Bianco Research L.L.C.

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Credit Stress And The Fed's Response

San Francisco Area

September 10/11, 2007

Long-Term Interest Rates - 1900 to 2007

Very Few Saw This Coming?

September 3, 2007

***BusinessWeek* –Not So Smart**

In an era of easy money, the pros forgot that the party can't last forever
Making sense of this mess is daunting. . . . What some of the smartest guys in each of these fields seemed to forget is that new paradigms can crumble suddenly. Many miscalculated how long the period of easy credit would persist.

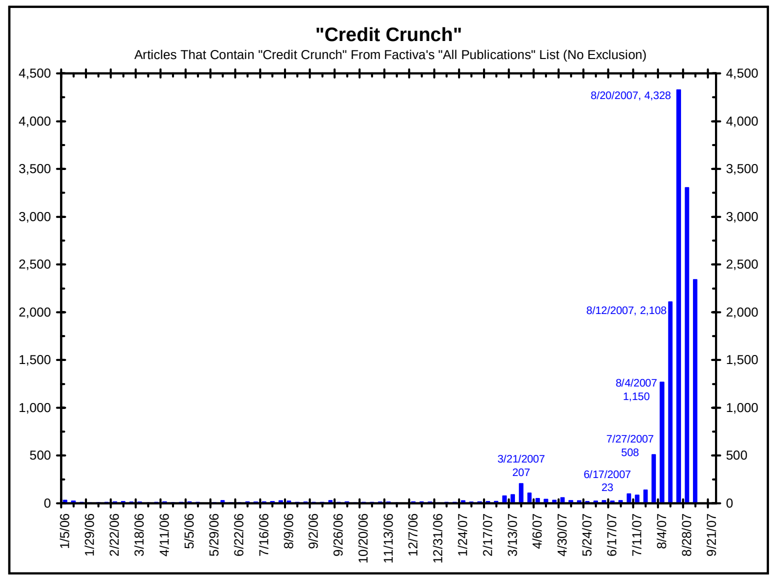
February 19, 2007

***BusinessWeek* - It's A Low, Low, Low, Low-Rate World**

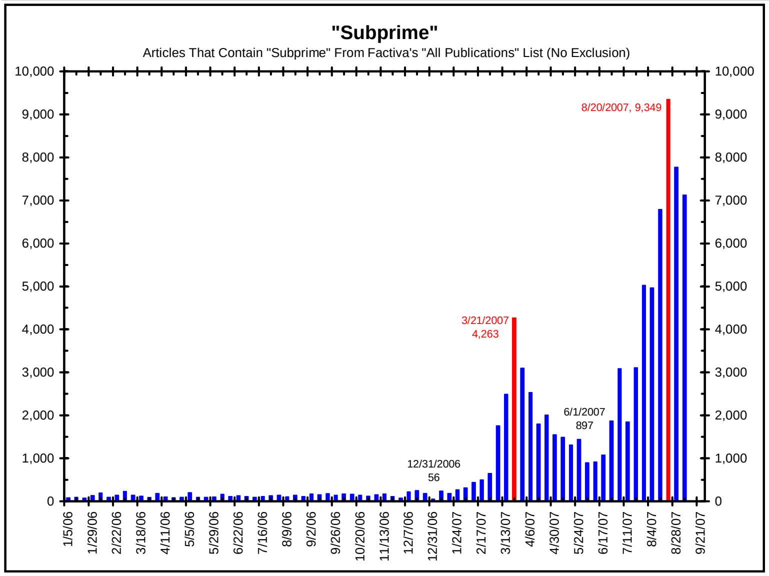
Borrowers, of course, are deliriously happy. Even the shakiest companies are seeing their debt costs plunge. The spreads on triple-C rated bonds and lower—the junkiest of junk—are at a record low 4.7 percentage points over ultrasafe Treasuries, compared with the previous record of 5.2 percentage points in 1997, according to Merrill Lynch & Co. (MER) **Most remarkably, the craziness isn't likely to stop anytime soon.** The low cost of capital is probably going to last "five to seven years," says Samuel Zell, who as chairman of real estate firm Equity Office Properties Trust (EOP) watched bidders wield cheap debt in a fight over his company. (Blackstone Group, with a $39 billion bid, won out on Feb. 7.)

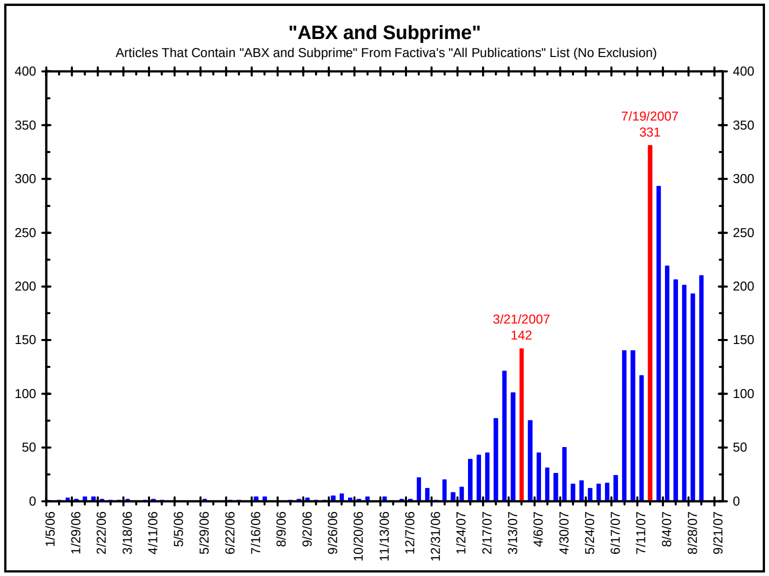
Comment - What makes this credit crisis different from previous crises is it is playing out in slow motion. As Floyd Norris wrote in the New York Times on August 17:

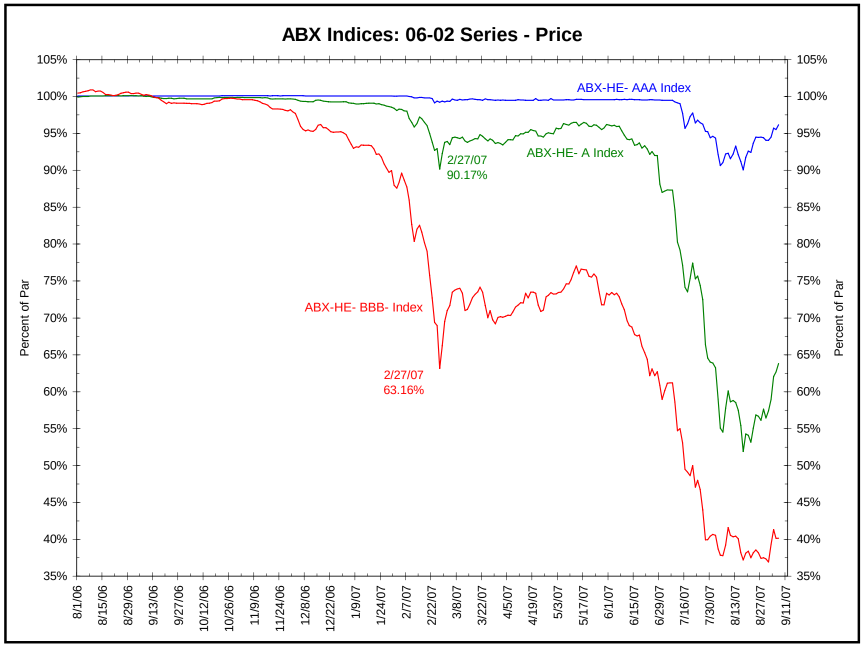
> *Twenty-first-century financial markets react with lightning speed to events halfway around the world. Investors in China can immediately see what happened in New York and make trades in London based on the news.*
>
> *So why is the credit panic of 2007 being played out in slow motion?*
>
> *One reason is that those involved have never seen anything like this before. Information may arrive instantly, but insight takes longer.*



In The Beginning, It Was Subprime (The ABX Indices)







Geographic Break Down Of The ABX Indices

From A Recent Commentary

It must also be mentioned that these ABX indices are protection against defaults of the subprime mortgages of the underlying pools (each has 20 pools). It is assumed that these pools are of similar composition to the U.S. subprime housing market. They are not. They are heavily weighted to California and Florida.

Also, keep in mind that the housing declines implied in the tables above are for the homes that make up the underlying pools, not necessarily the entire country, or even the entire subprime housing market. That said, if subprime home prices in the underlying pools collapse, largely California and Florida, we believe the overall U.S. median home, composite Case-Shiller housing index and/or OFHEO Home price indices decline hard as well.

	2007-01	2006-02	2006-01	U.S. Average
Concentrations At Origination				
CA	24%	29%	30%	10.4%
FL	11%	11%	9%	6.6%
Total	35%	40%	39%	17.0%

	2007-01	2006-02	2006-01	U.S. Average
Current Concentrations				
CA	24%	29%	32%	10.4%
FL	12%	11%	9%	6.6%
Total	36%	40%	41%	17.0%

Source: J.P. Morgan

What The ABX Indices Imply For Home Prices

From A Recent Commentary

So with every jiggle in the ABX, the high yield market follows. This begs the question, what do the ABX numbers say about the state of the subprime housing market? In order to answer this question, we will employ J.P. Morgan's ABX fair value model for this discussion (detailed in their July 20 conference call).

This top table shows what kind of housing market is implied by current ABX prices. The bottom table shows what level of defaults correspond to the housing market scenario implied by ABX prices. Highlighted in red is the scenario implied by yesterday's closing prices.

A few observations:

•There is no consistency in the pricing among tranches. The AAA, AA and A tranches are pricing a housing disaster on par with the Great Depression (down more than 27% over the next 5 years) while the BBB- tranches are pricing in a flat housing market. Such inconsistencies suggest irrational pricing.

•A lot of commentators have called lower-rated BBB and BBB- tranches "toxic waste." The ABX market agrees as some of the current prices imply bond writedowns of over 80% for the BBB- tranches.

•Many are over-reading the price movements of the ABX indices. In the lower-rated tranches of BBB and BBB-, a move of 3-to-5 points does little to change the implied outlook for housing and writedowns. This, however, does not prevent high yield from reacting to a small jiggle in these indices as a major "repricing of risk."

ABX Prices And What Housing Scenario They Imply

Based on J.P. Morgan's ABX Fair Value Model

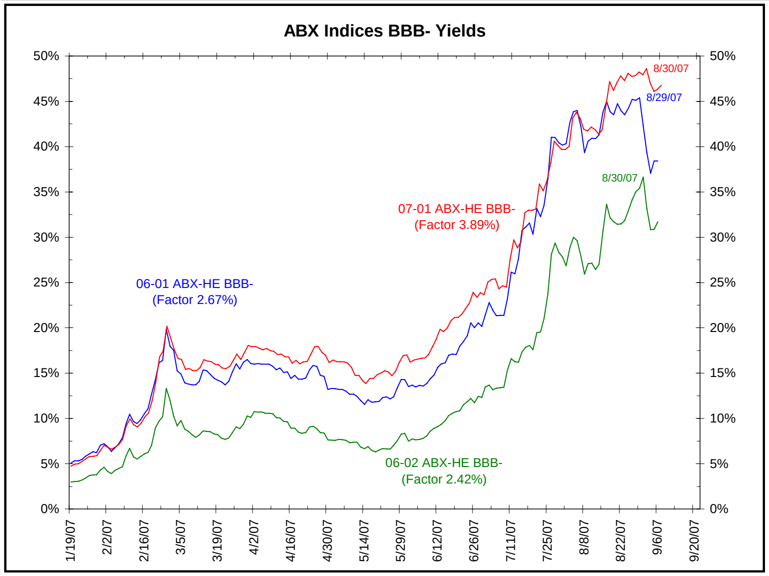
		Current Price 7-Sep	Housing Price Scenarios										
			First Year	-10%	-10%	-10%	-10%	-6%	-6%	-3%	-3%	0%	0%
			Yrs 2 to 5	-5%	-3%	-1.5%	0%	-3%	0%	-3%	0%	0%	0%
			Total Decline	*-27%*	*-20%*	*-15%*	*-10%*	*-17%*	*-6%*	*-14%*	*-3%*	*0%*	*0%*
			After Yr 5	3%	3%	3%	3%	3%	3%	-3%	3%	0%	3%
2006-01	AAA	**98.45**		**100.29**	100.28	100.28	100.28	100.26	100.31	100.34	100.36	100.38	100.38
	AA	**95.22**		**98.79**	100.86	100.81	100.80	100.79	100.76	100.70	100.77	100.76	100.76
	A	**83.59**		42.23	**78.19**	93.66	93.75	101.48	101.80	101.63	101.59	101.37	101.37
	BBB	**64.16**		12.09	15.38	19.92	30.13	58.48	81.02	**74.41**	94.73	98.66	99.44
	BBB-	**56.13**		12.19	13.88	16.93	17.46	33.78	**56.89**	46.57	82.47	87.88	88.58
2006-02	AAA	**96.52**		**99.07**	100.24	100.23	100.23	100.21	100.20	100.19	100.19	100.19	100.19
	AA	**88.20**		**55.80**	86.81	95.04	97.20	100.54	100.51	100.48	100.47	100.45	100.45
	A	**63.06**		11.02	15.80	34.68	46.44	**77.06**	91.69	92.09	98.75	101.97	101.96
	BBB	**46.69**		7.27	7.80	8.11	8.18	15.21	19.38	22.53	**43.89**	58.41	59.00
	BBB-	**39.50**		7.67	8.11	8.41	8.42	15.03	16.10	16.75	22.87	36.10	**36.95**
2207-01	AAA	**94.88**		**96.14**	100.29	100.26	100.25	100.23	100.23	100.22	100.22	100.21	100.21
	AA	**77.03**		12.49	45.44	**82.04**	94.37	100.69	100.62	100.59	100.56	100.53	100.53
	A	**49.88**		8.32	9.11	10.49	12.86	**47.50**	71.06	69.23	102.03	103.72	103.68
	BBB	**35.44**		8.28	8.63	9.02	9.05	11.30	12.35	14.28	**34.87**	48.36	49.67
	BBB-	**33.03**		9.46	9.83	10.19	10.20	12.30	13.06	15.25	18.23	**35.66**	37.38
2007-02	AAA	**95.02**		**100.92**	102.74	102.43	102.38	102.24	102.16	102.11	102.06	102.01	102.01
	AA	**85.77**		17.1	**61.75**	103.41	109.28	108.94	108.18	107.98	107.45	107.11	107.11
	A	**61.22**		13.83	15.46	18.89	28.12	**81.85**	116.71	112.46	122.29	120.26	120.12
	BBB	**42.04**		12.65	13.21	14.05	14.2	18.98	26.71	27.59	**63.12**	115.18	118.69
	BBB-	**39.46**		11.86	12.28	12.86	12.9	16.42	18.03	20.6	**31.39**	54.32	58.8

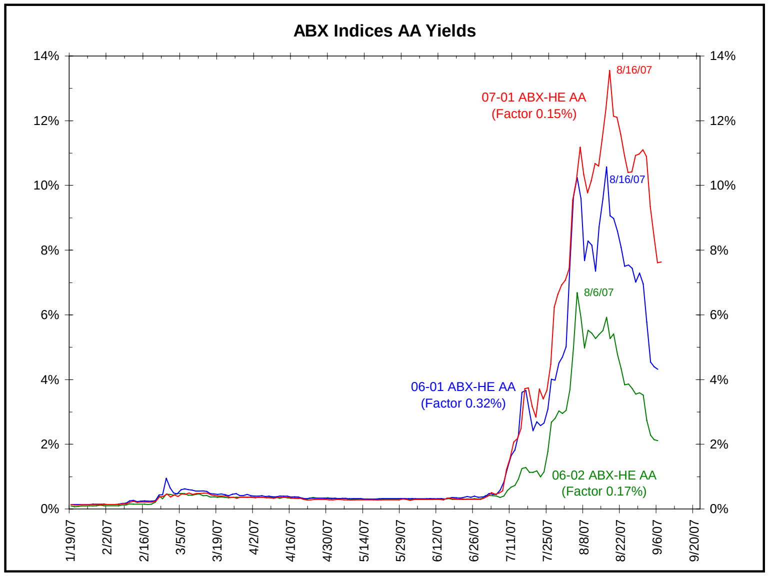
ABX Prices And What Level Of Defaults They Imply

Based on J.P. Morgan's ABX Fair Value Model

		Current Price 7-Sep	Housing Price Scenarios										
			First Year	-10%	-10%	-10%	-10%	-6%	-6%	-3%	-3%	0%	0%
			Yrs 2 to 5	-5%	-3%	-1.5%	0%	-3%	0%	-3%	0%	0%	0%
			Total Decline	*-27%*	*-20%*	*-15%*	*-10%*	*-17%*	*-6%*	*-14%*	*-3%*	*0%*	*0%*
			After Yr 5	3%	3%	3%	3%	3%	3%	-3%	3%	0%	3%
Bond Write Downs													
2006-01	AAA	**98.45**		**0%**	0%	0%	0%	0%	0%	0%	0%	0%	0%
	AA	**95.22**		**3%**	0%	0%	0%	0%	0%	0%	0%	0%	0%
	A	**83.59**		70%	**29%**	10%	10%	1%	0%	0%	0%	0%	0%
	BBB	**64.16**		98%	96%	94%	84%	57%	31%	**40%**	15%	9%	8%
	BBB-	**56.13**		98%	97%	95%	95%	81%	**61%**	71%	34%	27%	26%
2006-02	AAA	**96.52**		**2%**	0%	0%	0%	0%	0%	0%	0%	0%	0%
	AA	**88.20**		**53%**	17%	7%	4%	0%	0%	0%	0%	0%	0%
	A	**63.06**		98%	94%	76%	64%	**30%**	12%	12%	4%	0%	0%
	BBB	**46.69**		100%	100%	100%	100%	95%	93%	92%	**70%**	56%	55%
	BBB-	**39.50**		100%	100%	100%	100%	96%	95%	97%	92%	81%	**80%**
2007-01	AAA	**94.88**		**6%**	0%	0%	0%	0%	0%	0%	0%	0%	0%
	AA	**77.03**		100%	**66%**	24%	9%	0%	0%	0%	0%	0%	0%
	A	**49.88**		100%	100%	100%	98%	**65%**	39%	43%	3%	0%	0%
	BBB	**35.44**		100%	100%	100%	100%	100%	100%	100%	**81%**	72%	70%
	BBB-	**33.03**		100%	100%	100%	100%	100%	100%	100%	99%	**87%**	84%
2007-02	AAA	**95.02**		**5%**	0%	0%	0%	0%	0%	0%	0%	0%	0%
	AA	**85.77**		100%	**60%**	10%	2%	0%	0%	0%	0%	0%	0%
	A	**61.22**		100%	100%	100%	94%	**49%**	13%	19%	0%	0%	0%
	BBB	**42.04**		100%	100%	100%	100%	100%	96%	98%	**75%**	32%	26%
	BBB-	**39.46**		100%	100%	100%	100%	100%	100%	100%	**95%**	84%	79%
Total Collateral Loss (% Original Balance)													
	2006-01			13.84%	11.86%	10.48%	9.99%	8.82%	8.01%	7.96%	7.06%	6.64%	6.60%
	2006-02			19.37%	16.71%	14.81%	14.15%	12.34%	11.23%	10.99%	9.80%	9.13%	9.07%
	2007-01			23.92%	20.33%	17.58%	16.61%	14.59%	13.13%	13.14%	11.32%	10.48%	10.38%
	2007-02			25.96%	21.76%	18.43%	17.21%	15.08%	13.42%	13.72%	11.39%	10.44%	10.29%
Total Collateral Loss (% June Balance)													
	2006-01			22.69%	19.29%	16.97%	16.13%	14.10%	12.71%	12.63%	11.09%	10.39%	10.30%
	2006-02			26.67%	22.89%	20.23%	19.31%	16.72%	15.14%	14.81%	13.13%	12.18%	12.10%
	2007-01			27.68%	23.52%	20.32%	19.20%	16.86%	15.16%	15.17%	13.07%	12.09%	11.97%
	2007-02			26.61%	22.30%	18.89%	17.64%	15.46%	13.75%	14.06%	11.67%	10.70%	10.55%
Assumed Severity													
	1st lien			55%	50%	45%	45%	45%	42%	40%	40%	40%	40%
	2nd lien			100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

The ABX Indices Are Now Recovering, Could This Be Bad?





***Bloomberg.com* – (July 30) Deutsche Bank Payday Burgeons on Subprime Trading Bet**

Mortgage defaults would surge as soon as price appreciation slowed, [Deutsche Bank AG analyst Eugene] Xu wrote in September 2005. Since then, Deutsche Bank traders, led by Greg Lippmann, sold ABX index contracts, providing 200 million euros ($272 million) of revenue in the first quarter and possibly another 200 million euros in the past quarter, assuming the position wasn't changed, said Kinner Lakhani, the top-rated banking analyst at ABN Amro Holding NV in London.

***The Financial Times* – (July 3) United Capital Markets pins redemption halt on investor concerns; sources cite subprime losses**

The fund bought the [ABX] index earlier this year and had been earning a monthly premium on the index of more than Libor+ 100bps, the source said. But the recent selloff of the ABX left Horizon on the wrong side of the trade, the buysider added. . . . United Capital was founded in 1999 by John Devaney and made its fortune purchasing and repackaging such esoteric assets as aircraft lease securitizations and manufactured housing bonds on the cheap. Devaney expressed bearish views on the subprime mortgage market as recently as February when he compared investing in the bonds to "dancing on the edge of a razorblade," at an industry conference in Las Vegas.

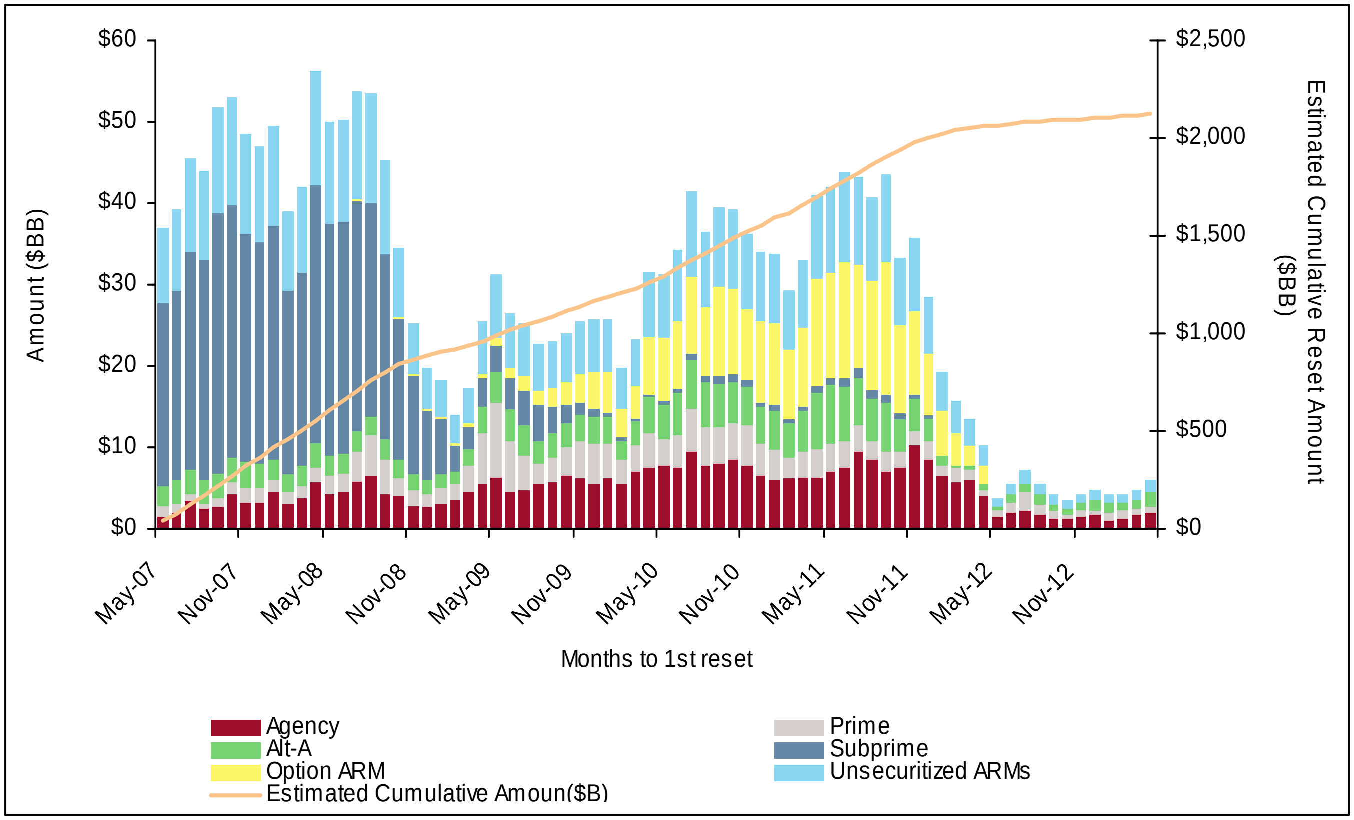
***The Wall Street Journal* - (June 16) A 'Subprime' Fund Is on the Brink**

Mr. Cioffi's 30-day plan was a last-ditch effort to salvage his fund, which he has run since August and is geared to sophisticated investors.. . . The fund bet a popular index that tracks subprime mortgages, the ABX, would **fall**. Late last year and early this year, those moves bore good returns, says a person familiar with the matter. Then the tide began to turn. After reaching a low of 62 late in February, amid rising numbers of defaults and delinquencies in the subprime market, the ABX unexpectedly recovered in the months that followed, reaching 72 in mid-May. It has since gone back down to 61. This led to losses for Mr. Cioffi.

Then Came The Adjustable-Rate Mortgage Reset Worry

From A Recent Commentary

The chart below, courtesy of Credit Suisse, shows when an adjustable-rate mortgage will first reset (gold line). $2.2 trillion will reset in the next 10 years with almost half this amount, or $1 trillion, coming between now and November 2008. Most of these resets will be subprime (dark blue bars) between now and next year. The peak for subprime resets is May 2008.



How Many Mortgages Were Originated? …

From A Recent Commentary

The table to the right shows the total number of mortgages and gross values originated between 2004 and 2006. It breaks them down by initial interest rate. This is the key period of originations that has everyone concerned about some sort of breakdown. Mortgages originated before 2004 have enough of an equity cushion thanks to home price appreciation through 2005 that they do not present a concern for the marketplace.

Some stats:

•A total of 25.9 million mortgages were originated with a gross value of $5.377 trillion. The average mortgage was $207,000.

•A total of 8.4 million **adjustable-rate mortgages** were originated with a gross value of $2.3 trillion over this critical three year period. This is 32% of all mortgages or 42% of all gross value originated. The average adjustable-rate mortgage was $272,000.

•A total of 17.6 million **fixed-rate mortgages** were originated with a gross value of $3.1 trillion over this critical three year period. This is 68% of all mortgages and 58% of all gross value originated. The average fixed-rate mortgage was $177,000.

•Any initial interest rate of **less than 5.50%** on an adjustable-rate mortgage, the level of three-month libor before turbulence hit the credit markets, is a good working definition of a "teaser rate." The table specifically highlights those adjustable-rate mortgages with this teaser rate definition (italics). A total of 3.2 million mortgages representing 39% of all adjustable-rate mortgages with a gross value of $1.05 trillion or 46% of all gross value qualify.

All First Mortgages
Originated Between 2004 and 2006

Initial Interest Rate	No. of Loans	% of Adj.	Balance in Bln	% of Adj.
Below 2.0%	*1,123,595*	*13.4%*	*$ 431*	*18.9%*
From 2.0% to 3.0%	*132,427*	*1.6%*	*$ 41*	*1.8%*
From 3.0% to 4.0%	*174,651*	*2.1%*	*$ 49*	*2.1%*
From 4.0% to 4.5%	*293,195*	*3.5%*	*$ 88*	*3.9%*
From 4.5% to 5.0%	*607,090*	*7.3%*	*$ 176*	*7.7%*
From 5.0% to 5.5%	*897,065*	*10.7%*	*$ 269*	*11.8%*
Teaser Rates	***3,228,023***	***38.6%***	***$ 1,055***	***46.3%***
From 5.5% to 6.0%	1,056,880	12.6%	$ 317	13.9%
From 6.0% to 6.5%	932,623	11.1%	$ 273	12.0%
From 6.5% to 7.0%	896,898	10.7%	$ 225	9.9%
From 7.0% to 7.5%	553,895	6.6%	$ 118	5.2%
From 7.5% to 8.0%	589,086	7.0%	$ 114	5.0%
From 8.0% to 8.5%	345,431	4.1%	$ 61	2.7%
From 8.5% to 9.0%	335,176	4.0%	$ 54	2.4%
From 9.0% to 9.5%	164,074	2.0%	$ 24	1.1%
From 9.5% to 10%	139,373	1.7%	$ 20	0.9%
From 10% to 10.5%	57,543	0.7%	$ 7	0.3%
From 10.5% to 11%	42,834	0.5%	$ 5	0.2%
From 11% to 11.5%	17,761	0.2%	$ 2	0.1%
From 11.5% to 12%	12,926	0.2%	$ 1	0.1%
Subtotal	**5,144,500**	**61.4%**	**$ 1,222**	**53.7%**
Total Adjustable	8,372,523		$ 2,276	
Percent Adjustable	*32.3%*		*42.3%*	
Total Fixed	17,562,609		$ 3,101	
Percent Fixed	*67.7%*		*57.7%*	
All Mortgages	25,935,132		$ 5,377	

Data Source: www.loanperformance.com

… And How Many Resets Are Left?

Mortgages *Already* Reset (Table Below)

•A total of 3.9 million of the adjustable-rate mortgages originated between 2004 and 2006 **have already reset** (specifically through the end of 2007).

•Among the adjustable-rate mortgages qualifying under our teaser rate definition (less than 5.50% as explained above), 1.9 million **have already reset.** Their gross value is $651 billion.

•Among the adjustable-rate mortgages with an initial interest rate of less than 3.0%, over 99% **have already reset.**

Mortgages Left To Be Reset

•A total of 3.1 million adjustable-rate mortgages **will be reset** in 2008 and beyond. The gross value is $1.3 trillion, or 54%, of all adjustable-rate mortgages.

•Among the adjustable-rate mortgages qualifying under our teaser rate definition (less than 5.50% as explained above), 1.4 million will reset in 2008 and beyond. Their gross value is $404 billion, or 38%, of all adjustable-rate mortgages.

•Among those with an initial interest rate of less than 3.0%, only 235,000 mortgages with a gross value of $1.1 billion will reset in 2008 and beyond. Teaser rates this low are only offered for a short time with a reset soon after closing.

All First Mortgages That *Have Reset*
Through The End of 2007 (in Four Months)

Initial Interest Rate	No. of Loans	% of All Adj.	Balance in Bln	% of All Adj.
Below 2.0%	*1,121,963*	*99.9%*	*$ 430*	*99.8%*
From 2.0% to 3.0%	*131,709*	*99.5%*	*$ 41*	*98.7%*
From 3.0% to 4.0%	*153,638*	*88.0%*	*$ 43*	*88.0%*
From 4.0% to 4.5%	*155,273*	*53.0%*	*$ 47*	*52.9%*
From 4.5% to 5.0%	*163,042*	*26.9%*	*$ 47*	*26.8%*
From 5.0% to 5.5%	*146,541*	*16.3%*	*$ 43*	*15.9%*
Teaser Rates	***1,872,166***	***58.0%***	***$ 651***	***61.7%***
From 5.5% to 6.0%	203,846	19.3%	$ 56	17.8%
From 6.0% to 6.5%	263,302	28.2%	$ 66	24.0%
From 6.5% to 7.0%	402,865	44.9%	$ 87	38.8%
From 7.0% to 7.5%	315,869	57.0%	$ 61	51.6%
From 7.5% to 8.0%	336,794	57.2%	$ 58	50.8%
From 8.0% to 8.5%	190,635	55.2%	$ 29	48.0%
From 8.5% to 9.0%	165,530	49.4%	$ 23	41.8%
From 9.0% to 9.5%	72,818	44.4%	$ 9	36.3%
From 9.5% to 10%	55,047	39.5%	$ 6	32.1%
From 10% to 10.5%	20,596	35.8%	$ 2	28.7%
From 10.5% to 11%	14,079	32.9%	$ 1	27.0%
From 11% to 11.5%	5,243	29.5%	$ 0	24.2%
From 11.5% to 12%	3,889	30.1%	$ 0	26.2%
Subtotal	**2,050,513**	**39.9%**	**$ 399**	**32.7%**
Total Reset	**3,922,679**	**46.9%**	**$ 1,050**	**46.1%**

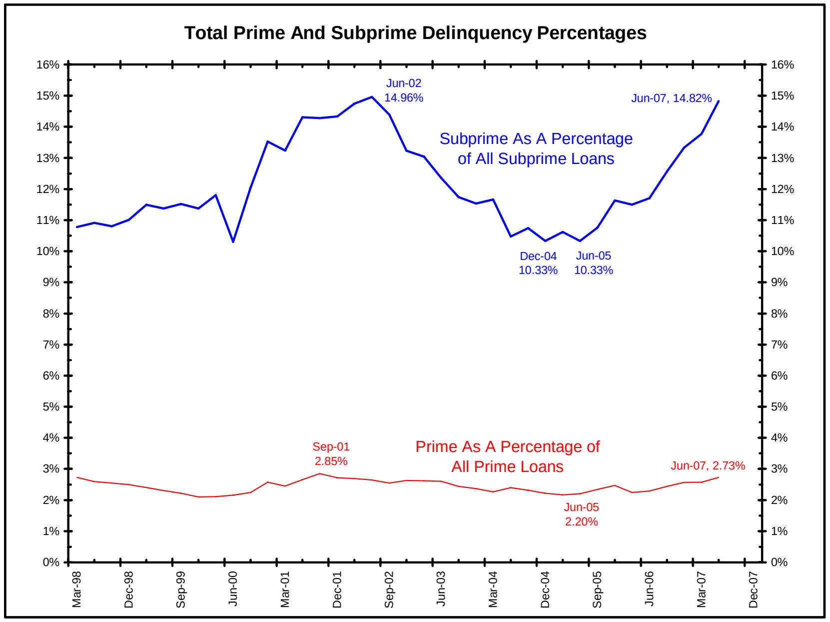
Data Source: www.loanperformance.com

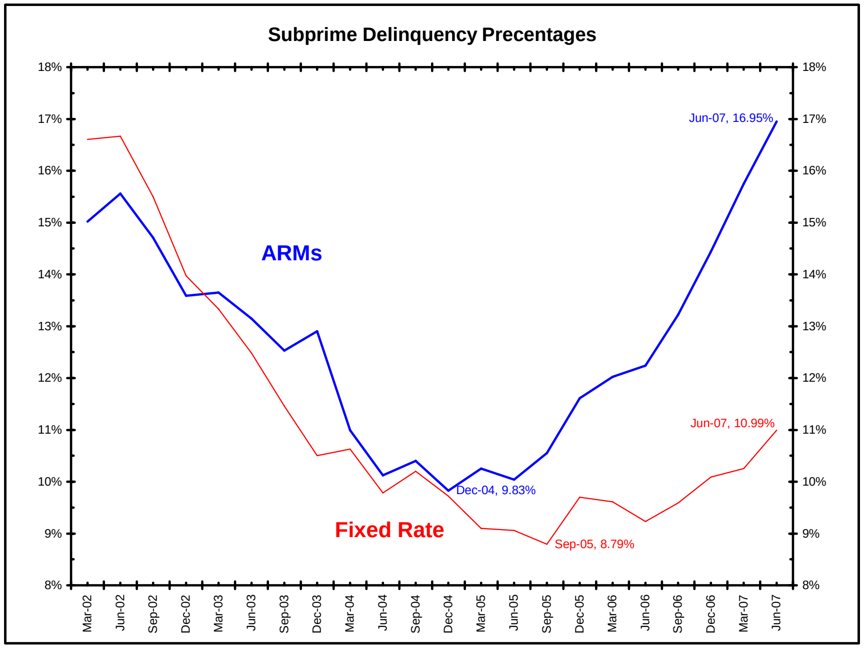
All First Mortgages That *Will Reset*
In 2008 and Beyond

Initial Interest Rate	No. of Loans	% of All Adj.	Balance in Bln	% of All Adj.
Below 2.0%	*1,632*	*0.1%*	*$ 1*	*0.2%*
From 2.0% to 3.0%	*718*	*0.5%*	*$ 1*	*1.3%*
From 3.0% to 4.0%	*21,013*	*12.0%*	*$ 6*	*12.0%*
From 4.0% to 4.5%	*137,922*	*47.0%*	*$ 42*	*47.1%*
From 4.5% to 5.0%	*444,048*	*73.1%*	*$ 129*	*73.2%*
From 5.0% to 5.5%	*750,524*	*83.7%*	*$ 226*	*84.1%*
Teaser Rates	***1,355,857***	***42.0%***	***$ 404***	***38.3%***
From 5.5% to 6.0%	853,034	80.7%	$ 261	82.2%
From 6.0% to 6.5%	669,321	71.8%	$ 208	76.0%
From 6.5% to 7.0%	494,033	55.1%	$ 138	61.2%
From 7.0% to 7.5%	238,026	43.0%	$ 57	48.4%
From 7.5% to 8.0%	252,292	42.8%	$ 56	49.2%
From 8.0% to 8.5%	154,796	44.8%	$ 32	52.0%
From 8.5% to 9.0%	169,646	50.6%	$ 32	58.2%
From 9.0% to 9.5%	91,256	55.6%	$ 15	63.7%
From 9.5% to 10%	84,326	60.5%	$ 13	67.9%
From 10% to 10.5%	36,947	64.2%	$ 5	71.3%
From 10.5% to 11%	28,755	67.1%	$ 4	73.0%
From 11% to 11.5%	12,518	70.5%	$ 1	75.8%
From 11.5% to 12%	9,037	69.9%	$ 1	73.8%
Subtotal	**3,093,987**	**60.1%**	**$ 823**	**67.3%**
Total Left To Reset	**4,449,844**	**53.1%**	**$ 1,227**	*53.9%*

Data Source: www.loanperformance.com

“Official” MBA Delinquencies Statistics





Understanding The Flaws In The Monthly Foreclosure Data

***Bloomberg.com* - Home Foreclosures Almost Double in July as Rates Rise**
U.S. homes facing foreclosure almost doubled in July as property owners with adjustable-rate mortgages saw their payments rise and were unable to refinance because of the subprime crisis, RealtyTrac Inc. said. Lenders sent 179,599 notices of default, scheduled auctions or bank repossessions last month, a 93 percent increase from a year earlier, Irvine, California-based RealtyTrac said today in a statement. California, Florida, Michigan, Ohio and Georgia accounted for more than half of the country's total filings.

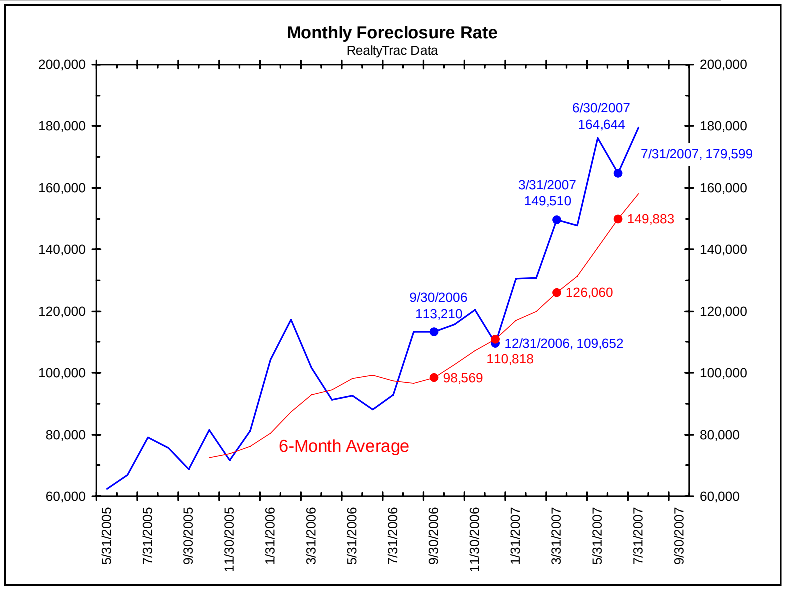
Comment - The story above was one of the top headlines on Bloomberg's website yesterday, and prominently featured on *The Drudge Report*. ABC's *World News Tonight* even led a recent telecast with this data. So, not only is this data catching a lot of eyes, we believe it is very close to becoming market-moving data.

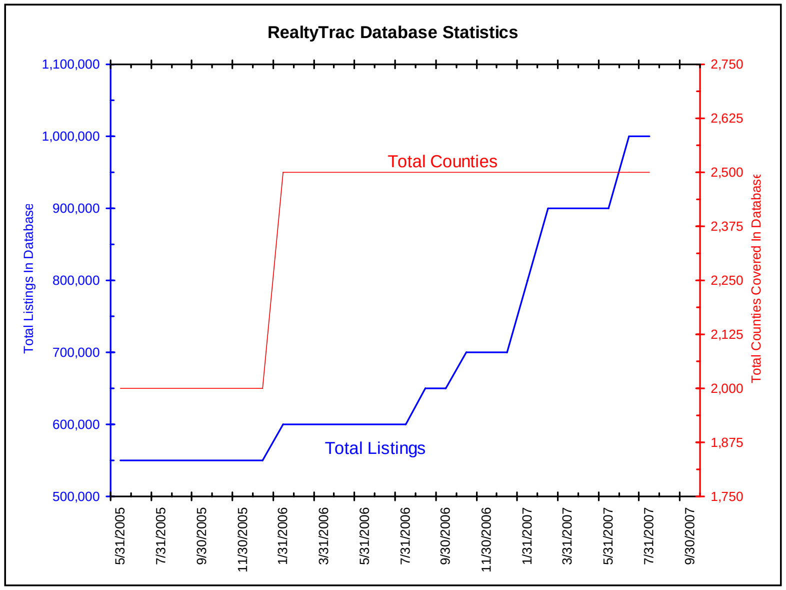
Given this importance, it bears noting that the RealtyTrac data has come under fire in previous months for its accuracy and method of calculating its foreclosure data.

See the two charts. The first one shows the level of foreclosures according to RealtyTrac. Notice it has been spiking this year, which is what has everyone's attention. This comes as no surprise given the state of the housing market.

However, see the chart on the bottom. RealtyTrac has also been expanding its database in recent months. (RealtyTrac is a real estate brokerage firm looking to sell its listing database for $49.95 a month. More listings make a more attractive product. The foreclosure data is a side project from this database which started in 2005.) The recent spike in the raw foreclosure data coincides with the expansion of their database. So, how much of this spike is due to a worsening housing market and how much is due to the increased size of their database? If they keep expanding their database and it pushes the raw foreclosure data even higher, how will we be able to tell when things start to get better?

The company is not providing enough information to say.





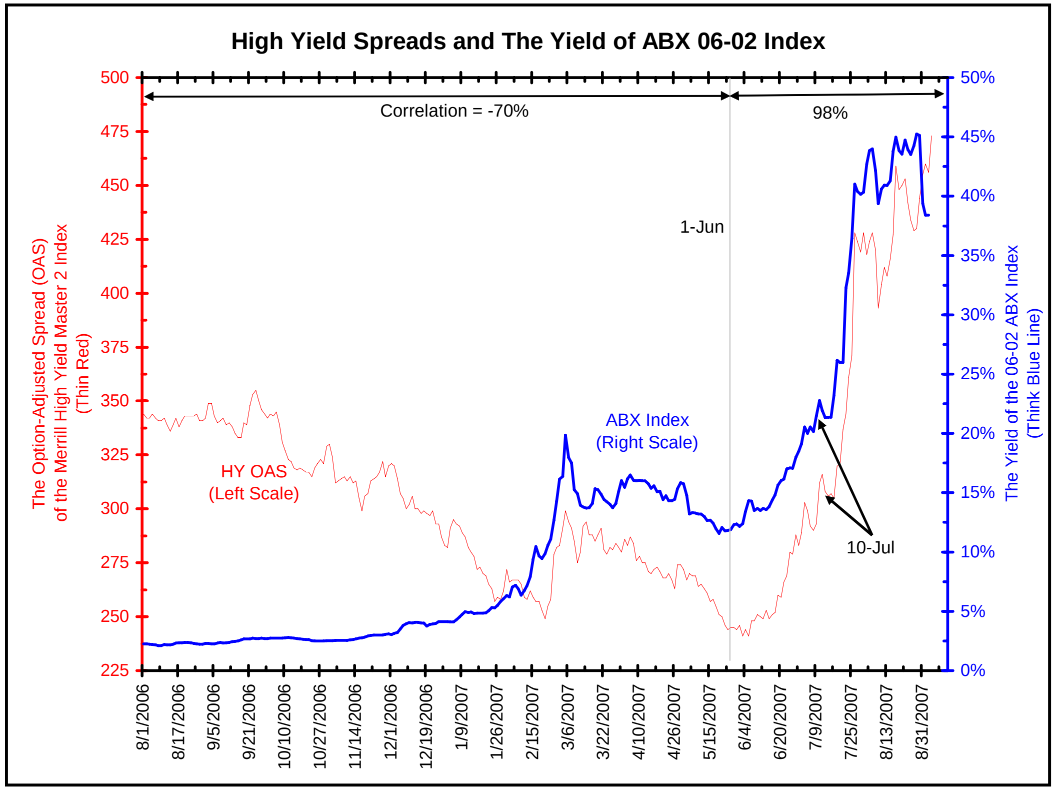
The Catalyst – The July 10 Credit Rating Agencies Downgrade

Downgrade Wave

Number of bonds backed by subprime mortgages downgraded or placed on review for credit-rating downgrades yesterday

Original Rating	Moody's	Standard & Poor's
AAA	0	0
AA	0	3
A	7	88
BBB	239	366
BB (junk)	185	155
Total	**431**	**612**

Source: Moody's Investors Service; Standard & Poor's

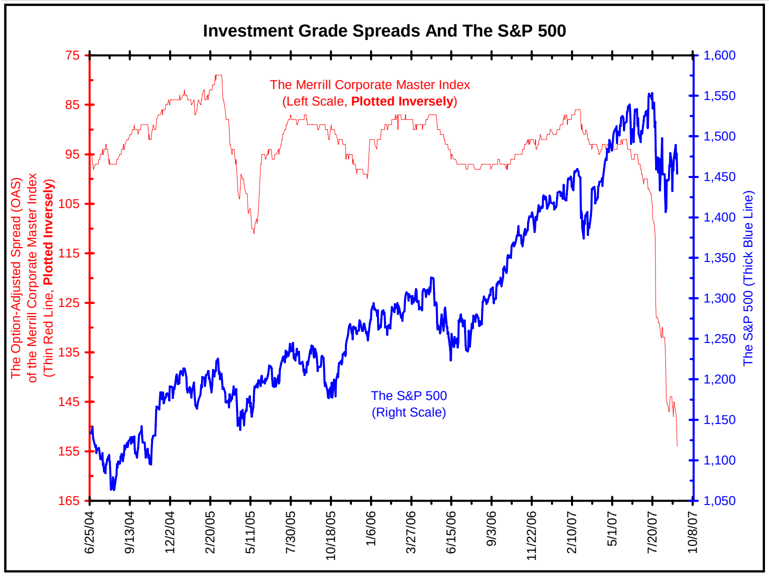


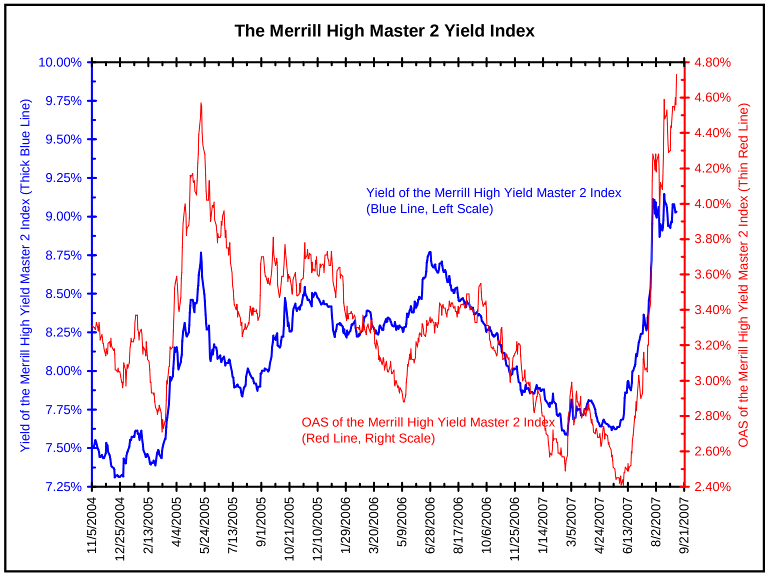
•***The Wall Street Journal* -** (July 11)atings Cuts By S&P, Moody's Rattle Investors

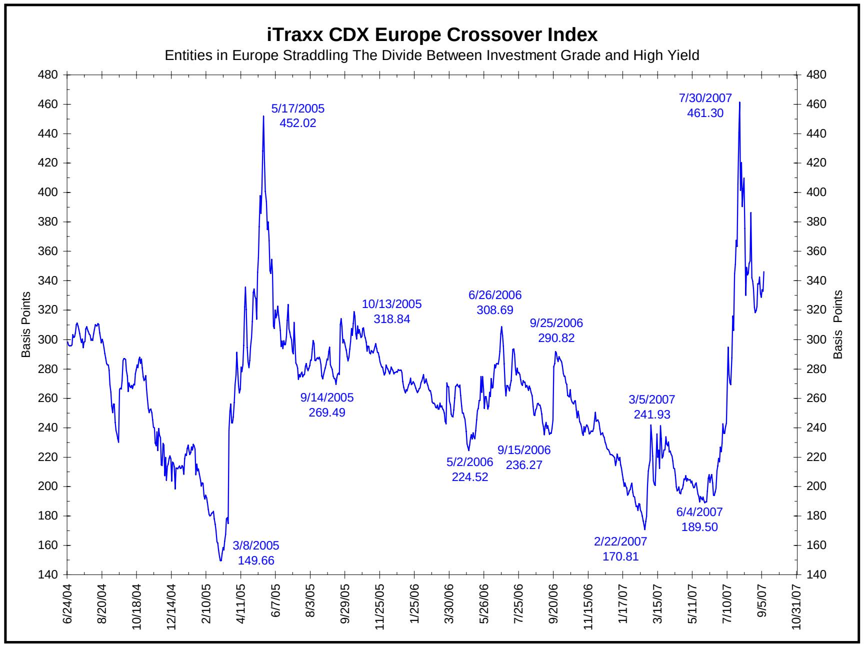
Critics Say Companies Are Reacting Too Late To Subprime Debt Woes

The widening meltdown in the subprime-mortgage market caught up with the nation's two big debt-rating companies yesterday, with Standard & Poor's and Moody's announcing plans to downgrade hundreds of bonds backed by the risky home loans. The moves jolted jittery financial markets as investors adjusted to the idea that the downturn in the nation's housing market is worsening and that a rebound might be months away, at best. The Dow Jones Industrial Average tumbled 148.27 points , or 1.1% , to close at 13501.70 as investors fled stocks and low-quality bonds , and some of them criticized the ratings giants for being too slow to act. In an acknowledgment that it severely misjudged the risk of bonds tied to subprime mortgages, Standard & Poor's Ratings Service said it is looking to slash credit ratings on as many as 612 such bonds, with a value of $12 billion, because of mounting delinquencies on the underlying mortgages. Subprime mortgages are made to borrowers with shaky credit profiles.

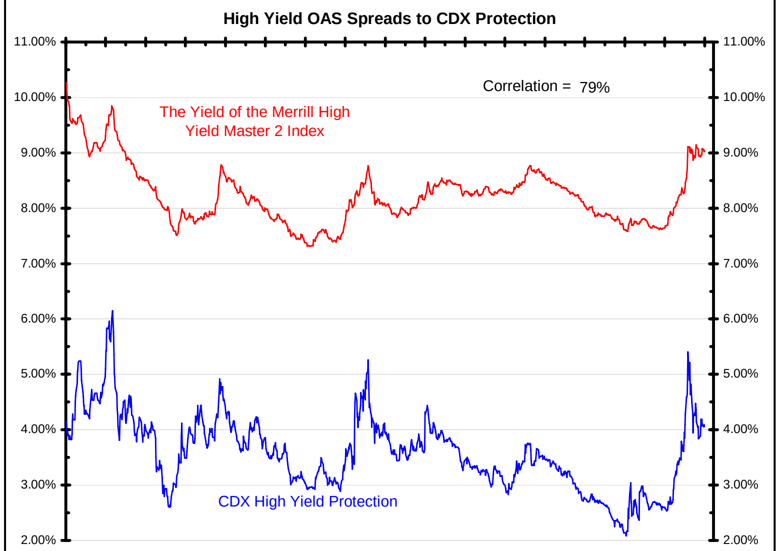
Credit Spreads Dramatically Widened After Downgrade …

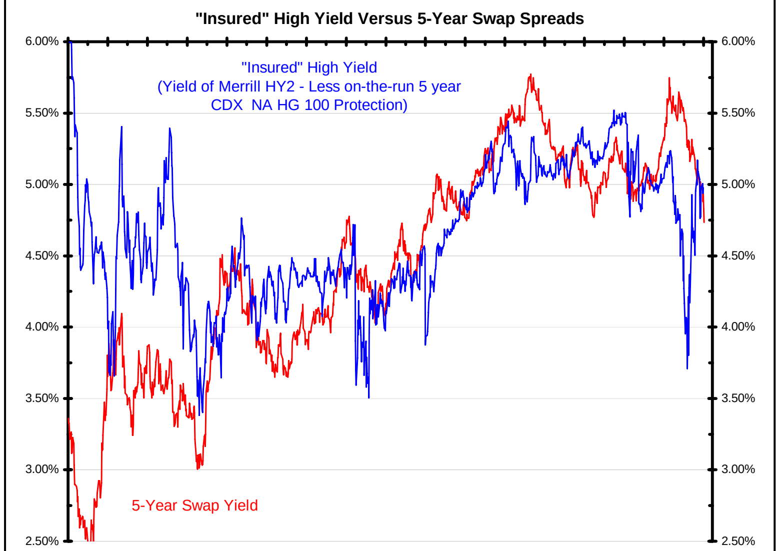


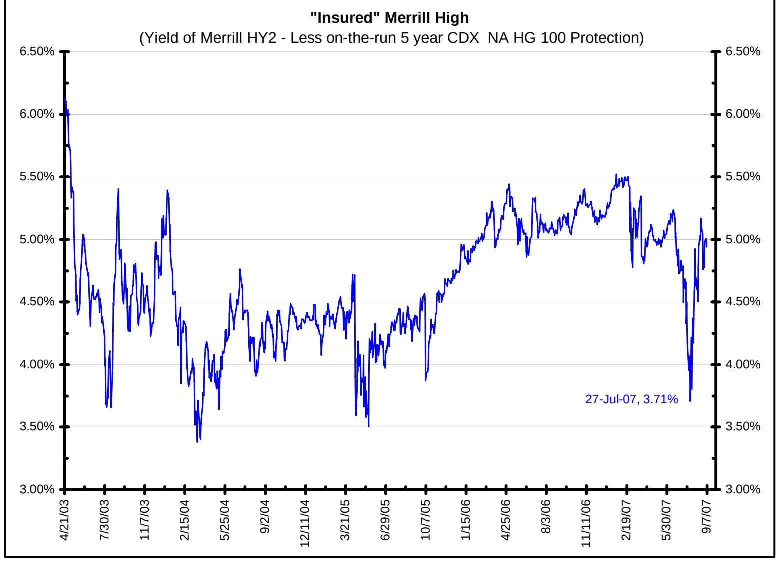


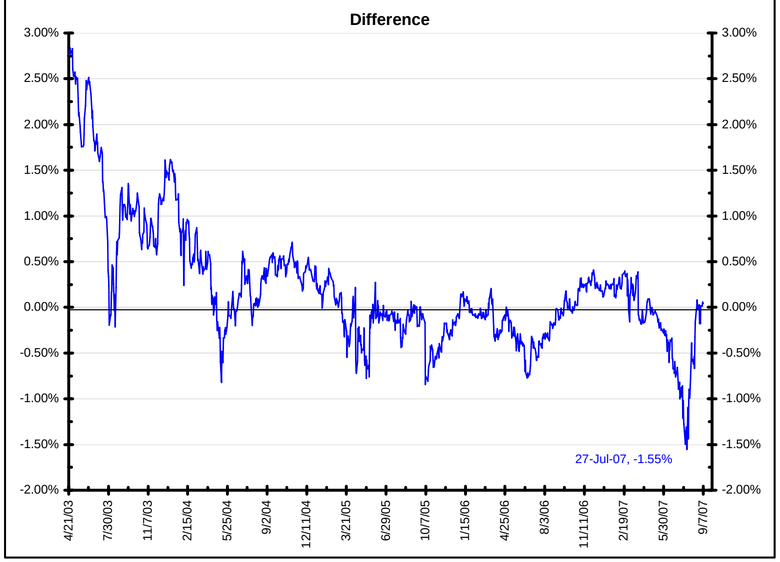


… And CDX Pricing Becomes Irrational



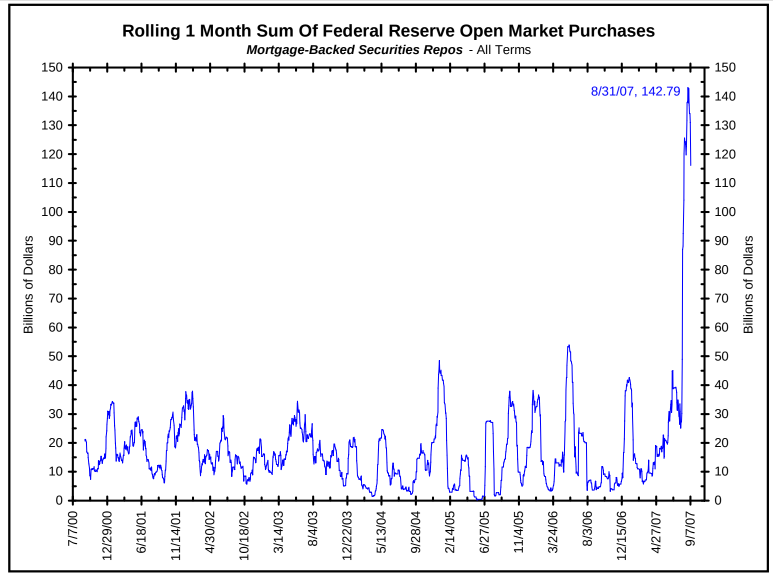


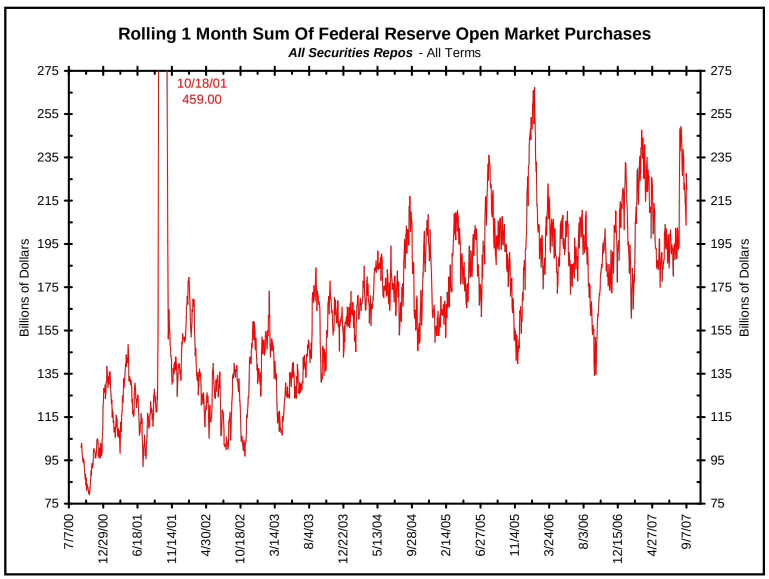


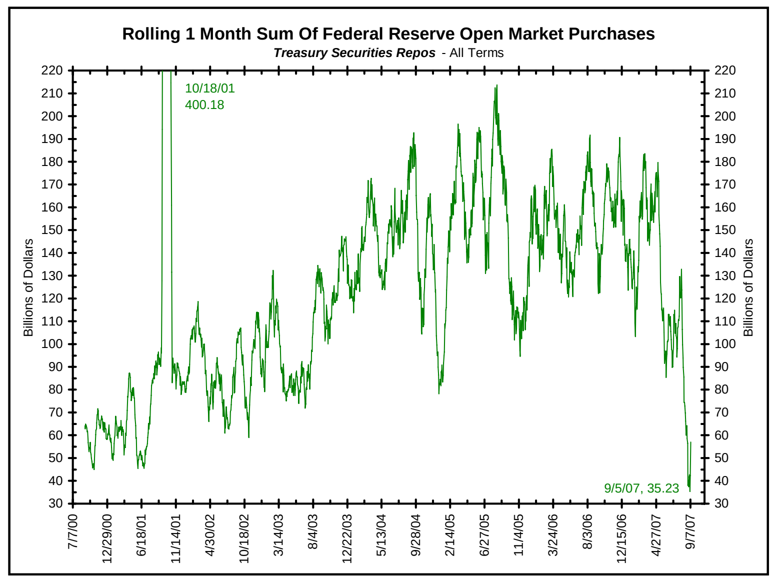


August 10 - The Fed Changes Policy And Eases ...

As these charts show, the Federal Reserve continues to provide liquidity to the financial system. Institutions can repo their MBS collateral for cash (top right) with the Federal Reserve, but the overall liquidity in the financial system has been kept relatively constant (bottom) as the Fed has reduced its Treasury Repos (bottom right).







… And Confirms By Cutting The Discount Rate On August 17

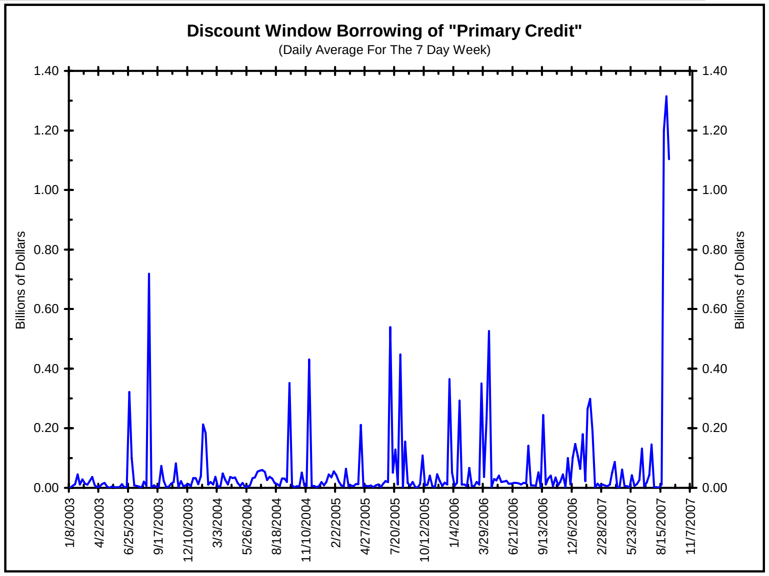
***The Wall Street Journal* –** [(August 24) Fed Shows Some Success Getting Banks to Borrow In Bid to Calm Jitters]

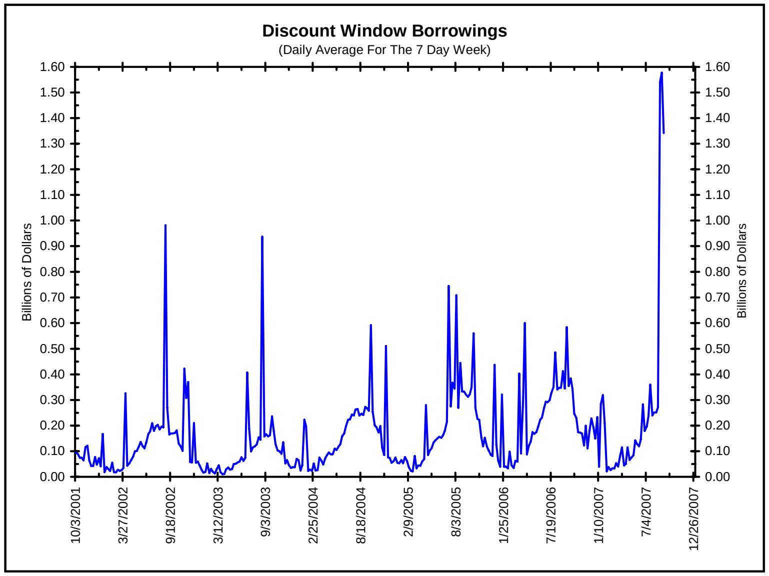
The Fed said in a weekly report that as of Wednesday [Aug 22], there was $2.001 billion in loans outstanding under the Fed's primary credit program. The report doesn't name the borrowers, but the country's four largest banks -- Citigroup Inc., J.P. Morgan Chase & Co., Bank of America Corp., and Wachovia Corp. -- each said Wednesday they had borrowed $500 million that day. That means only an additional $1 million of such loans to other banks was outstanding that day. Wednesday's total was the largest since April 12, 2006, when $3.6 billion of loans were made through the discount window, according to the Fed. The report also showed that borrowing averaged $1.2 billion for the week ended Wednesday. That implies that excluding the $2 billion Wednesday, borrowing in the prior six days averaged $1.07 billion. Since the four banks didn't borrow until Wednesday, other institutions must have borrowed earlier but repaid the money. Germany's Deutsche Bank AG has also confirmed it borrowed from the window. It hasn't said how much it borrowed or whether it repaid the sum. A spokesman for Deutsche Bank declined to comment.

Comment - Subtracting out the $2 billion of publicized discount window borrowings and factoring in Deutsche Bank, the remaining discount window borrowings were a fairly typical week. So, it appears that nobody stepped up to use the discount window last week. Does that mean the "opening" of the window (when is it closed?) was a failure? We do not believe so. From the story above:

> *However, Lou Crandall, chief economist at Wrightson-ICAP LLC, took the opposite view. "The question is whether the knowledge that the discount window is available in the event of an unexpected liquidity need made a material difference in whether banks decided" to do more lending in the credit markets. While that will never be known, he noted that most markets started to improve soon after the Fed announced the easier borrowing conditions Friday, and those improvements have continued, though gradually.*

This still does not alleviate our original concern .... if discount window borrowings jump in the coming weeks and we don't have press releases to explain them away, Wall Street will become obsessed with guessing who is in trouble. This fear could add a new dimension to the evolving crisis.





The Effective Rate Breaks From The Target Rate …

From Our [Newsclips/Daily Commentary]

The August 10 saw the largest MBS repo ever and the largest injection of liquidity since September 11, 2001. With this addition of liquidity, the effective funds rate broke from the target funds rate. (top)

This break between the effective and target rate has by far been the largest ever seen. (bottom)

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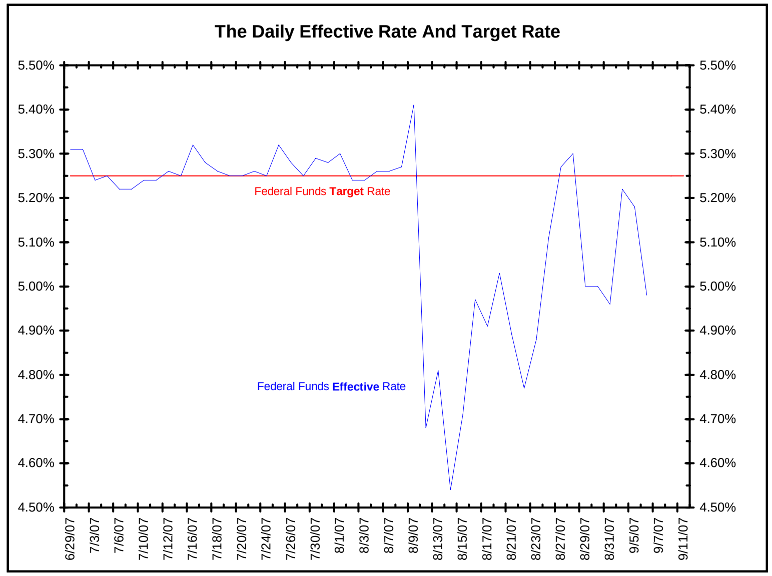

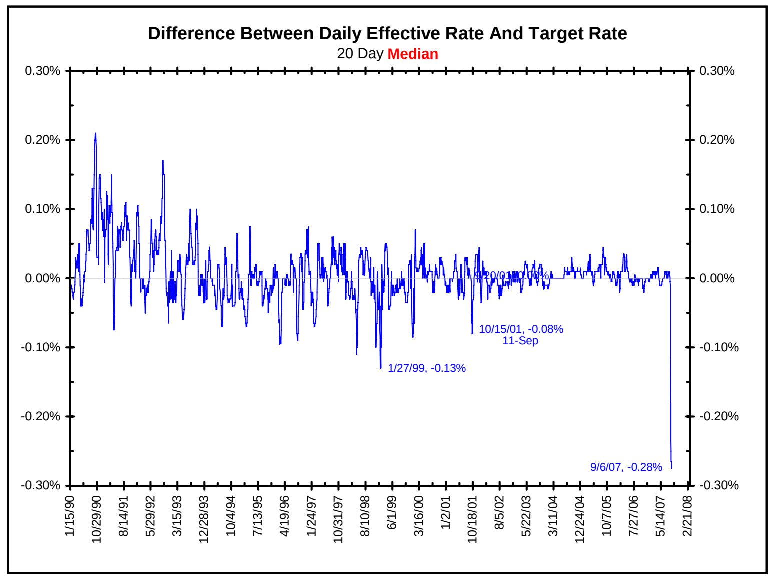

… And Transparency Is Lost

From Previous Page …

If implied volatility is the price of insuring against future uncertainty, then the price of insuring against a certain outcome must approach zero. We can see this quite graphically in the implied volatilities of continuous at-the-money options on federal funds futures from May 2004 onwards. This start date was chosen as this is when the Federal Reserve's impending rate-hike campaign was priced into the market. The first four contract months are shown (thin red, hatched red, light blue, thick blue lines, respectively).

While the Federal Reserve talked transparency all through 2004, it is obvious from the chart the market did not accept them at their word until February 2005 (green vertical line). Once this acceptance grew, implied volatility fell toward zero and remained there until July 2007 (magenta vertical line). **The post-July market provides prima facie evidence transparency has been lost.**

We can isolate the August, September and October implied volatility levels (thin red, thick blue and hatched green lines, respectively) from mid-June 2007 onwards. Implied volatility jumped higher as the credit crunch developed and stocks fells in late July, and it reached a general high on August 16th, the day before the Federal Reserve lowered the discount rate. The implied volatility level for soon-to-expire August fell as traders realized no immediate federal funds rate cut was imminent, but the implied volatility levels for both September and October remain at crisis levels. **The Federal Reserve's new policy has increased uncertainty.**

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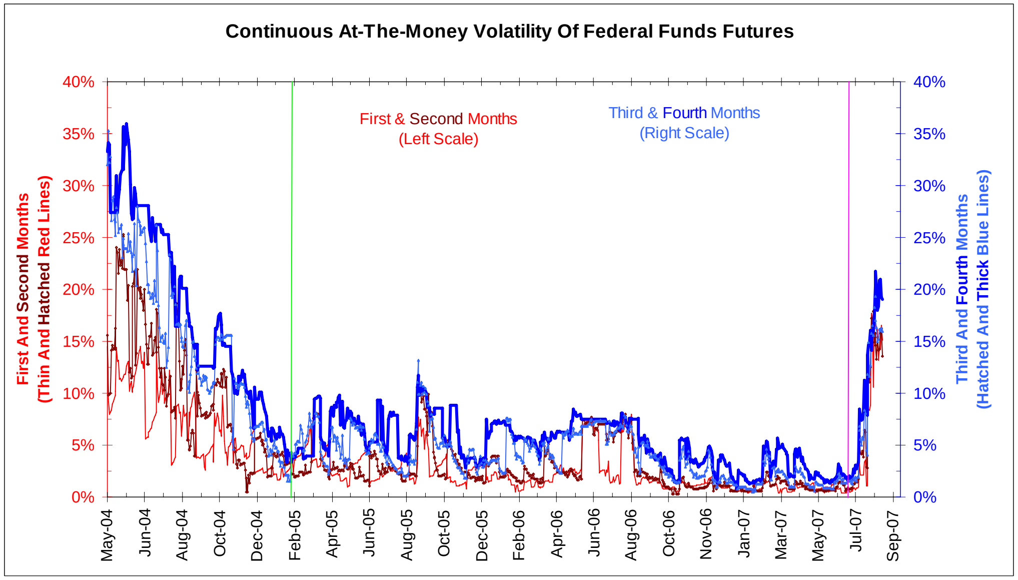
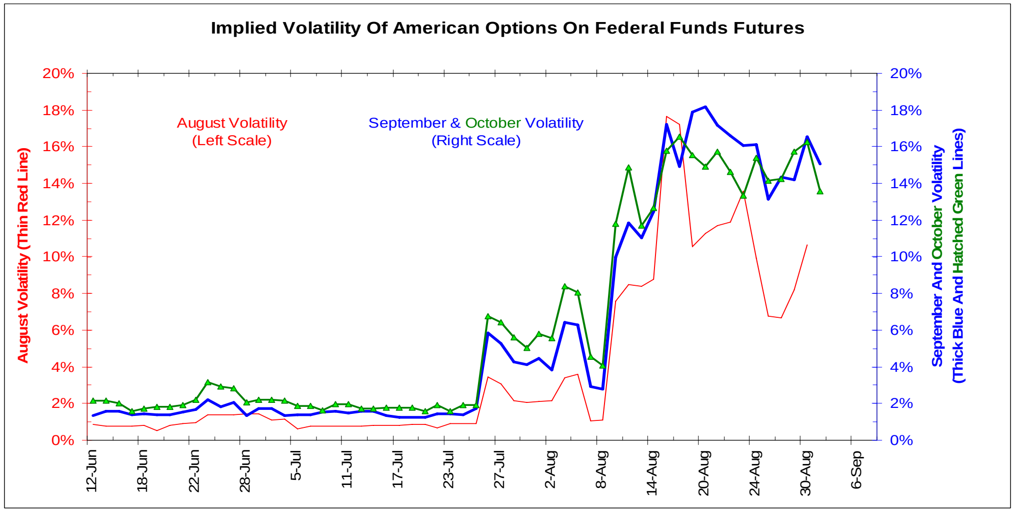
From A Recent Commentary





Stress Mounts In Asset-Backed Commercial Paper …

From Our Newsclips/Daily Commentary

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The reason for this injection of liquidity was stress in the credit markets. One area where this stress is particularly acute is asset-backed commercial paper (ABCP). As the top chart shows, their spreads have been widening since early August. Currently they are now at their widest levels, suggesting the liquidity crisis in this sector is not abating.

This widening is due to a loss of confidence in ABCP, so this paper is not getting rolled over and its outstanding levels are plunging (bottom charts).

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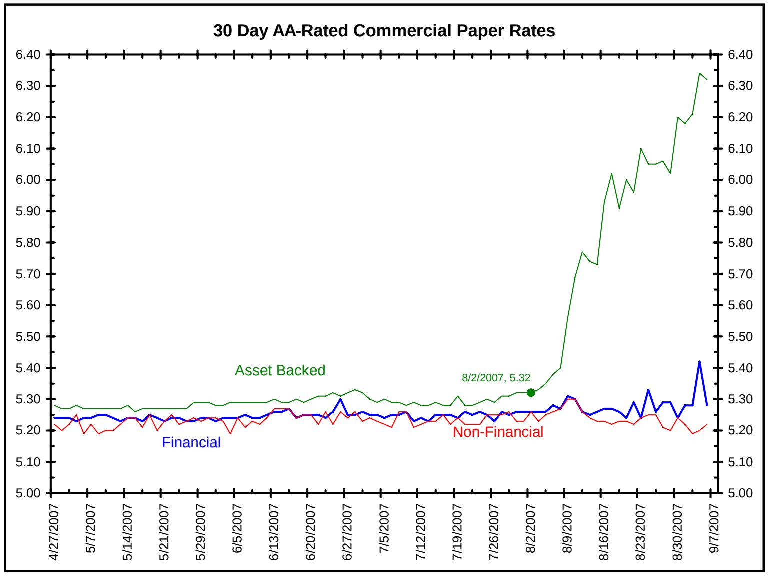

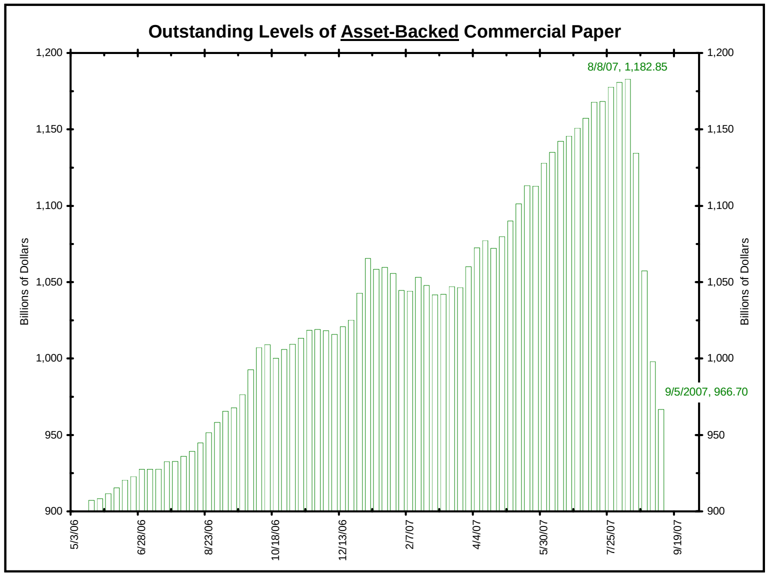

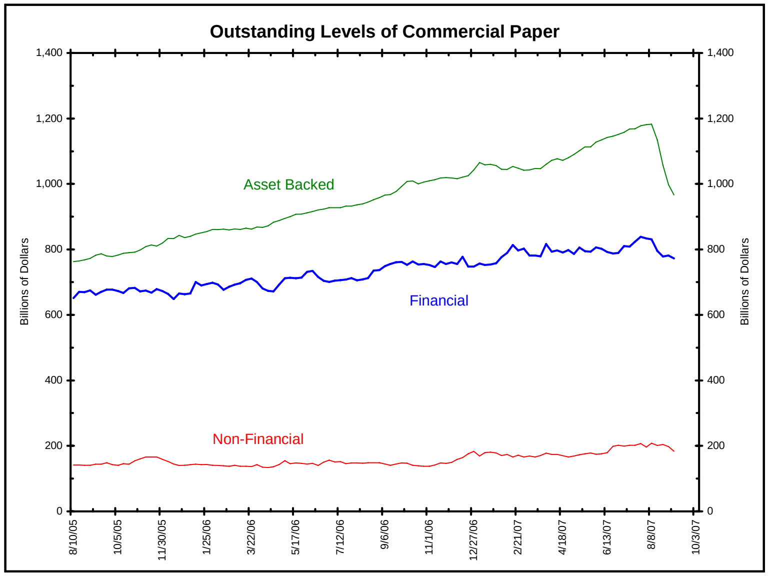

… Causing Volatile T-Bills And Jumping Loan Growth …

From Our Newsclips/Daily Commentary

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This caused a panic in the market to get out of ABCP and a rush into Treasury bills. Volatility in T-Bills recently hit a multi-decade high, as yields plunged and soared hundreds of basis points in just a few days. (top chart)

So where are these ABCP issuers making up this short-fall in short-term funding? One place is bank lending. As the next chart shows, bank lending has jumped in recent weeks. Commercial and industrial loans have increased by $41 billion in the last month. So, if you cannot roll over your ABCP, you can draw down your bank line of credit.

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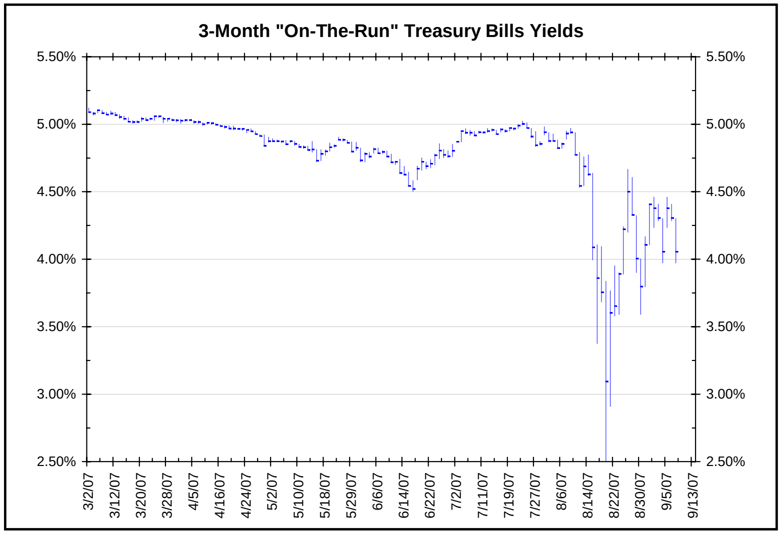

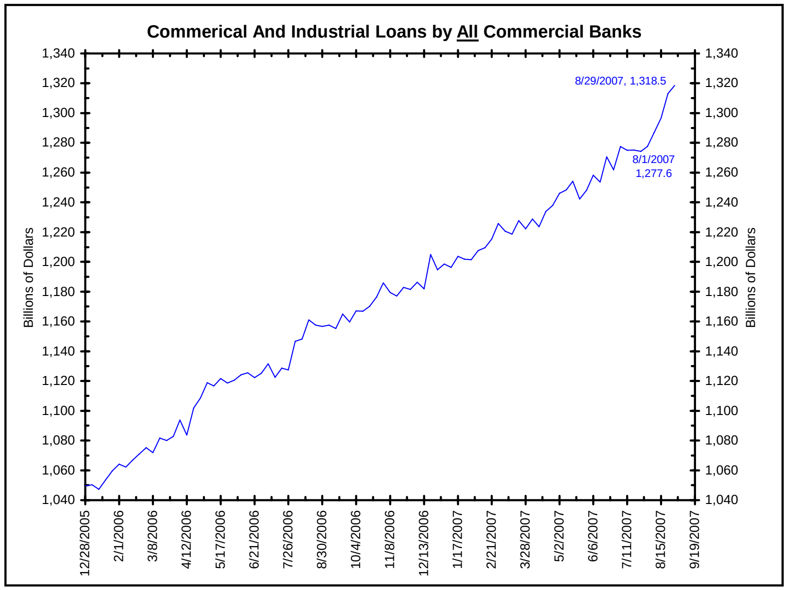

… Meaning A Target Rate Cut Is Now Meaningless

From Our Newsclips/Daily Commentary

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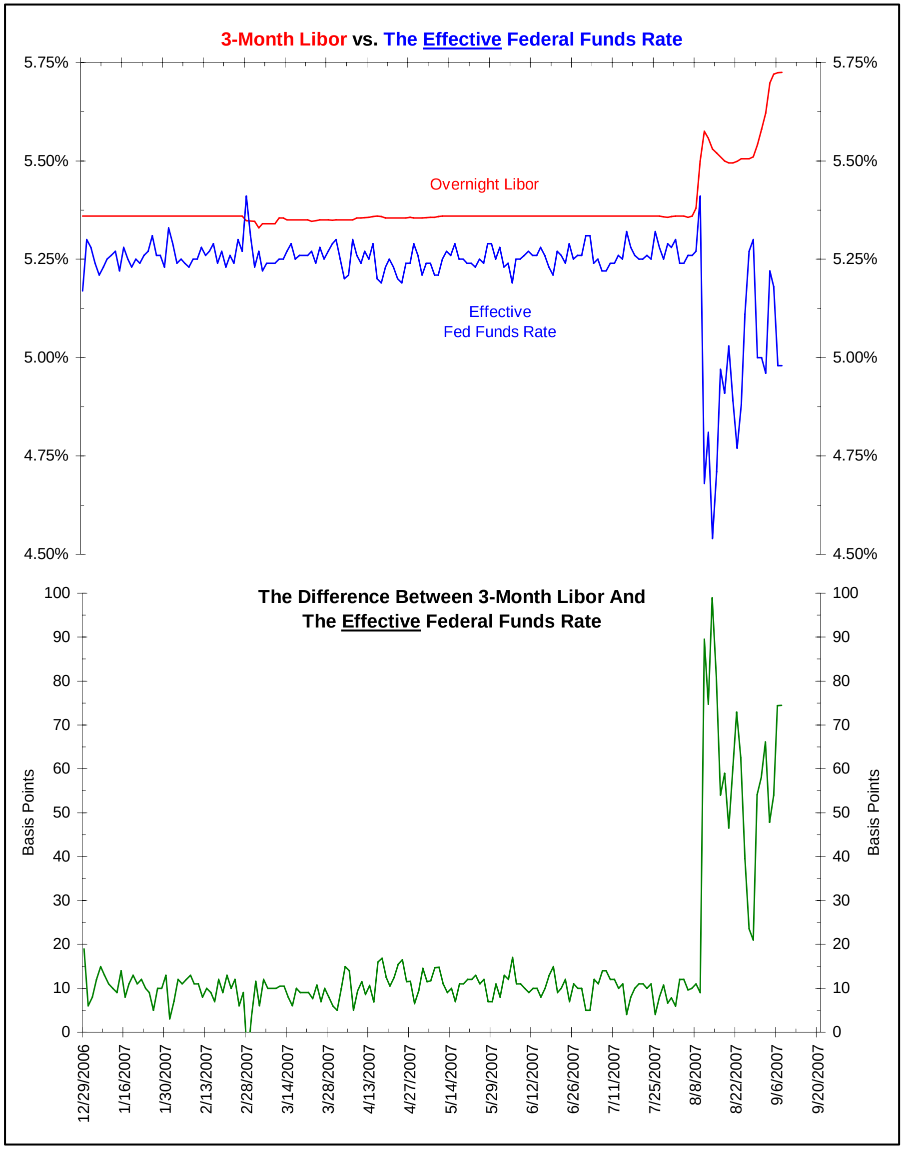
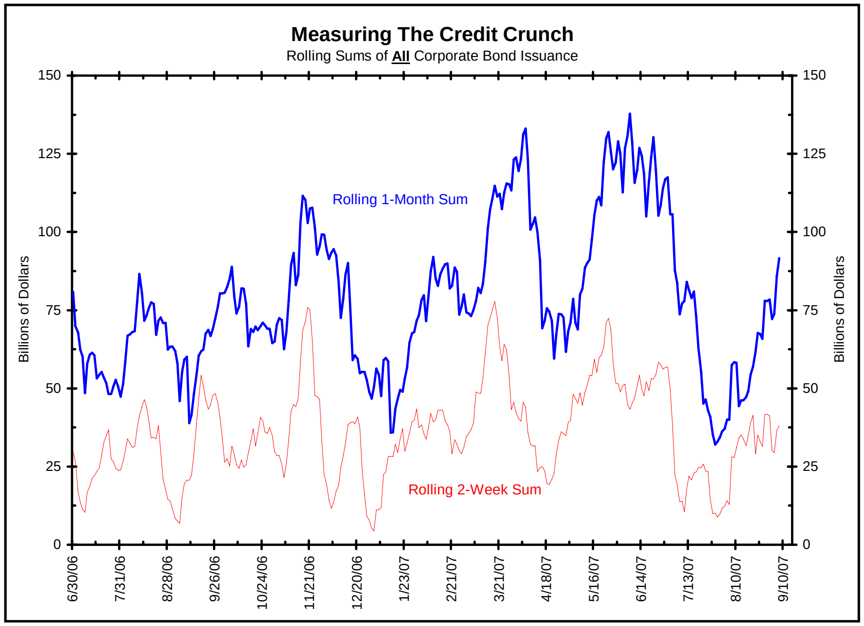
This has spooked the market that the banking system is being forced to take too much risk. Normally three-month Libor trades at a slightly higher yield than the effective federal funds rate as its credit-worthiness is considered almost the same as a government-backed credit. Now, however, the marketplace is thinking the banking system has a significant credit risk which is why Libor is trading at such a big premium.

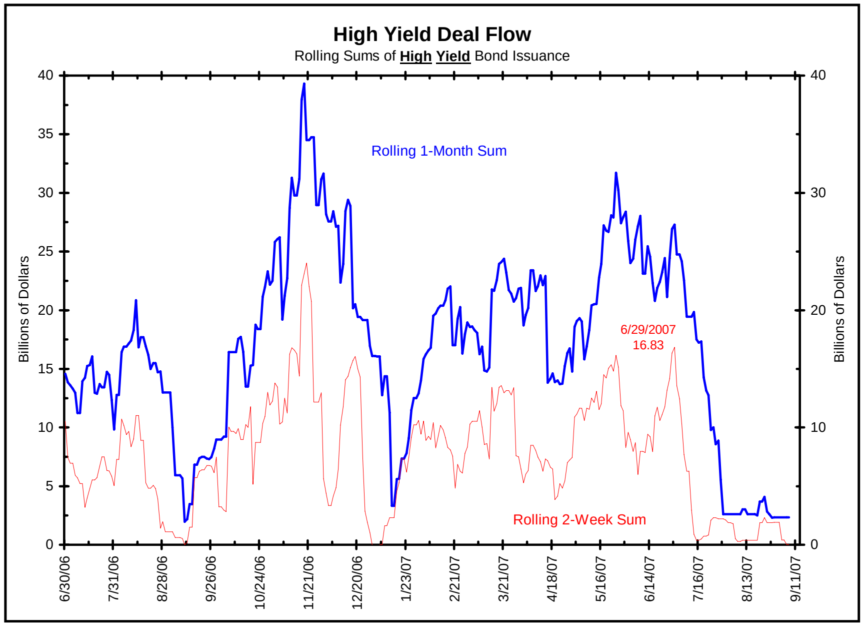
Libor is the benchmark for pricing many loans (such as the $20 billion Cerberus borrowed from its banks to finance its Chrysler purchase) and many adjustable-rate mortgages. If Libor does not converge back to the effective fed funds rate, the Fed can cut the funds rate to zero tomorrow and it will not matter. Those hoping for lower rates on their mortgage resets will not see any benefits of a funds rate cut. The assumption is all spreads to fed funds are stable, so a lower fed funds rate means lower market-based rates. But as the charts above shows, these spreads are no longer stable and one cannot assume a lower fed funds rate will automatically produce lower market-based rates.
The Fed is right to worry about liquidity in the financial system first. Until this is corrected, easing will have no effect on the real economy as the markets are experiencing a textbook example of "pushing on a string."



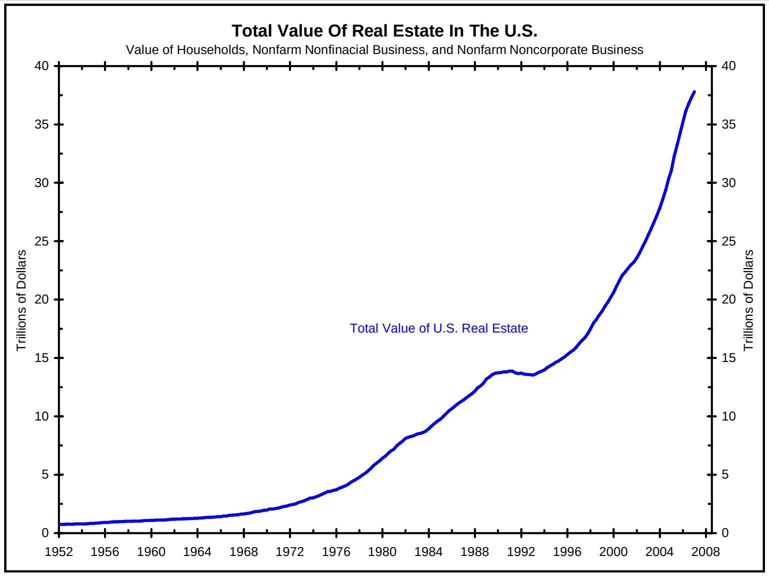
Appendix - Bond Issuance Updated

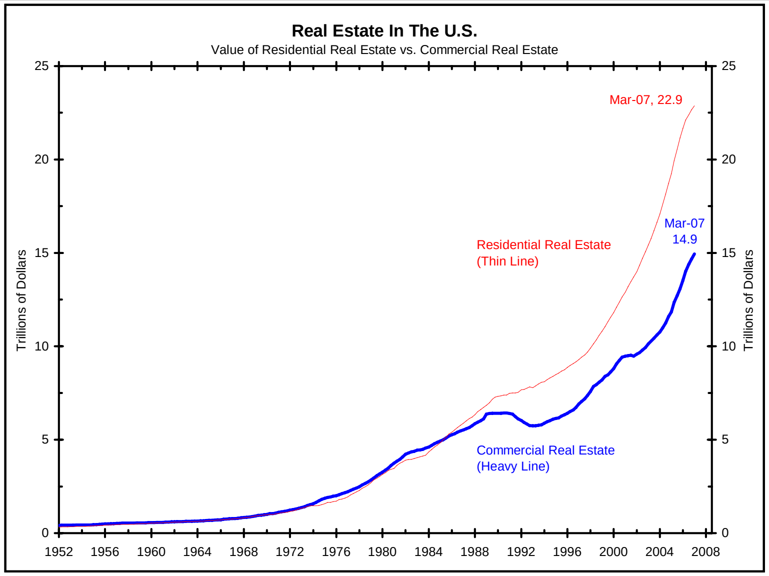


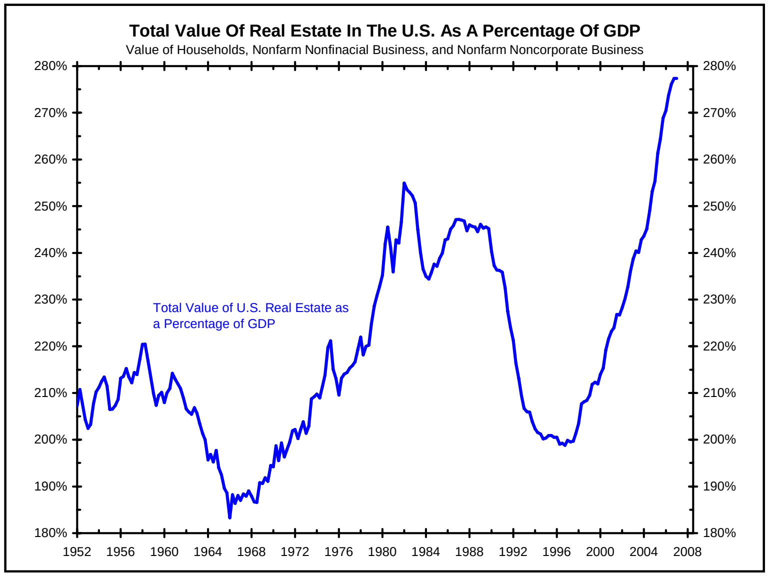
While total corporate bond issuance (left) has recovered somewhat over the past month, the increase has come from investment-grade bond issuance. High-yield issuance (bottom) has remained depressed.

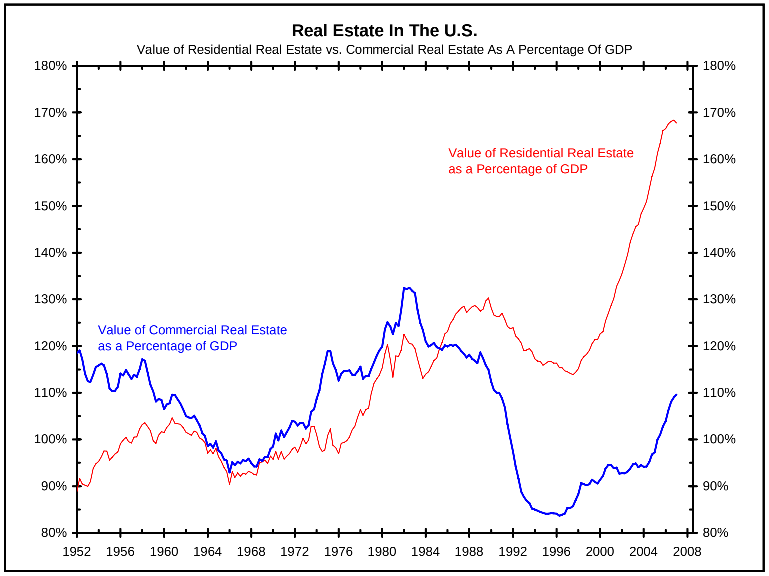


Appendix - Measuring Real Estate

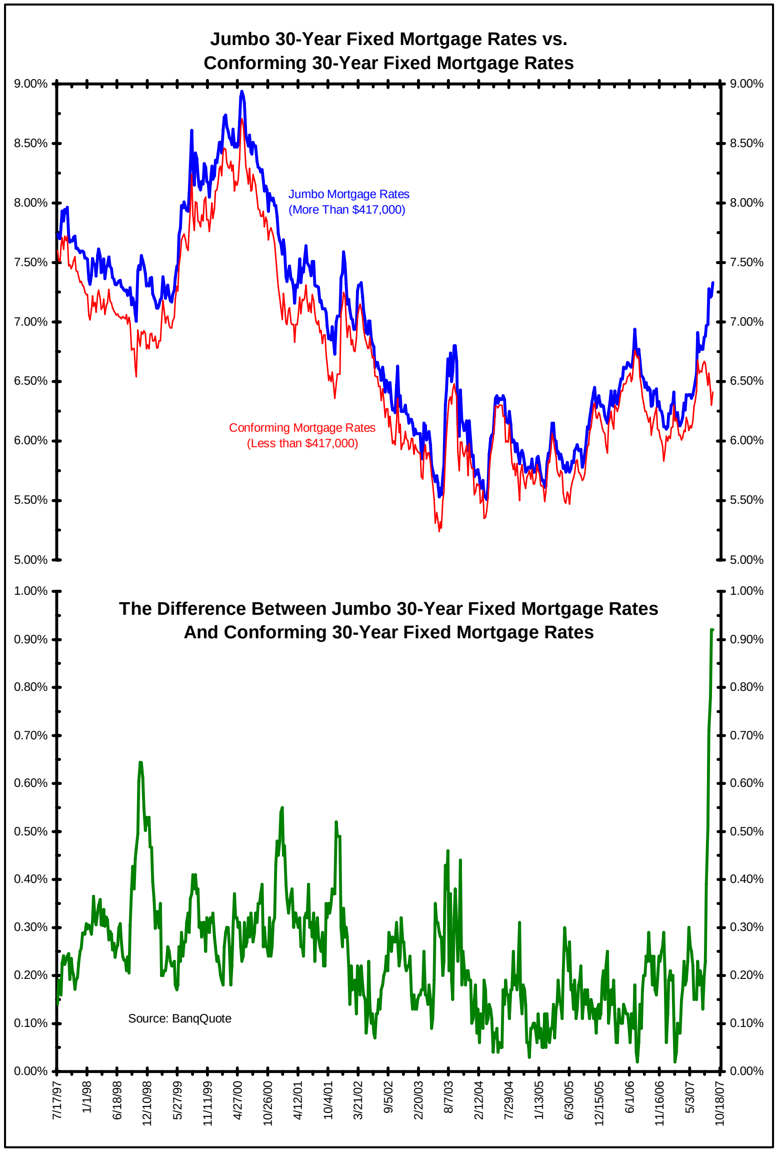




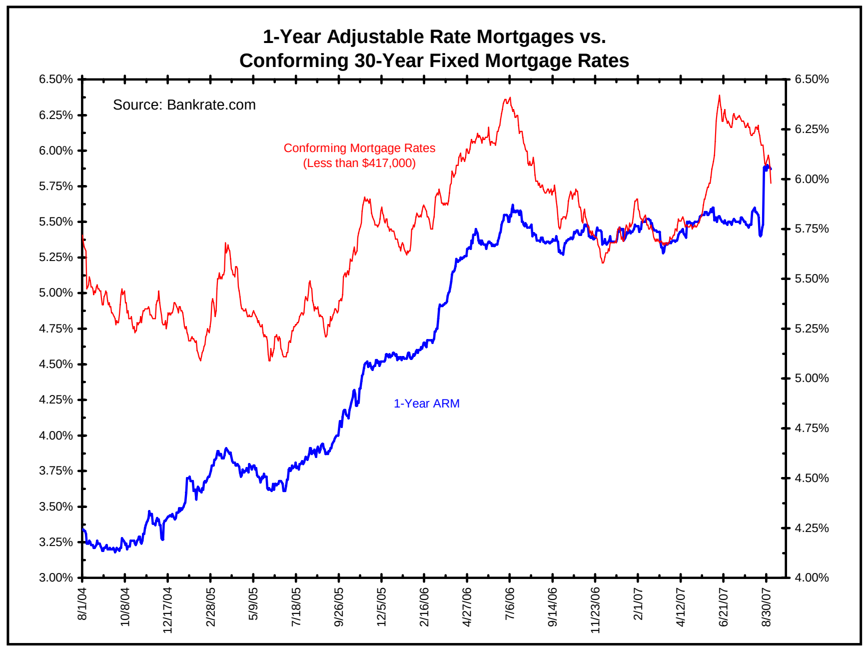




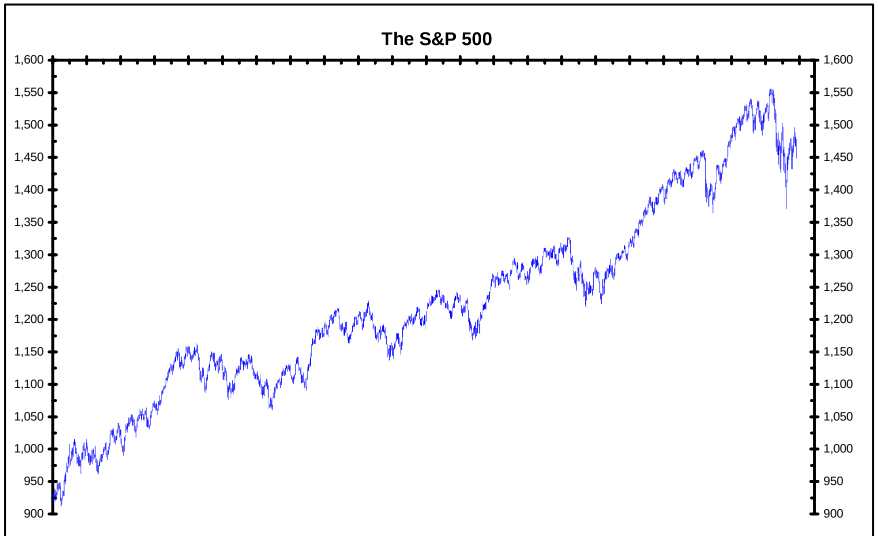
Appendix - Size Matters For Mortgage Rates

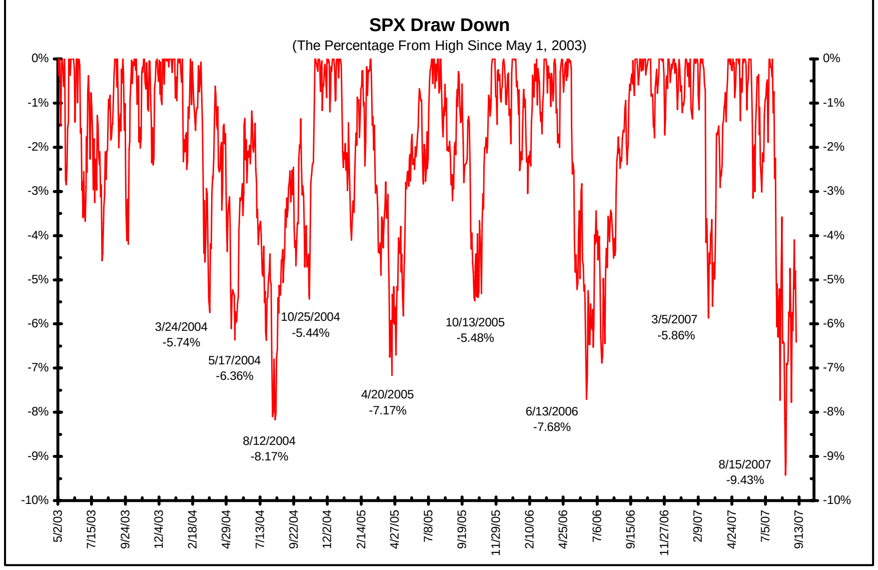


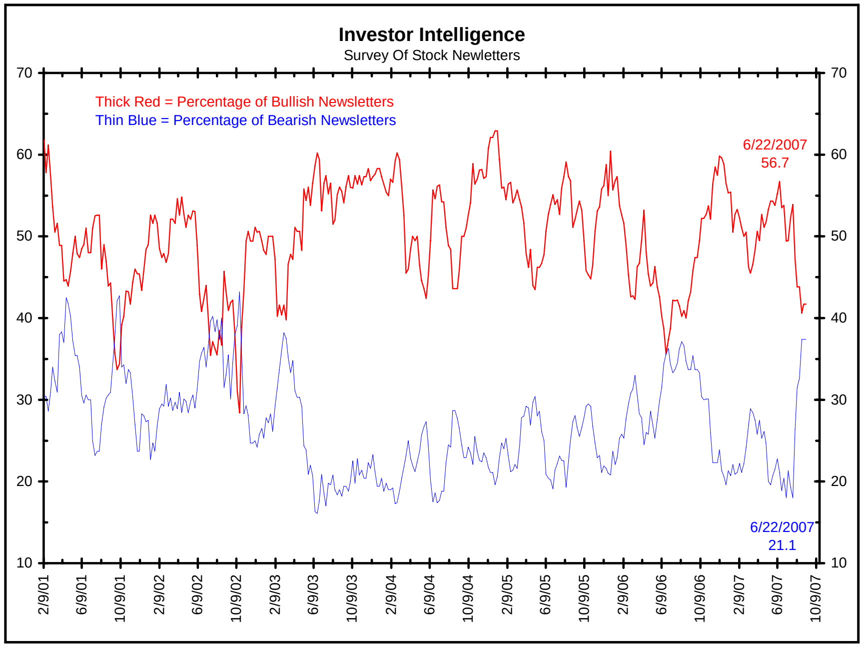
While the word “subprime” has turned into the label for the mortgage market’s turmoil, it could just as easily be “jumbo.” The market for mortgages of $417,000 or more has locked by virtue of their lack of FHA backing, and rates thereon have soared accordingly.



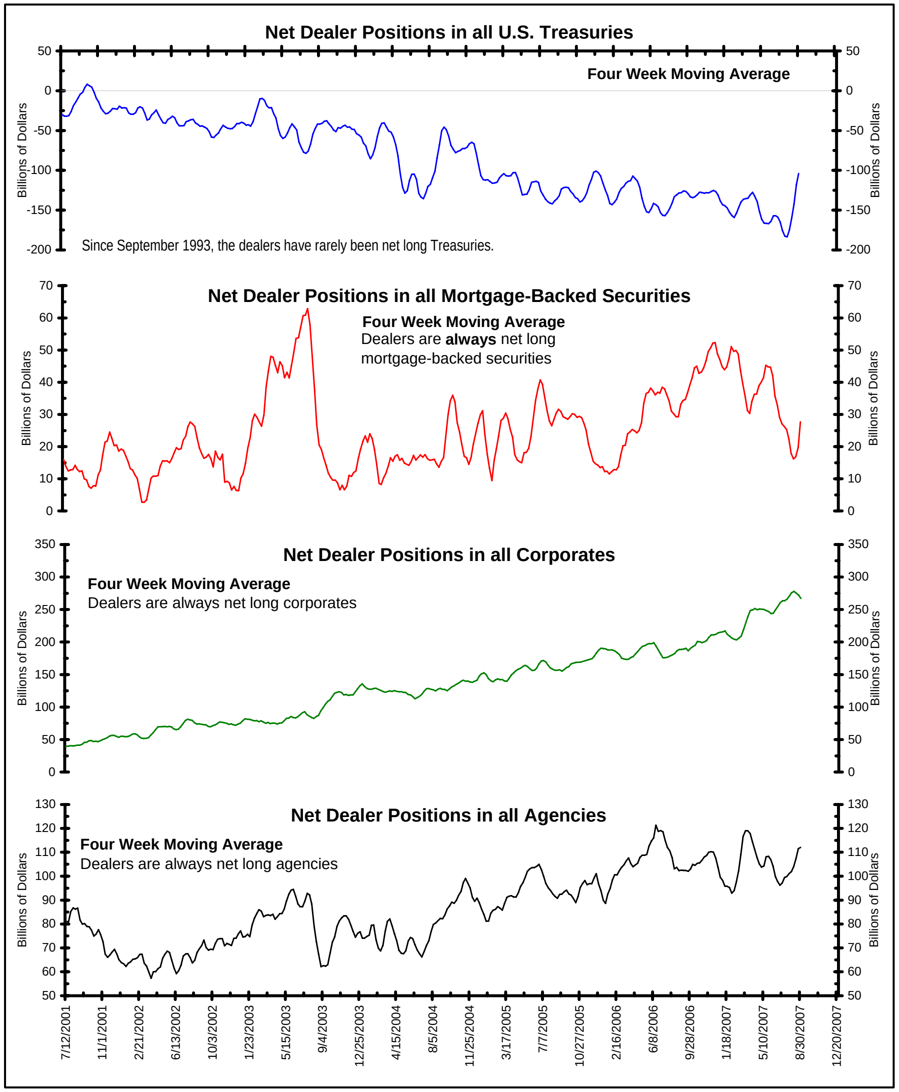
Appendix - Measuring The Stock Market's (Lack of) Pain

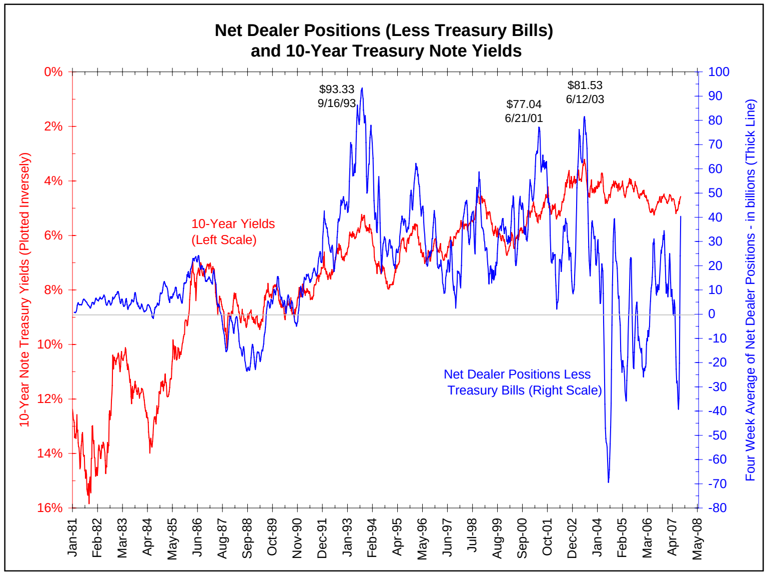


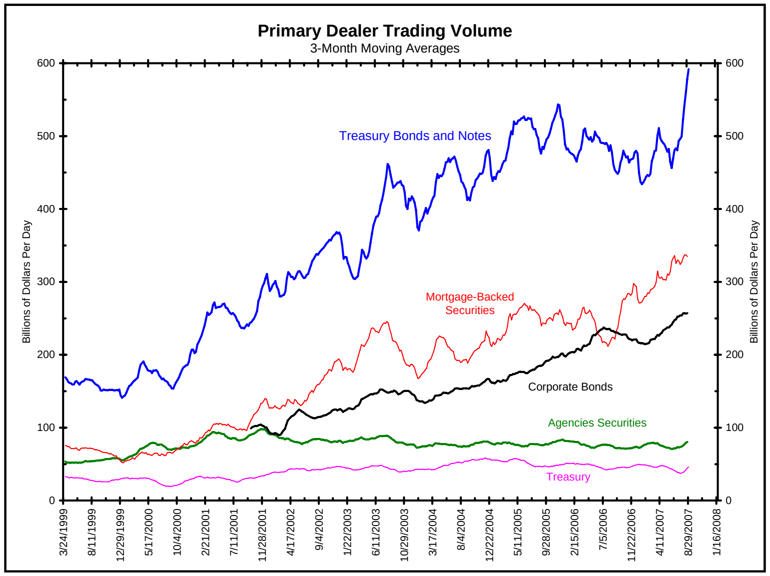




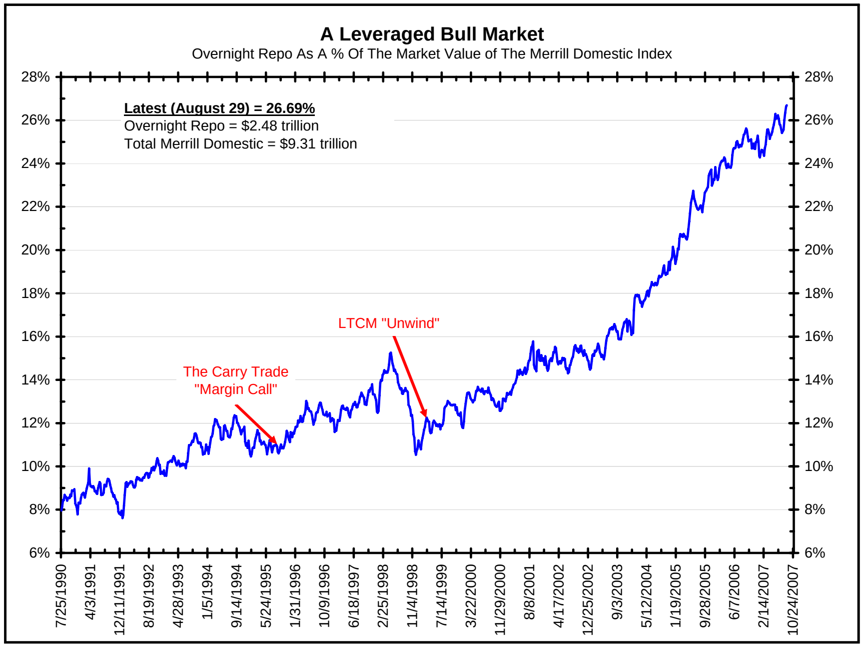
Appendix – Dealer Positions

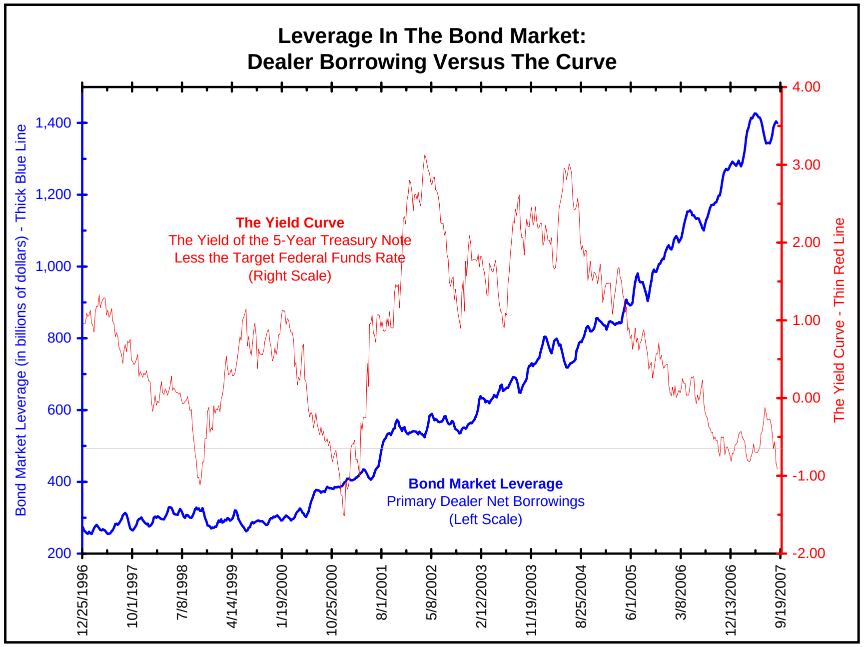




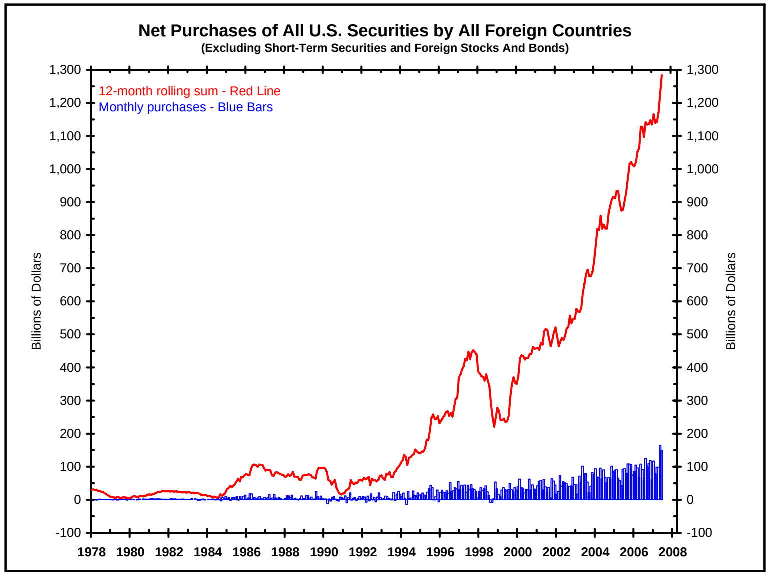


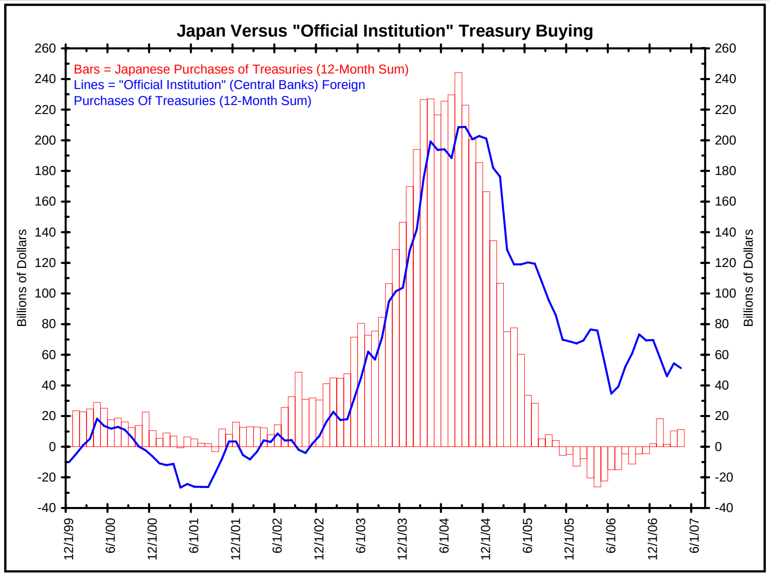
Appendix – Bond Market Leverage

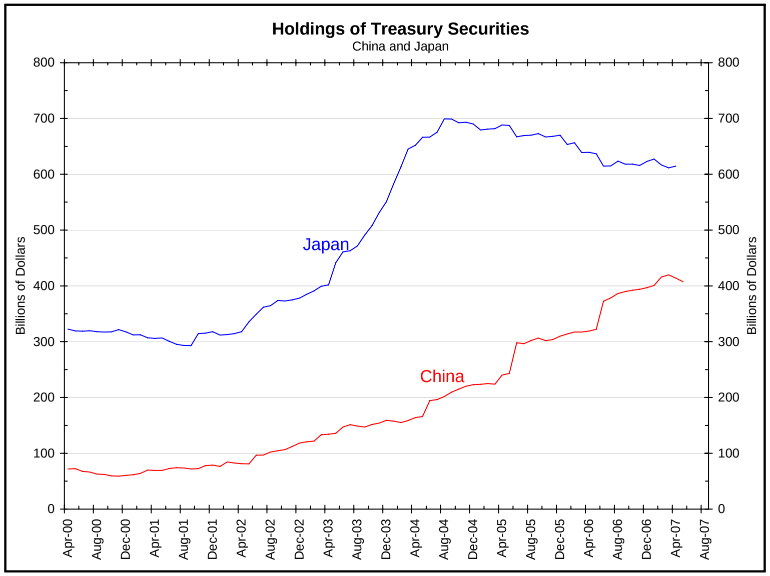


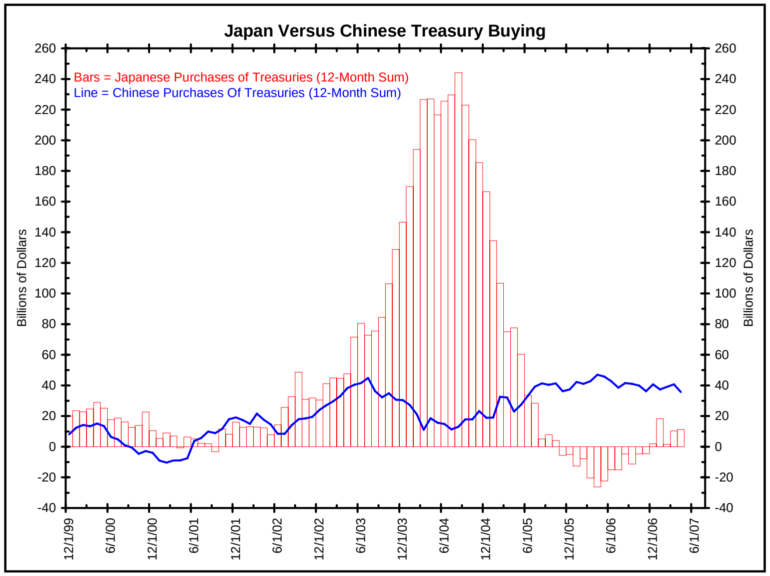


Appendix – Foreign Buying









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