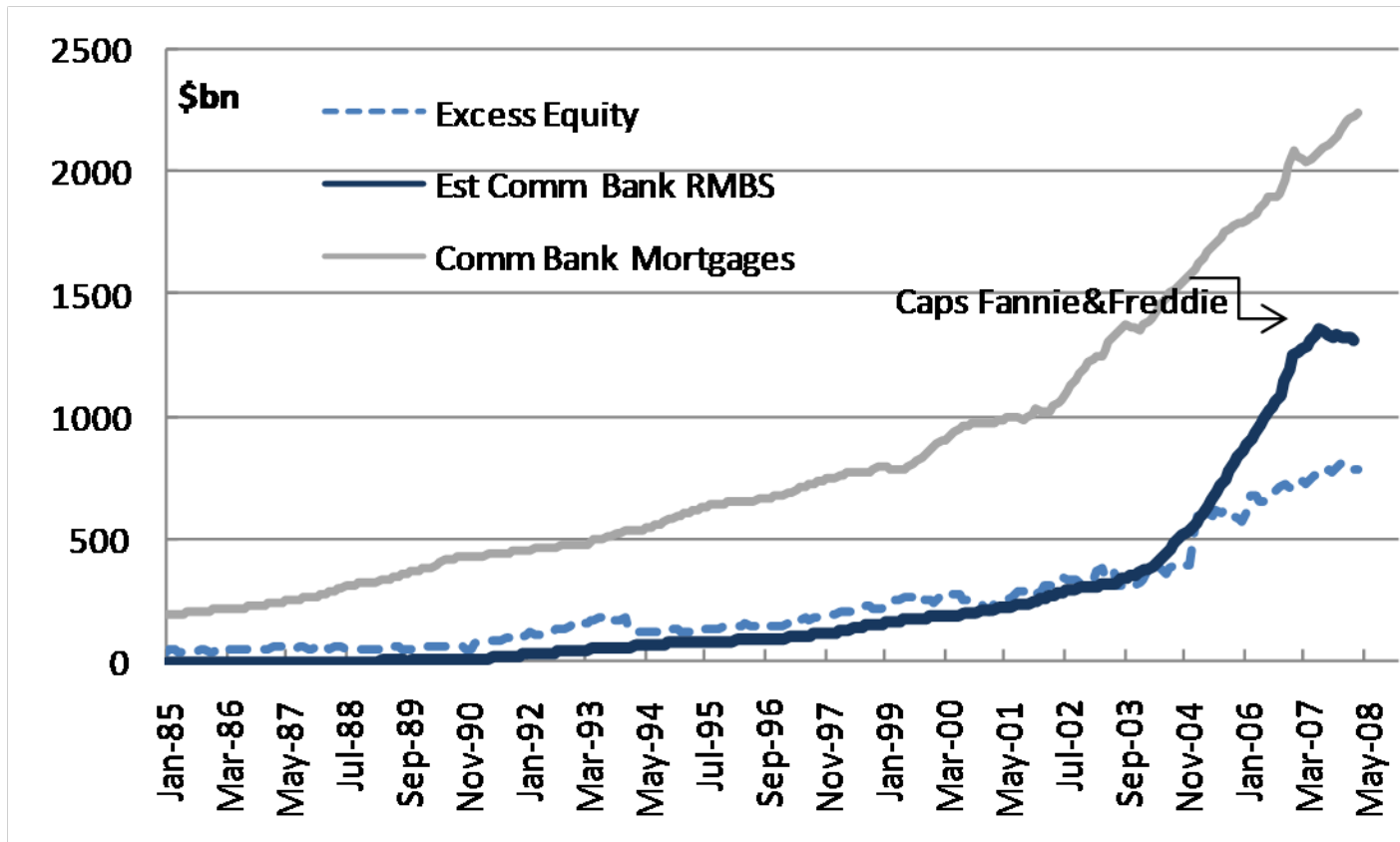
Source: OFHEO, OECD.

ABS Issuers: Assets & Liabilities



Source: OFHEO, OECD.

US Comm. Banks: Mortgages & RMBS est.



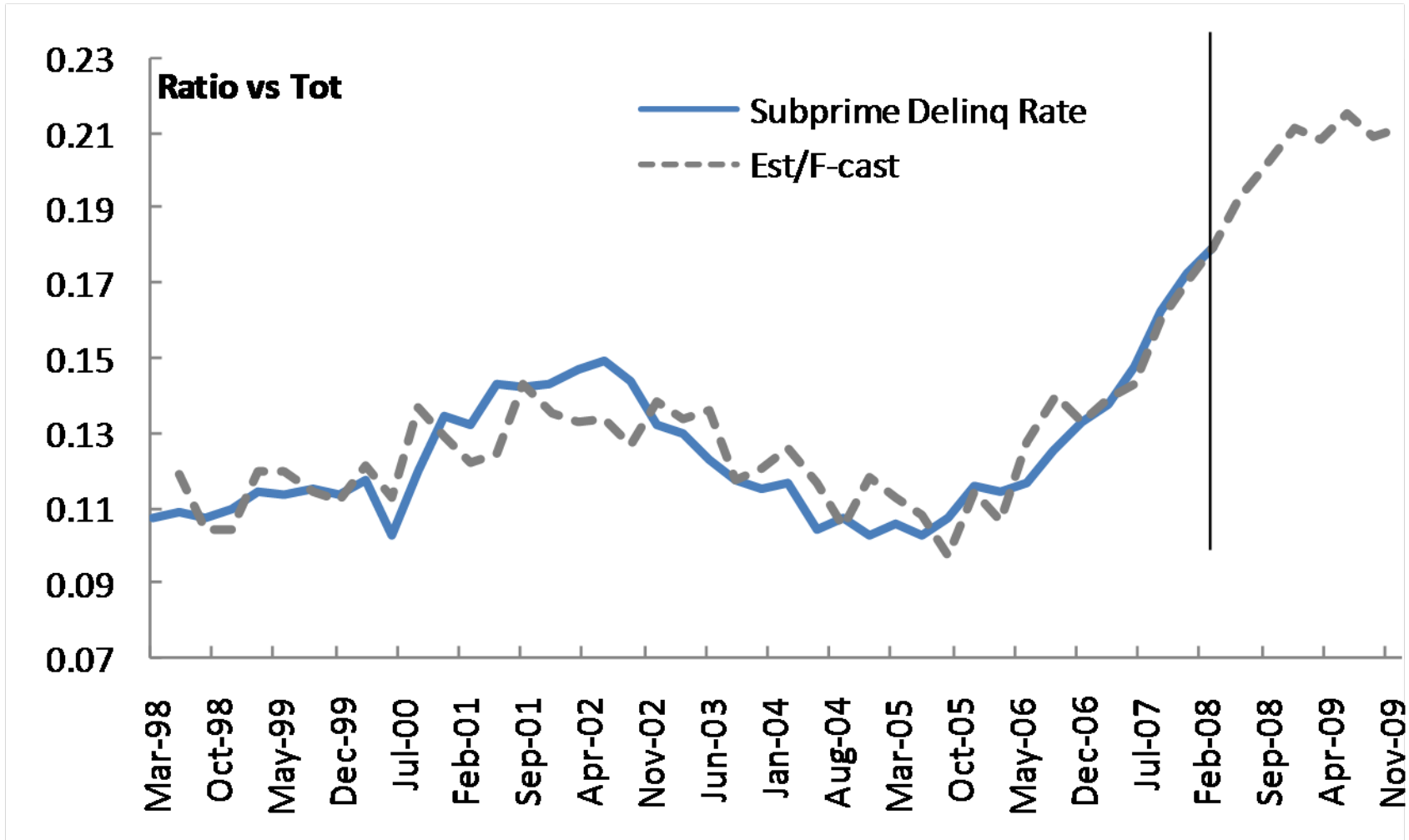
Source: OFHEO, OECD.

ABX-based Subprime Loss Estimates

	PRICES -- 2007			PRICES -- 2008		
	07-Sep	19-Oct	30-Nov	11-Jan	22-Feb	14-Mar
ABX 06(1)						
AAA	98	98	95	94	93	86
AA	95	93	86	85	78	64
A	84	75	61	59	50	33
BBB	65	47	34	31	25	16
BBB-	57	38	30	25	19	15
EQ	0	0	0	0	0	0
ABX 06(2)						
AAA	97	94	87	84	78	71
AA	88	77	62	60	50	37
A	63	46	40	34	22	17
BBB	47	26	21	19	15	10
BBB-	40	24	19	18	13	10
EQ	0	0	0	0	0	0
ABX 07(1)						
AAA	95	91	77	73	65	56
AA	77	65	47	40	31	22
A	50	34	28	24	14	11
BBB	36	23	20	18	12	9
BBB-	33	21	19	17	12	9
EQ	0	0	0	0	0	0
ABX 07(2)						
AAA	95	92	72	70	63	52
AA	86	70	39	40	30	22
A	61	43	32	28	22	17
BBB	42	26	21	24	17	13
BBB-	39	24	21	22	16	13
EQ	0	0	0	0	0	0
OVERALL DEFAULT-LOSS PROBABILITY IMPLIED BY THE WEIGHTED BASKET						
%	87.7	84.0	75.3	73.0	67.9	60.2
RMBS \$bn	2378	2303	2303	2228	2228	2228
LOSS \$bn	292	368	568	602	715	887

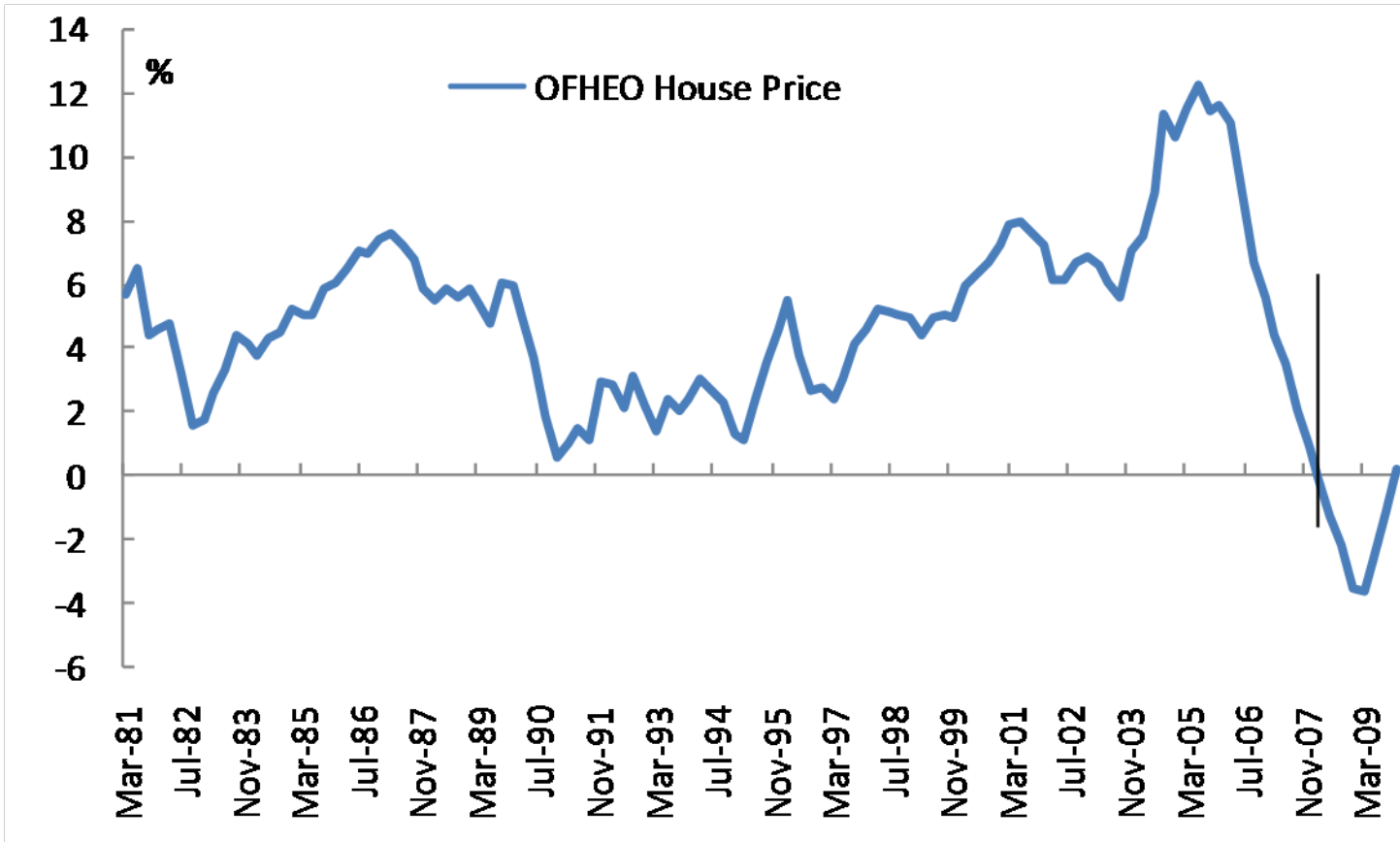
Source: ABX, OECD

Model of Subprime (av.) Delinquency Rate



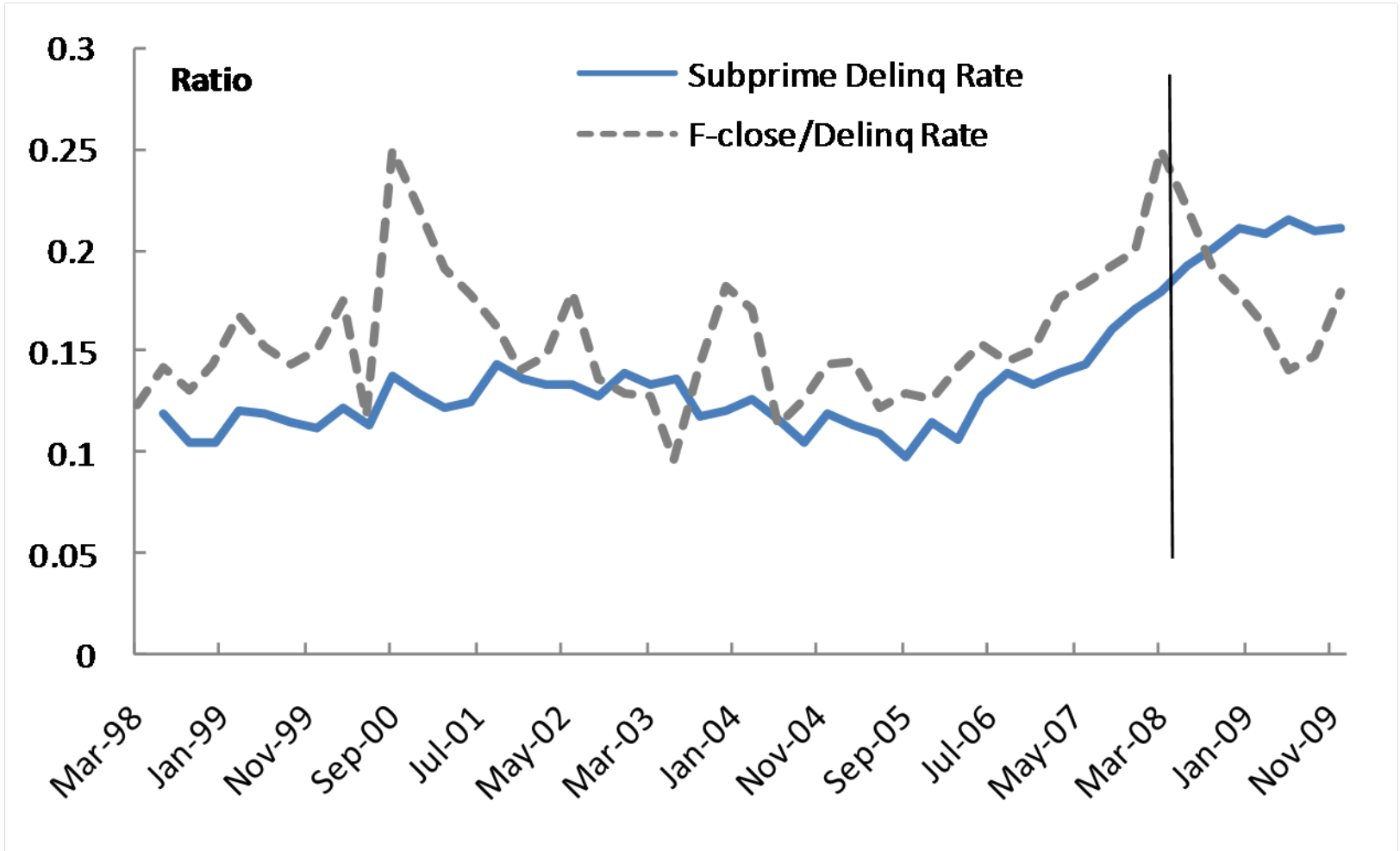
Source: Datastream, OECD

OFHEO House price Scenario: %p.a.



Source: OFHEO, OECD.

Delinquency v. Foreclosure/Delinquency



Source: Datastream, OECD

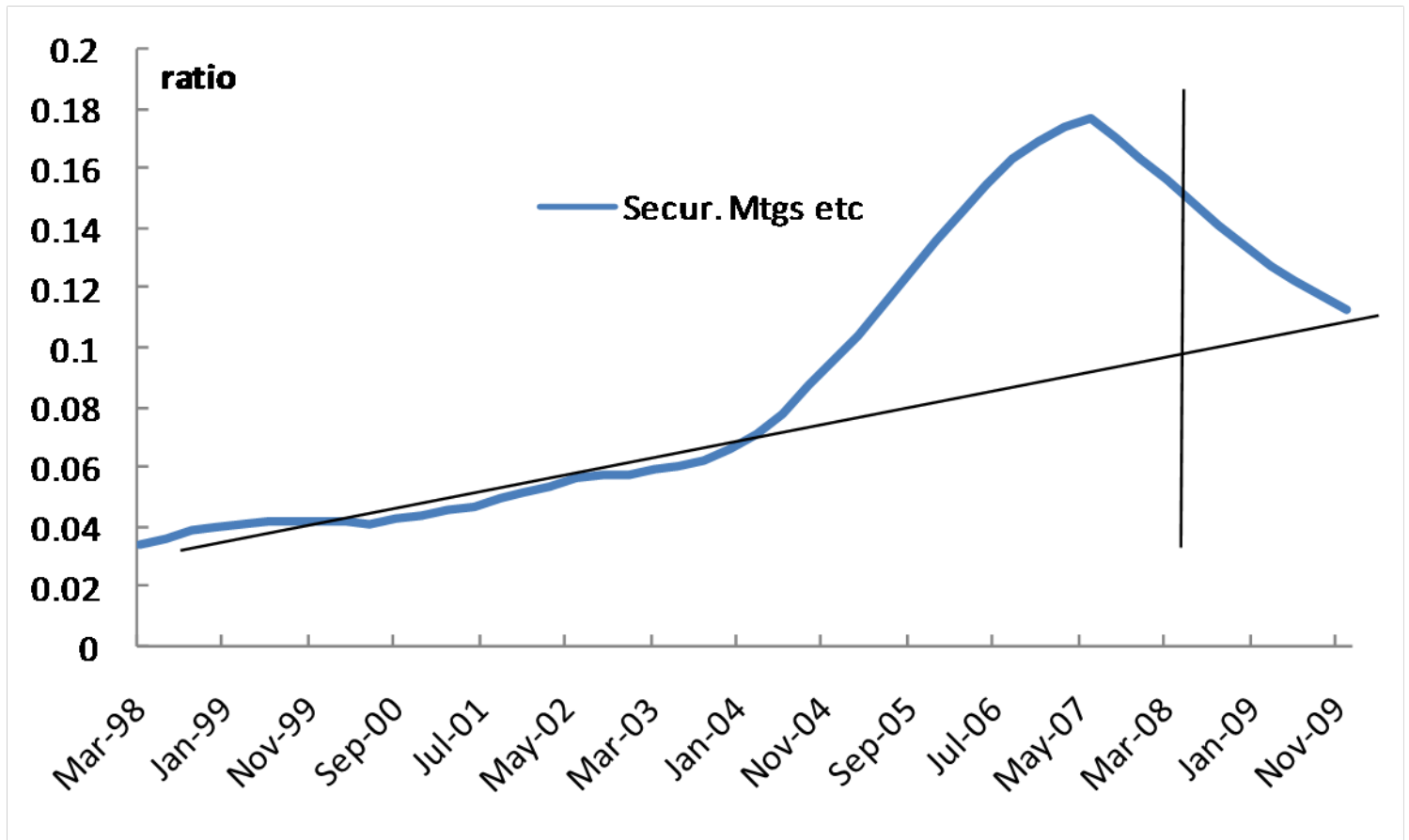
Securitised Mortgages Cumulative Loss

Model: Range Based on Recovery Rate

Quarter	CUMUL. \$bn LOSS @ RECOVERY RATE			
	0%	40%	50%	60%
Sep-07	74	45	37	30
Dec-07	153	92	77	61
Mar-08	253	152	127	101
Jun-08	344	206	172	138
Sep-08	422	253	211	169
Dec-08	495	297	248	198
Mar-09	559	335	279	224
Jun-09	614	368	307	245
Sep-09	668	401	334	267
Dec-09	733	440	366	293

Source: OECD.

Mortgage-backed Securities Stock/GDP



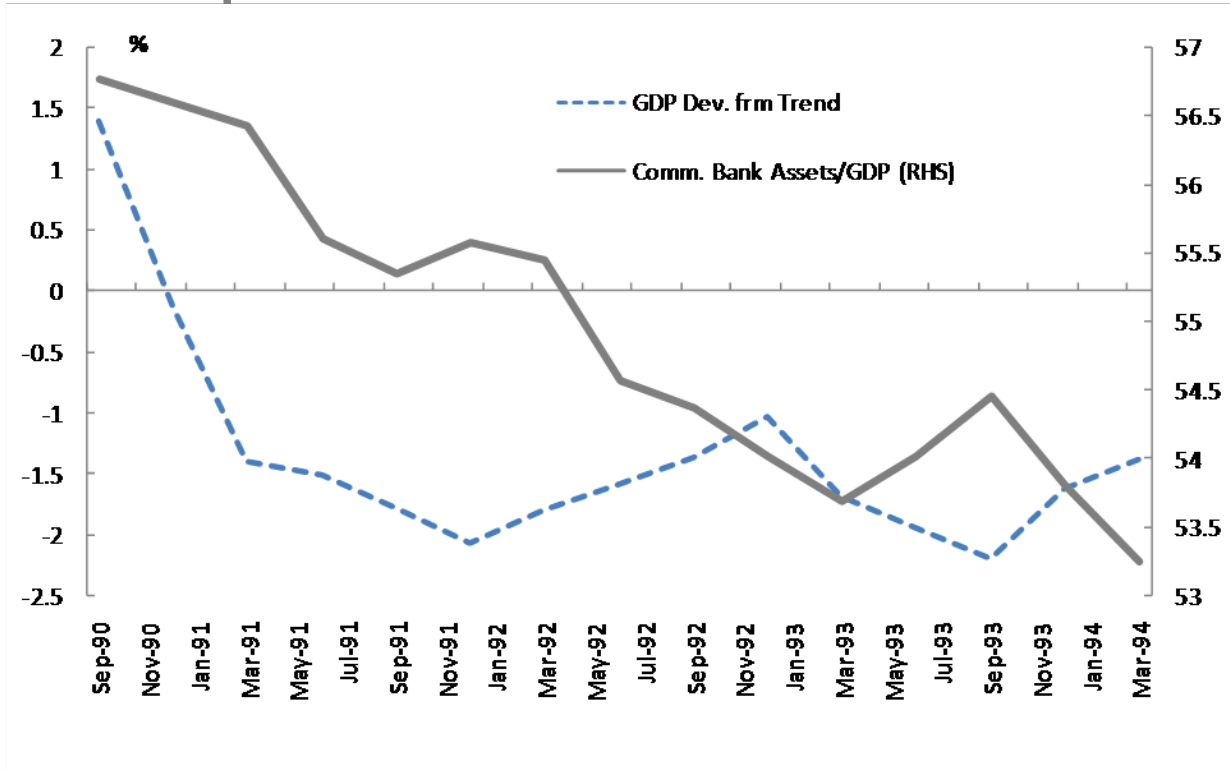
Source: Fedrreral Reserve, OECD

Commercial Banks Deleveraging v. Capital Requirements

	At start (Jun-07)	At full adjust. (Dec-09?)	%	Equity Req. (\$bn) for Asset growth p.a. of:		
				0% p.a.	7% p.a.	& socialise losses with 7% p.a.
0% Recovery of Losses						
Assets \$bn	10088.4	9102.1	-9.8			
Equity \$bn	1064.7	960.6		104.1	178.6	74.5
Lev Ratio	9.48	9.48				
Cum. Loss (14% \$703bn total)		104.1				
40% Recovery of losses						
Assets	10088.4	9496.4	-5.9			
Equity	1064.7	1002.2		62.5	137.0	74.5
Lev Ratio	9.48	9.48				
Cum. Loss (14% \$422bn total)		62.5				
50% Recovery of losses						
Assets	10088.4	9595.9	-4.9			
Equity	1064.7	1012.7		52.0	126.5	74.5
Lev Ratio	9.48	9.48				
Cum. Loss (14% \$351bn total)		52.0				

Source: OECD

Commercial Bank Assets/GDP v. GDP Gap to Trend 1990-1994



Source: Moody's/ Morgan Stanley

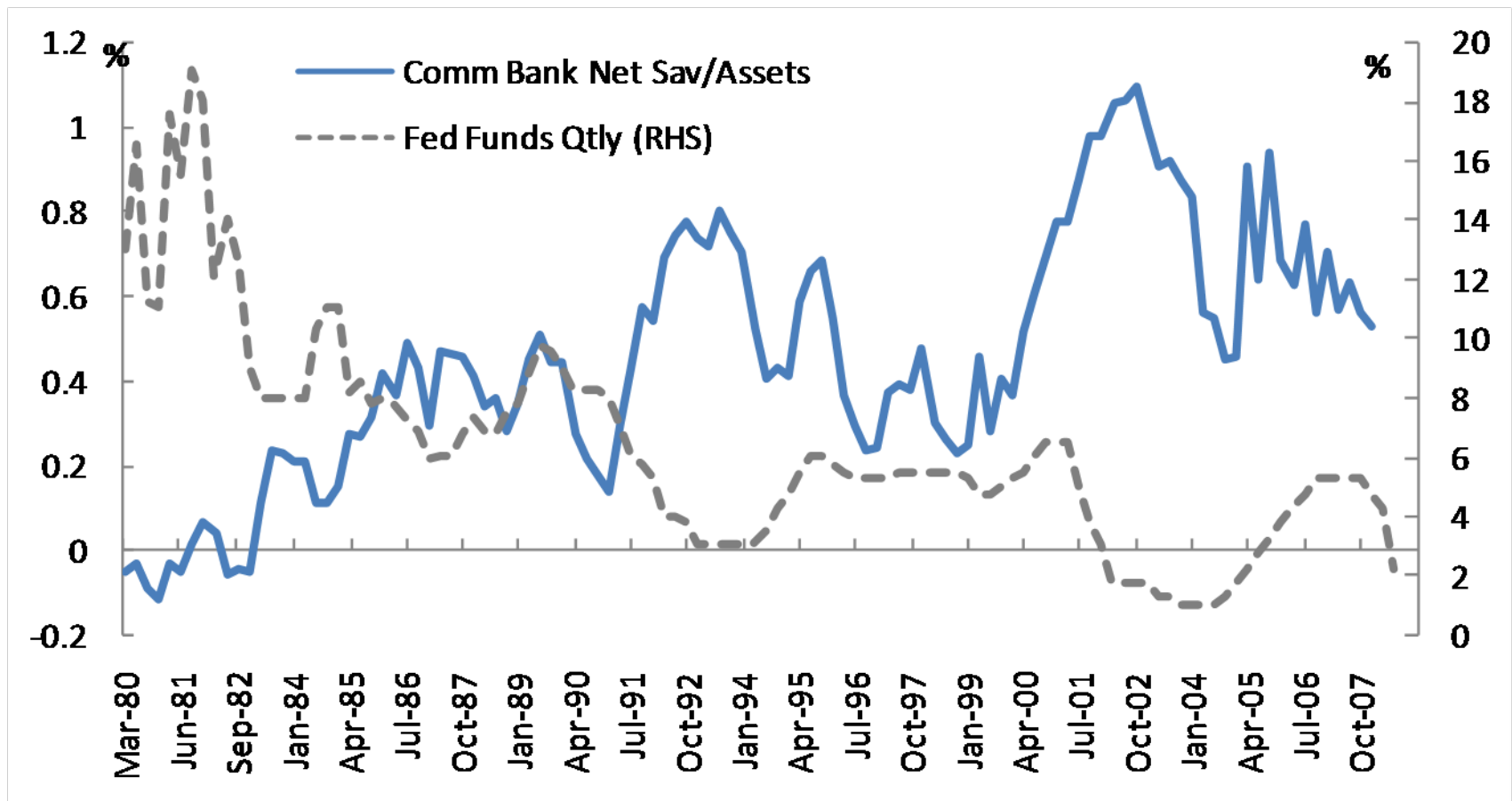
Recapitalising Through Earnings: Fed Rate Cuts, Dividend Cuts & Time Required (to offset losses but not grow the balance sheet)

Earn. Rate p.a. Assets \$11.4trn. Dec 2007 (%)	Payout Ratio 0.5			Payout ratio 0.25			Payout ratio 0		
	Net Earn Rate % p.a.	Cap Build \$bn p/qtr	No. qtrs recap. \$62.5bn	Net Earn Rate % p.a.	Cap Build \$bn p/qtr	No. qtrs recap. \$62.5bn	Net Earn Rate % p.a.	Cap Build \$bn p/qtr	No. qtrs recap. \$62.5bn
1.1	0.55	\$15.68	4.0	0.8	\$23.51	2.7	1.1	\$31.4	2.0
1.5	0.75	\$21.38	2.9	1.1	\$32.06	1.9	1.5	\$42.8	1.5
2	1.00	\$28.50	2.2	1.5	\$42.75	1.5	2.0	\$57.0	1.1

Source: OECD



Fed Funds v. Comm. Bank Net Saving as a % of Assets

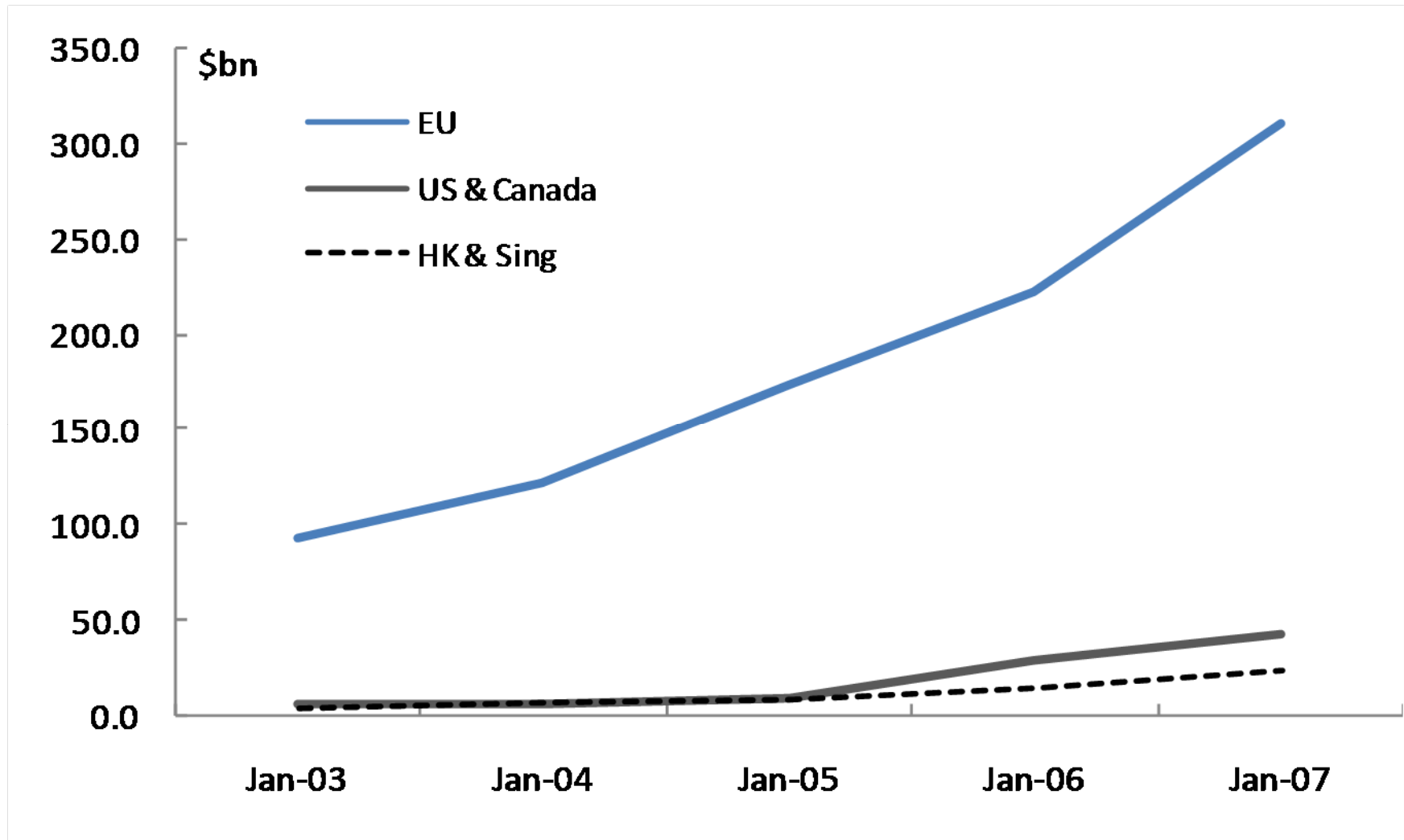


Source: Federal Reserve, OECD

Prime Broker Exposure to Hedge Funds

	Total Credit Exp \$bn	Ratio to Tier 1 Capital	Hedge Fund \$bn	HF% Total Exposure	HF Exp Ratio to Tier 1 Capital
Loaned Securities	557	1.05	223	40%	0.42
Reverse repos	1,996	3.77	499	25%	0.94
Derivatives PRV	1,128	2.13	372	33%	0.70
Margin Loans	403	0.76	266	66%	0.50
Total	4,084	7.72	1,360		2.57

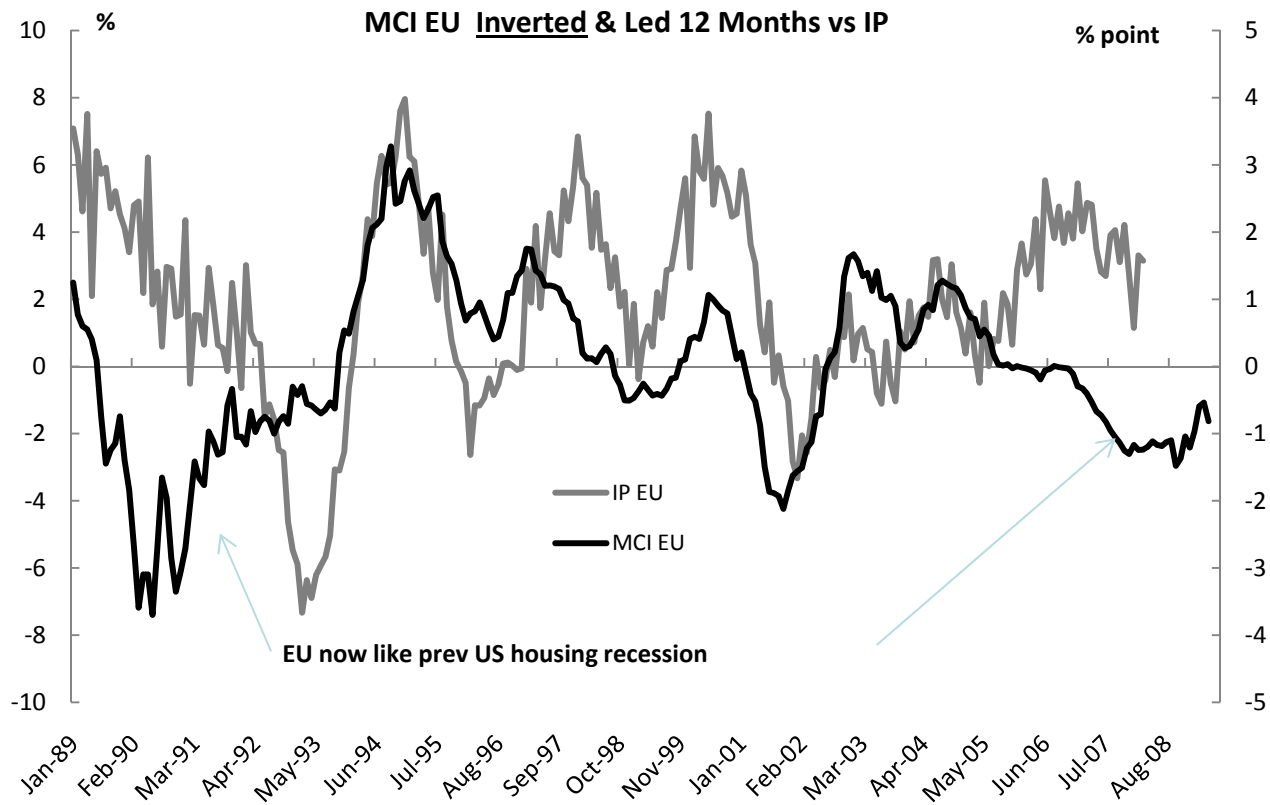
Retail Equity Structured Product Issuance



Source: Structured Retail Products, OECD

Financial Conditions Index EU v. IP %

Note The Early 1990s



Summary on Losses & Capital

- 2004 explosion of RMBS—excess capital & Fannie Freddie caps are causal.
- Losses \$366-\$440bn, US commercial & investment banks about \$90bn.
- Commercial bank capital required to stand still: \$62.5bn, & to grow balance sheet at 7% p.a. \$137bn.
- To recapitalise via earnings with dividend payout cut to 25% and a (back-to-all-time-high) 1.5% earning rate on assets is 2 quarters (to stand still) & to grow at 7% is 4-5 quarters.
- Less than ½ the capital raised so far.

Summary on Economic Effects

- It is not over, as not enough capital raised; and we have not factored in second round effects—from hedge fund losses, and from corporate bond defaults.
- About 1-1/2 to 2% GDP impact likely in USA.
- Europe: has subprime (UBS etc); is exposed to (asset bubble) Eastern Europe borrowing; has the largest issuance of equity structured products (by far—already banned in Norway); has banks that are massively less capitalised than their US counterparts; is only lagging behind the USA, (just as in early 1990s) with tight financial conditions.